DISEASE, EMPIRE AND MODERNITY IN THE CARIBBEAN: TUBERCULOSIS IN CUBA, 1899-1909

by

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Abstract

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This dissertation focuses on the anti-tuberculosis movement in Cuba between 1899 and 1909 and the ways in which the struggle against this deadly disease highlighted complex issues of sovereignty, modernity and public health on the island. Among infectious diseases, tuberculosis was the leading cause of death in Cuba during these years and it affected every sector of Cuban society without regard to race, gender or national origin. The disease was found all over the island from the urban slums of Havana and Santiago de Cuba to the tobacco factories of Pinar del Rio. Debates about its treatment were common in Cuban and U.S. medical circles and, in fits and starts there were attempts to control its spread throughout the island, most especially, in Havana.

Yet, despite the impact that tuberculosis had on Cuban society, there have been few efforts to analyze the ways in which Cuban and U.S. authorities on the island contended with the disease during the first decade of the twentieth century. This dissertation addresses this void in the literature by placing tuberculosis within three broad contexts: the history of U.S.-Cuban relations, the history of public health in Latin America, and the history of tuberculosis control movements in the Americas. In particular, the dissertation examines the ways in which tuberculosis served as a site of collaboration and contestation between U.S. and Cuban government and public health officials, the reasons why the anti-tuberculosis movement was overshadowed by efforts

to control the spread of yellow fever and an examination of the Cuban organizations created to combat the disease. Additionally, this dissertation examines how the battle against tuberculosis became an important part of Cuban attempts to present their young nation as a modern and progressive republic.

Acknowledgements

This project took much longer to complete than I ever imagined it would. One of the unintended consequences of this long process of researching and writing is that I have happily accumulated a number of debts that I wish to acknowledge here.

I had the good fortune of meeting Laird Bergad early in my graduate studies. In addition to being a model of rigorous scholarship, he has been a remarkable mentor and most importantly, a good friend. He not only provided quick revisions and pointed suggestions about how to improve this dissertation but also managed to do so with grace and good humor. The completion of this project is due in no small part to his unwavering support and encouragement.

At the Graduate School and University Center of the City University of New York I encountered a welcoming and inspiring community of historians including: Jim Oakes, Carol Berkin, Thomas Kessner, Jose Luis Renique and the late Alfonso Quiroz. Professors Kessner and Renique also served on my dissertation committee and offered valuable insights and suggestions that have made this work stronger. Kathleen López of Rutgers University agreed to serve on my committee even though we had never met. She offered a careful reading that has benefitted the final product. Finally, my friend and colleague Teresita Levy not only formed part of my committee but spent years encouraging me to complete this project and then worked with me to make sure that I did. Beyond her willingness to read the text and make suggestions to improve it, she also facilitated many of the logistics involved in completing this dissertation. I am grateful for her friendship and counsel.

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I wrote much of this dissertation after joining the faculty of John Jay College of Criminal Justice. My colleagues Lisandro Pérez, Luis Barrios, Jodie Roure, Suzanne Oboler, Isabel Martínez, Belinda Rincón, Brian Montes and Ben Lapidus all provided *ánimo* when I most needed it.

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The staffs of libraries and archives in the United States and Cuba helped me to access sources that made this project possible. My thanks to the librarians at the New York Public Library, the Library of Congress, the Augustus C. Long Health Sciences Library at Columbia University, the New York Academy of Medicine Library, the Mary Helen Cochran Library at Sweet Briar College, the Lloyd Sealy Library at John Jay College of Criminal Justice, the Historical Society of Pennsylvania, and the Claude Moore Health Sciences Library at the University of Virginia. In Cuba, I owe a debt of gratitude to Pedro Pruna Goodgall, who facilitated my visit to the *Museo Nacional de la Historia de Las Ciencias "Carlos Finlay"* in Havana. The staff there was generous with their time and knowledge of the rich medical periodical literature of early twentieth century Cuba.

I am grateful for the love and support of many family and friends. Thanks especially to Ricardo and Melissa Martinez, Aric and Michelle Meyers-Kupper, Pete and Jenn Clauson and John Hunt and Abel Rodriguez. I am an honorary member of the Leyva clan and I'm grateful for the love and laughter that accompanies any visit with Manlio and Loly Leyva, Loline Leyva and David Pendergrast, and Melissa Leyva and Richard Valladares. My sister Genelle and my brother-in-law Leo have been a great help throughout this process but I am most thankful for their love and encouragement.

My interest in Cuban history was developed at the home my sister and I shared with our parents and grandparents in Newark, New Jersey. My parents spoke of Cuba with the longing of exiles but also managed to convey the complexities of the island's history. It was from them that I first learned history at its most personal. I am thankful to my mother, Maria Gutiérrez, for her willingness to share memories and anecdotes with me that have made my understanding of Cuba that much richer. Despite her protestations to the contrary, she is a woman with a deep and abiding interest in the past, an interest that I am grateful to inherit. I regret greatly that my father, Juan Gutiérrez, did not live to see this dissertation completed. After leaving Cuba in 1967, he never returned to his homeland. My trips to Cuba to conduct research on this project were at once frightening and exciting for him. I treasure the memory of our conversations about Cuba and I can only hope that somehow he knows that I finished this project and that his love for his country and its people continues to inspire me.

Lastly, special thanks go to my wife and sons for their support during the researching and writing of this dissertation. Watching Niria Leyva-Gutiérrez complete her own dissertation was inspiring. Even more inspiring, however, is the love that she

has shared with me for more than twenty years. That love, more than anything else, made the completion of this dissertation possible. My sons, Felipe Javier and Juan Ignacio, have been patient, forgiving, loving and enthusiastic about this project. For that, and so much more, I thank them. I take great pleasure in dedicating this dissertation to the three of them.

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Introduction

The years between 1899 and 1909 were ones of great upheaval, uncertainty and conflict in Cuba. The end of the Cuban War of Independence had come not as a result of the final, clear victory of Cuban insurgents over the Spanish army but as a consequence of the intervention of the United States on the island in 1898. In the years that followed the arrival of U.S. troops in Cuba, Cubans formed new political institutions, attempted to resurrect their economy and contended with the exigencies of their neighbor to the north. One of the major challenges that they confronted before and after nominal independence in 1902 was the matter of public health. The island was rife with infectious diseases that threatened the lives of thousands of Cubans. The struggle against disease transcended matters of science, public health and hygiene. Cuban responses to disease gave rise to questions about issues as complex as sovereignty and modernity. This dissertation examines the history of the U.S.-led public health and sanitation campaign in Cuba during this period but focuses especially on the battle against tuberculosis.

Among infectious diseases, tuberculosis was the leading cause of death in Cuba between 1899 and 1909 and it affected every sector of Cuban society without regard to race, gender or national origin. The disease was found all over the island from the urban slums of Havana and Santiago de Cuba to the tobacco factories of Pinar del Rio. Debates about its treatment were common in Cuban and U.S. medical circles on the island and, in fits and starts, there were attempts to control its spread throughout the island, most especially, in Havana.

Yet, despite its ubiquity and the heavy toll it took on Cuban society, tuberculosis was not the primary target of U.S. or Cuban authorities' public health efforts during the

first decade of Cuban independence. Instead, yellow fever, a disease that had long threatened the United States, was the central focus of U.S. public health activities in Cuba. This focus on yellow fever would remain central to the Cuban republic's sanitary agenda, even after the end of the first occupation in 1902. The almost singular focus on yellow fever was not surprising. Long before the U.S. intervened in Cuba, the island had been regarded as a breeding ground for the disease and the source of the periodic epidemics that ravaged port cities of the U.S. South. Controlling yellow fever and mitigating its impact on the United States had been an objective of U.S. political and sanitary authorities for decades and intervention and occupation of Cuba in 1898 offered an unprecedented opportunity to accomplish just that.

While tuberculosis claimed many more lives in Cuba than yellow fever did, yellow fever came to dominate the history of public health during the early republic. The discovery of yellow fever's vector of transmission by the Havana Yellow Fever Commission in 1901 and the subsequent triumph of the anti-mosquito campaign that they created, have been regarded as among of the greatest accomplishments of twentieth century medicine and sanitation; a historic victory of science over disease. Indeed, the island was effectively freed from the disease. It was also an achievement that had profound international ramifications. The conquest of yellow fever in Cuba allowed the United States and other nations such as France and Great Britain to remedy one of the great public health menaces they faced in their tropical colonies and in so doing facilitated the continued presence of these powers in the far corners of the globe.

In Cuba, too, the discovery brought to light by Cuban and U.S. doctors and scientists in 1901 was of great importance and served as a source of national pride and

satisfaction. While the disease had little impact on Cuban mortality, its control and eradication was regarded as a testament to the force of Cuban science. Specifically, the triumph over yellow fever burnished the legacy of many Cuban doctors, most notably Carlos J. Finlay, who would become the model, *par excellence,* of Cuban medical knowledge and achievement.[1]

Given the centrality of yellow fever to the history of public health in Cuba during this period, it is not surprising that the disease has dominated discussions about health and hygiene between 1899 and 1909. Yet, as important as yellow fever was to the development of early republican Cuba, tuberculosis had a far greater impact on the lives of ordinary Cubans. Not only did thousands of Cubans die of the disease each year, many thousands more were infected with the tubercle bacilli and often functioned as unwitting agents of infection in their homes and places of business. Beyond its staggering impact on Cuban mortality, the disease often left survivors weak, broken and unable to care for themselves or their families. Tuberculosis also revealed much about the condition of the poor in Cuba. While anyone could be infected by the bacilli, the social conditions that accompanied privation—meager nutrition, lack of education, decrepit housing, poor working conditions —made certain Cubans more susceptible to the disease. Thus, any plan to root out tuberculosis—and this was as true in Cuba and as everywhere else in the world—would have to contend with the often vexing issue of poverty and its effects. Tuberculosis may have been a preventable disease but its

[1]Since 1933, in recognition of Finlay's achievements, his birthday is celebrated throughout Latin America as "*El Día Panamericano del Médico*." Gustavo Pradilla Ardila, "El Día Panamericano del Médico." *Revista de La Universidad Industrial de Santander, Salud* 42:3 (September-December 2010), 188-190.

prevention was often obscured by the complexities of remediating its underlying social and economic causes.

The history of the anti-tuberculosis struggle in Cuba has been similarly obscured. This dissertation focuses on the origins of the anti-tuberculosis movement in Cuba between 1899 and 1909, and in addressing this movement it engages a number of important fields of study including: U.S.-Cuba relations, the public-health policies of the United States in the Latin America, public health in Latin America, and the literature on 20th century responses to tuberculosis.

The historiography of U.S.-Cuban relations is long, rich and varied. But the period between 1899 and 1909 has come in for special attention from historians. Not only does the period begin with the transition from Spanish to U.S. rule in Cuba but it includes the debates about the very nature of the Cuban republic which touch on issues such as citizenship, voting rights, economic policy and sovereignty. These issues have been at the heart of the work of a legion of Cuban and U.S. historians.[2] But only recently have historians begun to analyze public health as another piece of the U.S.-Cuban dynamic during this period. In her seminal study of yellow fever in Cuba between 1878 and 1930, Mariola Espinosa argues that the disease "had a crucial and long-lasting impact on the

[2]A representative sample of the historians who have attempted to analyze U.S.-Cuban relations during this period includes: Ramiro Guerra y Sánchez, *Historia de La Nación Cubana* 10 vols. (Havana: Editorial Historia de la Nación Cubana, 1952); Louis A Pérez, Jr. *Cuba under the Platt Amendment, 1902-1934*. (Pittsburgh: University of Pittsburgh Press, 1986); and Jules Benjamin, *The United States and Cuba: Hegemony and Dependent Development, 1880-1934*. (Pittsburgh: University of Pittsburgh Press, 1977). On the economic history of period two important contributions are César Ayala, *American Sugar Kingdom: The Plantation Economy of the Spanish Caribbean, 1898-1934*. (Chapel Hill & London: University of North Carolina Press, 1999); and Alan Dye, *Cuban Sugar in the Age of Mass Production: Technology and the Economics of the Sugar Central, 1899-1929*. (Stanford: Stanford University Press, 1998). On the second intervention of the United States in Cuba the two central historical interpretations continue to be David A. Lockmiller, *Magoon in Cuba: A History of the Second Intervention, 1906-1909*. (New York: Greenwood Publishers, 1938) and Allan Reed Millet, *The Politics of Intervention: The Military Occupation of Cuba, 1906-1909*. (Columbus: Ohio State University Press, 1968).

relationship between the two nations."[3] Espinosa argues that the disease not only served as an important impetus to intervention but also profoundly challenged the sovereignty of the Cuban nation. In particular, she examines how yellow fever was incorporated into the terms of the Platt Amendment of 1901, raising "the threat of U.S. intervention if Cuban sanitary conditions declined."[4] By linking Cuba's sanitary condition and specifically its ability to successfully continue the anti-yellow fever policies of the U.S. Military Government with its independence, Espinosa takes the matter of yellow fever out of the realm of the history of public health and hygiene and squarely into the center of U.S.-Cuban relations. Thanks to her analysis we can see that while U.S. designs for Cuba certainly concerned the political and economic matters that have been at the heart of much of the historiography of this era, disease control and the debates generated by yellow fever control in particular, had a profound impact on the development of the relationship between the two nations.

The current study attempts to complement Espinosa's analysis of the politics surrounding yellow fever by addressing the ways in which U.S. and Cuban authorities confronted tuberculosis on an island dominated in its public health policies —politically, at least—by yellow fever. U.S. and Cuban officials shared a commitment to a common strategy to combat yellow fever; this was not always true when it came to the battle

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[3]Mariola Espinosa, *Epidemic Invasions: Yellow Fever and the Limits of Cuban Independence, 1878-1930*. (Chicago: University of Chicago Press, 2009), 3.

[4]Espinosa, *Epidemic Invasions*, 9. The Platt Amendment was included in Cuba's Constitution of 1901 after furious debates in Washington and Havana. The terms of the amendment included limits on Cuba's ability to enter into treaties and assume debt. It also stipulated that the United States had the right to intervene in Cuba "for the preservation of Cuban independence, the maintenance of a government adequate for the protection of life, property, and individual liberty, and for discharging the obligations with respect to Cuba imposed by the treaty of Paris on the United States, now to be assumed and undertaken by

against tuberculosis. The sanitary science of the day placed a premium on the value of identification, disinfection and education to control the spread of tuberculosis. But there were areas of disagreement between U.S. and Cuban doctors and others on other aspects of the campaign including, most especially, the relationship between the state and private anti-tuberculosis organizations. An examination of these differences helps us to understand yet another aspect of the nature of U.S.-Cuban relations during the early 20th century.

In addition to placing public health at the center of analyses of U.S.-Cuban relations, this dissertation contributes to the growing literature on the ways in which the United States employed public health, hygiene and sanitation during its expansion into Latin America during the early 20th century. Alongside a desire to expand economic opportunities and promote its own brand of political stability in Latin America, the United States evinced a deep concern with public health and hygiene in the region. In places such as Panama, Mexico and Peru, the United States government, and later private U.S. philanthropic entities such as the Rockefeller Foundation, pursued an agenda of public health activism designed to sanitize key Latin American cities in an effort to make them more amenable to commerce.[5] While there has been a considerable focus on the eradication of diseases such as yellow fever, less is known about the ways in which U.S.

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the government of Cuba." See: United States. *Platt Amendment, 1901* [Electronic Record] http://www.ourdocuments.gov/doc.php?doc=55&page=transcript. [Accessed 27 March 2013]

[5]On U.S. anti-yellow fever policies in Panama see: David Ray Abernathy, *Bound to Succeed: Science, territoriality and the emergence of disease eradication in the Panama Canal Zone*. Ph.D. Dissertation, (University of Washington, 2000). On Peru, see Marcos Cueto, "Sanitation from Above: Yellow Fever and Foreign Intervention in Peru, 1919-1922." *Hispanic American Historical Review* 72:1 (February 1992), 1-22. On Mexico see: Armando Solorzano, "The Rockefeller Foundation in Revolutionary Mexico: Yellow Fever in Yucatan and Veracruz." In Marcos Cueto, ed. *Missionaries of Science: The Rockefeller Foundation in Latin America*. (Bloomington: Indiana University Press, 1994), 51-71.

policies addressed diseases whose impact on trade was less obvious. In other words, while we know a great deal about how the United States attempted to control tropical diseases in the tropics we know far less about how the U.S. contended with non-tropical diseases in tropical settings. By examining the ways in which the U.S. confronted tuberculosis in Cuba, we have an opportunity to expand our understanding of the scope and limitations of U.S. public health policies in Latin America.

This dissertation also will contribute to the growing literature on the history of public health in Latin America. Over the last several decades there have been a number of important attempts to reconstruct the history of public health and its impact on the political, social and cultural development of the region.[6] Some of these studies have looked at the role of the nexus between public health and imperialism, while others have attempted to examine the ways in which public health projects articulated broader arguments in Latin America about complex issues such as nationalism and modernity.[7] By analyzing the issue of tuberculosis in Cuba, I will contribute to both of these historiographical currents. On the one hand, this project recounts the ways in which a small group of Cubans contested the public health agenda of the U.S. on the island—with its almost singular focus on yellow fever—by advocating for a comprehensive anti-tuberculosis campaign. In doing this, Cubans engaged U.S. public health priorities by

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[6]A good survey of the current historiography on public health in Latin America is in Diego Armus, ed. *Disease in the History of Modern Latin America: From Malaria to AIDS*. (Durham & London: Duke University Press, 2003).

[7]On the connection between public health and imperialism see, for example: Laura Briggs, *Reproducing Empire: Race, Sex, Science and U.S. Imperialism in Puerto Rico*. (Berkeley: University of California Press, 2002); Marcos Cueto, *Missionaries of Science: The Rockefeller Foundation in Latin America*. (Bloomington: Indiana University Press, 1994); for an examination of the role of public health in the formation of a modern national identity see Luiz Castro Santos, "O Pensamento Sanitarista na Primeira

arguing that the health of the island and its citizens was affected more by tuberculosis than by yellow fever. In addition, the Cubans recognized that the struggle against tuberculosis presented an opportunity to position themselves and their nation as partners in a global campaign against disease. In doing so, they rejected the notion that the island's health agenda was tied exclusively to its place in the tropics — a region of the world regarded as less than modern by many European and U.S. doctors and political officials — and instead presented Cuba as a distinctly modern nation confronting a distinctly modern problem.

Finally, this dissertation adds to the recent literature on the history of tuberculosis and the struggle to control it during the 20th century. Tuberculosis, as Rene and Jean Dubos famously noted more than half a century ago, "is a social disease."[8] The disease touched every sector of a society and it had a remarkable ability to bring into stark relief the "social conditions in which tuberculosis was rooted."[9] Studies of the disease have focused on the bacteriological discovery that gave birth to the modern anti-tuberculosis movement, the ways in which Robert Koch's discovery was embraced and challenged, and how major urban centers, where the first attempts to control the disease were formulated, translated the identification of Koch's bacilli into a program for action against the disease.[10] Although much of the early work on the history of tuberculosis

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Republica: Uma Ideologia de Construcão da Nacionalidade." *Dados—Revista de Ciencias Sociais* 28:2 (1985): 193-210.

[8]René and Jean Dubos, *The White Plague*. (New Brunswick: Rutgers University Press, 1987), xxxvii

[9]Diego Armus, *The Ailing City: Health Tuberculosis and Culture in Buenos Aires, 1870-1950*. (Durham & London: Duke University Press, 2011), 6.

[10]In addition to the work of the Dubos, see: Barbara Bates, *Bargaining for Life: A Social History of Tuberculosis, 1876-1938*. (Philadelphia: University of Pennsylvania Press, 1992); Linda Bryder, *Below*

focused on the major cities of Europe and the United States, there has been recent interest in how the cities of Latin America confronted the disease.[11] In looking at the anti-tuberculosis campaign in Cuba, and Havana especially, I will place Cuba within the broader framework of these studies of tuberculosis in the region.

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Chapter One provides an overview of the sanitary condition of Cuba in the aftermath of the Spanish-Cuban-American War. The conflict—and especially the Spanish reconcentration policy—created a public health catastrophe on the island. After defeating the Spanish in 1898, and with disease threatening virtually every sector of Cuban society, U.S. authorities embarked on an ambitious and unprecedented sanitation campaign that improved the sanitary condition of the island. It was during this initial stage of the intervention in Cuba that the U.S. military first attempted to address the threat posed by yellow fever. Committed to the idea that yellow fever was a so-called "filth disease," U.S. doctors and sanitarians anticipated that their campaign to clean Cuba and Havana, in particular, would eradicate yellow fever. By the end of John Brooke's first and only year as Military Governor of Cuba in 1899, it was clear that the spread of yellow fever had little to do with the sanitary condition of the Cuban capital. Yet, while yellow fever seemed to resist the efforts of U.S. authorities, the reconstruction and health policies of the Brooke administration did yield some positive results for other infectious

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the Magic Mountain: A Social History of Tuberculosis in Twentieth Century Britain. (Oxford: Clarendon Press of Oxford University Press, 1988); Michael Teller, *The Tuberculosis Movement: A Public Health Campaign in the Progressive Era*. (New York: Greenwood Press, 1988.)

[11]Some of the best work on the history of tuberculosis and the anti-tuberculosis campaigns in Latin America has focused on Argentina. See, for example: Diego Armus, *The Ailing City: Health Tuberculosis and Culture in Buenos Aires, 1870-1950*. (Durham & London: Duke University Press, 2011) and Vera Blinn Reber, "Blood, Coughs and Fever: Tuberculosis and the Working Class of Buenos Aires, Argentina, 1885-1915." *Social History of Medicine* 12:1 (April 1999): 73-100.

diseases, including tuberculosis. During the war, the lack of food, health care, and sanitary infrastructure combined to turn the island into a breeding ground of infectious disease. Tuberculosis, smallpox and enteritis claimed the lives of thousands of Cubans. The stabilization of food supplies and the slow construction of a public health system under Brooke had a positive effect on the health of the Cuban people.

Chapter Two examines the public health policies put into place by Leonard Wood from 1900 until the end of the U.S. occupation in 1902. Confronted with the reality that sanitation had no impact on yellow fever, Wood created a commission charged with studying the disease and deciphering its mode of diffusion. This commission—comprised of U.S. and Cuban scientists and physicians—conducted experiments that would ultimately reveal the *aedes aegypti* mosquito as the vector of transmission for the disease. Armed with this information, Wood launched an anti-mosquito campaign across Havana that by the middle of 1901 appeared to have finally brought yellow fever under control. While the anti-yellow fever campaign was taking place, however, a group of Cuban doctors began petitioning the military government to launch a similar campaign against tuberculosis. The Cubans created *La Liga Contra La Tuberculosis en Cuba*, an organization inspired by the formation of anti-tuberculosis leagues in Europe, the United States and Latin America. Led by Dr. Joaquín Jacobsen, *La Liga* urged the military government to support the anti-tuberculosis movement by underwriting educational campaigns, providing direct care to poor consumptives, creating the medical infrastructure to combat the disease, and proffering direct financial support to the organization itself. By advocating for a comprehensive tuberculosis control strategy on the island, *La Liga* attempted to claim at least part of the military government's resources

for control of a disease that affected every sector of Cuban society. The response of the military government to *La Liga* was mixed. In its treatment of tuberculosis the Military Government would demonstrate that the U.S.'s sanitary agenda was centered more on safeguarding the public health of the United States and on promoting a particular vision of the development of Cuba, than it was on systematically addressing the health of the majority of Cubans. Nevertheless, it would be a mistake to assume that the U.S. Military Government failed to respond to the tuberculosis crisis on the island. Instead, what emerges is a story that shows U.S. authorities attempting—late in the occupation and in concert with Cuban medical leaders—to create the infrastructure of an anti-tuberculosis movement in Cuba.

Chapter Three examines the activities of *La Liga* during the tenure of Tomás Estrada Palma, first President of the Cuban Republic. *La Liga* continued its educational activities during this period and increased its presence in the anti-tuberculosis movement on the island by opening a dispensary in Havana. It would also serve as the public face of the Cuban anti-tuberculosis movement through its monthly *Boletín*. It was in the pages of its magazine, that *La Liga* members would begin to advance the argument that support for an anti-tuberculosis movement in Cuba transcended public health. Combating tuberculosis, they argued, was a sign of the Cuban nation's place among the modern nations of the globe. By employing the language of "civilization" and "progress," *La Liga* framed the anti-tuberculosis campaign on the island as something of a referendum on the young Cuban republic's modernity. But, despite its arguments about the broader implications of anti-tuberculosis work, the organization confronted an ambivalent Cuban state that failed to support the organization or its signature project: the

construction of Cuba's first tuberculosis sanatorium. The neglect of the Cuban government during this period weakened *La Liga* and undercut its attempt to slow the spread of the disease.

Chapter Four begins by analyzing the political circumstances that led to the intervention of the United States in Cuba in 1906. After a review of the key military, legislative and sanitary objectives of Provisional Government led by Charles Magoon, the ways in which the Provisional Government addressed the twin challenges of yellow fever and tuberculosis are examined. Yellow fever again occupied much of the time and energy of U.S. officials. They were concerned about the resurgence of the disease in 1905 and 1906 and the threat it posed to commerce and immigration. Once on the island, U.S. officials replicate the model of yellow fever control developed under the Wood administration but this time the disease proved more difficult to control; it had spread out from Havana carried by thousands of non-immune Spanish immigrants into the interior regions of the island. But the second intervention would also present an opportunity to address tuberculosis in ways that were different from the first U.S. occupation. As part of an effort to reform the island's public health system, the Magoon administration enacted a series of changes on the island designed to centralize and, ostensibly, improve health care in Cuba. Perhaps no single reform during this period was more important than the nationalization of Cuban health services under National Sanitary Board. This process would have a profound impact on the anti-tuberculosis campaign in Cuba not only because the island's anti-tuberculosis leaders would be excluded from the participation on the Board but because U.S. officials would cut off financial support to *La Liga*. This,

in turn, would lead Cubans to publicly criticize U.S. public health policies, underscoring the differences in approach to the disease between the two nations.

A concluding section summarizes the state of the Cuban anti-tuberculosis movement in Cuba at the end of the second U.S. occupation and offers some possible avenues for further study. After a decade of U.S. interventions and Cuban attempts to combat tuberculosis, the disease was as resilient as ever. Indeed, by the end of the second U.S. intervention in 1909, not only did the disease seem immune to government disease control efforts but *La Liga* seemed to be declining in importance in Cuba. Yet, despite its precarious position within the Cuban public health community, the organization would have a lasting impact on the struggle against tuberculosis in Cuba during much of the first half of the twentieth century.

There are, of course, limitations to this study. For instance, I have purposefully avoided analyzing the intersection between race and tuberculosis in Cuba. While the study of race in the early republic has yielded important insights into the development of 20th century Cuba, a lack of available sources in the United States would have made a comprehensive analysis of this issue impossible.[12] Missing also from this study are the voices of tubercular Cubans themselves. Limited access to medical and personal records made it impossible to include a section exploring how individual tubercular patients and

[12]For an excellent analysis of the racial question in Cuba during the republic see: Alejandro de la Fuente, A Nation for All: Race, Inequality, and Politics in Twentieth Century Cuba. (Chapel Hill and London: University of North Carolina Press, 2001).

doctors interacted with one another.[13] I anticipate including both of these important elements in a future study.

My hope, is that by exploring the anti-tuberculosis movement in Cuba between 1899 and 1909, readers will develop a better understanding of public health during the early republican period, understand the complexities of U.S. sanitation priorities and practices on the island, and appreciate the ways in which Cubans attempted to be active agents in the conceptualization and implementation of public health in their nation.

[13]The importance of including patients in the history of tuberculosis is something that was first explored in the work of Sheila Rothman, *Living in the Shadow of Death: Tuberculosis and the Social Experience of Illness in American History*. (Baltimore: The Johns Hopkins University Press, 1995).

Chapter 1

Gehenna

William Ludlow, the Long Island-born engineer and officer who had recently been appointed Military Governor of Havana, was no stranger to the havoc wrought by war. In the 1860s, as a leading engineer in the Union Army, he helped lay siege to Atlanta and watched the material devastation and human suffering caused by General William Tecumseh Sherman's "total war" strategy. Later, as the chief surveyor on an expedition in the Black Hills of the Dakota Territory led by his West Point classmate and friend, General George Custer, he observed first-hand the terrible loss of life among Sioux warriors and American troops as the United States extended its authority in the West.[1]

Even so, the war-hardened Ludlow was astounded by what he encountered in Cuba in the aftermath of the Spanish-Cuban-American War.[2] After aiding in the capture of the eastern village of El Caney, Ludlow, whose engineering expertise made him a prized asset in the Army as well as in cities such as Philadelphia and New York, was assigned to Havana. He encountered a city in complete chaos. Not only had the Spanish "left everything behind except money," but any pretense of organized government was "abandoned." Able-bodied men and women were "depleted" by starvation and disease. Orphaned children ran through the city's streets "without any discipline or control of any

[1]On Ludlow's career see his obituary in *New York Times*, 31 August 1901.

[2]The names given to the war that took place in Cuba, Puerto Rico and the Pacific during the summer of 1898 change depending on one's location and political orientation. In the United States, the war is called the Spanish-American War, reflecting the two parties to the Treaty of Paris. In Cuba, by contrast, an act of the island's Congress in 1945 ordered that official references to the war use the term Spanish-Cuban-American War. See Louis A. Pérez, *The War of 1898: The United States & Cuba in History & Historiography*. (Chapel Hill & London: The University of North Carolina Press: 1998), 125-126.

sort." "Filth, dirt, and desolation" were everywhere. Havana and to a great extent much of the rest of Cuba, resembled, Ludlow noted, "a sort of Gehenna."[3]

How Cuba came to resemble a tropical inferno is a complex story, but three factors clearly contributed to the desperate conditions in which many Cubans found themselves in the aftermath of the war: the transmission and spread of infectious diseases by Spanish troops on the island during the war years between 1895 and 1898; the notorious reconcentration policy instituted by General Valeriano Weyler y Nicolau; and the American naval blockade of Cuba immediately following the declaration of war against Spain.

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As Matthew Smallman-Raynor and Andrew Cliff have shown in their analysis of the patterns of disease transmission and propagation during the Spanish-Cuban-American War, the four years following the *Grito de Baire* (1895) were ones of profound "disease turmoil in Cuba."[4] The war caused "increased epidemiological integration of the settlement system of Cuba, acceleration of the spatial processes of disease transmission and a marked change in the geographical drift of infectious disease activity."[5] A key factor in the propagation of disease in Cuba was the deployment of thousands of troops

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[3]It is likely that well before arriving in Havana, Ludlow had already seen much suffering in Cuba. For the state of affairs in El Caney around the time of Ludlow's residence in the town see Frank Norris, "Comida: An Experience in Famine," *Atlantic Monthly*, March 1899, 343-348. For Ludlow's description of Havana see Cuban Orphan Society, *Reception tendered by the Cuban Orphan Society to Brigadier General William Ludlow, Governor of Havana, at the Chamber of Commerce, New York, November 16, 1899, at 3 P.M.* (New York: Cuban Orphan Society, 1899), 5-7.

[4]Matthew Smallman Raynor and Andrew D. Cliff, "The Spatial Dynamics of Epidemic Disease in War and Peace: Cuba and the Insurrection against Spain, 1895-1898." *Transactions of the Institute of British Geographers*, New Series, 24:3 (1999): 332.

[5]Raynor and Cliff, "The Spatial Dynamics of Epidemic Disease in War and Peace," 331.

from Spain to the rebellious island. In addition to the 20,000 troops stationed on the island at the war's outbreak, an additional 8,500 troops were sent directly from Spain in March 1895. In April, another 7,500 reinforcements arrived in Cuba. By year's end, Spanish troops on the island numbered more than 125,000.[6] In total, between 1895 and 1898, some 220,000 Spanish troops crossed the Atlantic Ocean to fight in Cuba. The Spanish Crown's deployment of troops to Cuba after 1895 was unprecedented. Never before—and only twice after 1895-1898—had a nation deployed so large a number of military personnel to a war zone.[7]

Troops arriving in Cuba after 1895 were drawn largely from the poor and working classes of Spanish society. Forced conscription and the lack of economic resources to purchase a military exemption sentenced thousands of young and poor Spanish men to service in a war for which they were poorly trained and ill-supplied.[8] Despite its desperate attempt to hold on to Cuba, the Spanish crown launched a war without the financial resources to support its soldiers. As the war wore on, Spanish troops confronted not only a determined and unconventional Cuban insurgent militia but also a demoralizing landscape characterized by "disastrous sanitary-hygienic conditions, malnutrition, and unsuitable military fatigues."[9] As Silvia Sánchez Abadía has explained,

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[6]Joseph Smith, *The Spanish-American War: Conflict in the Caribbean and the Pacific, 1895-1902*. (New York: Longman Publishing, 1994), 10-13.

[7]The only larger military deployments were that of the United States and its troops to Europe at the height of the Second World War and then the deployment of more than 500,000 U.S. troops to Vietnam. Silvia Sánchez Abadía, "Olvidos de una Guerra: El Coste Humano y Económico de la Independencia, (Cuba-España, 1895-1899)." *Revista de Indias* 61:221 (2001): 120.

[8]The Spanish newspaper *El Pais* captured the unfortunate lot of thousands of poor Spaniards by comparing them to "cattle destined by their masters to the slaughterhouse." (*Como reses destinadas por sus dueños al matadero*). *El Pais*, August 14, 1895 as cited in Carlos Gil Andrés, "Dos Riojanos en la Guerra de Cuba, Pequeñas Historias del 98 ¿Historia Pequeña?" *Berceo* 142 (2002): 193.

[9]Sánchez Abadía, "Olvidos de una Guerra," 118.

"…in the [Cuban] jungle [*manigua*] we find not a professional army…but a group of malnourished Spaniards who more on account of obligation than of devotion or patriotic fervor took up arms in a war that was not theirs and that benefited neither them nor their families."[10]

In Cuba, perhaps the most serious challenge Spanish soldiers confronted was disease. As one contemporary observer explained, "the half grown and immature boys, the raw recruits which Spain has sent to the island, serve as fodder for fevers and other diseases to feed upon."[11] Unseasoned for the epidemiological challenges posed by Cuba's rich and diverse assortment of tropical biological threats, thousands of Spanish soldiers succumbed to infirmities ranging from enteritis and malaria to typhus and, perhaps most terrifyingly, yellow fever.

Table 1.1 presents an overview of the mortality of Spanish soldiers serving in Cuba in 1897, the height of Spanish-Cuban hostilities during the Cuban War for Independence. The leading causes of death, by a wide margin, were enteritis and dysentery. Each of these diseases is a product of unsanitary conditions affecting water or food supplies. In the case of the Spanish army, the lamentable condition of food rations provided by the Spanish government and the inconsistency of reliable sources of potable water undoubtedly drove the catastrophically high rates of infection with enteritis and dysentery. Contemporary observers in Cuba could not help but remark on the poor and

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[10]Sánchez Abadía, "Olvidos de una Guerra," 117. It is worth noting that the Spanish soldiers conscripted into the kingdom's army did not always silently accept their fate. Desertions and occasional rebellions in Spain were just some of the ways in which recruits resisted the unequal treatment meted out to them by the Spanish authorities. See Andrés, "Dos Riojanos," 192-195.

[11]Stephen Bonsal, "The Real Condition of Cuba To-Day," The *Review of Reviews*. (May 1897): 564.

irregular food rations given to Spanish soldiers. The weakness of the Spanish ration system was the by-product not only of a Spanish state that was unable to bear the costs of war but also of a military infrastructure that was rife with corruption and that fundamentally undervalued the lives of its lowest-ranking soldiers. Despite an order issued by the Spanish military in 1895 that guaranteed soldiers a minimum daily ration that included "bacon, rice or chickpeas, salt, wine, *eau-de-vie*, coffee, sugar, bread and crackers," as the war progressed the ration was either summarily reduced or rarely materialized on the front lines.[12]

Table 1.1: Mortality of Spanish Army in Cuba, 1897	
Disease	Number of Deaths
Yellow Fever	6,034
Enteric Fever	2,500
Enteritis and Dysentery	12,000
Malarial Fevers	7,000
All other diseases	5,000
Total	32,534

Source: W.F. Brunner, "Morbidity and mortality in the Spanish army in Cuba during the calendar year 1897" Public Health Reports 13:17 (April 29, 1898), p. 411.

The lack of regular pay also compromised the ability of Spanish soldiers to supplement their rations. Spanish military paymasters were often incapable or unwilling to pay soldiers their salaries leaving them unable to purchase food from Cuban markets or individual farmers.[13] It is hardly surprising that it was common to see diseased and malnourished Spanish soldiers reduced to either stealing food from island merchants and

[12]Sánchez Abadía, "Olvidos de una Guerra," 117. It should be pointed out that the distribution of food rations to Spanish troops was also disrupted by regular attacks by Cuban insurgents on food-bearing Spanish pack trains. See: Yolanda Díaz Martínez, "Dos ejércitos en lucha: Tácticas y estructuras militares en la Guerra de Cuba, 1895-1898." *Revista Compultense de Historia de América*. 20 (1994): 266.

[13]The lack of hard currency to pay for foodstuffs was further complicated by the sharp increases in food prices in Cuba over the course of the war. Between January 1897 and March 1897 alone, food prices in Cuba increased by approximately 30 percent. See Louis A. Pérez, Jr. *Cuba Between Empires, 1878-1902*. (Pittsburgh: University of Pittsburgh Press, 1983), 152.

peasants or begging for alms. "You go to into the streets of Habana any hour of the night and if you look like a man of any means at all you will be asked for alms by Spanish soldiers," wrote Frederick Lawrence, a war-time correspondent for the *New York World*.[14]

In addition to the high mortality caused by enteritis and dysentery, the disease also travelled deep into the interior regions of the island, threatening populations far removed from Havana. More than half of the Spanish military deaths caused by enteritis and dysentery in 1897 occurred outside of Havana's military hospitals.[15] Before dying in the field hospitals that littered the Cuban countryside these diseased soldiers had been campaigning through Cuba's towns and villages. Ailing and sickly, the Spanish troops spread their infected filth along the routes of battle claiming not only the lives of their fellow soldiers but also the Cuban masses who were starved and weakened by the economic upheaval of the war.

If enteritis and dysentery caused the highest mortality among the Spanish soldiers in Cuba, it was the violent and painful death associated with yellow fever that caused the most terror among Spanish troops and commanders. History had already taught the Spanish military complex that Cuba's disease environment posed a serious threat to the health and well-being of rank and file Spanish soldiers. During the long, bloody and costly Ten Year's War (1868-1878), non-immune Spanish soldiers came into contact

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[14]Frederick Lawrence as cited in Perez, *Cuba Between Empires*, 79.

[15]W.F. Brunner, "Morbidity and mortality in the Spanish army in Cuba during the calendar year 1897." Public Health Reports 13:17 (April 29, 1898): 411.

with yellow fever and the consequences were deadly.[16] Little wonder that Cuban insurgent general Máximo Gómez referred to the "invincible Generals June, July and August" as important allies of the Cuban rebellion.[17]

The arrival of thousands of Spaniards to Cuba in the aftermath of the Ten Year's War and the "Guerra Chiquita" (1879-1881) meant that yellow fever-bearing mosquitoes had a seemingly endless supply of new bodies upon which to feast. Between 1882 and 1894, nearly 5,700 persons died of yellow fever in Havana.[18] From 1890 to 1894 alone, yellow fever accounted for nearly 1,900 of the 35,873 deaths registered in the Cuban capital city. While this number represented just over 5 percent of all the deaths in the City, it is important to note for every one fatality caused by yellow fever two or three times as many people were infected and often crippled by the disease.[19]

The outbreak of hostilities between Cubans and Spaniards in 1895 would only make matters worse when it came to the spread of yellow fever. From the very beginning of the insurrection, Cuba was consumed by a yellow fever epidemic that would wreak havoc on Spanish troops. Lacking any natural immunity to the disease and unaware of the vectors of transmission, the Spanish army was besieged by a staggering number of

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[16]Between 1871 and 1881, 12,302 soldiers and civilians in Havana alone died of yellow fever. While the national origin of these victims is not revealed in the data, it is safe to assume that the majority of these victims were Spaniards. See William C. Gorgas, "Report of Maj. W.C. Gorgas, Chief Sanitary Officer, City of Habana." *Annual Report of the War Department. 1900*. 243.

[17]The reference was to the months during which yellow fever was most prevalent on the island. See Mariola Espinosa, *Epidemic Invasions: Yellow Fever and the Limits of Cuban Independence, 1878-1930*. (Chicago: University of Chicago Press, 2009), 1.

[18]Gorgas, "Report of Maj. W.C. Gorgas, Chief Sanitary Officer, City of Habana," 243.

[19]Between 1880 and 1894, the number of deaths attributed to yellow fever in the military hospital of Havana numbered 3,476 but the total number of yellow fever cases in these facilities numbered 10,733. See Gorgas, Gorgas, "Report of Maj. W.C. Gorgas, Chief Sanitary Officer, City of Habana," 243.

fatalities caused by yellow fever and by the even larger number of soldiers who survived infection only to be left debilitated and effectively useless on the field of battle. Table 1.2 shows the number of deaths attributed to yellow fever in Havana from 1895 to 1897. The data demonstrate that of the nearly 2,700 deaths credited to yellow fever in the capital city fully 78 percent of those deaths were among members of the Spanish armed forces.[20]

Table 1.2: Deaths from Yellow Fever in Havana, 1895-1897			
Type	1895	1896	1897
Military	158	1,153	813
Civilian	395	129	45
Total	553	1,282	858

Source: William C. Gorgas, "Report of Maj. W.C. Gorgas, Chief Sanitary Officer, City of Habana." Annual Report of the War Department. 1900, 243

The devastating mortality rate associated with the disease was compounded by its quick diffusion across the island. An epidemic that began in Oriente province in the spring of 1895 had by summer reached the western regions of Santa Clara province. By the fall, yellow fever was observable in the large western cities of Havana and Matanzas.[21] By the following year, from Santiago to Havana, public health authorities were warning that the disease "rage[d] among unacclimated inhabitants."[22] Yellow fever had been endemic to certain regions of Cuba before the war but the arrival of tens of thousands of raw recruits and their subsequent campaigning initiated a new chapter in the

[20]Given the immunity of most Cubans to yellow fever it is safe to assume that Spaniards also accounted for the majority of the civilian deaths attributed to the disease.

[21]Raynor and Cliff, "The Spatial Dynamics of Epidemic Disease," 340-41.

[22]Henry S. Caminero, "Sanitary reports of Santiago-Smallpox increasing in Santiago and Manzanillo." *Public Health Reports* 11:21 (May 22, 1896): 476.

disease's history on the island. By the end of 1897, yellow fever was everywhere in Cuba.

Taken together, the increase in fatal cases of enteritis, dysentery and yellow fever during the years between 1895 and 1898 were critical in creating the desperate landscape that William Ludlow described above. Spanish troops were not only the victims of these diseases but they also were in many cases the agents of their diffusion throughout Cuba. Yet it would take the purposeful Spanish military policy of forcibly depopulating the Cuban countryside and corralling thousands of weakened Cuban men, women and children in overpopulated and insalubrious cities to make every inhabitant of the island a target for disease.

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Valeriano Weyler arrived in Havana on February 10, 1896, just as it was becoming clear to colonial authorities in Madrid that the Cuban insurgency was showing few signs of wilting under the pressure of Spanish arms and numerical superiority. Weyler believed that previous Spanish administrations had been too lenient with the Cuban rebels and immediately set out to fight "war with war" in Cuba.[23] In short order he increased the number of Spanish troops on the island, clamped down on political groups which favored a negotiated settlement with the Cuban "republic-in-arms," and otherwise brought the war directly to the guerrilla armies that had so frustrated and humiliated his predecessor, General Arsenio Martínez Campos.

Weyler enjoyed some early successes. His aggressive tactics, especially the strategy of isolating the Cuban troops from one another, sent the rebel armies into retreat.

[23]Smith, *The Spanish-American War*, 18.

He constructed a massive trench in western Pinar del Rio province that trapped Cuban leader Antonio Maceo and his army. He added another trench in central Cuba to strangle Generals Calixto García and Máximo Gómez. In December 1896 Spanish armies struck a devastating blow against the rebels when Maceo, arguably the most ferocious and beloved of the Cuban generals, was ambushed and killed near Havana. Weyler then turned his attention to the east and promised a quick and decisive Spanish victory.

In addition to seeking direct military engagements with the Cuban insurgent army, Weyler also worked to eliminate the informal but vast network of popular support that the Cuban insurgents enjoyed among the island's rural population. The insurgents drew recruits, supplies, and other support from the Cuban countryside. Weyler reasoned that without such aid, and with increased military pressure, the insurgency would collapse even sooner than he had first predicted. Of course, there was no practical way to prohibit Cubans from aiding the insurgency. In fact, the only way to deny the insurgency its popular support would be to cut contact between it and the people of Cuba's rural villages and towns. Thus, beginning in mid-1896 Weyler ordered the forced evacuation of hundreds of thousands of Cubans from their towns to fortified cities under Spanish control. The *reconcentración*, as it came to be known, would turn the Cuban War of Independence into nothing short of a public health calamity.[24]

[24]Weyler's application of the reconcentration policy was not new to Cuba. During the Ten Years' War (1868-1878), Spanish General Blas Villate de la Hera, Count of Valmaseda, had employed a similar strategy in Oriente Province, where he commanded Spanish troops and where Weyler was one of his high-ranking officers. Valmaseda's various stints as Captain General of Cuba in the 1860s and 1870s were characterized by several acts of brutality against Cuban insurgents none of which was more ignominious than the execution of eight medical students from the University of Havana on November 27, 1871. On Weyler's service in Valmaseda's army, see John Laurence Tone, *War and Genocide in Cuba, 1895-1898.* (Chapel Hill and London: University of North Carolina Press, 2006), 155. Also see, Francisco Pérez Guzmán, "Los efectos de la reconcentración (1896-98) en la sociedad cubana: Un estudio de caso, Güira de Melena," *Revista de Indias* 58:212 (January-April, 1998): 278.

The exact number of Cubans who died on account of the reconcentration is unknown. Estimates range from 200,000 to 400,000, or somewhere between 20 and 40 percent of the Cuban population.[25] Whatever the actual number, Cuba had not experienced such a dramatic population decline since the earliest decades of Spanish rule in the sixteenth century, when the island's indigenous population was nearly wiped out by European microbes.

In Remedios, a town in the central province of Santa Clara, the number of deaths nearly tripled from 380 in 1895 to 1,021 in 1897. In nearby Sancti Spiritus deaths increased from 1,361 in 1895 to 2,609 in 1897.[26] The number of widows and widowers climbed to record levels. In fact, Cuba had the highest rate of widows to married persons in the entire Western Hemisphere: 35:100.[27]

The reconcentration not only increased the number of deaths, but also lead to a decline in the number of births on the island. In Remedios and Sancti Spiritus the number of births declined from 355 in 1895 to 93 in 1898 and from 508 in 1895 to 198 in 1898, respectively.[28] An estimated 100,000 children died or were never born.[29] In 1899,

[25]Pérez, Jr., *Cuba Between Empires*, 124, 395 n. 51; Pérez, Jr., *Cuba: Between Reform and Revolution*, 167 and Smith, *The Spanish-American War*, 19. For an analysis on the difficulty of arriving at an accurate assessment of the number of deaths caused by the reconcentration see: Tone, *War and Genocide in Cuba*, 209-217.

[26]United States. War Department, Office of the Director of the Census of Cuba, *Report on the Census of Cuba, 1899*. (Washington: Government Printing Office, 1900), 77.

[27]Pérez, *Cuba: Between Reform and Revolution*, 190.

[28]War Department, *Census of Cuba, 1899*, 86.

[29]Louis A. Pérez, Jr. *Lords of the Mountain: Social Banditry and Peasant Protest in Cuba, 1878-1918*. (Pittsburgh: University of Pittsburgh Press, 1989), 60.

no country in the world for which data are available had so small a proportion of children under the age of five in relation to the overall population.[30]

There are numerous reasons why so many Cubans perished during the reconcentration. First, the towns in which Weyler deposited Cuba's rural populations were ill-equipped to handle such large numbers of people. Weyler's order to evacuate was enacted with little warning and thus most Cubans arriving to large fortified provincial centers came empty-handed. For rural folk who engaged in subsistence farming, leaving their farms meant abandoning their only certain source of food. By the time these families were *reconcentrado*, they were unable to feed themselves and depended on the government for daily sustenance. The government, for its part, either could not or would not redirect resources to provision this ever-growing urban population.

Beyond the dietary chaos inherent in the reconcentration, however, the forced relocation of thousands of men, women, and children into cramped quarters also promoted the spread of disease. In 1896, a smallpox outbreak in the crowded city of Sagua la Grande compounded the enormous difficulty of feeding the town's newly-arrived *reconcentrados*.[31] Forced to live in squalid conditions, deprived of food and with no escape from other souls, the Cubans could scarcely withstand the onslaught of disease.

Unfortunately, while the epidemiological impact of the reconcentration is best understood by focusing on local municipalities, there are little published data on disease-related mortality in Cuba during this period. One exception to this dearth of information

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[30]Pérez, Jr., *Cuba: Between Reform and Revolution*, 190.

[31]Francisco Machado, *¡Piedad!: Recuerdos de la Reconcentración*, 2nd ed. (Havana: Rambla, Bouza y Cía., 1926), 21.

is an analysis of mortality rates and disease for the town of Güira de Melena in western Cuba. Table 1.3 provides a glimpse into the causes of mortality in Güira de Melena for 1893, the last year before the outbreak of war for which civil registers survive; for 1897, the year immediately following the reconcentration; and for 1898, the last year of the War for Independence and the first few months of the American occupation.[32]

Table 1.3: Deaths in Guira de Melena, 1893, 1897, 1898			
Disease	1893	1897	1898
Enteritis and Gastroenteritis	45	245	318
Tuberculosis	39	183	162
Tetanus	32	n/a	n/a
Dysentery	n/a	42	29
Pneumonia and Broncho-pneumonia	25	37	24
Heart disease	23	58	57
Meningitis and Encephalitis	21	n/a	23
Malnutrition	14	107	332
Malaria	13	170	148
Smallpox	n/a	166	25
Stroke	12	41	51
Typhoid Fever	n/a	71	n/a
Congenital anomalies	11	n/a	n/a
Other Causes	51	324	211
Total Deaths	286	1,444	1,380

The data on mortality in 1893 demonstrate the precarious state of public health in Güira de Melena before the War of Independence. Tuberculosis, enteritis, and tetanus accounted for 41 percent of all deaths in Güira de Melena in 1893. All of these diseases are highly communicable and linked to poor sanitation, housing, nutrition, and hygiene. Thus, even in the years before Weyler's arrival in Cuba, Güira de Melena's residents confronted a robust disease environment coupled with a weakened public health

[32]All data on Güira de Melena are from Pérez Guzmán, "Güira de Melena," 281-282.

infrastructure that could do little to prevent the spread of disease. Francisco Pérez Guzmán argues that given these conditions, the additional stresses created by the reconcentration could not but fracture the town's already weakened health and hygiene systems.

In 1897, the reconcentration policy brought an influx of people to Güira de Melena from the surrounding areas of Sabanacán, Melena and Tumbadero. At first, many of these new residents were housed in temporary shelters. After some months however, the flow of displaced Cubans increased dramatically and many *reconcentrados* occupied abandoned buildings, constructed makeshift shelters out of palm branches, or simply lived in public places such as the town park.[33] The rise in population in 1897 further weakened the town's public health infrastructure. Although it is unclear what the total population of Güira de Melena was in 1897, Table 1.3 shows that the total number of deaths in that year spiked to 1,444; an increase of more than 1,200 deaths compared to 1893.

Just as importantly, infectious diseases accounted for a larger portion of deaths than ever before.[34] The data indicate that infectious diseases and malnutrition were responsible for slightly over 70 percent of all deaths in Güira de Melena in 1897. Still, the deteriorating condition of public health in Güira de Melena during the reconcentration was obvious not only from the increased number of deaths due to infectious diseases but also the presence of new diseases such as typhoid fever and dysentery. These diseases

[33]Pérez Guzmán, "Güira de Melena," 280.

[34]Ibid., 284.

were insignificant as causes of death in 1893 yet they caused nearly 8 percent of all deaths in 1897.

From a long-term strategic standpoint, Weyler's reconcentration policy was a failure. While the mass displacement of Cuban peasants may have interrupted the flow of resources and personnel to the insurgent army, the political costs of Weyler's program outweighed its military advantages. The U.S. press focused on the reconcentration as the principal evidence of Spanish cruelty toward Cuba and unleashed a torrent of criticism intended to demonize Spain, stoke popular American support for the Cuban rebels and, ultimately, American intervention on the island. Weyler's difficult demeanor, arrogant military disposition, and willingness to banish intrepid and critical American journalists from the island only solidified his reputation as the modern-day embodiment of the notorious Black Legend. [35] The reports of *weylerian* barbarity in American and European newspapers eventually flowed into the circles of power in Madrid. Spanish government leaders were not immune to the international and public pressure to alleviate the suffering of thousands of Cubans. Late in 1897, after heated debates in the Spanish *cortés*, Weyler was relieved of his duties in Cuba and recalled to Spain.[36]

The Spanish authorities, while still committed to routing the insurgents, nevertheless attempted to ameliorate the *reconcentrados'* condition by establishing local charitable institutions to provide food and medical care. These organizations, known as *juntas protectoras*, were also responsible for redistributing food and supplies received

[35]For an example of anti-Weyler sentiment in the American press see the *New York Journal* editorial reprinted in David Nasaw, *The Chief: The Life of William Randolph Hearst*. (Boston and New York: Houghton Mifflin Company, 2000), 126.

[36]The cortés was the Spanish imperial legislature.

from aid organizations in the United States including Clara Barton's Red Cross.[37] It appears that, at least for a time, these organizations were able to improve the health of the *reconcentrados*.[38]

The Spanish relief effort was short-lived. By the time the *juntas protectoras* and other similar beneficent institutions began to provide relief, war with the United States was imminent. In April 1898, with the destruction of the USS Maine providing the justification for intervention, the United States government discarded its long-held neutrality vis-à-vis the "Cuban question." The war would not only bring an end to the Spanish empire in the Americas, it would also fray the already fragile line between survival and death for thousands of diseased and hungry Cubans.

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Naval superiority was the axis around which the American military effort against Spain revolved. Commodore George Dewey's rout of the Spanish navy at Manila Bay in the Philippines has deservedly received ample attention.[39] His quick defeat of the Spanish Pacific Squadron in late April 1898 deprived Madrid of its ability to defend its colonies in the Pacific and cast doubt on its capacity to offer any resistance to the U.S.

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[37]Pérez Guzmán, "Güira de Melena," 286-287.

[38]By April 1898, for example, the number of deaths in Güira de Melena had dropped to 85 as compared to 116 the previous April. The limitations of drawing conclusions from raw numbers of deaths as opposed to changes in total death rate are obvious. Unfortunately, we do not have access to accurate population data for Güira de Melena for 1897 or 1898. Nevertheless, we believe that the decline in total deaths was a sign of improving health conditions in the town and not just as a result of a decline in population as Cubans relocated to their homes when the reconcentration policy ended.

[39]Dewey's popularity in the United States soared after his defeat of the Spanish. Popular acclaim was such that the Commodore declared himself a candidate for President in 1900. The candidacy was short-lived but for the next twenty years Dewey would occupy a number of important positions in the United States Navy. See Ronald Spector, *Admiral of the New Empire: The Life and Career of George Dewey*. (Baton Rouge: Louisiana State University Press, 1974).

onslaught in the Caribbean.[40] Yet while the conflict at sea has been the cornerstone of historical studies of the War, a less analyzed but no less important aspect of U.S. naval strategy was the maritime blockade of Cuba.

Described by one historian as "tedious and uneventful," the American naval blockade of Cuba "made good strategic sense."[41] On April 22nd, the U.S. North Atlantic Squadron had settled into place outside of Havana. By the following day, U.S. ships had managed to halt virtually all maritime traffic entering or leaving the northern Cuban ports of Mariel, Cabañas, Matanzas and Cárdenas.[42] The United States hoped that the naval blockade of Cuba would deny Spanish troops on the island access to weapons and other supplies. The strategy was a success. Ships headed to the island with provisions and supplies for Spanish troops were seized and soon maritime traffic to the island slowed to a trickle.

An ancillary consequence of the blockade, however, was that it also managed to disrupt commercial traffic between Cuba and its trading partners in the United States and Europe. The pressures of diminished trade, generally, and fewer imports of foodstuffs, specifically, combined to aggravate the already precarious nutritional condition in which many Cubans found themselves. The interruption of food supplies to Cuba undermined the post-reconcentration recovery taking place in the island's towns and villages. For the nearly six months during which Cuba was subjected to the blockade, many Cubans who

[40]Smith, *The Spanish-American War*, 77-86.

[41]Ibid., 76.

[42]Ibid., 74.

were just recovering from the deprivations and illnesses of the reconcentration were confronted with chronic food shortages.

Although data on mortality during the months of the blockade are not available, it seems safe to assume that the lack of an adequate diet over the course of many months certainly weakened vast segments of the Cuban populace. The anecdotal record of suffering provided by American journalists and soldiers arriving on the island in the immediate aftermath of the blockade is stark. "The most unclean and repugnant animals were devoured with delight," one analyst said of the depths to which the starving Cubans had descended.[43] In Santiago de Cuba nearly twenty thousand Cubans "survived on unripe fruits and vegetables and polluted water."[44] In this environment, the public health catastrophe that began with the arrival of thousands of malnourished and epidemiologically unseasoned Spanish troops and continued during the reconcentration could only get worse. U.S. intervention in Cuba in 1898 had been undertaken on the grounds of defending the honor of the United States and rescuing the Cuban people from Spanish barbarity. Few, if any, U.S. officials during the "splendid little war" understood that defeating the Spaniards would come at the expense of so many more Cuban lives.

The dangerous disease environment created by the outbreak of the Cuban War for Independence, General Weyler's reconcentration policy and the U.S. blockade of Cuba in 1898 combined to create a health disaster in Cuba. The arrival of thousands of underfed and non-immune Spanish troops added fuel, as it were, to the disease fires on the island.

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[43]Rafael Martínez Ortiz as cited in Charles E. Chapman, *A History of the Cuban Republic: A Study in Hispanic American Politics*. (New York: The Macmillan Company, 1927), 98.

[44]Jack C. Lane, *Armed Progressive: General Leonard Wood*. (London and San Rafael, California: Presidio Press, 1978), 56.

Spanish soldiers not only succumbed to disease by the thousands but they were agents of infection spreading deadly infectious diseases such as dysentery, enteritis and smallpox throughout Cuba's cities and villages. Later, the forced reconcentration of thousands of Cubans into towns and cities exposed the underlying weaknesses of the island's public health facilities. Even before the war, the island's sewer and water systems had suffered from years of Spanish neglect and its hospital care was uneven in both quality and geographic distribution. Now, as human waste wound through municipal streets and clean drinking water became nearly impossible to secure, disease spread rapidly. The reconcentration had turned the Spanish war against the Cuban insurgents into a war against every sector of Cuban society. After the reconcentration ended and relief began to find its way to hungry and diseased Cubans, the U.S. war with Spain quashed efforts to aid the dying, adding to the suffering endured by hundreds of thousands of Cubans. In an attempt to isolate Spanish troops from their overseas supply lines, the American naval blockade also managed to interrupt the flow of needed relief supplies to *reconcentrado* families. The unintended consequence of this strategy was to worsen the health of the average Cuban and delay any physical recuperation of the Cuban masses. With the war over, the United States had put an end to Spanish imperial rule in Cuba. But in doing so, the U.S. authorities had also assumed responsibility for relieving the rampant suffering in Cuba caused by malnutrition and disease.

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On January 1st 1899 the United States assumed formal control over Cuba. Leading the American effort was General John Brooke. A veteran of the Civil War, Brooke had helped to conquer Puerto Rico during the war against Spain and was

appointed by President William McKinley to oversee Cuba's reconstruction. A career officer at a time when the United States Army was just emerging from behind the twin pillars of amateurishness and complacency, Brooke, in the words of one observer, "moved…with the slow majesty of the machinery of which he had been a part all his adult life."[45] More importantly, perhaps, unlike many of the younger officers under his command, Brooke lacked "both administrative experience and any philosophical commitment to government activism."[46]

Sixty years of age when he took control of Cuba, Brooke was older and less attuned to the winds of social reform and progressive governance that inspired the younger members of his officer corps, particularly Leonard Wood. Brooke certainly understood the need to build schools and create a trustworthy government, but in the aftermath of the war his vision of government's role on the island tended toward the mundane not the transformative. His government "was benevolent, without being assertive."[47] In the absence of any profound commitment to turning Cuba into a showcase for American progressive governance and ingenuity, the Governor limited himself to an agenda that was as unremarkable as it was simple: rebuild the island, nothing more, nothing less.

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[45]The observer was, in fairness to Brooke, Leonard Wood's biographer. Herman Hagedorn, *Leonard Wood: A Biography*. Vol. 1 (New York & London: Harper & Brothers Publishers, 1931), 233. For a more positive assessment of the Brooke administration see Chapman, *History of the Cuban Republic*, 99-105. Chapman characterized Brooke's managerial skills as signs of his "likeable and rather easy going" disposition.

[46]Howard Gillette, Jr. "The Military Occupation of Cuba, 1898-1902: Workshop for American Progressivism." *American Quarterly* 25:4 (October 1973): 412.

[47]Hugh Thomas, *Cuba: The Pursuit of Freedom*. (New York: Harper & Row, 1971): 422.

In addition to lacking any substantive intellectual commitment to government activism, Brooke lacked any direction from his superiors on how to rebuild Cuba. Instructions from Washington were few and Brooke was left to make his way through the minefield of occupation with little more than a broad and ultimately useless declaration from President William McKinley that "the foundation of our authority in Cuba is the law of belligerent right over conquered territory."[48] Brooke was also caught between two competing strains of thought about the ultimate nature of the relationship between the United States and Cuba. On the one hand, the U.S. government had made an explicit declaration by way of the Teller Amendment that it had no intention of annexing Cuba. Despite nearly a century's worth of declarations about the laws of "political gravitation" between the United States and Cuba, U.S. officials on the eve of the War with Spain had

> "disclaimed any disposition of intention to exercise sovereignty, jurisdiction, or control over [Cuba] except for the pacification thereof, and…when that is accomplished, to leave the government and control of the island to its people."[49]

Yet the declarations of the U.S. Congress leading up to the War did not entirely squelch long-standing arguments about the necessity of annexation or the threat that an independent and possibly politically unstable Cuba might pose to the United States. Indeed the more U.S. officials on the island observed the Cubans, the less inclined they were to accept that the Cubans were prepared for the challenges of self-rule. The Cubans, these officials argued, were "stupid," "dishonest," "weak-minded,"

[48]William McKinley as cited in Pérez, Jr. *Cuba Between Empires*, 270.

[49]*Congressional Record*, XXXI (April 16, 1898): 3988-89.

"improvident" and "ignorant."[50] And the more American officials doubted the capacity of the Cubans for self-government, the more annexation seemed like the only logical conclusion to the American intervention on the island.

Brooke was unable to reconcile these competing agendas. He resigned himself to the reality that the matter of Cuba's ultimate place within the new American empire would be left to others. His task in Cuba was more ordinary but certainly no less important: providing relief to starving masses of Cubans and submitting the island to an extensive sanitation campaign.

As noted earlier, the arrival of hundreds of thousands of disease-susceptible Spanish soldiers, the reconcentration of the Cuban peasantry and a U.S. naval blockade had wreaked havoc in Cuba. Brooke's response to this chaotic situation, and indeed the response of all the U.S. commanding officers on the island, was to provide immediate relief to the Cubans by way of vigorous distribution of rations.[51] The best description of the relief effort is contained in Leonard Wood's account of his command in Santiago de Cuba. Confronted with a starving populace and an army eager to safeguard the well-being of its own soldiers, Wood, a member of the famed Rough Riders, marshaled every resource in the city to provide relief. Workers were recruited from every sector of Santiago society and every cart and wagon that could be had was put to use distributing provisions. Food was delivered to every charitable institution that had managed to survive the war and distribution stations were established in every ward of the city. Meat

[50] For a compilation of these complaints, see Pérez, Jr. *Cuba Between Empires*, 272-273.

[51]Most of the rations distributed to the Cubans were originally intended for American soldiers on the island. By July 1898, however, the U.S. Army's Commissary Department was designing rations "for special use by the Cubans." One typical shipment consisted of "750,000 pounds of bacon, 562,000 pounds of flour, 750,000 pounds of cornmeal, 90,000 pounds of coffee, 150,000 pounds of sugar…60,000 pounds of salt and 3,750 pounds of pepper." *New York Times*, 6 July 1898.

and vegetables were doled out from seven in the morning until well into the afternoon. Doctors were sent out into the city's various neighborhoods to inspect homes and report on the sick and starving, "leaving orders for food and giving such medicines as were at hand." On average, 18,000 to 20,000 *santiagueros* were fed daily.[52]

Throughout Cuba the positive results of the relief campaign quickly became apparent. Better nutrition led to the general physical improvement of thousands of Cubans. Barely five months had passed since the United States assumed formal control over Cuba before U.S. authorities from Santiago to Havana were claiming victory over starvation. "Starvation has ceased," Brooke wrote to one colleague in May, "so that I may say that destitution has ceased."[53] Wood was less sanguine about the material condition of the Cubans—"the people are still very poor," he wrote in mid-1899—but even he was certain that the worst had passed.[54] By the summer of 1899 the Americans were warning each other about the dangers of indulging the Cubans. "The time has come," wrote Henry Corbin, "for [the Cubans] to no longer expect bountiful gratuities from government sources."[55]

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[52]Leonard Wood, "Santiago Since the Surrender." *Scribner's Magazine*, May 1899, 518-519. When American relief workers in El Caney ordered a crowd of starving Cubans to allow children to be fed first, the response was hostile. They were "deaf to everything but the clamor of empty stomachs." Norris, "Comida," 344.

[53]Gen. John R. Brooke to H.C. Corbin, 24 May 1899, John R. Brooke Collection, Historical Society of Pennsylvania, Philadelphia.

[54]Wood, "Santiago," 524. Wood, ever the optimist, was claiming victory over hunger in Santiago as early as the autumn of 1898. "People have all they want to eat," he noted in a report to Secretary of War Russell Alger, "and I do not think there is hunger, to any extent, in Santiago." *New York Times*, 1 October 1898.

[55]H.C. Corbin to Gen. John R. Brooke, 7 June 1899, John R. Brooke Collection, Historical Society of Pennsylvania, Philadelphia. Corbin's warning was not new. As early as February, James Wilson, the commander of American forces in Matanzas, argued "the problem is to feed the poor without making professional beggars of them." James H. Wilson, *Report on the Conditions and Requirements of the Province of Matanzas*. (Matanzas 1899), 18.

Soon, however, the American military authorities would discover that their rapid and complete success in ridding Cuba of rampant starvation was no guarantee that they would enjoy the same ascendancy over filth and disease. Relieving the Cubans of starvation was one matter; making them healthy quite another.

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At sixty-five years of age, Colonel George Waring was a mainstay of the nineteenth-century public health movement in the United States. It was logical that when the United States government decided it needed a reliable assessment of the sanitary condition of Cuba in advance of its formal occupation of the island, it turned to him. In the 1870s this son of Mid-Hudson Valley farmers had earned national acclaim for his treatise *The Sanitary Drainage of Houses and Towns*, and not long after served on the nation's fledgling National Board of Health before turning to private industry and earning a small fortune as an "apostle of cleanliness."[56]

When the call came to report on the sanitary condition of postwar Havana, Waring had just completed a celebrated three-year stint in New York City organizing sanitary services for the reformist administration of Mayor William Strong. Fresh from his campaign in New York, Waring spent three weeks in Cuba collecting data, inspecting buildings, evaluating sewers, and drawing up recommendations that were to guide the sanitary reformation of the island.

Not unlike previous visitors to the island, Waring found disease and filth everywhere. Privies in Havana's homes had changed little since the visit of the United

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[56]On Waring's life and work see Albert Shaw, *Life of Col. Geo. E. Waring, Jr. The Greatest Apostle of Cleanliness*. (New York: The Patriotic League, 1899).

States Yellow Fever Commission in the late 1870s which observed that they "belch[ed] forth [their] nauseous odors throughout the house and…the streets." Street sweeping and garbage disposal were "half organized and wholly ineffective." Havana lacked any semblance of a sewer system. It was, in short, "a veritable plague spot."[57]

Waring's assessment was bleak and warned of dire repercussions if the unsanitary conditions prevailing on the island were not tended to immediately. His proposals were sweeping in scope: immediate organization of a Department of Public Cleaning, construction of a modern sewer system, "clearing out…all…cesspools and garbage – vaults," paving or repaving streets with asphalt, construction of a new slaughterhouse, "a suitable and sufficient incinerating furnace" to dispose of garbage, an extensive dredging campaign aimed at the marshes surrounding Havana, and, finally, a new power plant sufficient to run the new sewer system and "for propelling the machinery of the *abattoir*."[58] The program of reforms, Waring argued, should be implemented without delay. The future of Cuba and the health of the United States depended on it. "Would it not be wise," he wrote,

> to accept at once the fact that we are confronted with a danger compared with which war is insignificant, and to proceed and conquer it while we may? We cannot afford to wait until we have fed it and strengthened it with the lives of our own people. The necessary reforms will call for costly work, even now; but every month's delay will make them more costly and more imperative.[59]

[57]G. Everett Hill, "Colonel Waring on the Sanitation of Havana." *The Forum* 26 (September 1898-February 1899): 533-536.

[58]Ibid., 539-541.

[59]Ibid., 546.

Waring's recommendations reflected the best thinking of the age and they required a forward-looking man to carry them out.[60] Brooke, unfortunately, was not that man. This is not to suggest that Brooke failed to appreciate the real threat of disease on the island. He knew that among his own officers, disease was terribly feared. In August 1898 these same men, under the command of General William Shafter, had publicly pleaded that their troops be removed from the island as quickly as possible. "This army must be at once taken out of the island of Cuba," they wrote to Shafter, "or it will perish as an army."[61] The officers were right to be terrified. In May of that year the mortality rate among American soldiers in Cuba was 0.21/1,000; by July it had climbed to 1.81/1,000 and in August the tally of dead had reached 6.14/1,000.[62] Yellow fever was so entrenched in the eastern city of Siboney that officials thought of burning the city to the ground in order to save the lives of American soldiers. By July, the torching had begun.[63]

Brooke believed that most diseases, especially yellow fever, could be controlled and perhaps conquered by an aggressive sanitation campaign. Sewers and asphalt-covered streets, incinerators and power plants were luxuries that even many American

[60]Tragically, Waring contracted yellow fever during his trip to Cuba and died less than a week after returning to New York City from the island. Fearing the disease might spread from his Second Avenue apartment, his body was cremated immediately and his home thoroughly disinfected. See Martin V. Melosi, *Garbage in the Cities: Refuse, Reform, and the Environment, 1880-1980*. (Chicago: The Doresy Press, 1981), 51-78 and *New York Times*, 30 October 1898.

[61]Officers of Cuba to General William Shafter, August 3, 1898. Philip S. Hench-Walter Reed Yellow Fever Collection. Historical Collections and Services. Claude Moore Health Sciences Library. University of Virginia. Charlottesville, Virginia. Box 66, Folder 12. (Hereafter HRC).

[62]Mary C. Gillette, *The Army Medical Department, 1865-1917*. Army Historical Series. ed. Jeffrey J. Clarke (Washington, D.C.: Center for Military History, 1995), 150.

[63]Ibid., 153.

cities lacked.[64] What Havana and Cuba's other filthy cities needed was a thorough scouring.

In nearly every major city on the island, local men were drafted to help remove garbage, animal carcasses, and, in some very tragic cases, corpses off streets and alleyways. In Cárdenas, where James Wilson found a "wretched sanitary condition," sanitary inspectors were appointed by the Military Governor and sent out into the streets to organize a general sanitation campaign. By late February 1899, neighboring Matanzas had been cleaned and was "considered as healthy as any [city] on the Island."[65] The success of the campaign was clear immediately. Deaths in Cárdenas fell from 3,112 in 1897 to 2,132 in 1898. In Matanzas, a total of 6,729 deaths in 1897 had dropped to just under 6,000 the following year. The numbers were still well above the average annual number of deaths in these cities before the war, but the improvement was evident.[66]

In Havana, where Brooke directed the lion's share of the island's sanitation budget, the results of the clean-up were almost immediately favorable. William Ludlow could barely hide his pride in the capital city's transformation. Havana had been turned from "a terror to other cities doing business with it," to a model of tropical salubriousness, protecting itself from threats of yellow fever in the United States, Mexico, and even other Cuban ports. Yellow fever, he claimed with a brashness inspired

[64]Brooke was not alone in his view. Some of the leading and otherwise progressive members of the American military's officer corps rejected the construction of new sewer systems as too costly and beyond the mandate of the military government. See Wilson, *Report on Matanzas*, 25.

[65]Ibid., 24, 27.

[66]From 1889 to 1893 the annual average number of deaths in Cardenas and Matanzas was 695 and 1,263, respectively. Laird W. Bergad, *Cuban Rural Society in the Nineteenth Century: The Social and Economic History of Monoculture in Matanzas*. (Princeton: Princeton University Press, 1990), 308.

by the science of the day, had been beaten by the "street broom and the disinfection spray pump."[67]

For all the success that Brooke's sanitation drive had elsewhere in Cuba, nowhere was the campaign more furious than in Santiago de Cuba. The presence of thousands of soldiers in the city under the command of Leonard Wood meant that American military authorities began an aggressive sanitation campaign even before Brooke took command of the island; the operation resembled a war-time offensive. Wood divided Santiago into five districts, each led by a Cuban physician working under contract for the United States Army. Under the direction of these doctors labored "inspectors of sewers, streets, houses and dispensaries, with 100 street cleaners." The result of Wood's work was remarkable. "Five hundred cubic yards of refuse are burned daily," the *New York Times* reported, "disinfectants are distributed wherever they are needed, and a heavy fine is imposed for uncleanliness and failure to report unhealthful conditions and death."[68]

Door-to-door inspections were common and while most *santiagueros* bore the intrusion into their private space well, there were some who occasionally required strong-armed cajoling. Wood's chief sanitary officer in Santiago, George Barbour, was a Kentucky-born veteran of Colonel Waring's street-cleaning campaign in New York City and, in the words of one writer, "peppery and not given over to debating."[69] When two *santiaguero* landlords protested his methods, Barbour had them arrested. Disinfection

[67]William Ludlow, "Special Report of Brigadier General William Ludlow, U.S.V., Commanding the Department of Havana " in Brooke, *Civil Report of Major General John R. Brooke*, 7-8. The death rate in Havana declined by nearly two-thirds during Brooke's tenure from 93.03/1,000 in 1898 to 33.67/1,000 in 1899. See War Department. *Annual Report of the Military Governor of Cuba on Civil Affairs*. volume 1, part 2 (Washington, Government Printing Office, 1901), 240.

[68]*New York Times*. 13 September 1898.

[69]Hagedorn, *Leonard Wood*, 190.

teams were known to smash down the doors of reluctant homeowners. Not even Santiago's "respectable citizens" were spared the humiliation of a public dressing-down when they chose to ignore Wood's new regulations for disposing of garbage.[70] Dave Hughes, a fellow Rough Rider, explained Wood's drive for cleanliness best, "when Wood gets through," he said, "the flies'll starve to death in Santiago."[71]

By various measures, the U.S.-led sanitation campaign in Cuba was a success. Across the island garbage was collected and disposed of regularly. Streets were cleaned. Thousands of houses and other buildings were disinfected. The total number of monthly deaths in Havana declined 58 percent from a high of 1,260 in January to 534 in December. The toll of dead from widely feared diseases such as typhoid fever, malaria and tuberculosis declined significantly.[72] Yet despite these successes, the one disease Americans and Cubans feared most, yellow fever, failed to yield to brooms and disinfectants. Early in 1899, at the height of the sanitation campaign, the number of deaths from yellow fever declined from wartime highs. In February and May not one person died of the disease in Havana; Brooke and his staff believed they had conquered it. But by the summer the numbers of dead were again climbing. Between June and December, the mortality in Havana caused by yellow fever increased 221 percent.

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[70]Ibid., 190.

[71]As cited in Ibid., 191. It should be noted that Wood's aggressive posture vis-à-vis sanitation in Santiago was also evident in his treatment of banditry in the areas surrounding the city. Among American officials in Cuba there was concern that Wood had permitted extra-judicial killings of suspected Cuban bandits—many of whom were former members of the Cuban insurgent army. See Pérez, Jr. *Cuba Between Empires*, 258.

[72]*Annual Reports of the War Department. Report of the Military Governor of Cuba on Civil Affairs.* Volume 1 Part 2, (Washington: Government Printing Office, 1901), 297.

Feeding starving Cubans had proved much easier than ridding Cuba of yellow fever. It was becoming clearer to American officials on the island that even a vigorous sanitation effort could not stem the spread of the disease. New ideas for attacking yellow fever were needed and Brooke would have no part in crafting them. As a new century dawned in Cuba the old general was eased out of his command and replaced by Leonard Wood, the young "armed progressive" who had commanded Santiago.

Wood had coveted the military governorship of Cuba almost as soon as Brooke took charge of the island. Exploiting his deep friendships with Theodore Roosevelt and William McKinley, Wood complained early on to friends and political allies about Brooke's lack of leadership and vision.[73] He protested to Roosevelt that under Brooke "no single reform has been initiated [in Cuba] which amounts to anything."[74] When Brooke ordered that revenues from each of the island's provincial departments be deposited in a central Cuban treasury, Wood opposed him arguing that the *santiagueros* jealously guarded "local control of affairs" particularly the collection and allocation of revenues.[75] The rebuff angered Brooke. He chastised Wood directly and complained to his own superiors in Washington that the young commander's criticisms and penchant to act independently bordered on insubordination.

The differences between Brooke and Wood were not lost on American officials in Washington. As noted previously, Brooke eschewed almost any activism on the part of the military government, while Wood was an "energetic executor" of progressive

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[73]Warren Zimmerman, *First Great Triumph: How Five Americans Made Their Country a World Power*. (New York: Farrar, Straus and Giroux, 2002), 372.

[74]Wood as cited in Gillette, "Workshop for American Progressivism," 413.

[75]Lane, *Armed Progressive*, 74.

political, social and economic reforms on the island.[76] It is not surprising that Wood's forward-looking approach to Cuba's management combined with his political acumen earned him the support of powerful government officials in Washington who were eager to provide some direction to an otherwise directionless occupation.

As Cubans welcomed 1900, Leonard Wood now headed the U.S. military government on the island and the nature and scope of the occupation entered a new and dynamic phase. His campaign against yellow fever would not only rid the island and its U.S. neighbor of a great menace, but it would also dominate public health debates on the island and expose significant tensions between American officials and their Cuban counterparts.

[76]See Zimmerman, *The First Great Triumph*, 373.

Chapter 2:

Tuberculosis in an Island of Fevers

The U.S. military government in Cuba faced significant challenges in its efforts to reconstruct Cuba after the war ended. Rebuilding the island's economy and laying the foundations for an independent and democratic Cuban government were daunting tasks. Three years of war had laid waste to the island's economy. Cuba's sugar industry—its economic engine—was devastated by the war. The island needed capital to resuscitate its dormant mills or rebuild destroyed ones. And once production was revived, Cuban planters would need to find open and accessible markets where they could market their product.

Perhaps more challenging was the task of turning an island that had known little but monarchy and colonialism over its four hundred-year history into a model of democratic practice and governance. The deaths of José Martí in 1895, Antonio Maceo in 1896, and Calixto García in 1898 denied the nascent Cuban republic three of its most eloquent and popular leaders just when the exigencies of the island's political life most demanded their talents. While the island had flirted briefly with autonomous rule during the twilight years of Spanish colonial rule, Cuba lacked many of the keystones of republican self-rule.[1] The Cuban press had been largely silenced by Spanish authorities at the height of the revolutionary insurgency. Political parties were weak and disjointed. The most active Cuban political institution—the *Partido Revolucionario Cubano*—had

[1]Attempts on the part of Cubans to secure greater autonomy from the Spanish crown were a leitmotif of the nineteenth century. During the last years of Spanish rule, arguments in favor of *autonomismo* were most clearly articulated by the Cuban Partido Liberal Autonomista. For a review of recent work on the PLA see Luis Miguel García Mora, "La Fuerza de la Palabra: Al Autonomismo en Cuba en el Último Tercio del Siglo XIX." *Revista de Indias* 61:223 (2001): 715-748.

many of its members, not on the island, but in the exile communities of U.S. cities such as New York, Key West and Tampa. Indeed, the most significant native-led political force in Cuba was the *ejercito libertador*, a military body whose significant numbers of black Cuban *mambises* and mixed-race *güajiros* made it incompatible—in the American mind, at least—with efforts to establish a modern state. Cuba's political structures were anemic and few Americans believed that the island's native inhabitants had either the intellectual wherewithal or the disposition of character to embrace democratic virtues, let alone democratic practices, without significant tutelage from U.S. authorities. Moreover, in a remarkable turnabout, the United States had sought to preserve the privileged position of Spaniards in Cuba in the war's aftermath arguing that they were critical to the long-term success of the Cuban state. This earned the U.S. military authorities the enmity and suspicion of many Cuban revolutionaries.

Yet, as much as postwar Cuba faced various and serious challenges, it also offered no shortage of opportunities. Investors flocked to the island in search of business prospects in real estate and sugar. Merchants in U.S. port cities with long histories of trade with Cuba sought to reinforce or expand those ties now that Americans occupied the most important positions of authority on the island. Protestant missionaries—whether Baptists or Quakers—looked at the island and its inhabitants as ripe for evangelization especially given the Roman Catholic hierarchy's steadfast support for the Spanish cause and the estrangement that many Cubans felt from the Church.

For defenders of U.S. imperial ambitions, Cuba also provided an opportunity to establish a new framework of empire which, unlike the colonial empires of European

nations, was to be "an empire of liberty."[2] Success in Cuba, many Americans argued, would be the surest proof of the manifest exceptionalism of the United States itself. As President McKinley had explained in his State of the Union address just one week before Leonard Wood formally assumed control of Cuba:

> This nation has assumed before the world a grave responsibility for the future good government of Cuba. We have accepted a trust the fulfillment of which calls for the sternest integrity of purpose and the exercise of the highest wisdom. The new Cuba yet to arise from the ashes of the past must needs [sic] be bound to us by ties of singular intimacy and strength if its enduring welfare is to be assured. Whether those ties shall be organic or conventional, the destinies of Cuba are in some rightful form and manner irrevocably linked with our own, but how and how far is for the future to determine in the ripeness of events. Whatever be the outcome, we must see to it that free Cuba be a reality, not a name, a perfect entity, not a hasty experiment bearing within itself the elements of failure. Our mission, to accomplish which we took up the wager of battle, is not to be fulfilled by turning adrift any loosely framed commonwealth to face the vicissitudes which too often attend weaker States whose natural wealth and abundant resources are offset by the incongruities of their political organization and the recurring occasions for internal rivalries to sap their strength and dissipate their energies. The greatest blessing which can come to Cuba is the restoration of her agricultural and industrial prosperity, which will give employment to idle men and re-establish the pursuits of peace. This is her chief and immediate need.[3]

To restore Cuba's "agricultural and industrial prosperity," Wood's colleagues and supporters in Washington expected him to upend the policies of the listless administration of General John Brooke. In its stead they desired him to create an activist government that would show the United States to be a new breed of colonial power armed with the tools of modern management and administration, and guided by a global mission to promote democracy, progress

[2]The idea of the United States creating an "empire of liberty" was debated as early as the 18th century. The phrase was coined by Thomas Jefferson. See letter of Thomas Jefferson to George Rogers Clark, December 25, 1780 in *The Papers of Thomas Jefferson Digital Edition*, ed. Barbara B. Oberg and J. Jefferson Looney. Charlottesville: University of Virginia Press, Rotunda, 2008. [Electronic Resource] http://rotunda.upress.virginia.edu/founders/TSJN-01-04-02-0295 [accessed 13 Apr 2012].

and trade. Perhaps nowhere was Wood expected to demonstrate the benevolent leadership of the United States more than in the realm of public health.

U.S. authorities in Cuba regarded public health as essential to the success of their work on the island. Without a healthy citizenry Cuba's economic and political prospects were dim. A healthy labor force was needed to work in the island's recovering agricultural sectors and the island itself needed to be turned into a place where it was safe for foreigners—whether American businessmen or Spanish immigrants—to do business and settle. U.S. administrators knew that sanitation, hygiene and disease control were necessary predicates to setting Cuba on the path to successful nationhood.

The many diseases that afflicted the island—yellow fever, malaria, enteritis, tuberculosis—offered numerous opportunities to showcase the ability of U.S. administrators to employ modern methods of disease control and treatment. But the struggle against diseases on the island also revealed the ways in which the occupation of Cuba often centered more on the priorities of U.S. administrators than on the needs and wishes of the newly-liberated Cubans. Nowhere was this clearer than in the disparate approaches of the military government to yellow fever and tuberculosis.

In the previous chapter I examined how U.S. authorities, after providing relief to the starving Cuban masses, launched a campaign of sanitation and disinfection aimed at yellow fever. This campaign reflected concerns that yellow fever posed not only on the island but to the United States as well. Yellow fever dominated debates over public health in Cuba throughout the occupation of 1899-1902, and most especially during Wood's tenure as Military Governor. In fact, the successful identification of the vector of

[3]William McKinley, *State of the Union Address*, December 5, 1899. [Electronic Resource] http://www.presidency.ucsb.edu/ws/index.php?pid=29540#axzz1anQqwILF. [Accessed 31 March 2013]

transmission of yellow fever and the even more successful campaign to eradicate the disease on the island were, and remained for many decades after the end of the occupation, arguably the most notable accomplishments of the Wood years in Cuba. Defeating yellow fever in Cuba was proof, many contemporary and later observers argued, of the effectiveness of U.S. colonial administration as much as of the benevolent nature of the American imperial project.[4]

Yet, in contrast to the success of the campaign against yellow fever, the United States struggled to successfully challenge the debilitation and death caused by tuberculosis. In fact, while yellow fever slowly succumbed to sanitation and science, tuberculosis seemed, after an initial decline, to strengthen its hold on the island, especially in those areas of Havana where inadequate housing and faulty sanitation served as breeding grounds for the tubercle bacilli. U.S. administrators preparing to leave Cuba in May 1902 could certainly point with pride to the nearly dozen months that had passed on the island without a case of yellow fever being reported. At the same time, however, the number of deaths and the death rate attributable to tuberculosis climbed. The military government's response to tuberculosis in Cuba lacked much of the rigor and urgency of the campaign against yellow fever. In fact, the treatment and control of tuberculosis in Cuba was, by any measure, a secondary concern to U.S. authorities.

This chapter offers a juxtaposition of the American responses to yellow fever and tuberculosis in Cuban during the occupation. It begins by examining two of the key

[4]William Crawford Gorgas, the Chief Sanitary Officer in Cuba during the whole of Leonard Wood's tenure as Military Governor of Cuba, wrote boastfully at the end of the occupation that the American Army "established the fact that yellow fever is only transmitted by a certain species of mosquito, a discovery that, in its power for saving human life, is only excelled by Jenner's great discovery, and as time goes on, it will stand in the same class as that great boon to mankind." William Crawford Gorgas, "Report of W.C. Gorgas, Major, Surgeon U.S. Army, Chief Sanitary Officer, 1901" in Leonard Wood,

factors that informed the American-led campaign against yellow fever in Cuba during the American occupation of the island, economic reconstruction and immigration. The military government's focus on yellow fever was guided by the belief that Cuba's economic stability depended on its reincorporation into the global sugar economy and that yellow fever threatened that process. Secondarily, U.S. authorities were committed to promoting Spanish immigration to Cuba as a way of providing the nascent republic with a labor force to meet the needs of the sugar industry and to provide a politically stable—read, white—citizenry upon which to build the new Cuban state. Yellow fever, which disproportionately affected Spanish immigrants in Cuba, was regarded as an obstacle to recruiting Spanish immigrants to Cuba and successfully turning them into an important part of the island's future. Next, there is an analysis of the anti-yellow fever campaign instituted under the governorship of Leonard Wood including a brief recounting of the struggle of American and Cuban scientists to solve, once and for all, the puzzle of yellow fever's vector of transmission. Lastly, the chapter offers an examination of the ways in which the U.S. public health officials in Cuba addressed the deadly challenge of tuberculosis; especially how American authorities confronted the disease in a way that reflected not only the public health practices of the day but also their own priorities and ideas regarding the disease.

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The military government of Cuba between 1899 and 1902 had two principal objectives for the island: rebuild its economic infrastructure and set the foundations for constitutional republican rule. The health of the island's inhabitants had a direct impact

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Civil Report of Brigadier General Leonard Wood, the Military Governor of Cuba (Washington: Government Printing Office, 1902), 12.

on both of these goals. U.S. officials expressed wide agreement that there was no single more important health issue on the island than the seemingly intractable menace of yellow fever. In the view of many Americans—most especially that of Governor Leonard Wood—yellow fever undermined the occupation authorities' efforts to restart Cuban trade and establish a stable and, in their minds, "civilized" national government.

Rebuilding Cuba's economic infrastructure depended in large measure on reviving the island's export trade and no one product was more valuable to Cuba than sugar. In 1894, Cuba produced just over 1.1 million tons of sugar, representing nearly 14 percent of total global production. Four years later production had fallen to approximately 259,000 tons or 3.4 percent of global sugar output.[5] War, in short, had virtually destroyed the Cuban sugar economy and deprived the island of its economic lifeline.

Not surprisingly, the Wood administration was eager to rebuild Cuba's sugar industry and help it reclaim its prominence in the global market.[6] But reassembling the Cuban sugar industry was a complicated matter. Two factors were of paramount importance: rebuilding the infrastructure of sugar production and gaining access to foreign markets.

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[5]The 1898 sugar production total was a nearly fifty-year low for Cuba's sugar industry. In 1849 the island produced some 239,000 tons of sugar, which, while small compared to late nineteenth century production totals, still accounted for 20 percent of total global sugar production. See Manuel Moreno Fraginals, El Ingenio., vol 3. (La Habana: Editorial Ciencias Sociales, 1978), 35-40.

[6]Louis Pérez, Jr. has argued that Wood and other Americans "recognized that hegemonial relations with Cuba depended on reconstructing the sugar system." That may well be the case and given the annexationist impulse evident in the Wood administration it would be difficult to ignore that a healthy, thriving Cuban economy was "key to annexationist calculations." Nevertheless, independent of American imperial motives, sugar cane was the single most valuable product that Cuba produced and failure to take advantage of international demand for the product would have denied the island a quick and steady source of revenue. See Pérez, Jr. *Cuba Between Empires*, 348.

Rebuilding Cuba's sugar plantations and mills was a complicated challenge. Many Cuban planters were able to take advantage of the post-war economic conditions to rebuild plantations or purchase new lands where they might expand. But they were not alone in seeing the opportunities in Cuba. In the aftermath of the war, investors from the United States streamed into the island. These investors "purchased existing sugar mills and built new ones."[7] They expanded production into the eastern end of the island and, thanks to the use of new technology, were able to increase yields. While Cubans continued to own the majority of mills on the island, these American-owned and managed mills would eventually produce substantial amounts of sugar for the international market and in this way contribute to the economic development of post-war Cuba.

Yet no amount of new investment could save Cuba's sugar industry, however, if the island could not trade with the world and especially with the United States. In 1894, Cuba exported more than one million tons of sugar to the United States; nearly 50 times the amount of sugar it exported to Spain.[8] It was not surprising that most Cuban sugar ended up in the U.S. market given both proximity and the constantly rising sugar consumption in the United States.[9] But by the late nineteenth century Cuban sugar cane producers were confronting increased competition from U.S. sugar-beet manufacturers. Sugar beet production in the United States skyrocketed in the last decade of the

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[7]César Ayala, *American Sugar Kingdom: The Plantation Economy of the Spanish Caribbean, 1898-1934*. (Chapel Hill: University of North Carolina Press, 1999), 78.

[8]Moreno Fraginals, *El Ingenio*, vol 3, 72.

[9]Sugar consumption in the United States soared from 30.5 lbs. per capita in 1860 to 65.2 lbs. per capita in 1900. Ayala, *American Sugar Kingdom*, 30.

nineteenth century and continued to rise during the years of the U.S. occupation.10 Political pressure from beet growers in California, Utah, and other western states and territories led to increasingly protectionist measures that placed Cuba, and indeed many other tropical cane producers, at a distinct disadvantage vis-à-vis the U.S. market.

From Wood's perspective, the protectionist measures designed to safeguard beet growers compromised his plans to rebuild Cuba's sugar industry. If the United States were truly committed to the cause of Cuban stability and progress, Wood argued, it would have to make adjustments to its trade policy on Cuban sugar, particularly as it related to tariffs. "Cuba cannot expect free sugar," Wood wrote in 1902, "but she can expect with all reason and justice that a liberal reduction will be made on the duties which her sugars pay on entering the United States."[11]

Yet before Wood could ask for preferential status for Cuban sugar he would need to prove that the island's sugar trade infrastructure, namely its ships and cargo, was free of disease. In the U.S. South, where for a century Havana was singled out as the breeding ground for devastating yellow fever epidemics that swept into New Orleans and north along the banks of the Mississippi River, the issue of increased trade with Cuba was as much a matter of public health as of economics.

In the decade before the war with Spain, sanitary and medical authorities, along with public health boards and business groups in the United States, had been complaining that the threat posed to commerce and communities by Cuban-bred yellow fever

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[10]During the 1899-1900 harvest, sugar beet production in the United States registered at 163 million pounds of sugar. By 1902-1903, that number soared to 438 million pounds of sugar with California and Michigan account for more than one-half of total U.S. production. See F.W. Taussig, "Beet Sugar and the Tariff." *The Quarterly Journal of Economics* 26:2 (February 1912): 193.

[11]Leonard Wood, "Reasons for Reciprocity Between the United States and Cuba." *The Outlook* 70:3 (January 18, 1902): 169.

demanded decisive action by Washington. In 1890, for example, the Chicago Herald laid out three possible options for removing "an eternal pest and nuisance from right under our noses:" buy Cuba and clean it, annex Cuba and clean it, or "insist on Spain getting out its scrubbing brush and cleaning it."[12] In the years immediately preceding the outbreak of the Cuban War for Independence, medical authorities in the U.S. had already begun to view any military campaign against Spain as an effort to rid the region of the disease. In late 1896, Surgeon General Walter Wyman introduced a resolution at the American Public Health Association conference in Buffalo, New York calling yellow fever the "most subtle and dangerous of all diseases" and calling for international pressure on "offending seaport[s]" to employ the sanitary measures necessary to prevent its spread. Only concerted action by all nations, Wyman's resolution suggested, could "remove this obstruction to commercial intercourse and menace to human life."[13] In 1897, as yellow fever again invaded the Southern States, the rhetoric against continued Spanish rule in Cuba became intertwined with arguments about yellow fever. "The extirpation of Spanish rule in Cuba," the *New York World* declared in stark language, "is a sanitary measure essential to the safety of the United States."14 Thus, in the wake of U.S. intervention in Cuba, Southerners were hopeful that the United States Army would finally rid the island, and by extension Southern ports, of yellow fever. "When we have

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[12]*Chicago Herald* as cited in Massachusetts Medical Society, *Boston Medical and Surgical Journal* 122:3 (January 16, 1890): 68.

[13]The full text of the resolution is reprinted in Walter Wyman, "Some Lessons of the Yellow Fever Epidemic" *The Forum* 24 (November 1897): 285. See also Mariola Espinosa, "The Threat from Havana: Southern Public Health, Yellow Fever, and the U.S. Intervention in the Cuban Struggle for Independence, 1878-1898." *Journal of Southern History* 72:3 (August, 2006): 558.

cleaned up Cuba we will have no more yellow fever," Charles Dabney of the University of Tennessee wrote to a friend in Louisiana late in 1898, "and you poor people will be rid of this curse."[15] Against this background of long-standing fears of a diseased and menacing Cuba, it is clear that the island's all-important trade with the United States would never flourish as long as American officials in port-cities along the Gulf of Mexico and the Atlantic coast feared contamination with yellow fever. In short, Cuba's sugar industry could not be revived while yellow fever threatened the ports where the island's sugar entered the U.S. market.

In addition to the impact that yellow fever had on efforts to reestablish Cuba's sugar industry, the disease also threatened to undermine Wood's goal of creating a stable and modern government on the island. In the years leading up to the invasion of Cuba by the United States, Americans debated whether the Cubans were prepared for the challenges of self-rule. On the one hand were those who thought that the Cubans, despite centuries of Spanish misrule and abuse, could, under American tutelage, learn the habits of democracy. Thomas Alvord, the former Lieutenant Governor of New York, was in this camp. "If the Cubans are barbarians, fond of political anarchy, and incapable of living like civilized people," Alvord wrote in 1897, "Spain alone is responsible."[16] Yet, despite the centuries of Spanish brutality and negligence, the Cubans, Alvord argued, were committed to create a free and democratic republic on their island. They would

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[14] *New York World*, August 8, 1897 as cited in Mariola Espinosa, "Epidemic Invasions: Yellow Fever, Public Health, & the Limits of Cuban Independence, 1878 through the early Republic." Ph.D. Dissertation, University of North Carolina Chapel Hill, 2003, 41.

[15] As cited in Margaret Humphreys, *Yellow Fever in the South*. (New Brunswick: Rutgers University Press, 1992; Baltimore: Johns Hopkins University Press, 1999), 146.

[16] Thomas G. Alvord, "Is the Cuban Capable of Self-Government." *The Forum* 24 (September 1897): 120.

avoid the pitfalls that condemned the other Spanish-American republics to decades of internecine conflict and economic despair. In short, he wrote:

> The Cubans cannot rule their country as badly as the Spaniards have ruled it. Their readiness to absorb and make use of knowledge, their admiration for the United States…and their love of peace, liberty and progress, augur well for the rapid advancement of their country in material prosperity under the flag of a true republic, vigilantly maintained.[17]

On the other hand, were those who openly doubted the Cuban's capacity for republicanism. In Washington and in Havana serious questions were raised by U.S. civil and military authorities as to whether native Cubans lacked the virtue and experience necessary to succeed as leaders of an independent republic. The Cubans were depicted as violent and explosive, indolent and ungrateful. "They are a wretched mongrel lot," the *New York Evening Post* advised its readers. "[They] are ungrateful to the last degree for the condescension of the United States in coming to their relief."[18]

In large measure the anxiety felt by U.S. military authorities over the Cubans' preparedness for republican rule turned on the issue of race. In the months leading up to the intervention, most Americans had been treated to stories favorably comparing the Cuban *insurrectos* to the rebellious colonists who spearheaded the American Revolution.[19] In addition, the American press, with the assistance of a politically-astute Cuban exile community in New York, had led many Americans to believe that the Cuban insurgent army was composed largely of white Cubans. The reality, as U.S. soldiers

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[17]Ibid., 128.

[18]*New York Evening Post*, July 21, 1898, p. 2 as cited in Louis A. Pérez, Jr. "Incurring a Debt of Gratitude: 1898 and the Moral Sources of United States Hegemony in Cuba." *American Historical Review* 104:2 (April 1999): 365.

arriving on the island in 1898 quickly discovered, was something quite different than the portrait offered to readers of William Randolph Hearst's *World* or the *New York Tribune*.[20] The mass of the Cuban insurgents that had confronted, and in many cases bested the Spanish military since 1895, was composed of legions of poor, ill-trained, and largely politically-uninitiated Cuban blacks and *mulatos*. If in the months preceding the intervention of the United States in Cuba, the Cubans had been favorably compared to the American Founding Fathers, by the time American soldiers had settled matters with Spain on Cuba's battlefields, the Cubans were viewed as almost inherently incapable of managing their own independence. Gen. William Shafter provided the most striking assessment of the Cubans when he offered derisively that they were "no more fit for self-government than gunpowder is for hell."[21]

The thirty years of intermittent conflict that preceded the final push for Cuban independence had altered, in ways large and small, ideas of race and racism on the island. As Ada Ferrer has shown, while racial tension and discrimination were common features of life in the *ejército libertador*, it is also true that the years of conflict and the joint sacrifice of black and white Cubans in the struggle against Spain had opened spaces for blacks to demand incorporation into newly-republican Cuba. The war against Spain had mobilized many black Cubans who believed that the insurgency augured a fundamental change in social and political relations between the races on the island. Freedom from

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[19]For an example of this see: Juan Guiteras, Rafael María Merchán, and Gonzalo de Quesada, *Free Cuba: her oppression, struggle for liberty, history, and present condition*. (Publisher's Union, 1897), 418-419.

[20]On the role of the American press in the months leading to the American intervention of 1898, see Joseph E. Wisan, *The Cuban Crisis as Reflected in the New York Press (1895-1898)*. (New York: Octagon Press, 1965) and David Nasaw, *The Chief: The Life of William Randolph Hearst*. (Boston and New York: Houghton Mifflin Company, 2000), 125-142.

[21]Gen. William Shafter as cited in Pérez, Jr., *Cuba Between Empires*, 218.

Spain, these black *insurrectos* believed, would mean, to borrow José Martí's famous line, a Cuba "*con todos, y para el bien de todos*."[22] "Though the army…respected and reproduced certain [racial] privileges," Ferrer argued, "black soldiers who joined that army challenged those privileges, using the power and sanction of nationalist language to voice their attack."[23]

The U.S. authorities in post-war Cuba largely ignored the success of black soldiers in restructuring racial norms that had occurred during the war. In fact, they argued regularly that Cuba's future success depended in large measure on marginalizing the political power of the island's blacks. Wood himself suggested as much by raising the terrifying and politically-powerful specter that Cuba might follow the tortured path of neighboring Haiti. Allowing the "establishment of another Haitian Republic in the West Indies," Wood warned, "would be a serious mistake."[24] The future of Cuba lay not with the descendants of the island's slaves but with Cuba's remaining Spaniards and the "better class" (i.e. white) of Cubans.[25]

22"With all and for the good of all." The phrase is taken from José Martí's speech to the Club Ignacio Agramonte in Tampa, Florida on November 26, 1891. [Electronic Resource] See http://jose-marti.org/jose_marti/obras/discursos/1891nov26/1891nov26-01.htm [accessed 13 April 2012].

[23]Ada Ferrer, *Insurgent Cuba: Race, Nation, and Revolution, 1868-1898*. (Chapel Hill: University of North Carolina Press, 1999), 164. Of course, the *ejercito libertador* was not without profound racial discrimination. Black Cubans were regularly limited to positions in the lower rungs of the military hierarchy and advancement into the officer corps was difficult. Additionally, in an effort to deny the Spanish crown the ability to cast the insurgency as a black uprising, something that had made Cubans elites equivocate in their support for earlier insurgencies, the Cuban rebel leadership had actively sought to promote a dual strategy that both advanced ideas of Cuban racial unity while also limiting the power of black officers and soldiers. See also: Ferrer, *Insurgent Cuba*, 163

[24]*New York Times,* 24 June 1899, 1.

[25]A.P. Berry as cited in Pérez, Jr., *Cuba Between Empires*, 308.

Working in concert with the more conservative elements of Cuban society, the Wood administration acted cautiously but firmly to protect Spanish businesses and privileges on the island in an effort to ensure that Spaniards would not flee Cuba *en masse*. More importantly, however, the administration actively encouraged Spanish immigration to the island. "The solution of both the social and economic problems in the Island of Cuba," Wood argued, "depends principally on endowing it with a population of 8 or 10 millions of white inhabitants."[26]

For decades, Spanish immigrants had sailed across the Atlantic in search of economic opportunities. By 1900 nearly 130,000 Spaniards were living in Cuba. They were found in every corner of the island; just under a quarter were property-holders.[27] The economic ambition of generally young, male, and unmarried Spanish immigrants seemed to dovetail perfectly with the obsession of Cuban and American authorities of securing a ready source of labor while solidifying the political and economic power of whites on the island. Yellow fever threatened this balance. The disproportionate number of white, Spanish immigrants who succumbed to the disease jeopardized American and Cuban elite efforts to attract immigrants who could help create a "healthy, self-respecting people."[28]

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[26]Wood as cited in Alejandro de la Fuente, *A Nation for All: Race, Inequality, and Politics in Twentieth Century Cuba*. (Chapel Hill and London: University of North Carolina Press, 2001), 100.

[27]Nearly seventy percent of these immigrants came from just three regions of Spain: Galicia, Asturias, and the Canary Islands. See Fe Iglesias García, "Características de la inmigración española en Cuba, 1904-1930" in Nicolas Sánchez Albornoz, ed. *Españoles Hacia América: La Emigración en Masa, 1880-1930.* (Madrid: Alianza América, 1988, 1995): 277-278. Not all of these immigrants were laborers, of course.

[28]Wood, "Reasons for Reciprocity," 171.

Table 2.1: Yellow Fever Cases and Deaths, Havana, 1900						
Nationality	Cases Male	Cases Female	Death Male	Deaths Female	Total Cases	Total Deaths
Spain	858	62	226	16	920	242
United States	216	19	34	1	235	35
Cuba	8	1	3	0	9	3
Other	71	9	24	6	80	30
Total	1,153	91	287	23	1,244	310

As Table 2.1 demonstrates, in 1900 Spaniards accounted for 74 percent of all reported cases of yellow fever and 78 percent of all deaths attributed to the disease. Americans on the island accounted for another 19 percent of cases reported and 11 percent of deaths. In short, Spaniards and Americans together accounted for more than 90 percent of all cases of yellow fever reported in Havana and just under 90 percent of all deaths from the disease. The arrival of thousands of non-immune Spanish immigrants would provide new hosts for the virus. Yellow fever was, in the eyes of the U.S. authorities, a significant obstacle to an increased presence of Spaniards on the island; a presence that, in the minds of Wood and his aides, was indispensible to the island's long-term stability and success.[29]

Thus, the reestablishment of Cuba's sugar trade and the expansion of Spanish immigration to the island hinged on ridding Cuba of yellow fever. Not surprisingly, Wood wasted little time in bringing the considerable resources at his disposal to bear on the challenge posed by the disease. In an innovative operation that combined a military-

[29]The impact of yellow fever on European immigration to the island was already a concern in the 1870s. See Jose G. Amador: "Redeeming the Tropics:" Public Health and National Identity in Cuba, Puerto Rico and Brazil, 1890-1940. PhD. Dissertation (2008), 63-64. For a comparative perspective, Sidney Chaloub has addressed the nexus between yellow fever and immigration in Brazil in the nineteenth century. He cites the Brazilian Doctor Jose Pereira Lego describing yellow fever as "the terrifying ghost of emigration to Brazil." See Sidney Chaloub, "The Politics of Disease Control: Yellow Fever and Race in Nineteenth Century Rio de Janeiro." *Journal of Latin American Studies* 25:3 (October 1993): 458-463.

like campaign of sanitation and disinfection with laboratory research, Wood would oversee the eventual defeat of yellow fever.

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When U.S. forces arrived in Cuba in 1898, the consensus of nearly a century's worth of medical writing and opinion was that yellow fever was a filth disease. Inadequate sanitation and drainage in cities such as Havana, combined with warm tropical climates, contributed to the disease's continued endemicity and expansion. Cleaning Havana would, medical professionals in the United States argued, rid the city and its ports of yellow fever. Sanitation, disinfection, and hygiene: those were the orders of the day in the early months of the U.S. occupation of Cuba. The Cuban capital city in particular had, as indicated in the previous chapter, been cleaned and scoured by armies of Americans and Cubans soldiers and civilians. "The city," William Crawford Gorgas wrote several years later, "was as cleaned as well as it was possible to cleanse it."[30]

Of course, by the time Leonard Wood arrived in Havana, the increasing number of yellow fever deaths in the city seemed to undermine if not quite entirely disprove the accepted etiology of yellow fever. By the middle of 1900, with the failure of the sanitation campaign in Havana now obvious, Army Surgeon General George Sternberg established a commission to investigate yellow fever in Havana.[31] Sternberg was no stranger to the disease. In the aftermath of the Civil War he worked as an Army surgeon and treated infected soldiers across the United States. In 1875, while stationed at Fort

[30]William Crawford Gorgas, *Sanitation in Panama*. (New York and London: D. Appleton and Company, 1915), 5.

[31]Mariola Espinosa has written the most recent and complete account of the Havana Yellow Fever Commission of 1900 and the mosquito control campaign that followed it. See Mariola Espinosa, *Epidemic Invasions : Yellow Fever and the Limits of Cuban Independence, 1878-1930*. (Chicago: University of

Barrancas, Florida, Sternberg himself contracted the disease, requiring a long period of isolation and recovery that left him, his wife would later write, "badly discolored and disfigured."[32] A few years later, Sternberg would join Drs. Sanford Chaillé and Juan Guiterás as part of the Havana Yellow Fever Commission, travelling to the island to investigate the disease in its most feared breeding ground. Some twenty years after that historic visit to Havana, Sternberg was now enlisting a team of physicians and scientists to investigate new ways of combating yellow fever on the island.

The leader of this new commission was Walter Reed, a Virginia-born doctor and bacteriologist who had started researching yellow fever in 1897 as part of an earlier commission also convened by Sternberg, to investigate the claims of the Italian bacteriologist Giusseppe Sanarelli that yellow fever was caused by the *bacillus icteroides*.[33] Reed's partner in these investigations was James Carroll. An Englishman reared in Canada, Carroll was Reed's subordinate at the Columbia University laboratory in Washington D.C., where the first experiments of the Sanarelli bacillus were conducted. Confronted with the persistence of yellow fever in Cuba, Sternberg ordered Reed and Carroll to head to Havana to finalize their experiments on Sanarelli's theory. Joining them were Jesse Lazear, a physician who had been conducting work on the transmission of malaria, and Arístides Agramonte, a Cuban-born and Columbia University-trained

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Chicago Press, 2009), 55-71.

[32]Martha L. Sternberg, *George Miller Sternberg: A Biography*. (Chicago: American Medical Association, 1920), 42

[33]Sanarelli's "discovery" was greeted warmly in many medical circles, not least importantly by officials of the U.S. Marine Hospital Service who argued in the summer of 1899, the bacillus was in fact the cause of yellow fever. See U.S. Marine Hospital Service, *Report of Commission of Medical Officers Detailed by Authority of the President To Investigate the Cause of Yellow Fever*. (Washington: Government Printing Office, 1899) and "The Bacillus of Yellow Fever" *British Medical Journal* (July 10, 1897): 96.

physician who worked during most of the previous decade in New York City until joining the insurgent army as a physician in 1898.

Even before arriving in Cuba, Reed and Carroll had already begun to raise doubts about Sanarelli's theory. In April 1899, the two published some preliminary results of their investigations and suggested that instead of being the primary cause of yellow fever, *bacillus icteroides* was actually a type of hog-cholera bacillus. If there were any connections between the Saranelli's discovery and yellow fever it was that the bacillus was what they termed a "secondary invader."[34] Arriving in Cuba in late June, the Commission set out to investigate Saranelli's claims by analyzing blood taken from yellow fever patients and organ samples from the cadavers of yellow fever victims. Fortuitously, the researchers arrived at the Columbia Barracks outside of Havana just when an outbreak of the disease was tearing through the neighboring town of Quemados. The results of the research conducted by the Commission were definitive; of the 18 blood cultures analyzed and the eleven autopsies conducted, no evidence of the *bacillus icteroides* could be found.[35]

The experiments conducted by Reed's Commission succeeded in eliminating Sanarelli's bacillus as the causative agent of yellow fever. This may have been a validation of Reed and Carroll's earlier work but it also left the Commission and the island's military government without a clear idea of how to confront a disease that claimed more lives with each passing month. In June 1900 there had been 19 reported

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[34]Walter Reed and James Carroll, "Bacillus Icteroides and Bacillus Choleraesuis: A Preliminary Note." *The Medical News* 74:17 (April 29, 1899): 514.

[35]Walter Reed, James Carroll, Arístides Agramonte & Jesse W. Lazear, "The Etiology of Yellow Fever: A Preliminary Note." *The Philadelphia Medical Journal* 6 (1900): 790-791.

cases of yellow fever in the Cuban capital resulting in 8 deaths, by July the number of reported cases and deaths had risen to 95 and 30, respectively.[36] The absence of any leads for determining the etiology of the disease together with a climbing mortality rate combined to make the Commission reframe its work in Cuba. Instead of trying to find what caused yellow fever, Reed and his men tried to establish how the disease was spread. In order to do this they would put to test theories that had been debated in Cuba for the previous twenty years.

In the early 1880s, Carlos J. Finlay, a Cuban-born physician, suggested that because yellow fever seemed to attack the bloodstream of its victims that the vector of transmission for the disease might well be a blood-sucking insect. In a provocative and widely-derided paper published in *The Annals of the Academy of Medical, Physical, and Natural Sciences of Havana*, Finlay identified the *Culex Fasciatus* mosquito as the likely culprit.[37] Finlay had spent the next two decades trying and failing to prove his theory.

Jesse Lazear knew of Finlay's theory of the mosquito as an agent of transmission and was intrigued by it. Thus, when Lazear was introduced to Henry Rose Carter, the recently-appointed head of the U.S. Quarantine Service in Cuba, he was especially interested to hear Carter's theory that the "extrinsic incubation" period of the disease, based on his research of the yellow fever outbreaks in the U.S. South, seemed to suggest

[36]William C. Gorgas, "Report of Vital Statistics of Havana For The Year 1900." Records of the Military Government of Cuba. U.S. National Archives, Record Group 140. NP.

[37]Finlay early on grasped the scope and strength of the opposition facing him. "I understand but too well, that nothing less than an absolutely incontrovertible demonstration will be required before the generality of my colleagues accept a theory so entirely at variance with the ideas which have until now prevailed about yellow-fever." See Carlos J. Finlay, "El mosquito hipotéticamente considerado como agente de transmisión de la fiebre amarilla," *Anales de la Real Academia de Ciencias Médicas Físicas y Naturales de la Habana* 18 (1881): 147-169, reprinted in *Medical Classics* 2 (February, 1938): 590.

a "living host" for the disease.[38] Drawing a connection between Finlay's long-discounted theories of mosquito transmission and Carter's research on extrinsic incubation, Lazear began to push for a more thorough investigation of the mosquito as the key variable in controlling the spread of yellow fever.[39] He prevailed upon Reed and Carroll to pursue the mosquito theory and this included conducting experiments on human subjects. By the first week of August, the decision was made to pursue the mosquito-transmission theory and to conduct tests on human subjects.[40] When an initial set of experiments failed to prove Finlay's theory, Lazear asked Carroll to submit himself to the experiment. This time, taking into account the incubation period first advanced by Carter, the experiment succeeded and Carroll was infected. Reed, in Washington, wrote to Carroll "congratulating him on his survival" and inquiring whether it was the mosquito that had nearly cost him his life.[41] It is unclear whether Carroll ever answered his colleague but if the Commission needed further proof of the yellow fever-mosquito nexus it would get it in short order. Jesse Lazear, the man who had largely pushed the Commission to put to

[38]Henry Rose Carter, "A Note on the Spread of Yellow Fever in Houses, Extrinsic Incubation," *Medical Record* 59 (15 June 1901) 24: 937. On Lazear's conversations with Carter see "Conversation between Drs. Carter, Thayer, and Parker," 1924, Henry Rose Carter Papers, Claude Moore Health Sciences Library, Department of Historical Collections and Services, Box 1.

[39]Several years later, Agramonte would argue that it was during a June, 1900 visit to Santa Clara that the Commission began to seriously discuss the mosquito as a vector of transmission. See Aristides Agramonte as cited in James Carroll, William Crawford Gorgas, Robert Latham Owen and Walter Drew McCaw "Yellow fever; a compilation of various publications: Results of the work of Maj. Walter Reed, Medical Corps, United States Army, and the Yellow Fever Commission." (Washington Government Printing Office, 1911), 25.

[40]Jack Edward McCallum, *Leonard Wood: Rough Rider, Surgeon, Architect of American Imperialism*. (New York: NYU Press, 2006), 169.

[41]Espinosa, *Epidemic Invasions*, 60.

test Finlay's theories contracted yellow fever at Camp Columbia in mid-September. On September 25th, he died.[42]

Reed may not have been as quick to embrace the mosquito theory as Jesse Lazear had been, but in the aftermath of Carroll's infection, and armed with the data collected by Lazear before his death, he now appealed to General Wood for help in expanding the experimentation process. Wood understood the importance of the findings that the Commission produced and approved the request. In part, this was a product of how important an obstacle yellow fever posed for the future of Cuba. But it also reflected his own personal experience as a doctor and surgeon.[43]

Wood had early and brutal experiences with disease. In August 1880 he watched his younger sister succumb to "brain fever." A few days later, his father, who had battled malaria during the Civil War, died of an "acute illness" at the family home on Cape Cod. Wood, now responsible for the care of his widowed mother and younger brother, entered Harvard Medical School in October of that year, just shy of his twentieth birthday.[44]

An average student at Harvard, Wood graduated in 1883 and began working at the Boston City Hospital. The hospital work was typical of the age but it was the house calls he made into the Boston slums that exposed him to the problems of urban health. "The slums opened their doors to him," his biographer Herman Hagedorn noted, "revealing a world of which Cape Cod never dreamed."[45] Wood himself realized how much his work in the city's slums had changed his view of the world. "I thought I knew something of

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[42] Ibid.

[43] Hagedorn, *Leonard Wood,* 28-29.

[44] Hagedorn, *Leonard Wood,* 38-39.

[45] Ibid., 38-39.

crime and poverty," he wrote a friend in 1883, "but I found that I had not even an idea of the true state of affairs…You can't imagine the misery, crime and suffering in a great city."[46] Perhaps for these reasons Wood, now the Military Governor of Cuba living in another "great city," approved Reed's request for $10,000 from the island government's treasury to undertake further experimentation on the mosquito theory of transmission. "I will give you ten thousand dollars," Wood told Reed, "and if it proves insufficient, I will give you ten thousand dollars more."[47]

By mid-October, Wood had authorized the construction of what was christened Camp Lazear. It was there that Reed, now fully committed to exploring Finlay's mosquito theory, began to recruit volunteers who would be bitten by infected mosquitoes and evaluated by the medical staff. The first batch of volunteers was drawn from the camp for non-immune Spanish immigrants at Triscornia, on the outskirts of Havana.[48] The military government created the holding camp in order to reduce the numbers of non-immune Spanish immigrants roaming the island's streets. Many of those held at Triscornia lacked job contracts or familial ties on the island. "They were," one U.S. official explained, "fatally sentenced to contract disease or to fall victims of vice and

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[46] Leonard Wood as cited in Ibid., 39.

[47] Wood as cited in McCallum, *Leonard Wood: Rough Rider, Surgeon, Architect of American Imperialism*, 170.

[48] Persons could prove their immunity by providing evidence of a previous infection or of having lived for ten years in a city where the disease was endemic. See *Annual Report of the Surgeon General of the Public Health and Marine Hospital Service of the United States for the Fiscal Year, 1902* (Washington: Government Printing Office, 1903), 322.

depravity."[49] Mariola Espinosa has explained how the Spanish were compensated for their service and why they accepted the American scientists' offer:

> Volunteers were paid one hundred dollars in gold for participating and an additional one hundred dollars if they contracted the disease. If they survived yellow fever, they would also receive a certificate of immunity. Because those who could prove their immunity to yellow fever received higher wages, this was an attractive proposition for poor Spanish immigrants.[50]

The experiments at Camp Lazear began late in November with a mix of patients including both U.S. and Spanish non-immune subjects. The early results seemed to discount the mosquito as a vector of transmission. Of the four patients bitten by infected mosquitoes between November 20th and December 4th, none contracted the disease. Reed and his colleagues had underestimated the incubation period required for the mosquito to infect a human host with yellow fever. By December 5th, however, the Commission had chosen mosquitoes whose incubation period with yellow fever had been approximately two weeks. When these mosquitoes bit the human subjects the results were almost instantaneous. Between December 5th and December 15th, the Commission had managed to secure the infection with yellow fever of four out of five non-immune subjects.[51] On December 9th, Reed wrote euphorically to his wife Emilie that one of the

[49] Frank E. Menocal, Department of Immigration of the Island of Cuba. Report of Operations from July 1, 1901 to December 31, 1901 in Leonard Wood, *Civil Report of the Military Governor, 1901* Volume 5 (Washington: Government Printing Office, 1901) p. 5.

[50]Espinosa, *Epidemic Invasions*, 62.

[51]Walter Reed, "The Propagation of Yellow Fever—Observations Based on Recent Researches" in James Carroll, Gorgas, et. al. *Yellow fever; a compilation of various publications*, 97-99.

subjects had been infected: "The case is as clear as the sun at noon-day and sustains brilliantly and conclusively our conclusions."[52]

By year's end, the evidence in favor of the mosquito as the vector of transmission was so overwhelming that Wood ordered the Chief Surgeon of the Army, Jefferson Randolph Kean, to cover all of the Army barracks in Havana with "mosquito bars" and to eliminate any breeding grounds for mosquitoes around the soldiers' quarters and military hospitals by applying kerosene to cisterns or tanks.[53] On December 21st, Wood issued an order that the same measures be applied throughout the U.S. military garrisons across the island.[54] By February 1901, Wood's government, in the person of William Crawford Gorgas, expanded the anti-mosquito campaign outside the parameters of the U.S. military establishment on the island into the streets and building of Havana. By then the sanitary authorities had reframed their mission in Cuba. Gone were the days of attempting to control yellow fever through rigorous sanitation. Instead, U.S. sanitarians devised a campaign that simultaneously targeted mosquitoes in the homes of people infected with yellow fever while destroying their breeding grounds.[55] This new strategy would rid Havana of yellow fever.

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[52]Letter from Walter Reed to Emilie Lawrence Reed, December 9th, 1900. [Electronic Resource] HRC Claude Moore Health Sciences Library. University of Virginia. Charlottesville, Virginia. http://etext.lib.virginia.edu/etcbin/fever-browse?id=02231001.

[53]In October, after the death of Lazear, Kean had already sensed the important role of the mosquito as a diseases carrier and had ordered mosquito bars and the use of petroleum in water tanks and cisterns in the Western Department of Cuba. While he explained that this was done to prevent the spread of Malaria and other "filarial infection" he added, "there are reasons to suspect that it may be connected with the transmission of yellow fever also.." Circular No. 8. Headquarters Department of Western Cuba. October 15, 1900. . [Electronic Resource] HRC Claude Moore Health Sciences Library. University of Virginia. Charlottesville, Virginia. http://etext.lib.virginia.edu/etcbin/fever-browse?id=02140001. McCallum, *Leonard Wood: Rough Rider, Surgeon, Architect of American Imperialism*, 172.

[54]Headquarters Department of Cuba, *General Order No. 6:, Havana, December 21, 1900.*

[55]Espinosa, Epidemic Invasions…p. 63-64.

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William Crawford Gorgas was a native of Alabama and scion of two of its most prominent families.[56] He had attended medical school in New York and had joined the Army as a surgeon in 1880. His work as a military surgeon took him throughout the newly-acquired territories of the American West. In 1882 he contracted yellow fever while serving at Fort Brown in Texas and survived.[57] His immunity to the disease allowed him to care for yellow fever patients at Fort Barrancas, Florida, a place notorious for regular outbreaks of the disease and where he spent much of the decade immediately preceding the war with Spain.

Gorgas arrived in Cuba in July 1898 and was assigned to provide medical care for troops in the area around Santiago de Cuba. It was there that he watched yellow fever spread through the ranks of American soldiers and officers. He was at Siboney when the city was burned to the ground to prevent the spread of the disease. After a bout of typhoid fever that forced him to return briefly to the United States, by the end of 1898 Gorgas once again found himself in Cuba, this time as a surgeon in the medical department of Havana. As noted previously, the ascension of Leonard Wood brought a new dynamism to the American military government in Cuba and for Gorgas this meant a promotion and new opportunities. In February 1900 he replaced John Davis as the Chief Sanitary Officer of Havana. From his position in Havana, Gorgas would organize and

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[56]Many of the details of Gorgas' early life are taken from James M. Phalen, "William Crawford Gorgas" in Chiefs of the Medical Department United States Army 1775-1940. Biographical sketches *Army Medical Bulletin* 52 (April 1940): 88-93.

[57]William Crawford Gorgas, *Notes on the Treatment of Yellow Fever at Las Animas Hospital, The Hospital of the Sanitary Department, During the Epidemic of 1900 at Havana, Cuba*. (Carlisle, Pennsylvania: Association of Military Surgeons, 1903), 3.

implement the anti-yellow fever campaigns that would once and for all eliminate the disease from Cuba.

The first steps in the campaign against what was now called the *aedes aegypti* mosquito were to isolate persons diagnosed with the disease and disinfect their homes. Disinfection, of course, had been the standard response of sanitary authorities in Cuba since the beginning of American military rule. But instead of the sweeping disinfection campaigns of the early months of the occupation, the campaign developed by Gorgas and his colleagues in 1901 was more specifically targeted at disease sites. Gorgas created special disinfection brigades within the sanitary service in Havana that were trained in targeted disinfection and were deployed rapidly to locations housing the sick. After quarantining the patient within his home, the brigades would begin the process of disinfection and mosquito removal. As Mariola Espinosa has explained:

> Every room in the house was sealed and fumigated for two to three hours with burning pyrethrum powder, which paralyzed the mosquitoes. The room was opened, and the mosquitoes on the floor were killed, swept up, and destroyed. All surrounding buildings were similarly fumigated in an effort to ensure that no infected mosquito escaped.[58]

It was not just the homes of the ill that were disinfected. The sanitary authorities were quick to identify places of business where the infected worked and to subject these locations to a thorough fumigation too. Businesses ranging from bakeries to tobacco factories were sealed off and decontaminated when disease-bearing mosquitoes were suspected to inhabit them.[59]

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[58]Espinosa, *Epidemic Invasions*, 64.

[59]Carlos J. Finlay, "Report of the Havana Yellow Fever Commission" January 3, 1902 in James Carroll, Gorgas, et. al. *Yellow fever; a compilation of various publications*, 227-233.

The second part of the anti-mosquito campaign led by Gorgas was substantially larger and more complicated. The island's sanitary authorities understood that removing the threat of yellow fever in the long term required eliminating those places where the larvae of the mosquito could thrive, namely in pools of standing water. One place in particular where mosquitoes could breed quite successfully was in partially standing waters "in the grasses, water lilies and other similar growth along the edge or within the stream of slowly flowing water" where "the matt of vegetable matter protect[ed] the larvae from fish and tadpoles."[60] Here, teams of engineers and laborers (sometimes including prisoners) created ditches to allow the standing water to move into larger, flowing streams where breeding was impossible. The teams would also inspect privately-owned lands and require owners to create drainage ditches, often under penalty of fines. Between April and June 1901, some 1.5 million square feet of mosquito-breeding stagnant water sites were cleared in and around Havana.[61]

By far the most complicated part of the anti-mosquito campaign was identifying those places in private residences and businesses where open pools of standing waters—in privies or in cisterns, for example—allowed mosquito larvae to grow. American officials already understood that applying oil to the water created a thin film upon which the mosquito was unable to deposit its larvae. Inspectors divided the city into precincts and conducted block-by-block inspections of houses and businesses looking for standing water. In May 1901, Wood and Gorgas pressed the Mayor of Havana to issue an order that "all of the drinking water receptacles be kept oiled, covered, and fitted with a pump

[60] Report of H.M. Brinckley to William C. Gorgas, June 29, 1901, p. 1 William Crawford Gorgas Papers, Box 3, Manuscript Division, Library of Congress.

[61] Ibid., p. 2-3

or stopcock."[62] The notice was distributed to "the owner and tenants of every house in Havana."[63]

Identifying the breeding places for mosquito larvae and getting *habaneros* to agree to follow instructions for oiling and covering cisterns was a task made all the more complicated by the sheer number of water tanks and cisterns in the Cuban capital. "In many of the tenement houses there will be as many water barrels as there are families," Gorgas wrote in 1901.[64] Additionally, for many of the poor residents of Havana the costs of making a water barrel mosquito proof and adding a spigot could be prohibitive. But in the drive to rid the city of yellow fever, the financial costs of disease control incurred by ordinary Cubans meant precious little to Gorgas and his inspectors. Anywhere that water-filled, non-mosquito proof barrels were found, the mosquito brigades destroyed them.[65] Not surprisingly, many Cubans resented not only the costs of compliance but also the intrusions into their homes and places of business. Many rejected the presence of the inspectors and refused to allow them access to their private spaces. In the end, the recalcitrance of the Cubans only delayed the inevitable. Wood eventually ordered that when sanitary inspectors were denied access to a dwelling in Havana, the local police

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[62]Espinosa, *Epidemic Invasions*, 64.

[63]Joseph A. LePrince to William Crawford Gorgas, June 28, 1901 p. 1 William Crawford Gorgas Papers, Box 3, Manuscript Division, Library of Congress.

[64]William Crawford Gorgas, *The Work of the Sanitary Department of Havana; With Special Reference to the Repression of Yellow Fever*. (New York: William Wood and Company, 1901), 14.

[65]American officials were more forgiving when it came to fines issued for violations of the new anti-mosquito policy. In his memoir of Walter Reed, Albert Truby reported that more than ninety percent of fines issued by sanitary authorities in Havana during the anti-mosquito campaigns were remitted once owners or tenants had complied with the new regulations. See McCallum, *Leonard Wood: Rough Rider, Surgeon, Architect of American Imperialism*, 173.

"had the duty 'to see that the inspector [was] at once admitted.'"[66] In an echo of the aggressive and intrusive brand of governance that characterized the earliest moments of his governorship of Santiago, Wood refused to let appeals to respect personal liberty stem the tide of sanitary progress.

The statistics collected by sanitary authorities demonstrate that the anti-mosquito campaigns initiated in the spring of 1901 were successful. In 1900, there had been 310 deaths in Havana on account of the disease. Within the first nine months of 1901 the number of deaths had been reduced to eighteen. After September of that year, not a single case of yellow fever would be reported through the end of the occupation of the island in May 1902. In February, before the full campaign against the disease had been launched, Gorgas had already predicted that the success of their efforts on the island would end the more than century's long view of Havana as a disease menace. The states of the American South "look upon Havana with suspicion," Gorgas wrote, "but I think in the near future, Havana will have to guard against them."[67] By late August 1901, after the high season for yellow fever seemed to be passing with the lowest mortality statistics on record and just some minor outbreaks of the disease in the towns of Santiago de Las Vegas, Gorgas could barely contain his sense of accomplishment. Writing to Henry Carter, Gorgas suggested that the anti-mosquito brigades might slow their disinfection of Havana because "we want to leave something to be done next year."[68] Two months later,

[66] Order #157, Headquarters Department of Cuba, Havana, June 12, 1901 as cited in Espinosa, *Epidemic Invasions*, 66.

[67] William C. Gorgas, *Report of William Crawford Gorgas, Major, Surgeon US Army, Chief Sanitary Officer*. (1901), 122.

[68] Letter of William Crawford Gorgas to Henry Rose Carter, August 31, 1901 in William Crawford Gorgas Papers, Box 3, Manuscript Division, Library of Congress.

brimming with satisfaction, Gorgas wrote to Carter again. "My ambition is soaring," he wrote. "What I want now is New Orleans, after she had been well-infected. Havana, and the little towns about, is too easy a job."[69]

Praise for Gorgas and his anti-mosquito campaign flowed in from near and far. Letters from doctors and sanitarians from Argentina, Costa Rica and from the United States, to name but a few nations, celebrated the accomplishments of the Chief Sanitary Officer of Havana. In March 1902, Lansing Beach, a government engineer in Detroit, suggested that the cities of the United States could benefit from the sort of military disinfection campaign that had proven so successful in Cuba. "I should judge," he noted, "it would be an excellent thing for the health of several communities in the United States, if military supervision could be exercised over them as has been done in Havana."[70] Cuban doctors too added their voices to the chorus of celebration. Dr. Eduardo Gomis of Pinar del Rio wrote to Gorgas explaining that if the anti-yellow fever strategies continued to be implemented, he "hope[d] to see Havana among the healthiest cities in the world."[71] Finally, the American press, which had often criticized the management of the island by American military and civilian authorities, also lauded Gorgas and the campaign to

[69]Letter of William Crawford Gorgas to Henry Rose Carter, October 8, 1901 in William Crawford Gorgas Papers, Box 3, Manuscript Division, Library of Congress.

[70]Letter of Lansing Beach to William Crawford Gorgas, March 14, 1902 in William Crawford Gorgas Papers, Box 4, Manuscript Division, Library of Congress.

[71]Letter of Eduardo Gomis to William Crawford Gorgas, December 17, 1901 in William Crawford Gorgas Papers, Box 4, Manuscript Division, Library of Congress.

eradicate yellow fever noting, in one instance, that the end of the yellow fever menace in Havana was a positive sign that the authorities were "Americanizing Cuba."[72]

The defeat of the *aedes aegypti* was regarded in many American circles as proof of both the benevolence and effectiveness of U.S. rule in Cuba. While debates regarding suffrage and trade reciprocity muddied the narrative of American beneficence in Cuba, the victory over yellow fever not only removed an obstacle to continued trade between the United States and Cuba and opened the way for continued Spanish immigration to the island but also cemented the idea (in American minds, at least) that the intervention of 1898 had marked the birth of a benevolent empire.[73] Indeed the significance of the success over the mosquito seemed to overshadow and excuse any limitations that the U.S. sought to put on Cuban dreams of self-rule. "The sanitary work that we have done for them," the *New York Times* blared, "has alone compensated them a thousand fold for any sufferings of spirit they may have undergone through the postponement of their independence."[74]

Of course, the reality was that yellow fever contributed scarcely anything to Cuban mortality. The disease, as we have seen, principally afflicted Americans, and more importantly, the Spaniards in Cuba. U.S. officials had long attempted to control the

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[72]Clipping from the St. Louis Globe Democrat reprinted in the Philadelphia Public Ledge, December 24, 1901, np. In William Crawford Gorgas Papers, Box 4, Manuscript Division, Library of Congress.

[73]Wood made an explicit connection between trade reciprocity and yellow fever. Having met the expectation that Americans in Cuba could once and for all conquer yellow fever he now argued that a failure to grant reciprocity to Cuba would undo all of the sanitary work accomplished under his command. "It is safe to say that a resumption of old conditions of yellow fever in Havana and other ports of Cuba would result in a loss to our people of more money each year than is derived from the entire duties on Cuban sugar." Letter of Leonard Wood to Elihu Root, October 17, 1901 in Leonard Wood Papers, General Correspondence, 1901, Box 29, Manuscript Division, Library of Congress.

[74]*New York Times*, May 22, 1902. 8.

spread of yellow fever not because of what it did to Cubans but because of what it wrought in towns and cities all through the American South and because of how the disease threatened their plans for Cuba's future. In truth, the diseases that most affected Cubans were not borne by mosquitoes but were lurking in the rooms of dilapidated and overcrowded tenements. The American sanitary authorities did not entirely ignore these diseases during their occupation of the island. But when it came to fighting diseases in Cuba, U.S. authorities devoted significantly more attention and resources to combating diseases that posed little threat to Cuban lives than they did to those infirmities that were causing high mortality rates among the Cuban population. Perhaps nowhere was this discrepancy more obvious than in the sanitary response to tuberculosis.

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In the years before the U.S. invasion of 1898, among civil and military authorities in the United States the containment of yellow fever provided a key rationale for intervention. Yellow fever posed a threat to the economies of the southern United States and establishing control over Cuba offered the opportunity to eradicate a menace to American lives and lucre. Ending the threat of yellow fever was also central to American plans for the political and economic future of Cuba. But while the U.S. authorities focused almost obsessively on stamping out yellow fever, they offered no similar targeted response to the threat posed by tuberculosis, a disease that claimed many more lives across lines of race, gender and national origin.

The disparate responses to yellow fever, on the one hand, and tuberculosis, on the other, belied the significant impact that the latter had on the mortality of Havana. Tuberculosis was not a clandestine killer. More *habaneros* died of tuberculosis between

January 1899 and May 1902 than of any other single infectious disease in the city. Of the more than 22,000 deaths registered in the Cuban capital during the years of the American occupation, tuberculosis accounted for 15 percent of them. Seven times as many *habaneros* died of tuberculosis as did of yellow fever. And as Table 2.2 shows, over the course of the nearly 45-month-long American occupation of Cuba, tuberculosis killed more people in Havana than yellow fever, malaria, and typhoid fever combined.[75]

Table 2.2: Deaths from Various Causes, Havana 1899-1902					
Year	Yellow Fever	Typhoid Fever	Malaria	Tuberculosis	Total Including Other Causes
1899	103	140	909	1,281	8,153
1900	310	90	325	851	6,102
1901	18	83	151	900	5,720
1902	0	25	38	403	2,484
Total	431	338	1,423	3,435	22,459

U.S. public health authorities in Cuba were aware that tuberculosis was the driving factor behind the high rate of mortality in Havana and throughout the island. What is more, they understood that, unlike yellow fever, the disease seemed to wreak special havoc among the Cuban population.[76] As indicated previously, Valeriano Weyler's reconcentration policy of 1896 had driven thousands of Cubans into densely-populated cities where the lack of housing forced them to live in close proximity to one another making infection with the tuberculosis bacillus not just possible but also highly probable. What was remarkable about the impact of the reconcentration on the rates of

[75]The data in Table 2.2 is for the period from January 1899 to May 30, 1902. The most complete mortality data available is for the city of Havana and its environs. Thus, unless otherwise indicated, the demographic data used for this chapter will focus on the capital city.

[76]William Gorgas noted that the increase in deaths in Havana during March, 1901 over the previous month was due to "diarrhoeal [sic] diseases of children, and an increase in pulmonary troubles generally. These causes effect the Cuban population mostly." Letter of William Crawford Gorgas to Henry Corbet, April 6, 1901 in William Crawford Gorgas Papers Library of Congress. Box 3, 6/1899-12/1901.

tuberculosis infection among the Cuban populace was that, even after the reconcentration policy ended, the disease was still responsible for high mortality rates. In early February 1899, long after the reconcentration, and indeed the war had ended, Jefferson Randolph Kean toured a hospital near Güines where he "saw about a hundred poor *reconcentrados* of both sexes and all ages, mostly dying of acute tuberculosis."[77]

In truth, the reconcentration policy of the Spanish army only worsened what was already a terrible state of affairs with regard to tuberculosis in Cuba, a situation with which U.S. military and sanitary authorities were familiar. In 1879, when the famed Yellow Fever Commission led by Sanford Chaillé, and of which Walter Reed was a member, arrived in Cuba to investigate the etiology of yellow fever, it had expressed horror over the ubiquity of tuberculosis on the island. In its final report, the Commission had identified the disease as the leading cause of death in Havana.

Table 2.3: Leading Causes of Death in Havana, Average for 1877, 1878, 1879	
Disease	Deaths
Phthisis (Tuberculosis)	1700
Diarrhea, dysentery, and cholera infantum	1500
Yellow fever	1500
Other fevers, chiefly malarial	600
Smallpox	550
Trismus nascentium	400
Meningitis	300
Pneumonia	300
Hepatic diseases	250
Total	7100

Source: Havana Yellow Fever Commission, p.8 (Figures are approximations and include deaths of military and civilian inhabitants of the island.)

[77]Diary of Jefferson Randolph Kean, February 4, 1899, p. 99 in Jefferson Randolph Kean, Diaries, The Cuban Service Series, Vol. 4. University of Virginia, Special Collections.

As Table 2.3 shows, during the years between 1877 and 1879, tuberculosis accounted for an approximate yearly average of 1,700 deaths in the Cuban capital. This represented nearly a quarter of all of the deaths by infectious diseases in Havana. The Commission regarded the mortality caused by tuberculosis as "frightful."[78] Beyond the sheer numbers of deaths caused by the disease, the Commission noted the irony that, despite the endemicity of tuberculosis on the island, Cuba continued to be a destination for tuberculosis patients in the United States looking for relief from the supposedly inhospitable climates of certain parts of North America.[79] In short, in much the same way that U.S. public health officials were aware of the threat of yellow fever in Cuba they were also clearly aware, from the 1870s onward, of the great scale and reach of tuberculosis on the island.

Despite the prevalence of tuberculosis, the first year of the U.S. occupation of the island was characterized by a lack of any specific plan aimed at controlling the spread of the disease. The records of the Brooke administration are silent with regard to the matters of tuberculosis control and treatment. Instead, the government's Annual Report on the sanitary work of the American military government reveals a focus on lowering

[78]"Havana Yellow Fever Commission" in National Board of Health, *Annual Report of the National Board of Health. 1879-1885*, Volume 1 (U.S. Government Printing Office, 1879): 49.

[79]In fact, the view that Cuba could offer a respite for tubercular patients continued to find supporters in some circles even after the end of Spanish rule. Dr. Henry Caimanero, a former Marine Hospital Service official in Santiago de Cuba, argued that the eastern Cuban province "deserve[d] more than a passing notice as a winter resort for invalids. Santiago had "perfectly pure air free from microbes of any kind, where tuberculosis is almost an impossibility." Nevertheless, Dr. Caimanero's view was in the minority among both Cuban and American physicians and sanitarians to whom the scope of the tuberculosis crisis on the island was readily apparent. See Henry Caimanero as cited in "Medicine and Pharmacy in Cuba," *The Pharmaceutical Era* 21 (June 15, 1899): 806. For an example of the argument that Cuba was a veritable resort for the infirmed see Nathaniel Parker Willis, *Health Trip to the Tropics*. (New York: Charles Scribner, 1853), 278-293.

the mortality caused by yellow and other pernicious fevers.[80] Yet it seems that while there was no explicit plan regarding the control of tuberculosis in Cuba, the sanitation and disinfection campaign launched by the U.S. in 1898 likely contributed to the initial decline in the number of deaths attributed to the disease compared to the unprecedented mortality caused by the disease during the war years.

After providing relief to the Cuban masses, U.S. military authorities had unleashed a sanitation campaign in the city that sought to disinfect everything from former Spanish military barracks to hospitals, from asylums to businesses and homes. At the core of this disinfection campaign was the identification and surveillance of infected persons. Medical inspectors spread throughout the city and identified *habaneros* with infectious diseases. The identification and reporting of tubercular patients was a matter of contentious debate in the United States and in the early 1890s had pitted municipal public health authorities against private physicians, many of who regarded compulsory reporting of the tubercular person as an intrusion into their relationship with their patients.[81] In Cuba, however, it appears that physicians were either unwilling or unable to contest the power of public health officials to require compulsory reporting of tuberculosis and other infectious diseases.[82] In the absence of any opposition from physicians, the U.S.

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[80]See Brooke, *Annual Report, 1899*, 41-48.

[81]See Hermann M. Biggs, *A Brief History of the Campaign Against Tuberculosis in New York City*. (New York: New York City Department of Health, 1908), 3-4.

[82]The reporting of persons with infectious diseases was something that Spanish colonial authorities on the island had mandated in the Cuban capital as early as 1855. In that year, the Spanish authorities had approved a series of municipal ordinances calling on local doctors to report any cases of tuberculosis to the local sanitary board under pain of a fine ranging from twenty-five to fifty pesos. We have no evidence available on the number of cases of the disease reported as a result of the new Spanish policy but we suspect that, given the weakness of the imperial public health system on the island, especially during the final years of Spanish rule, many doctors likely ignored the requirement to report infected persons to the authorities. See *Ordenanzas Municipales de la Ciudad de La Habana*. (Habana: Imprenta del Gobierno y Capitanía, 1855), 20.

authorities created a system where each case of the disease was recorded by inspectors and reported to the island's sanitary division. This system of identification would remain at the heart of the anti-tuberculosis work of the American military government in Cuba until May 1902.

No sooner had the infirmed been identified, disinfection teams were sent to scour the homes in which they lived and the businesses in which they worked. The teams used sulfur to fumigate buildings throughout Havana after which the interior "walls, ceilings, and floors where [sic] drenched in disinfectants, a powerful solution of bichloride of mercury being the main reliance."[83] The results were immediate and positive.

Table 2.4: Monthly Death Rate in Havana, 1898 and 1899 (per 1,000)		
Month	1898	1899
January	91.68	62.4
February	82.32	41.64
March	78	40.08
April	71.88	32.04
May	70.32	31.44
June	64.32	31.56
July	78.72	33.6
August	101.6	30.72
September	123.1	24.48
October	128	24.6
November	105.5	24.36
December	96.24	26.4

Source: Report of Maj. W.C Gorgas, Chief Sanitary Officer, City of Habana in Leonard Wood Annual Report Fiscal Year Ended June 30, 1900 p. 240.

As Table 2.4 shows, the disinfection campaign begun in late 1898 and expanded after January 1, 1899 had a significant impact on Havana's death rate. Within a few short months after the sanitation and disinfection began, the city's death rate was reduced by more than half from a high of 128.04/1,000 in October 1898. Most significantly, by

November 1899 Havana's monthly death rate had fallen to a rate unseen during the entire previous decade.

Table 2.5: Disinfections in the City of Havana, By Disease, July 1899-June 1900				
Month	Tuberculosis	Yellow Fever	Pernicious Fever	Diphtheria
July	50	4	14	11
August	42	25	30	12
September	42	26	27	6
October	45	47	4	4
November	44	54	6	9
December	55	73	7	9
January	43	17	5	8
February	53	19	9	11
March	45	16	-	5
April	40	5	1	2
May	45	11	1	7
June	37	17	4	8
Total	541	314	108	92

Source: Gorgas, Annual Report Fiscal Year Ended June 30, 1900 Vol. 2 p. 5.

The disinfection campaign may have been designed with the eradication of yellow fever in mind but the majority of the disinfections conducted in Havana were related to tuberculosis. As Table 2.5 shows, of the 1,055 disinfections conducted in Havana from July 1899 to June 1900, more than half were because of tuberculosis. Disinfection related to yellow fever, by contrast, represented less than 30 percent of all of the disinfections conducted during this period.

[83]William Ludlow, "Annual Report Department of Havana and Military Governorship of Havana. " in Maj. Gen. John Brooke, Annual Report Commanding Division of Cuba. (Havana, 1899), 42.

Table 2.6: Number of Deaths Caused by Tuberculosis in Havana, 1898 and 1899			
Month	1898	1899	Percent Change
January	230	206	-10.43%
February	233	176	-24.46%
March	253	184	-27.27%
April	209	102	-51.20%
May	255	92	-63.92%
June	190	74	-61.05%
July	232	85	-63.36%
August	247	65	-73.68%
September	258	54	-79.07%
October	257	79	-69.26%
November	228	79	-65.35%
December	202	85	-57.92%
Total	2,794	1,281	-54.15%

Source: Report of Maj. W.C Gorgas, Chief Sanitary Officer, City of Habana in Leonard Wood Annual Report Fiscal Year Ended June 30, 1900 p. 240. (Check)

It is very likely that the disinfections, together with other factors such as improved caloric consumption and improved sanitation, contributed to the declining number of deaths attributed to tuberculosis during the early months of the occupation.[84] Table 2.6 shows the stark decline in the number of deaths caused by tuberculosis between 1898 and 1899. As we can see, the number of deaths from the disease fell from a yearly total of nearly 2,800 deaths in 1898 to 1,281 deaths in 1899. What was even more significant, however, was the remarkable decline in the death rate attributed to tuberculosis. In 1898, the death rate for tuberculosis in Havana was 1171.1/100,000, by the following year the rate had been reduced by more than half to 405.3/100,000. And by 1900, the death rate had reached a historic low of 341.8/100,000.[85] Never in the recorded history of Havana had the tuberculosis death rate been so low.

[84]Sergio Díaz-Briquets has argued that much of the mortality decline in Cuba during the U.S. occupation was "achieved primarily by means of governmental decisions and expenditures, specifically in the areas of environmental sanitation and control of disease vectors." Díaz-Briquets, *The Health Revolution in Cuba*, 33.

[85]Díaz-Briquets, *The Health Revolution in Cuba*, 31.

In addition to the identification and disinfection system instituted by the American authorities, there were other measures taken to stall the spread of the disease. During the Brooke administration, Major John G. Davis, the Chief Sanitary Officer of Havana, had issued an order barring public expectoration and requiring the installation of cuspidors in all public buildings.[86] The focus on the control of expectoration reflected the sanitary proscriptions being advanced in most of the major cities of the United States. Medical authorities agreed that the sputum from a tubercular person, once expectorated, would dry and become easily inhaled by other persons, thus spreading the disease.[87] Perhaps nowhere in Havana was there a greater focus on controlling expectoration than in the city's many cigar factories. It was common practice among cigar makers to expectorate on factory floors during the course of their workday. Many of the workers were infected with tuberculosis and when the sputum they expectorated dried and was swept by cleaners, it was likely to be inhaled by other workers causing the disease to spread. In order to address this issue, Davis copied a policy already in use in New York State that required the installation of cuspidors in all cigar factories. He boasted that the directive had forced at least one cigar factory owner in Havana to order four thousand cuspidors from Paris, France.[88]

For all of the apparent success that compulsory reporting, sanitation, disinfection, and laws against expectoration had, the Brooke government showed little interest in

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[86]*San Francisco Chronicle* (March 16, 1900): 10.

[87]For an example of the focus on expectoration control in the United States, see *The Medical Examiner and Practitioner* 40:12 (December 1901): 678.

[88]The law requiring the installation of cuspidors in the cigar factories of New York was passed in October, 1899. See *The Sanitarian* (December 1, 1899): 541. On the cigar factory owner who was forced to purchase the cuspidors see *San Francisco Chronicle* (March 16, 1900): 10.

crafting a specific anti-tuberculosis campaign. In part, this reflected the cautious approach of the Brooke government to all matters related to Cuba's governance. The previous chapter noted that Brooke's vision for Cuba was limited by the ambiguous instructions of his superiors and by his reticence to adopt measures that reflected a spirit of progressive or activist governance. But the Brooke administration also reflected one of the problems implicit in tuberculosis. Tuberculosis was a complex disease whose microbiological origin was clear but whose control and containment was still being debated. As Americans tried to impose sanitary order in Cuba, they struggled, like public health authorities the world over, to craft a comprehensive and effective anti-tuberculosis strategy.

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The discovery of the *mycobacterium tuberculosis* in 1882 by the German microbiologist Robert Koch decisively resolved the matter of the etiology of tuberculosis. *Koch's bacilli*, as it came to be called, was a living organism that typically affixed itself to the respiratory tract of its host. In most cases, the bacilli never spread beyond an initial lesion. But when the body was under duress and its immune system was compromised, the bacilli would become active, tearing through the body's tissue, most especially the lungs.

Koch's discovery, while important from the perspective of microbiology and in many ways a crowning achievement of the germ theory of disease, did little to offer any guidance with regard to the most effective therapeutic strategies for confronting tuberculosis. In the years before 1882, tuberculosis treatment had been marked by either well-intentioned but scientifically unproven remedies or by exploitative and quackish

therapeutic regimes that preyed on victims' desperation.[89] But even after the identification of the bacilli, public health officials in much of the world were unsure about the best course of action to stem the spread of the disease. Doctors, sanitarians and public health officials struggled to construct a unified theory of disease treatment and control.

By the mid-1890s, however, doctors and public health officials had begun to create a consensus around a three-pronged attack on the disease that included identification and surveillance, isolation and disinfection, and, perhaps most importantly, education. There was widespread agreement by the turn of the century that the focus of public health efforts should be on educating persons about the communicable nature of the disease and explaining the best ways to limit their exposure to both the bacilli and infected persons. Not surprisingly, education would become an important element of the anti-tuberculosis work done under the Wood government.

Leonard Wood, whose experiences as a doctor tending to the slum-dwellers of late 19th-century Boston, where tuberculosis was rampant, would seem to have been the perfect candidate to immediately bring the issue of tuberculosis to the forefront of the American public health project in Cuba. Instead, during his first year as Military Governor, Wood government did little to address the disease specifically. The campaign of disinfections continued, of course. In fact, the vigorous disinfection campaign, coupled with the improved health the Cubans enjoyed thanks to the cessation of hostilities, contributed to a continued decline in the number of deaths caused by the disease. As Table 2.5 shows, during the first six months of 1900, the number of disinfections related

[89]René and Jean Dubos, *The White Plague*. (New Brunswick: Rutgers University Press, 1987): 131-138.

to tuberculosis in Havana was three times that of yellow fever disinfections. But the increasing number of tuberculosis-specific disinfections and the declining number of tuberculosis related deaths in 1900 did not reflect a concerted, disease-specific tuberculosis control program. Instead, tuberculosis-control, as it were, was an adjunct to the U.S. public health agenda in Cuba. Throughout the first year of the Wood Administration, the energies of Gorgas and his team of doctors and sanitarians were, as we have seen, directed squarely at stopping yellow fever. If tuberculosis were affected at all by the U.S. sanitary authorities in 1900 it was a perceived as a welcome corollary to the anti-yellow fever campaign and not as the result of a specific anti-tuberculosis initiative.

By the spring of 1901, the house-to-house inspections that had helped identify vectors of infection throughout the city began to wind down. In January there had been 7,801 inspections of homes and businesses in Havana but by May the number had declined to just 2,203 inspections. Although the numbers of inspections would increase slightly during the summer months of July and August (6,396 and 4,927, respectively), when American authorities were most vigilant about another outbreak of yellow fever, by December the number of inspections had declined to 2,670. The discovery of the vector of transmission for yellow fever had made the house-to-house inspections more and more obsolete.

Table 2.7: Tuberculosis and Yellow Fever as Percentages of Infectious Disease Houses Cleaned and Disinfected. Havana, April, 1901-November, 1901 (Excluding June, 1901)					
Month	Tuberculosis	Yellow Fever	Infectious Disease Houses Cleaned and Disinfected	% TB	%YF
April	79	2	336	23.50%	0.60%
May	70	4	145	48.30%	2.80%
July	86	4	145	59.30%	2.80%
August	85	8	137	62.00%	5.80%
September	47	6	90	52.20%	6.70%
October	90	3	131	68.70%	2.30%
November	70	0	114	61.40%	0.00%

Source: Report of Maj. W.C Gorgas, Chief Sanitary Officer, City of Habana in Leonard Wood Annual Report Fiscal Year Ended December 31, 1901

In 1901 there was a change in U.S. policy towards tuberculosis in Cuba. The total number of house-to-house inspections declined but the share of tubercular homes disinfected increased. As Table 2.7 shows, the majority of homes disinfected after an infectious disease had been discovered and reported were the homes of tubercular persons. From May 1901 through November 1901, tuberculosis accounted for a monthly average of 59 percent of all the homes targeted for disinfection because of an infectious disease. In April 1901 tuberculosis accounted for just less than one quarter of all the houses disinfected; by November tuberculosis accounted for nearly two-thirds of all infectious-disease disinfections in Havana. In contrast, yellow fever accounted for fewer and fewer disinfections reaching a low of zero disinfections in November. In short, while the total number of inspections and disinfection declined generally, the share of disinfections attributable to tuberculosis increased.

The second year of the Wood administration signaled other changes in the ways in which the U.S. authorities confronted tuberculosis. On March 3, 1901, as the United States was in the midst of its successful campaign against the *aedes aegypti* mosquito across Cuba, Wood finally authorized the creation of a Tuberculosis Division within the

island's sanitary service. The new entity served as the organizing mechanism through which the military government would identify infected patients, manage their treatment, and attempt to control the spread of the disease. It is unclear from the records of the military government why Wood and his sanitary aides decided to form the division in the midst of their anti-mosquito campaign. But what is certain is that the Tuberculosis Division was recognition, albeit late recognition, of the seriousness of the tuberculosis crisis in Cuba.

As in many other nations the work of the Tuberculosis Division in Cuba was driven by a desire to slow the spread of the disease on the island. To accomplish this, the U.S. sanitary authorities focused on three interrelated strategies: microbiological testing, education, and disease prevention. Taken together, each of these components constituted the first effort on the part of the military government to confront tuberculosis in Cuba specifically.

Microbiological testing was an important component of the anti-tuberculosis campaign and was the first public measure taken by the Wood administration to directly confront the disease. In the spring 1901, the Tuberculosis Division focused on creating a sputum analysis program across Havana. Bacteriological analysis would allow physicians from throughout the city to conduct testing of sputum samples from persons who they believed had been infected with the disease.[90] A positive sample would allow the city's sanitary authorities to educate and, where possible, treat the afflicted. In order to initiate this bacteriological surveillance system, the Tuberculosis Division created a

[90]The sputum analysis initiative followed a groundbreaking model established in New York City in the mid-1890s when the city's Board of Health offered "free sputum examinations to induce physicians to report suspected cases." See: Daniel M. Fox, "Social Policy and City Politics: Tuberculosis Reporting in New York, 1889-1900." *Bulletin of the History of Medicine* 49 (1975): 172.

network of sputum collection stations in collaboration with twenty pharmacies throughout the city. U.S. authorities initiated the sputum collection program in large measure because while physicians were required to report cases of tuberculosis they were often unable to substantiate cases because they lacked the laboratory facilities to confirm infection. By offering Cuban physicians a local sputum analysis service, the military government provided a needed service to doctors and minimized the possibilities that a case of tuberculosis would go undiagnosed. The results of the "microscopical [sic] examination," Division Director John Whitehead noted in his Annual Report for 1901, were reported to the corresponding physician within a twenty-four hour period allowing for quick intervention to limit contagion.[91]

The sputum analysis network also allowed the U.S. authorities to establish close working relationships with the city's pharmacists. In the absence of a citywide system of clinics or dispensaries, pharmacies were important pieces of the late-Spanish imperial system of health care in Cuba and they often provided direct care. After the U.S. occupation began, the city's pharmacies continued to provide health care for many Cubans and non-Cuban residents of the island and they served as a resource for physicians. By working closely with the pharmacies the U.S. sanitary authorities were able to extend their reach deep into the neighborhoods of Havana. In his annual report, Whitehead made note of the solicitousness of the city's pharmacists, writing "druggists…have taken kindly any suggestion made them by the Chief of the Division."

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[91]John Whitehead, "Annual Report Tuberculosis Division, 1901" in Wood, *Annual Report, 1902*, 82.

Whitehead was particularly pleased that the collaboration of the pharmacists had been secured despite their having "received no compensation for the use of their stores."[92]

If anything came to symbolize the way in which the Wood administration would confront tuberculosis, however, it would be its emphasis on education. Sanitarians and public health officials regarded education as the most practical and effective tool in fighting a disease that seemed to prowl the streets and tenements of every major city in Europe and the Americas. As Lawrence Flick, the prominent Philadelphia physician and advocate of tuberculosis control argued during the First Pan American Medical Congress in 1893, "the proper education upon this subject [tuberculosis]…would go a long way to ward preventing the disease."[93] The content of this "proper education" revolved around explaining the etiology and symptoms of the disease, its communicability and its prevention. Dr. Herman Biggs, the New York City Department of Health's chief pathologist, had pioneered much of this educational work in New York City. In the fall 1893, Biggs had urged the City's municipal health authorities to take a more aggressive stance toward tuberculosis control, especially with regard to education. By the following year, the Department of Health had approved an anti-tuberculosis campaign that had education as its cornerstone. As Biggs would later explain, the city agreed to

> an educational campaign through the use of specially prepared circulars of information designed to reach different classes of the population (one of which was written in many different languages) and also the utilization of the public press and lectures for the dissemination of popular information.[94]

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[92]Ibid., 84.

[93]Lawrence Flick, "Practical Measures in the Prevention of Tuberculosis." *Transactions of the First Pan American Medical Congress*. Part 2 (Washington DC: Government Printing Office, 1895): 2007.

[94]Herman Biggs, *A Brief History of the Campaign Against Tuberculosis in New York City*. (New York: Department of Health, 1908): 4.

U.S. officials in Cuba looked to the New York model in order to create their own anti-tuberculosis education campaign. For his sanitary report of September 1901, Gorgas was quick to note the decline in tuberculosis-related deaths in Havana from the previous year and explained that the decline had been "in great part due to the special efforts made in this direction—the system in vogue in New York having been put into effect here."[95] As in New York, much of the anti-tuberculosis education work done by the sanitary authorities in Havana focused on explaining the menace of expectoration, the importance of limiting contact with the infirmed, increasing ventilation in the rooms of the infected and sterilizing their personal belongings. These directives were often difficult to obey because Havana was home to many overcrowded tenements where families were often forced to live in very close proximity to one another, irrespective of whether a family-member was infected with tuberculosis.

The tenements of the Cuban capital city became a focus for the American military government's anti-tuberculosis efforts. As part of his report to Major Gorgas and General Wood in the spring of 1902, José Antonio López, Chief of the Military Government's Disinfecting Division, recounted the work of his division among the city's tenement dwellers. López explained that there were approximately two thousand tenements in Havana. The tenements, "having been built with a complete disregard of hygiene…constitute…a constant danger to the health of the occupants…as well as an easy and certain method for the propagation of contagious diseases."[96] He went on to describe homes that were dank, dirty, and dark. The rooms lacked "light or ventilation,"

[95]"Monthly Statistical Report, October 7, 1901," in Wood, *Civil Report, 1902*, 272.

[96]Jose Antonio Lopez, "Special Report on Tenement Houses." in Wood, *Civil Report, 1902*, 12.

the floors were rotted, the walls filthy and damp; a "prejudicial vitiated atmosphere" reigned.[97] The working-class residents lived in "extreme misery" and the healthy, wherever they were found, lived alongside the infirmed and infected. In this way, they exposed themselves and by extension the city's population to infection.

López repeatedly remarked that poor inhabitants of Havana's tenements were victims not only of the terribly unsanitary living conditions of their residences but also of their own lack of knowledge. They were ignorant of the fundamentals of hygiene and the "advantages…of a good, pure air charged with oxygen."[98] In response, López and his squad of sanitarians complemented their standard inspections of the tenement houses with attempts to instruct residents, and particularly housewives, about the transmission and prevention of tuberculosis. Sanitary authorities affixed posters "containing maxims and hygienic advice" to the walls of many of the city's tenement buildings.[99] Tracts and pamphlets were also distributed to tenement residents in the hopes of providing direct instruction on hygiene and disease control.[100] By focusing on raising awareness of tuberculosis and offering prescriptions for hygienic living—in particular admonitions against spitting and coughing without covering one's mouth—the public health

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[97]Ibid., 12.

[98]Ibid., 13.

[99]While it is unclear what exact messages the posters contained, the use of notices such as these was a staple of the early anti-tuberculosis work done by health departments in North America and Europe and the creation of more graphically-complex images would become standard in the first third of the twentieth century. Ibid., 14.

[100]Illiteracy may have diminished some of the effectiveness of the distribution of the tracts or *cartillas*, as they were called in Spanish. Nevertheless, of all the cities in Cuba, Havana had the highest literacy rate in 1899 (66%). This meant that the distribution of the cartilla would likely have reached a large audience in the Cuban capital. For an overview of the literacy rates in 1899 see, United States, *Report of the Census of Cuba, 1899*, 149.

authorities on the island were wagering that the most effective remedy against the expansion of tuberculosis was an educated populace.

In addition to the distribution of educational posters in the city's tenements, the health authorities also organized and conducted lectures on hygiene in tenements, schools and places of business. Although the material covered in these "hygienic talks" or *conferencias de hygiene* have been lost to time it is likely that they highlighted the key anti-tuberculosis prescriptions of the day: injunctions against expectoration, the importance of getting adequate light and fresh air, the value of exercise and a good diet, and, perhaps most importantly, the necessity of isolating infected persons and proper disinfection of their residences and personal belongings. These talks became a key element of the anti-tuberculosis campaign and their number and scope only increased as the end of the occupation approached in the spring 1902. In January of that year, officials reported having conducted 53 talks in the city reaching an untold number of persons; 41 of the talks were held in schools and another 12 were organized in cigar factories. By April, however, the scope of the program had expanded so that in addition to schools and cigar factories, the sanitary authorities conducted hygienic talks in soap factories, candy and preserve factories, asylums and convents, regional societies, the Chinese neighborhoods of Havana, and of course, in the city's tenements. In that final full month of U.S. rule in Cuba, more than 13,500 persons were reported to have participated in hygienic talks aimed at controlling the spread of tuberculosis.[101]

In addition to the focus on the city's tenement dwellers, the U.S. authorities also continued to target the city's cigar factories. As José Antonio López explained in the late

[101]Wood, *Civil Report 1902*, 75-218.

winter of 1902, "The tobacco factories have always been considered as the focus of consumptives in the city, and one of the greatest menaces to public salubrity from the standpoint of the propagation of tuberculosis."[102] The cigar-making industry had been an early target of U.S. sanitarians under the Brooke administration but the Wood government took a special interest in combating tuberculosis in the numerous cigar factories of the Cuban capital.

Havana's tobacco factories, López argued, offered a bleak sanitary landscape and one that seemed ripe for the spread of tuberculosis. The lack of light and fresh air and the cramped quarters in which workers labored converted the *fábricas* into vectors of infection. But unlike the tenement dwellers, whose overcrowded, filthy and decrepit homes López believed were the main culprits of their infection, the cigar workers were, in López's mind, largely to blame for these conditions. It was true that factories were usually sealed off from fresh air in order to preserve the quality of the tobacco leaf and the workers labored face-to-face at poorly constructed small workbenches. But for López it was the workers "total ignorance" of hygiene that made them among the most likely of Havana's workers to contract tuberculosis.[103] The workers insisted on using their mouths to create tips on their cigars, they would expectorate freely on the factory floor and would drink coffee or water from the same cups as their co-workers. Thus, in addition to requiring factory owners to improve ventilation in the factories and construct workbenches were there was greater space between workers, the sanitary authorities plastered the walls of the city's tobacco factories with posters and distributed thousands

[102]José Antonio López, "Report March 1, 1902" in Wood, *Civil Report 1902*, 3.

[103]Ibid., 3.

of pamphlets and tracts reminding workers of the rules of proper hygiene. Sanitary workers also conducted hygienic talks aimed squarely at tobacco workers. The talks centered on the value of proper ventilation at work and at home, the value of exercise, the importance of disinfection and isolation, and all the "advantages of good hygiene."[104] Between January 1902 and April 1902, these talks had reached more than 5,000 workers. López pointed out that the "workmen [paid] good attention" to the sessions and would often use their newfound knowledge to "exact from their employers the observance of hygiene."[105]

It was clear to U.S. sanitary officials in Cuba that much of the work of tuberculosis education should target the poor and working classes of the city. It was they who lived in sub-standard housing, worked in poorly designed and ventilated factories and shops, and were least likely to have regular access to medical care. The matter of providing medical care to the poorest *habaneros* suffering from tuberculosis was a complex one. While the wealthier residents of the city could depend on a system of private or cooperative hospitals and *consultas*, Havana's poor did not have access either to doctors or to specialized anti-tuberculosis care. The sanitary authorities in the city attempted to address this issue by creating a special dispensary to provide care for the infirmed poor and by planning the creation of the island's first tuberculosis sanatorium.

Establishing a dispensary in Havana again put Cuba in concert with the anti-tuberculosis work of sanitary departments across the United States and Europe. Sigard Adolphus Knopf, the German-born and New York-based doctor who in the late

[104]Ibid., 11.

[105]Ibid., 11.

nineteenth century lobbied for governments to take a more active role in providing health care for the poor as a prophylactic measure against the spread of tuberculosis, had regarded the dispensary as a key component in any modern anti-tuberculosis campaign. Wherever hospitalization was either impracticable or unaffordable, Knopf argued, the dispensary could "treat the ambulant tuberculosis patients."[106] Together with sanatoria, the dispensaries served a vital role providing "counsel" to infected persons on how to remain healthy through good nutrition, exercise and regular medical care, and how to avoid infecting others in order to prevent the spread of the disease.

Cuba's first *dispensario especial* focusing on tuberculosis, opened on February 12, 1902 in a rented home on Consulado Street in the northeast part of the city near the municipal jail. Miguel Biada, a doctor who had worked on yellow fever experiments at Las Animas Hospital under Major Gorgas, was the director of the dispensary. In his one and only report on the dispensary, Biada reported that between the opening of the dispensary in mid-February and the end of U.S. rule in late May 1902, 1,567 persons had registered at the facility for treatment. The site included examination rooms, a bacteriological laboratory for the analysis of sputum samples, and a pharmacy. The dispensary doctors evaluated patients six days per week at the site, and on Mondays, Wednesdays and Fridays the dispensary offered special visiting hours for women patients. Female nurses from the newly-established Nursing School at the *Hospital Número Uno* were on hand to make certain that "perfect order [was] observed."[107] The dispensary took special care to address the threat the disease posed to the children of

[106]S.A. Knopf, "The Tuberculosis Problem in the United States." *North American Review* 168:507 (February 1898): 218.

[107]Miguel Biada, "Report of the Tuberculosis Dispensary," Wood, *Civil Report 1902*, 17

tubercular persons. Twice each week children were put through a program of exercises to "strengthen their thorax muscles." After the session, their bodies were bathed with rubbing alcohol and they were offered a lunch of "milk and biscuits."[108] Patients who were unable to come to the dispensary's offices were visited in their homes by doctors.

The work of the dispensary was, Biada crowed, a "brilliant success."[109] Long lines of poor Cubans flocked to the dispensary in search of treatment and occasionally patients had to be turned away "owning to the lack of time for their attendance."[110] But the success of the program was obvious and particularly so among those with incipient cases of the disease. "We have seen many of them who first came to the Dispensary weak and almost crawling," Biada wrote, "[and] after several days walk in with a light step and a happy face and a noticeable increase in weight."[111] The patients may not have been cured of the disease, he noted, but they were certainly more likely to "resist its ravages."[112]

While the creation of a tuberculosis dispensary was regarded as a success by the U.S. authorities in Cuba, the construction of the island's first sanatorium proved more complex and ultimately less successful. Since the middle of the nineteenth century, doctors and sanitarians in Europe and the United States had argued in favor of the health

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[108]Ibid., 18. The use of alcohol baths was a common procedure at the time. Doctors feared that tubercular patients or those at risk of tuberculosis infection—such as the children at the dispensary—were put at risk by cold-water baths. This theory was largely discounted by the end of the first decade of the twentieth century. See Francis Marion Pottenger, *The Diagnosis and Treatment of Pulmonary Tuberculosis.* (New York: William Wood and Company, 1908), 156

[109]Biada, "Report of the Tuberculosis Dispensary," Wood, *Civil Report 1902*, 18.

[110]Ibid.

[111]Ibid.

[112]Ibid.

benefits of interning tubercular patients in sanatoria.[113] Yet, while public and private funds created sanatoria across Europe in the nineteenth century, public health authorities were slow to invest money in their construction in the United States. In 1898, S.A. Knopf bemoaned the dearth of sanatoria in the United States but especially the lack of any "municipal sanatoria for the consumptive poor."[114] The failure to invest in sanatoria undermined government efforts to limit the spread of the disease. A sanatorium, Knopf argued, would be a place "where the curable cases are cured, and the hopeless cases cared for so that it is impossible for them to propagate the disease."[115]

In Cuba, debates about constructing a sanatorium had also begun in the nineteenth century. As early as the 1830s, doctors had encouraged consumptive patients to retreat to the Lomas de Cubita in Camagüey or to the Lomas del Caney in Santiago de Cuba in order to benefit from the clear air in these locations.[116] By 1898, local physicians had suggested constructing a sanatorium in the Jesus del Monte Section of Havana.[117] But discussions about a state-sponsored sanatorium for the tubercular poor started just after the creation of the Tuberculosis Division in 1901. There had already been some recognition on the part of U.S. sanitary authorities regarding the importance of patient

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[113]Rene and Jean Dubos trace the first tuberculosis-specific sanatorium to Dr. John Lettsom, an English physician and founder of the Medical Society London who in 1791 established the Royal Sea Bathing Infirmary for Scrofula in the English seaside town of Margate. See Dubos, *The White Plague*, 173.

[114]S.A. Knopf, "The Urgent Need of Sanatoria of the Consumptive Poor of our Large Cities." In American Public Health Association, *Public Health Papers and Reports* 23 (1898): 303.

[115]Ibid., 307.

[116]Joaquin Jacobsen, *Una Localidad Para Tuberculosos*. (La Habana: La Propaganda Literaria, 1894), 8.

[117]Antonio Gordon Acosta, *La Tuberculosis en La Habana desde el Punto de Vista Social y Económico.* (Havana: Imprenta Militar, 1899.)

isolation in the fight against tuberculosis. Las Animas Hospital, which had served as the staging area for many of the experiments that led to the identification of the vector of transmission of yellow fever, had been turned into an infectious disease hospital by the middle of 1901.[118] But Las Animas was a facility designed to care for persons afflicted with all types of infectious diseases. While many tubercular patients were treated there the facility lacked the singular anti-tuberculosis focus of a sanatorium.

With the war against the mosquito well on its way to success, William Gorgas charged his staff with returning to the United States to collect information on how best to construct a sanatorium in Cuba. Charles Lincoln Furbush was a New Yorker whose early medical experience had been as a physician in Philadelphia. He had joined the U.S. Volunteers in 1899 and in 1901 became the Acting Chief Sanitary Officer of Havana.[119] In the fall of 1901, Furbush visited sanatoria in Boston, New York, and Philadelphia with an eye toward creating one in Cuba. In early December of that year he wrote to Gorgas advising him of his return to the island after having "secured some valuable data for you."[120] Furbush's sanatoria tour was followed shortly thereafter by a similar one undertaken by another sanitary official, John W. Ross. In mid-December Ross began a month-long trip that started in Boston and continued through the Mid-Atlantic States inspecting and visiting institutions, "about the character we wish to establish in

[118]Letter of William Crawford Gorgas to New York Medical Journal October 19, 1901 in LOC William Crawford Gorgas Papers, General Correspondence Box 3 (6/1899-12/1901).

[119]Biographical Data on Charles Lincoln Furbush taken from *National Cyclopedia of Biography*. Volume 20, (New York: J.T White Company, 1929), 222.

[120] Letter of Charles L. Furbush to William Crawford Gorgas, December 6, 1901 in LOC William Crawford Gorgas Papers, General Correspondence Box 3.

Havana."[121] While the trip was cut short by illness, Ross was unequivocal that Gorgas should pursue the construction of a sanatorium in Cuba.[122]

Driven by the scientific admonitions of tuberculosis experts such as Knopf and the explicit support of Furbush and Ross, Gorgas favored constructing a sanatorium near Havana. The majority of the tuberculosis cases in Cuba were found in Havana; to be practical any sanatorium should be near the Cuban capital. A seemingly perfect site for the sanatorium was found just south of the Havana in the rural hamlet of Arroyo Naranjo. There, at a farm called "La Asunción," U.S. sanitary authorities and their Cuban counterparts, had identified what they believed would be a location that would allow easy access to Havana while offering patients the benefits of targeted care for their disease. After negotiations with the owner, the American military authorities agreed to purchase the property for $15,000 to be paid in three annual installments.[123] The proposed sanatorium would be named "La Esperanza."

Given how quickly the U.S. sanitary authorities had moved to open the dispensary on Consulado Street, one might assume that the purchase of the land at Arroyo Naranjo would have been followed by construction of the sanatorium. Yet, the sanatorium that so many health officials on the island regarded as an important component of the broader fight against tuberculosis would be delayed. In fact, the U.S. occupation of Cuba would end without so much as a cornerstone being laid on the site. It is unclear from the records

[121] Letter of John W. Ross to William Crawford Gorgas, December 19, 1901 in LOC William Crawford Gorgas Papers, General Correspondence Box 4.

[122] Letter of John W. Ross to William Crawford Gorgas, January 25, 1902 in LOC William Crawford Gorgas Papers, General Correspondence Box 4

[123]Juan B. Fuentes, *El Sanatorio Para Tuberculosos Pobres "La Esperanza."* (La Habana: La Moderna Poesía, 1908), 3.

of the military government why funds for the construction of the sanatorium were never allocated by the Wood administration. A plan to appropriate funds from the Cuban budget in 1902 had been presented to the newly-elected Cuban legislature but they failed to fund the project. In fact, they would fail to fund the construction and operation of the sanatorium for the next few years. It would take a second American intervention, this time in 1906, for La Esperanza Sanatorium to be constructed and begin serving poor tubercular patients.[124]

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On March 21, 1902, two months before the occupation ended, William Crawford Gorgas wrote a letter to Henry B. Baker, the Secretary of the Michigan Board of Health, explaining his view of the tuberculosis problem in Cuba. "I do not see why we cannot eradicate as well as yellow fever. It might take a little more time," he wrote, "but our knowledge of its mode of propagation is very much more accurate than our knowledge of yellow fever was."[125]

Tuberculosis continued to be the leading cause of death in Cuba in the spring 1902, but the remarkable improvement in containing tuberculosis-related mortality on the island could not be ignored. Over the course of the preceding years, Gorgas had watched the number of deaths caused by tuberculosis on the island decline. The significant drop in the death rate attributed to tuberculosis suggested that the U.S public health campaign begun at the end of 1898 had managed to accomplish two things: detaining the spread of the disease and decreasing its morbidity. Moreover it appeared that the work of the

[124]Ibid., 5-9.

[125]Letter of William Crawford Gorgas to Henry B. Baker, March 21, 1902 as cited in Michigan Board of Health, *Teachers' Sanitary Bulletin* 5:6 (June, 1902): 48.

Tuberculosis Division founded in the spring of 1901, also had a positive effect on the tuberculosis crisis on the island.

But by the time U.S. left Cuba in May 1902, the death rate attributed to the disease had started to increase. Despite Gorgas's bravado, tuberculosis seemed to evince a new resiliency. This reversal was obvious in the monthly mortality reports published by Gorgas' office. In 1901, the death rate attributed to tuberculosis had climbed to 351.8/100,000 and by the following year another increase, this time to 361.2/100,000, had been registered. As the total number of deaths cause by other infectious diseases continued a slow but steady decline, tuberculosis proved difficult to diminish and control.

Yet U.S. authorities never responded to the increase in deaths caused by tuberculosis with the same vigor and resolve that had marked their work against yellow fever. As they prepared to leave Cuba they were worried not about the seeming intractability of tuberculosis but about the possible resurgence of yellow fever. Both within the military government on the island and in the public health sectors of the U.S. mainland, military and civilian authorities wondered whether the Cubans would be able to sustain the anti-yellow fever strategies that had brought Gorgas and his men international praise.[126] Indeed the centrality of yellow fever to the U.S.-led public health program in Cuba was one of the reasons why the Platt Amendment contained language expressly dealing with the issue of yellow fever. As Section V of the Amendment makes clear:

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[126]American lack of confidence in the Cuban republic's ability to guard against a resurgence of yellow fever reflected a broader view that once Gorgas and the American troops were gone Cuba would "go back to that old place again, that is riot, bloodshed, and murder." Letter of J.C. Janie to William Crawford Gorgas, May 29, 1902 in LOC William Crawford Gorgas Papers, General Correspondence Box 5.

> That the government of Cuba will execute, and as far as necessary extend, the plans already devised or other plans to be mutually agreed upon, for the sanitation of the cities of the island, to the end that a recurrence of epidemic and infectious diseases may be prevented, thereby assuring protection to the people and commerce of Cuba, as well as to the commerce of the southern ports of the United States and the people residing therein.[127]

As U.S. troops left the island on May 20, 1902 and as the sanitary care of the Cuban republic passed from the hands of officers like Gorgas to Cuban physicians and sanitarians, the tuberculosis crisis loomed large. The question facing the newly-established Cuban government would be whether they would place tuberculosis at the center of their new nation's public health program.

[127]http://www.ourdocuments.gov/doc.php?doc=55&page=transcript

Chapter 3:

La Liga Contra La Tuberculosis en Cuba and the Politics of Disease Control.

The end of the U.S. occupation of Cuba on May 20, 1902 marked the beginning of a new chapter in Cuban history. Thirty years of struggle in the battlefields of politics and war had brought an end to Spanish colonialism on the island. But the intervention of the United States in 1898 and the subsequent months of occupation, pacification and reconstruction also had put an end to the long-sought goal of *Cuba Libre*. Instead, on the day General Leonard Wood handed over control of the island to Don Tomás Estrada Palma, Cuba enjoyed little more than an attenuated sovereignty; something that bore little resemblance on paper or in practice to the Cuba envisioned by the leader of the Cuban independence movement, José Martí.

U.S. rule had certainly put an end to the most frightful elements of the war years: rampant disease, crippling starvation, and economic paralysis. But the Americans, often in concert with Cuban and Spanish elites on the island, had helped to create conditions that augured poorly for Cuba's political and economic future. Economically, the island was still struggling to rebound from the terrible ravages of war. Sugar planters across the island, especially in western and central Cuba sought to reconstruct their small farms or large plantations and to restore productive capacity to their mills. While many of these succeeded, many others did not. A reciprocity treaty with the United States had yet to be approved in Washington. Sugar producers struggled to get their crop to the giant U.S. market, and with every delay in approving reciprocity, the condition of the least capitalized members of the Cuban planter class became all the more precarious. Saddled by years of accumulated debt and usurious interest rates, many planters recognized that

their most economically rational decision was to sell their properties to whoever could afford to purchase them. Not surprisingly, capital-rich investors in the United States flooded into Cuba purchasing acres of land that would eventually produce sugar, fruits, and tobacco for the international market.

For many members of Cuba's *clases populares*, economic stability also proved elusive. The terms of the Treaty of Paris had codified the right of Spaniards to remain in Cuba and retain "all of their rights of property."[1] What is more, the Spaniards also "had the right to carry on their industry, commerce and professions."[2] If any members of the insurgent army had hoped that the war would yield spoils to the victors, and there is reason to think that many believed just that, they were sadly mistaken.[3] Unable to secure lands from which to earn their livelihoods, many Cubans turned to wage labor in the island's major cities or in rural Cuba where reconstruction had begun in the aftermath of the war. The aftereffects of the war were felt in virtually every sector of the Cuban economy and for many Cubans jobs were difficult to secure. Here, again, the policies of the U.S. military government seemed to conspire against the Cubans. The U.S. authorities pursued an active immigration program designed to bring thousands of white Spaniards to Cuba. These workers, many of them poor and hungry for an opportunity to *hacer las américas*, settled in places such as Havana where they often enjoyed

[1] *A Treaty of Peace Between the United States and Spain*, U.S. Congress, 55th Cong., 3d sess., Senate Doc. No. 62, Part 1 (Washington: Government Printing Office, 1899), 9.

[2] Ibid., p. 10.

[3] The issue of whether the *Partido Revolucionario Cubano* (PRC) had ever actually offered its soldiers the possibility of receiving lands that formerly belonged to Spaniards is a matter of debate. Louis A. Pérez, Jr. has argued that in 1896, the PRC issued a "land reform decree" designed to provide insurgent Cubans with land once the war had been won. In contrast, Carlos Ripoll has argued that the 1896 "land reform decree" was found in the New York office of the PRC well after the war and was never debated by Cuban insurgent leaders or approved by the President of the Cuban Republic-in-Arms, Salvador Cisneros

preferential treatment from the Spanish merchant class. Spanish immigrants were visible in virtually every sector of the urban economy of Havana: as merchants and salesmen, laborers and hackmen. Spain may have abandoned its control over Cuba, but the condition of Cuba's working classes was as difficult as ever.

Politically, the end of the U.S. occupation gave birth to a complex and unstable system of governance on the island. For the first time in its history, Cuba had a Cuban president and a legislature made up of Cubans. It is difficult to diminish the significance of these achievements, particularly given the long and costly battles of the nineteenth century to secure these very basic elements of self-rule. But the power of each of these was narrowed by the terms of the Platt Amendment of 1901. Despite the terms of the Teller Amendment—which prohibited the United States from governing Cuba as a colonial possession—U.S. policymakers in Washington and Havana had devised a plan that limited the island republic's sovereignty in the name of preserving peace and stability. The terms of the Platt Amendment—despite the assurances of U.S. authorities—were designed to diminish the ability of the Cuban state to act independently of the political and economic desires of the U.S. government. Whether it was the proscriptions against Cuba entering into treaties or delimiting the geographical borders of the nation, the Platt Amendment placed significant restrictions on the Cuban republic and heralded the start of U.S. suzerainty over the island.

The Platt Amendment also defined the limits of Cuban sovereignty with respect to public health and sanitation. Over the course of the occupation, public health had assumed an important place in U.S. plans for the future of Cuba. As indicated in the

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Betancourt. See: Pérez, Jr., *Cuba under the Platt Amendment*, 58 and Carlos Ripoll, *El Bandolerismo en Cuba: Desde el Descubrimiento hasta el Presente*. (New York: Editorial Dos Rios, 1989).

previous chapter, sanitary and health authorities during the military government labored to rid the island of yellow fever. They did so mainly in order to guarantee the safety of U.S. port cities along the coasts of the Gulf of Mexico and the Atlantic Ocean and to facilitate the continued arrival of Spanish immigrants to the island. In this way, American objectives for Cuba's commercial and political future fundamentally informed the public health agenda pursued in the years immediately following the end of Spanish rule.

As the end of the U.S. occupation approached there was the fear that the sanitary achievements of the occupation authorities would, in Cuban hands, fall apart. This led American officials to tie Cuban independence to a public health agenda whose most important goal was keeping Cuba free of yellow fever. The terms of the Platt Amendment went so far as to threaten the intervention of the United States if the new Cuban state failed to continue the anti-yellow fever program designed under the administration of General Leonard Wood. During the early years of the Cuban republic, then, officials in Havana had to pursue a public health agenda that served the strategic interests of the United States more than it did the epidemiological realities of the Cuban people. As Mariola Espinosa has explained, "U.S. concerns about yellow fever powerfully shaped the limits of [Cuban] independence."[4]

Taken together, the economic, political, and sanitary policies imposed on Cuba during the months of direct U.S. rule created a nation where the Cubans' "conquest of nationhood did not announce the control of the nation."[5] Yet, while the limitations

[4]Mariola Espinosa, *Epidemic Invasions: Yellow Fever and the Limits of Cuban Independence, 1878-1930*. (London and Chicago: University of Chicago Press, 2009), 73.

[5]Pérez, Jr., *Cuba Under the Platt Amendment*, 57.

imposed on Cuba's sovereignty certainly precluded Cuban "control of the nation," it would be erroneous to assume that Cubans abandoned their commitment to the idea of a unique and independent Cuban national polity. Additionally, a diluted form of self government did not translate into a diluted quest for a national identity. While the policies and priorities of the United States certainly limited Cuban freedom, Cubans were eager to identify and pursue ways in which to assert that theirs was not only an independent nation but also a decidedly modern one.

The crafting and implementation of public health policies was one vehicle through which Cubans could make claims about Cuban national identity. The early years of the twentieth century were ones of great interest in matters of public health throughout the Atlantic world and Cuba was not exempt from these developments. In fact, as described below, many Cuban physicians, scientists and civic leaders actively engaged in activities that not only connected them to international health networks but also allowed them to advance, albeit imperfectly, a Cuban public health agenda that reflected the needs of Cuba over those of the United States. Just as importantly, Cubans recognized that the new science of public health could serve as evidence that Cuba, despite the interference of the United States, was a modern and progressive nation. Among the many public health initiatives undertaken during the early years of the Cuban republic, few seemed to draw the Cubans' attention as powerfully as did the fight against tuberculosis.

Yellow fever claimed few Cuban lives and the campaign to rid the island of the disease was designed almost entirely to protect Americans and Europeans. Certainly, yellow fever was of concern to Cuban authorities in the years immediately after the end of the occupation. Cubans understood that an outbreak of the disease could have

catastrophic commercial implications for the Cuban economy as it began its slow recovery after the war. But it is also true that Cuban concerns over controlling the disease reflected a desire, or more precisely a need, to acknowledge and acquiesce to the public health imperatives of the United States.

Tuberculosis was different. In stark contrast to yellow fever it was a disease that wreaked havoc in every sector of Cuban society and profoundly influenced the lives of many thousands of Cubans. As Dr. Luis Cowley, a prominent physician from Cienfuegos and a member of the *Academia de Ciencias de La Habana* noted in 1903, "Children and the elderly, men and women, rich and poor of all races; the virtuous and the corrupt, the wise and the ignorant, monarchs and slaves; none can judge themselves free of so great a calamity."[6] If yellow fever was a disease that haunted the Cuba of the American imagination, tuberculosis was the disease that dominated the Cubans' daily reality.

The recognition of tuberculosis as a serious threat to the health of the Cuban republic was in many ways influenced by the global campaign against the disease. The discovery of Koch's bacilli had fundamentally altered the ways in which medical professionals and civic authorities viewed the transmission of the disease. From Paris and London to New York and Philadelphia, and finally to Mexico City and Buenos Aires, a diverse group of interests coalesced around the idea that tuberculosis was a disease that was preventable.[7] It was also a disease that was too important to ignore and whose

[6]Luis Cowley, "La Cura de aire de los tuberculosos pobres en las Terrasas." *Boletín Mensual de La Liga Contra la Tuberculosis en Cuba* 2:10 (October, 1903): 69. (Hereafter BMLCTC)

[7]This was not always the case when it came to the disease. For years, social reformers in major cities around the world had largely ignored the disease. As Jean and Rene Dubos point out, tuberculosis was "so constantly and universally present that there was a tendency to regard it as an act of God, affecting both the rich and the poor and against which little action was possible." By 1900, in the aftermath of Koch's discovery, there was a consensus that the disease could be brought to heal. See Dubos, *The White Plague,* 210.

treatment and control was too complex to be left solely in the hands of doctors and scientists.

Beginning in the late nineteenth century and continuing through the first quarter of the twentieth century, organizations were created in most major cities of the Atlantic world to combat tuberculosis. These organizations brought together doctors, scientists, civic and political leaders, businesses and religious institutions in an effort not only to treat the victims of the disease but also to address the underlying social conditions that seemed to allow it to flourish. The disease not only raised questions related to microbiology, epidemiology and medicine but also with regard to matters such as housing, labor conditions, and the role of the state in fighting disease. In many ways, tuberculosis was the first disease that seemed to slip out of the confines of the world of scientific research and practice into the world of social policy. As Rene and Jean Dubos noted in the 1950s, tuberculosis was "a social disease."[8]

The global campaign against tuberculosis created a global network of organizations and institutions fighting the disease. In most major cities in Europe, the United States, and Latin America anti-tuberculosis leagues sprouted up from the late nineteenth century through the early years of the twentieth century.[9] These organizations served as nodes of research, education and policy formulation in their respective cities or countries. They were, in many ways, the most tangible and public evidence of a particular nation's attempt to fight the disease.

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[8]The Dubos explained that tuberculosis demanded "that the impact of social and economic factors on the individual be considered as much as the mechanisms by which the tubercle bacilli cause damage to the human body." Dubos, *The White Plague*, xxxvii.

[9]Ibid., 210-211.

In Cuba, the preeminent anti-tuberculosis organization of the early republican years was *La Liga Contra La Tuberculosis en Cuba*. Founded late in 1901, just as the U.S. occupation of the island was ending, *La Liga* lobbied U.S. and later Cuban authorities to recognize the tuberculosis crisis in Cuba and to enact modern strategies to treat the ill and control the spread of the disease. It was the first organization of the Cuban republican era to articulate a public health agenda that was aimed at a disease that affected Cubans. Just as importantly, *La Liga* and its leaders connected Cuba's anti-tuberculosis efforts to similar efforts in Europe and the United States. They participated in international and regional conference on tuberculosis, published texts on the treatment and control of the disease, shared information on the disease taken from foreign sources, and supported research to better understand the parameters of the disease on the island. This work did much to advance the campaign against tuberculosis in Cuba but it also allowed for *La Liga*—and especially its leaders and supporters—to claim that it was a partner in a modern global campaign against tuberculosis. In doing this, *La Liga* offered a vision a Cuba quite different from that imperfectly independent nation that was handed over to the Cubans by U.S. authorities in the spring 1902. This was not the Cuba of attenuated sovereignty but a Cuba that stood shoulder to shoulder, as it were, with the modern nations of the world.

This chapter is divided into two parts. The first part provides an overview of the creation of *La Liga* and its work during the years between the final months of the American occupation and the start of the second American occupation of Cuba in 1906. These were the years when *La Liga* was most active and when they established themselves as the island's most important anti-tuberculosis advocates. The ways in

which *La Liga* framed the anti-tuberculosis campaign in Cuba, the tools that it developed and used to advance its vision, and the work it did to treat tubercular patients are considered. Next, there is an examination of how *La Liga* was often thwarted by the Cuban government in its efforts to place tuberculosis at the very center of the early-twentieth century Cuban public health agenda.

The second part of this chapter analyzes how *La Liga* articulated messages about Cuban modernity through its work against tuberculosis. The global anti-tuberculosis campaign that began during the *fin de siècle* was the first modern public health campaign of the twentieth century. Medical, scientific and political leaders viewed the eradication of tuberculosis as a staple of modern medicine and statecraft. In Cuba, where the struggle to define the nation was complicated by the island's relationship the United States, the fight against tuberculosis became fundamentally tied to ideas about Cuba's modernity. *La Liga* was an important leader in this regard. By examining the ideology of its members, in particular how the ideology was manifest in the organization's monthly *Boletín*, an important but largely forgotten example of how Cubans during the early years of the Republic sought to proffer an image of Cuba that was decidedly modern will be considered.

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In the late winter of 1903, Dorothy Stanhope, the *New York Times* special correspondent in Havana, reported how tourists from the United States were flocking to the Cuban capital. There were students and conventioneers, overworked businessmen looking for "a little relaxation" and the "leisured traveler…spending Winter [sic] in a warm climate." Of course, not all of those who came to winter in Havana were there for

pleasure. There were "invalids" too who came to Cuba "in search of health." This last group, however, did not include many persons suffering from tuberculosis. In fact, Stanhope made explicit reference to just how much had changed in Cuba when it came to the matter of tubercular visitors to the island.

> Fifty years ago hundreds of people came [to Cuba] in the hope of becoming better of consumption…They seemed to form the majority of Cuban travelers. Many of them died on the way to or from here; some of them are sleeping the long sleep in Colon Cemetery…But the day is passed when this island seemed a haven of health—save for those that need a mild climate. Tuberculosis claims hundreds of victims among the natives and strangers coming here not infrequently contract it. Those who find themselves afflicted with the disease hurry back to the States if they were [sic] able.[10]

In her assessment of tuberculosis in Cuba, Stanhope was correct that had much had changed in the preceding fifty years. Five decades before Stanhope covered Havana for the *Times*, the island was a veritable oasis for Americans suffering from tuberculosis. J.G.F. Wunderman, the Charleston, South Carolina-born doctor whose *Notes on Cuba* became one of the best-known travel guides to the island in the 1840s, had retreated to Cuba in the hopes of finding relief from his own battle against tuberculosis. Wunderman sang the praises of the island writing that for "those laboring under any of the forms of pulmonary disease, Cuba offers a clime far superior to any that the continent of Europe possesses, not excepting even that of Italy."[11] Several years after Wunderman's stay on the island, the Alabama Senator William Rufus King found his way to the island in a desperate attempt to save himself from tuberculosis. King had been Franklin Pierce's

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[10]Dorothy Stanhope, "Winter Tourists Flock to Havana," *New York Times*, 25January 1903, 26.

[11]J.G.F. Wunderman, *Notes on Cuba Notes on Cuba: containing an account of its discovery and early history ; a description of the face of the country, its population, resources, and wealth; its institutions, and the manners and customs of its inhabitants; with directions to travellers visiting the island*. (Boston: James Munroe and Company, 1844), 1.

running mate in the 1852 U.S. Presidential election. In January 1853, just a few months after winning the election, King left for Cuba hoping to improve his condition. In March of that year, his ill health kept him from traveling back to the United States. Congress interceded on his behalf and allowed him to take the oath of office in the Cuban city of Matanzas. Several weeks later, Vice President King boarded a boat destined for the Alabama coast. He arrived at his plantation on April 17th and died from tuberculosis the next day.[12]

A half-century after King's death Cuba was no longer regarded as a place to where one escaped to recover from tuberculosis. In fact, the island was in the midst of a tuberculosis crisis. Havana, in particular, confronted a grim reality with regard to the disease. As Table 3.1 shows, between 1901 and 1903, the number of deaths caused by tuberculosis in Havana increased, as did the death rate from the disease. This despite the fact that the public health strategies employed during the U.S. occupation of Cuba had produced a general decline in the city's death rate and a decrease in the number of deaths caused by other infectious diseases. Tuberculosis was the one disease on the island that seemed to withstand and indeed thrive despite the American sanitary program in Cuba.

Table 3.1: Deaths and Death Rate Caused By Tuberculosis in Havana, 1901-1903

Year	Deaths	Death Rate (Per 1,000)
1901	856	3.43
1902	811	3.15
1903	959	3.62

Source: Jorge Le-Roy y Cassá, "Sanitary Improvements in Cuba As Deonstrated by Statistical Data." American Journal of Public Health 3:3 (March, 1913), 262.

[12]Vice President King was not the only member of Pierce's inner circle to have first-hand experience with the disease. Secretary of State William L. Marcy's son, Edmund, also died of tuberculosis in 1853. Finally, First Lady Jane Pierce long suffered from the disease, eventually dying of tuberculosis in 1863. Thomas Dormandy, *The White Death: A History of Tuberculosis*. (New York: New York University Press, 1999), 117.

Tuberculosis was nothing new in Cuba. Throughout much of the nineteenth century, Cuba's medical and scientific communities debated the treatment and control of the disease. During the second half of the nineteenth century, Cuban physicians, like physicians in Europe and the United States, studied and debated the etiology and control of tuberculosis. Was tuberculosis spread through foul air or miasmas? Was there a unique diathesis that made certain kinds of people more susceptible to the disease than others? In forums, lectures, and in their medical journals, Cuban doctors had addressed these questions and others including the contagiousness of the disease, the effect of sea air on tubercular patients and the ways in which mothers could prevent their children from becoming infected with tuberculosis, to name but a few areas of study. In 1870, for example, Dr. Manuel Sabas Castellanos and Dr. Luis Maria Cowley debated the role of climate and geography in treating tubercular persons at the *Real Academia de Ciencias* in Havana. Castellanos, who suffered from the disease himself, argued for the healing properties of cities with dry climates such as Nice; while Cowley sought to cast doubt on the effect of climate at all on the tubercular patient.[13] In the event, the exchange between Cowley and Castellanos was but one of several public debates about the disease in 1870s

[13]For a review of the exchange between Castellanos and Cowley see Anales de la Academia de Ciencias Medicas, Fisicas y Naturales 7 (1870): p. 314-317. Pedro Pruna Goodgall has argued that despite the impact that tuberculosis had on Cuban mortality in the nineteenth century, the Academia seems to have paid only occasional attention to the disease compared to other diseases such as cholera. See Pedro Pruna Goodgall, *Ciencia y Científicos en Cuba Colonial: La Real Academia de Ciencias de La Habana, 1861-1898.* (La Habana: Museo Nacional de Historia de Ciencias "Carlos J. Finlay," 1999; La Habana: Editorial Academia, 2001), 172.

and was followed by further discussions about the disease at the Academia throughout the 1880s and 1890s.[14]

By the late nineteenth century, the struggle against the disease had changed. Armed with Koch's microbiological discovery, doctors across the globe began to take a more aggressive and targeted approach to the disease and to create specific strategies to fight it. By and large, these plans turned on prohibitions against spitting and provisions in favor of isolation and disinfection of infected persons. In 1886, for example, the French government became the first in the world to prohibit expectoration in public places. In the following years similar legislation outlawing public expectoration and calling on government authorities to mandate the identification and isolation of tubercular patients would be enacted in Europe and the United States.[15]

The discovery of Koch's bacilli and the enactment of laws designed to prevent the spread of the disease were only one part of the global anti-tuberculosis campaign. One of the defining features of the war on tuberculosis was the creation of philanthropic organizations organized and in many cases directed by laymen. This "farsighted citizenry," as the Dubos' described them, "saw in tuberculosis a social disease that was not likely to be resolved by a conventional medical approach."[16] In the 1890s, anti-

[14]Perhaps the most important lecture on tuberculosis delivered at the Academia was by Jacques-Joseph Grancher, a colleague of Louis Pasteur, whose work focused on the early diagnosis of the disease. See Jacques-Joseph Grancher, "Del diagnostico precoz de diversas formas de la tisis pulmomar," *Anales de la Academia de Ciencias Médicas, Físicas y Naturales* 19 (1883): 478-493. In addition to being a member of Pasteur's inner circle in France, Grancher had close ties to the Cuban community through his marriage to Rosa Abreu, a prominent *villaclareña* whose sister, Marta, was one of Cuba's leading philanthropists and an advocate of Cuban independence. See Steven Palmer, "Beginnings of Cuban Bacteriology: Juan Santos Fernandez, Medical Research, and the Search for Scientific Sovereignty." *Hispanic American Historical Review* 91:3 (August 2011): 454.

[15]Dormandy, *The White Death*, 137.

[16]Dubos, *The White Plague*, 211.

tuberculosis organizations were established in Denmark and France, Germany and Austria, Canada and in the United States.[17] They included in their ranks leading specialists in the burgeoning field of tisiology but also prominent members of these nations' elite classes including "royalty, chiefs of state [and] leaders of the political and social world.[18]

Latin America was not immune to the anti-tuberculosis currents prevalent throughout the Atlantic world. By the end of the first decade of the twentieth century there were anti-tuberculosis leagues in Buenos Aires, Montevideo, Rio de Janeiro and São Paolo.[19] Members of these Latin American anti-tuberculosis leagues frequently participated in national and international conferences on the disease, published regularly in their home countries and abroad on issues ranging from the demographic composition of tuberculosis mortality to the importance of education for disease control, and provided direct service to tubercular patients. Just as importantly, however, the leagues and their members regularly challenged national governments to aggressively confront tuberculosis by enacting tuberculosis-specific legislation and by allocating resources from national treasuries toward the expansion of health facilities such as dispensaries and sanatoria.

Cuban campaigners against tuberculosis shared the scientific-social orientation of their colleagues throughout the Americas. Cubans were fully aware of Koch's

[17]Ibid., 210-211.

[18]Ibid., 211.

[19]On Buenos Aires see Diego Armus, *The Ailing City: Health, Tuberculosis and Culture in Buenos Aires, 1870-1950.* (Durham: Duke University Press, 2011), 129-131; On Montevideo see Anne-Emanuelle Birn, "The national-international nexus in public health: Uruguay and the circulation of child health and welfare policies, 1890-1940." *História, Ciências, Saúde – Manguinhos*, 13:3 (July-Sept. 2006): 41; On Rio de Janeiro and São Paulo see Miguel Aiub Hijjar, Germano Gerhardt, Gilmário Teixeira and Maria José Procópio, "Retrospecto do controle da tuberculose no Brasil." *Revista Saúde Pública* 41 Supplement 1 (2007): 51-52.

bacteriological discovery. They were also quick to accept the contagion control strategies that emerged from the discovery of the tubercle bacilli. In 1890, as tuberculosis spread in the eastern Cuban city of Santiago de Cuba, a group of doctors in that city established an anti-tuberculosis league to combat the disease.[20] The doctors included members of the Santiago political elite such as Ambrosio Grillo, a prominent member of the Liberal Autonomist Party and Urbano Guimerá y Ros, a member of the Santiago *ayuntamiento*. Little is known about this organization's work but it appears that their efforts centered on halting the spread of tuberculosis among the city's cigar-makers.[21] The effort in Santiago de Cuba reflected both an awareness of the seriousness of the tuberculosis threat in the city and the conviction of local civic leaders that tuberculosis control depended in large measure on education and prevention.

While little is known about the work of the anti-tuberculosis league in Santiago, we may surmise that at least two factors contributed to its short-lived existence. The first, as with so much else in Cuban history, was that the organization's distance from the corridors of power in Havana likely limited its ability to secure support from the Spanish crown. Without this support, it would have been difficult for the organization to survive on the largesse of its members and local supporters alone. The other reason for the limited importance of the organization was the outbreak of the Cuban War for Independence in 1895. The economic and demographic upheaval caused by the war, especially in the eastern regions of the country, certainly would have diminished the

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[20]Enrique Beldarraín Chaple, "Apuntes Para La Historia de la Lucha Anti-tuberculosa en Cuba." *Revista Cubana de Salud Pública* 24:2 (1998): 98.

[21]One of the founding members of the league, Dr. Eduardo Padró Griñán, was sent to Germany in the 1890s to study the etiology of the disease and strategies for its control. His expenses were paid by local tobacco workers. See Ibid., 98.

group's ability to effectively address the disease through a campaign of education and to offer even the most minimal medical care, particularly to poor *santiagueros* who already faced terrible prospects for survival because of the war and Weyler's repressive reconcentration strategy.

It would take the end of the war against Spain and the birth of a new Cuban republic to create an anti-tuberculosis league whose influence would extend across the nation and whose mission would become a fundamental part of the Cuban public-health landscape.

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The end of the War in 1898 and the beginning of the U.S. occupation initially raised hopes among some Cuban doctors and sanitarians that the matter of tuberculosis would be treated seriously and that the resources needed to fight the disease would be forthcoming from the occupying authorities. But as noted in the previous chapters, the U.S. public health agenda for Cuba was built around the control of yellow fever. The decision by the U.S. authorities to focus on yellow fever instead of a targeted campaign against tuberculosis created tensions with local Cuban physicians who regarded yellow fever as a matter of little importance to the health of the island and its citizens. In January 1899, as American military and civil authorities were settling into the business of managing a new and devastated colonial possession, Dr. Antonio de Gordon y Acosta, a celebrated physician and former president of the *Real Academia de Ciencias Médicas, Físicas y Naturales de la Habana*, warned that the Cuban capital was under siege from "the most terrible and ruthless of the various diseases that afflict man."[22] Havana's

[22]Antonio de Gordon y Acosta, *La Tuberculosis en La Habana desde el Punto de Vista Social y Económico*. (La Habana: Imprenta Militar, 1899), 6.

topography, its ill-designed and poorly maintained sewers and streets, and the lack of quality housing coupled with overpopulation in many of the city's poorest districts, all combined to make it an fertile breeding ground for Koch's bacilli. Yet, despite the overwhelming number of deaths caused by the disease in Havana, U.S. authorities treated tuberculosis as a public health matter of secondary concern. Gordon y Acosta excoriated the Americans for their failure to treat tuberculosis with the same urgency that characterized their campaign against yellow fever:

> …these same people who are so worried about the eruption of pandemics, who adopt strict precautions at the news of an outbreak [of disease], are unperturbed by and indifferent to the horrifying ravages caused daily by tuberculosis, [they] are not moved in the least…by the victims [of tuberculosis]…[23]

The following year, Manuel Delfín, another prominent Cuban doctor, was even more pointed in his attacks on the military government. In a scathing essay in his journal, *Higiene*, Delfín accused the sanitary authorities of misrepresenting the record of deaths attributable to tuberculosis during the first six months of 1900. "I am certain," he wrote, "that the statistics pertaining to tuberculosis are completely false."[24] Yet Delfín also criticized Cubans for their own lack of interest in fighting the disease. If the Americans were slow to take up the fight against tuberculosis, he suggested, it was in part because the Cubans themselves had shown so little desire to tackle the disease in earnest.

> The [American] sanitary department is worried only about yellow fever; we Cubans do not worry in the least that our native population dies of a

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[23]Ibid., 6.

[24]Manuel Delfín, "La Tuberculosis en La Habana." *La Higiene* 1:22 (August 10, 1900): 254.

> preventable disease; and the American office is right not to worry because they do not wish to be more Catholic than the Pope.[25]

In a way, Delfin's criticism of the Cuban response to the disease was valid. While the Cuban medical community often partnered with American officials to address the public health and sanitary conditions of the island, they seem to have made little effort to insist that the American military authorities make as powerful an effort to combat tuberculosis as they did yellow fever. This began to change in 1901, when a group of physicians in the Cuban capital actively lobbied the military government to dedicate resources for tuberculosis treatment and control.

The establishment of *La Liga Contra La Tuberculosis en Cuba* owed as much to serendipity as it did to the global campaign against tuberculosis. In January 1901, Juan Santos Fernández, Cuba's leading ophthalmologist and the president of the *Academia de Ciencias* attended the First Latin American Medical Congress in Santiago, Chile. The congress in Santiago had debated many issues including the growing problem of tuberculosis in Latin America. It was in the Chilean capital that Santos Fernández met Emilio Coni, a noted physician whose work had focused on the importance of hygiene in the Argentine state of Mendoza. Santos Fernández quickly developed an affinity for Coni whom he later described as "intelligent and dignified."[26] Coni, for his part, must have recognized the value of developing a relationship with Santos Fernández whose work as an ophthalmologist, connections to medical leaders in the United States and Europe and personal investment in the creation of scientific and medical institutions had

[25]Ibid., 254.

[26]Juan Santos Fernández, *Recuerdos de mi vida*. Vol. 2 (Havana: Imprenta Llloredo y Compañía, 1918), 82.

made him a leading figure in Cuban medical and scientific circles. The transition from Spanish to U.S. rule had diminished some of Santos Fernández's power in Cuban medical circles but not by much. When he arrived in Santiago in 1901 he was, without question, not only one of Cuba's leading physicians but also an important advocate of public health on the island.

In an effort to coordinate the anti-tuberculosis efforts of the region, the congress established "a permanent international commission for the purpose of combating tuberculosis in Latin America."[27] Coni was appointed head of the commission. Soon enough he imposed upon Santos Fernández to become a member of the commission and, perhaps more importantly, to create an anti-tuberculosis league in Cuba. "Even though my dedication to ophthalmology did not allow me to occupy myself directly with this issue," Santos Fernández recalled years later, "I thought, as I always [did], that I should not waste the opportunity to introduce such a useful institution in our country."[28] In mid-September 1901 Santos Fernández convened a gathering of Cuban doctors in Havana to explain his commitment to Coni and to request their help in creating an anti-tuberculosis organization on the island. On September 14, 1901, at a meeting held in the offices of the *Sociedad Económica de La Habana*, *La Liga Contra La Tuberculosis en Cuba* was formally established. The following month, the military government authorized the existence of the organization and endorsed its mission with a monthly subsidy of $50 dollars.

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[27]Emilio Coni, "The Anti-Tuberculosis Campaign in Latin America." *Medical Record* (May 2, 1903): 690.

[28] Santos Fernández, *Recuerdos de mi vida,* 83.

Juan Santos Fernández may have founded *La Liga*, but credit for the organization's work and accomplishments during the first decade of the twentieth century was due in no small measure to Dr. Joaquín Jacobsen. A native of Havana born just a few years before the outbreak of the Ten Years' War in 1868, Jacobsen had studied medicine at the University of Havana and quickly thereafter entered into the circle of doctors, scientists and sanitarians who turned late nineteenth century Cuba into something of a "colonial medical metropolis."[29] In 1894, Jacobsen established himself as one of the island's leading experts on the problem of tuberculosis. In that year, as a newly-minted member of the *Academia de Ciencias*, he delivered a lecture advocating the creation of a tuberculosis sanatorium in the Escambray Mountains near the city of Trinidad.30

Jacobsen spent much of the last decade of Spanish colonial rule working at the University of Havana and later editing the prestigious *Revista de Ciencias Médicas* in Havana. After 1898, he inserted himself into the medico-sanitary bureaucracy created by the American military government. By 1901, Jacobsen was practicing medicine at one of Havana's largest hospitals, the *Hospital Número Uno* (formerly known as the *Hospital Militar Alfonso XIII*) alongside leading members of the Cuban medical community such as Arístides Agramonte, Joaquín Albarrán and Enrique Saladrigas.[31] Just as importantly,

[29] Steven Palmer, "Beginnings of Cuban Bacteriology: Juan Santos Fernandez, Medical Research, and the Search for Scientific Sovereignty." *Hispanic American Historical Review* 91:3 (August 2011): 447.

[30]Joaquin Jacobsen, "Una localidad para tuberculosos." *Anales de la Academia de ciencias medicas, físicas y naturales de la Habana*. 31 (1894): 119-129. Jacobsen presented a number of cases of tubercular patients whose condition was improved by exposure to the climate of the sierra between Trinidad and Cienfuegos. It would be this part of the island that Cuba would eventually construct its most important tuberculosis sanatorium during the twentieth century, *Topes de Collantes*.

[31]Leonard Wood, *Civil Report of the Military Governor, 1901*. Volumes 5-6. (Washington: Government Printing Office, 1902), 20

however, Jacobsen was also establishing valuable connections with American doctors serving in Cuba. These connections served him well when he became President of *La Liga*.

By mid 1901, with the anti-mosquito campaign well under way in Havana and yellow fever seemingly under control, the U.S. sanitary apparatus in Cuba had turned some of its attention to a specific and targeted campaign against tuberculosis. Jacobsen seemingly took advantage of this shift in U.S. health policy in Cuba by presenting *La Liga* as a valuable and necessary partner in the fight against tuberculosis. Valery Havard and Charles Lincoln Furbush, both leading members of the American military's medical corps on the island and both deeply concerned with the matter of tuberculosis containment, quickly became supporters of the organization. Furbush secured support for *La Liga* from the public treasury in the amount of $50 per month.[32] What is more, Furbush and Havard turned to *La Liga* for guidance on how best to address the tuberculosis crisis in Havana. *La Liga* responded by calling for a city-wide campaign of education aimed at poor *habaneros* and at those persons working in sectors of the urban economy where tuberculosis seemed to thrive such as tobacco factories. *La Liga* also offered its members as volunteers to lead workshops on disease control and containment throughout Havana. Writing after the occupation had ended, Jacobsen noted proudly how much of the anti-tuberculosis work done by the U.S. Military Government and its Tuberculosis Division was due to the "initiative of *La Liga*."[33]

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[32]Joaquín Jacobsen, "The Anti-Tuberculosis League of Havana and Its Work." American Public Health Association. *Public Health Papers and Reports* 30:1 (1905): 130.

[33]Joaquín Jacobsen, "Organización de Los Servicios Públicos de Tuberculosis." *BMLCTC* 1:6 (November, 1902): 60.

By the end of the U.S. occupation it was clear that *La Liga* occupied an important place in Cuba's public health landscape. Members of the American medical community on the island such as Gorgas, Furbush and Havard regularly attend the organization's monthly meetings. And General Wood himself seemed to recognize both *La Liga* and Jacobsen's import when he appointed the latter to serve as a member of the new Cuban National Sanitary Board alongside Carlos Finlay and other prominent Cuban physicians and scientists.[34] The American military government may have been late in recognizing the importance of the anti-tuberculosis fight in Cuba but it left *La Liga* positioned to continue its campaign under Cuban republican rule.

But the end of the U.S. occupation signaled a shift in *La Liga*'s fortunes. As much as the U.S. authorities had treated tuberculosis as a secondary public health concern on the island and as much as they had directed the lion's share of their resources toward eradicating yellow fever, Jacobsen felt that the military government had taken the organization's work seriously. It had partnered with *La Liga* on public education campaigns in Havana's slums and tobacco factories, it had provided a monthly stipend to the organization from the public treasury, and it had taken the first steps toward creating what Jacobsen believed was the single greatest tuberculosis-related need on the island: a sanatorium for the consumptive poor.

The first months of the Cuban republic had been successful for *La Liga* although there were signs that the organization's prominent place in the national public health bureaucracy was tenuous. Nevertheless, *La Liga* managed a number of early successes including the establishment of a number of outposts throughout the island, an accomplishment that confirmed the organization's national reach and scope. Delegates

[34]Jacobsen, "The Anti-Tuberculosis League of Havana and Its Work," 130.

representing the group were at work on the outskirts of Havana such as in the suburbs of Guanabacoa and in major cities including Pinar del Río, Matanzas, Santa Clara, Puerto Príncipe and Santiago de Cuba. *La Liga*'s magazine, *El Boletín*, was published on a monthly basis and included not only articles and original research on the particular challenges of tuberculosis in Cuba, but also connected its readers to the work of prominent experts on tuberculosis from the world over whose research on the disease was translated into Spanish for Cuban audiences. In a sign of official support from the political establishment of Havana, in September 1902 the city's *ayuntamiento* awarded *La Liga* a monthly stipend of $50.[35] The following month, the organization celebrated its first anniversary. Scores of leading members of Havana society—doctors and lawyers and businessmen and politicians—assembled in the ornate headquarters of the Cuban *Academia de Ciencias* to celebrate the organization and its work. Dr. Carlos Finlay, Cuba's sanitary chief, addressed the crowd and the visiting Archbishop of Santiago de Cuba offered a blessing.[36]

Yet, once President Estrada Palma took office in Cuba, the National Sanitary Board was reconfigured. On January 2, 1903 Jacobsen, along with Dr. Santos Fernández and several others, was removed as a full voting member of the board.[37] Clearly stung by the demotion to honorary board membership, Jacobsen suggested in a meeting of *La Liga* later that month that he would address the changes on the Board at some future date. The Sanitary Board, he argued, was dealing with issues of "greater interest"—namely, an

[35]*BMLCTC*, 1:5 (October 1902): 47.

[36]*BMLCTC*, 1:6 (November, 1902): 57.

[37]*BMLCTC*, 1:8 (January, 1903): 89-90.

outbreak of bubonic plague in the Gulf of Mexico—but once the opportunity presented itself he would "raise his voice in defense of *La Liga*."[38]

But the Estrada Palma administration's slight paled in comparison to the inertia that seemed to engulf the construction of the nation's first sanatorium for the poor afflicted with tuberculosis. The U.S. authorities had acquired land in the hamlet of Arroyo Naranjo to construct a sanatorium for poor tuberculosis patients from Havana. Negotiations on the acquisition of the land did not end until February 1902 leaving little time for the American sanitary authorities to begin construction on the project. By year's end it appeared that there was little commitment on the part of the new Cuban government to appropriate funds for the project. The lack of resolve may have reflected the political reality facing the National Sanitary Board, which was responsible for submitting a request for funding to the Cuban congress. Members of the Board were likely aware that their membership and functions were soon to be restructured and thus chose not to pursue funding for as a large project as the construction of the new sanatorium.

By early 1903, the National Sanitary Board had approved an allocation of some $82,000 toward the construction of the sanatorium and another $51,000 in operating expenses. The request was forwarded to the Cuban congress. But for reasons that remain unclear the request for funding was never approved. In January 1904, the National Sanitary Board again submitted a funding request for $186,000 to the Cuban legislature. On this occasion, the congress approved it but the Cuban senate ignored the matter and

[38]"Acta de la Sesión Ordinaria De 14 de Enero de 1903." *BMLCTC*, 1:9 (February 1903): 133.

funds for the project were never allocated.[39] Nearly two years had passed since the end of U.S. rule in Cuba and *La Liga*'s signature project on the island remained stalled.

While Cuba's legislative leaders delayed approving financial support for the sanatorium, Jacobsen not only roundly criticized the island's political leadership for failing to see the project through to fruition. Initially, Jacobsen took to the pages of *El Boletín* to suggest that the failure to construct the sanatorium was a result of the contrast between the scarce resources of the fledgling Cuban republic compared to the "unlimited sources of the intervention government."[40] But by January of the following year, Jacobsen could no longer mask his frustration at the inertia surrounding the project. "Of the sanatorium," he wrote in *El Boletín*, "there is nothing to say because nothing exists."[41] The construction of the sanatorium was a critical piece of *La Liga*'s anti-tuberculosis strategy but Jacobsen had tired of making the arguments in its favor that he had made for years. "It is an urgent need," he wrote beleagueredly, "I don't need to prove it; more than once I have addressed the issue."[42] Still, as if conflicted about the benefits of assuming an adversarial relationship with the government, he would report in the same issue of the magazine that he had met with no less a figure than President Estrada Palma himself. The president had not only welcomed him "cordially" but also "demonstrated a true desire to understand the issue with greater detail."[43]

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[39]Fuentes, *El Sanatorio Para Tuberculosos*, 4.

[40]*BMLCTC*, 1:6 (November, 1902): 61.

[41]Ibid., 91.

[42]Ibid., 91.

[43]Ibid., 92.

Jacobsen also took it upon himself to learn as much as possible about the science of sanatorium construction and operation in anticipation that the project would one day be undertaken. In 1903, with no solution to the sanatorium issue in sight, Jacobsen and his family left for the United States. In a trip that would take him from New York and the eastern seaboard to Colorado, Jacobsen intended to learn as much as he could about the sanatorium care offered to tubercular patients in the United States. After his return, he appeared before *La Liga* to recount his experiences visiting with colleagues (including William Crawford Gorgas) as well as facilities for the tubercular poor. His message to his peers was clear: the "civilized" nations of the world had committed to constructing sanatoria for the treatment of tuberculosis, if Cuba wished to be considered in their ranks it would have to follow suit.

If the construction of the island's first sanatorium had proved frustrating to Dr. Jacobsen and the other members of *La Liga*, the organization's first dispensary for the tubercular poor was a much-celebrated success. Opened in the spring of 1904, the dispensary was located in the heart of Havana; in what *La Liga* described as a "poor neighborhood."[44] Financial support for the construction of the dispensary had come in the way of a $1,000 grant from the provincial government of Havana. At the opening ceremonies on a Sunday afternoon in April, the provincial governor, General Emilio Núñez, offered continued support "for anything that will benefit the Liga."[45]

By every measure, the dispensary was small. It had just three rooms—a waiting room, an examination room and a laboratory. *La Liga* paid for two staff members but the

[44] *BMLCTC*, 3:4 (April, 1904): 62.

[45] *BMLCTC*, 3:5 (May, 1904): 64.

bulk of the work was done by a corps of volunteers drawn from *La Liga*'s members. Doctors donated their time to see patients during the week at the dispensary while others took on the task of visiting the tubercular poor to inspect the sanitary condition of their homes and to make sure that the patients were receiving sufficient nutrients. *La Liga*'s dispensary model was based on the idea that a patient who ate well and who lived in clean and hygienic surroundings was less likely to slip from an incipient instance of tuberculosis to an acute case of the disease. In this way, *La Liga*'s dispensary, much like the dispensary begun under the U.S. military government two years earlier, was intended to serve as a tool of medical treatment but also, and perhaps more importantly, as an agent of surveillance and instruction. As one member of *La Liga* explained, the dispensary's mission was essentially one of "constant vigilance" over the well-being of its patients.

La Liga reported the success of its dispensary in the pages of the *Boletín*. In June, 1904, 70 patients had been seen by the dispensary's doctors and 17 of those were registered as patients for the purposes of surveillance. By August of that year, the number of patients that had passed through the dispensary's doors grew to 130, with 9 additional patients added to the roster of patients under the care of Liga doctors.[46] By October, when *La Liga* celebrated its third anniversary, Dr. Jacobsen could point with pride to the nearly 500 examinations that had taken place at the dispensary in just a few short months. He also noted that *La Liga*'s volunteers had conducted 20 home inspections of tubercular patients and provided needed food to 40 sick *habaneros*. The dispensary had emerged as the most successful initiative in *La Liga*'s three-year history.

[46]*BMLCTC* 4:1 (July, 1904): 13 and 4:3 (September, 1904): 47.

Yet, despite the success of the dispensary and the support that *La Liga* received from municipal and provincial authorities in Havana, by the end of 1904 it appeared that the Cuban national government would never provide the institutional support that Jacobsen and others believed was essential to the organization's success. For years, Jacobsen had argued that, unlike the United States or Western Europe, Cuba did not have the philanthropic capacity to underwrite *La Liga*'s work. Where private philanthropists had been intimately involved in the creation and expansion of anti-tuberculosis leagues in the United States and England, the same could not be said for Cuba. Certainly there were private individuals and businesses in Cuba whose names appeared in the Boletín as *socios protectores*, but the tuberculosis crisis in Cuba was too large to be addressed by private charity alone.[47] The failure of the fledgling Cuban national government to allocate money to support *La Liga*'s work, generally, and the sanatorium, in particular, was devastating. Not only did the lack of capital deny Cuba the ability to treat tubercular patients in an isolated, controlled sanatorium setting but also it left *La Liga* unable to support its chapters in the provincial cities and town of the Cuban interior. By late 1904, with several of the organization's chapters failing to gain traction, Jacobsen lamented the lack of financial resources to support the fight against the disease outside of Havana. "In great enterprises," Jacobsen noted in October, 1904, "money is a fundamental concern."[48] The failure to allocate money for the provincial divisions of *La Liga* had doomed any plans of establishing a truly national program against the disease.

[47]Socio protectores were sustaining members of the organization.

[48]"Memoria Anual en el 3er Aniversario de *La Liga* Contra La Tuberculosis." *BMLCTC* 4:5 (November 1904): 68.

Thus, three years after it had been founded, *La Liga* was at a crossroads. It enjoyed the support of doctors and the many individual Cubans who recognized the importance of the combating the disease. But it also had failed to secure support from the Cuban national government and was obligated to roll back its initial plans for a national effort against the island's leading cause of death. For Jacobsen, *La Liga*'s inability to thrive under Cuban republican rule was disillusioning not only because it seemed to reflect a general government ambivalence toward the health of the Cuban people but also because he and many others had framed the fight against tuberculosis as a referendum on the Cuban's republic's place among the modern nations of the world.

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Defining modernity, or people's conceptions of what it means to be modern, is a daunting task.[49] Yet during the last part of the nineteenth century and the start of the twentieth century there was a broad consensus in the industrializing nations of the Atlantic world that one way of defining modernity was by tying it to the ways in which nations addressed the "social question." What constituted the "social question" might vary from place to place but, broadly speaking, the *question sociale* addressed a broad number of issues that would, as Daniel Rodgers has argued, "temper, socialize, and mutualize the pains of…capitalist transformation."[50] Whether it was the movement in favor of labor laws or against the deplorable living conditions of urban slums, social

[49]For two good overviews of the debates surrounding the meaning of modernity see: Marshall Berman, *All that is Solid Melts into Air: The Experience of Modernity*. (Verso: New York, 1983) and Matei Calinescu, *Five Faces of Modernity: Modernism, Avant-Garde, Decadence, Kitsch, Postmodernism.* (Duke University Press: Durham, 1987).

[50]Daniel Rodgers, *Atlantic Crossings…*, p. 12.

reformers made claims to modernity that were built on proof they were mitigating the worst ravages of capitalism.

Like others in the Atlantic world, Cubans struggled with the thorny issue of defining and achieving modernity. Beginning in the nineteenth century, Cuban creoles had debated how economic and social policies on the island such as the expansion of sugar and the resiliency of slavery affected the creation of a modern Cuba. Debates raged on the island about the long-term impact of African slavery, about the ameliorative impact of Spanish-immigration and about the risks for Cuba's future in remaining so dependent on sugar. Yet, these were not the only areas were Cubans debated the modernity of the island. As much as slavery and sugar informed notions of modernity in nineteenth-century Cuba, technology and science also played an important role in defining Cuban modernity in the nineteenth century. Cubans looked to the technological innovations arriving on the island—the railroad, the telegraph, the telephone and electric street lights—as signs that Cuba was progressing and therefore becoming more modern.[51] In the mid-nineteenth century, it was the desire to be modern that led many Cuban scientists and doctors to advocate for the creation of a Cuban Academy of Sciences. The Academy would serve as a center of research and investigation on Cuba's natural and biological worlds and place the island in league with other nations where scientific academies and societies were regarded as modern institutions where nations debated discoveries in the natural world and advances in medicine.[52]

[51]Louis Pérez, *On Becoming Cuban*, 85.

[52]On the origins of the Academy see Pedro Pruna Goodgall, *Ciencia y Científicos en Cuba Colonial: La Real Academia de Ciencias de La Habana, 1861-1898.* (La Habana: Museo Nacional de Historia de Ciencias "Carlos J. Finlay," 1999; La Habana Editorial Academia, 2001).

The intervention of the United States in Cuba in 1898 only accelerated debates about modernity in Cuba. The Americans arrived in Cuba armed with a host of ideas and beliefs about what it meant to be modern. In the main, they were divided into two camps: those who saw the devastation caused by an unchecked market economy and were determined "to roll back those parts of the market whose social costs proved too high" and those who "saw the state fundamentally as a tool for business's promotion."[53] As previously indicated, U.S. authorities advanced a campaign of economic recovery and modernization that included improvements to national infrastructure (ports, highways, railways, etc.) and the negotiation of preferential tariffs between the island and the United States designed to spur the recovery of the Cuban sugar economy.

Alongside this campaign of economic recovery and expansion, the U.S. authorities also sought to apply the ideas of progressive social policy to postwar Cuba. Leading American social reformers such as Homer Folks, helped to create social welfare programs ranging from the establishment of a foster care program for orphaned children, reforms of the island's prison system, and improvements to the network of institutions caring for the nation's mentally ill.[54] Cuban teachers were sent to study the latest pedagogical techniques at universities in the United States. And, as indicated above, the newest strategies of sanitary science were applied to the filth-strewn streets of Havana.

Yet, there was something more to the ways in which modernity was presented by U.S. authorities in Cuba after 1898 and to the ways in which Cubans responded to these

[53]Daniel Rodgers, *Atlantic Crossings*, 30.

[54]For an examination of Homer Folks' work in Cuba see, John A. Gutiérrez, "From Destitution to Redemption: The Care of Orphans in Early Republican Cuba." Paper presented at the *4th Annual Cuban and Cuban American Studies Conference*. Cuban Studies Institute. Florida International University. Miami, Florida. March, 2002.

presentations. Implicit in the occupation was a broader claim about Anglo-American superiority over Latin decadence. Beginning in the mid-nineteenth century, confidence in U.S. "exceptionalism" had led to expansionist policies in the American West. Close contact with Latin American society and culture along the borderlands regions of Texas had convinced many U.S. leaders that the expansion of the United States was ordained not just because of the unique Anglo-American characteristics of the nation but also because of the weakening and retrograde society and culture of the Hispanic West. By 1898, the belief in Hispanic decadence and barbarity, influenced by the burgeoning scientific research of eugenics, and in many ways this helped shape popular support for U.S. military action against Spain and its remaining colonies in the Caribbean and the Pacific. The end of the Spanish empire was seen as the clearest evidence since 1848 of the ascendancy of Anglo-American civilization and the decline of Hispanic civilization.[55]

For the Americans in Cuba, their work on the island focused not just on stabilization and regeneration of a strategically important nation in the Caribbean but also on exporting civilization and progress to an island whose development, many Americans believed, had been arrested by Spanish backwardness and atrophy**.** Many Cubans embraced this narrative of American ascendancy in part because they themselves sensed, even before the intervention, that Spain was a faltering nation. During the late nineteenth century Cubans had greater contact with the United States. These contacts were the product not only of the increased trade between the two nations but also the circular flow of Cuban migration between the island and New York, Florida and Louisiana. Cubans returned from the United States marveling at its dynamic economic growth, the embrace

[55]Rafael Rojas, "The Moral Frontier: Cuba 1898. Discourses at War." *Social Text* 59 (Summer, 1999): 145-160.

of innovation, and a sense that the future belonged to their neighbor to the north. What is more, Cubans came to believe that Spain—with its corrupt government, its lagging economy, and its seemingly stagnant culture—was fundamentally incapable of refashioning itself as a modern, forward-looking nation. "The fact that Spain lacked the material resources and the technical means of modern development," Louis Pérez has argued, "raised the possibility that Spanish normative structures and value systems were incapable of accommodating progress and modernity."[56]

Yet, as much as Cubans recognized and valued U.S. definitions of modernity and as much as they sought to emulate U.S. innovations in government, economics, and culture, it was just as true that they resented and rejected attempts by the United States to frame postwar Cuba as desperately ill-prepared for independence, let alone for modernity. The repudiation of U.S. claims about the backwardness of the Cubans occurred almost as soon as the war had ended. In August 1898, Gen. Pedro Betancourt railed against the U.S. failure to quickly recognize Cuba's independence and the Cubans' ability to manage the island free of external controls. "We will not put down our arms until Cuba is, absolutely, independent," he said, "we are capable and sufficient in numbers to take care of ourselves and our own affairs."[57] Indeed, in the aftermath of the war, relations between U.S. military and civil authorities and many Cuban rebel leaders became strained. The former demanded that the Cubans not only express their gratitude to the United States but also defer to U.S. plans for the island's political and economic

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[56]Louis A. Pérez, Jr. *On Becoming Cuban: Identity, Nationality and Culture*. (Chapel Hill: University of North Carolina Press, 2007), 86.

[57]Pedro Betancourt as cited in Louis A. Pérez, Jr. "Incurring a Debt of Gratitude: 1898 and the Moral Sources of United States Hegemony in Cuba." *The American Historical Review* 104:2 (April, 1999): 363.

future. Cubans demanded that the U.S. recognize the island's immediate and complete independence. For the Cubans there could be no clearer sign of their modernity than their ability to rule the island they had fought for three decades to free from Spanish colonialism.

Debates about modernity in Cuba during this period included arguments about public health. For U.S. military authorities, the public health agenda for the island was informed by the decades-long struggle against yellow fever. Clearly, the disease terrified U.S. policymakers for its impact on the commercial stability of the states of the American Gulf coast and for the terrible mortality it had inflicted on Americans in the South. Yet yellow fever suggested something about Cuba and the Cubans that went beyond concerns over commerce and mortality. Yellow fever highlighted just how different Cuba was from the civilized and modern nations of the Atlantic world. It reinforced the view that the island, far from being in the league of the advanced nations of Europe and North America, was instead firmly in the company of the fraternity of the nations of the stifling and diseased tropics. Cuba was not alone among the nations whose tropical climate suggested an incompatibility with modernity. Almost all of the great imperial powers of Europe shared a similar view of their colonial possessions. Whether it was the French in Senegal or the British in India, there was a consensus that the public health agenda in the tropics was entirely different than in the centers of metropolitan power. What is more there was a belief that only the modern science and research of the major powers of the Atlantic world could "redeem" the tropics. As Deborah J. Neill has argued, the "power of microbiological and parasitological research…would improve the lives of colonial

peoples, enable economic growth and make the tropic habitable for white settler populations."[58]

Yet for Cuban physicians, scientists, reformers and civic leaders, the U.S. focus on yellow fever obscured just how much the island had in common with the industrialized nations of Europe and of the United States. In truth, yellow fever was not the greatest menace in Cuba's disease environment. The disease killed precious few Cubans and even among foreign non-immunes the numbers of deaths were small in comparison to other diseases such as tuberculosis. In fact, one need only look at the comparative rates of tuberculosis-related mortality to see that the disease was an even more potent killer in Cuba than it was in the United States. As Table 3.2 shows, the tuberculosis death rate in Havana in 1902 was more than twice the disease's death rate in the United States as a whole and just less than twice the rate of death rate in New York City.

Table 3.2: Tuberculosis Death Rate, 1902: Havana, New York City, United States.

Place	Tuberculosis Death Rate (Per 100,000)
Havana, Cuba	361.2
New York, New York	191
United States	174.2

In the aftermath of the U.S. occupation the Cuban medical and scientific communities along with the island's political leadership, were confronted with a serious challenge. On the one hand they needed to acknowledge U.S. concerns about a recurrence of yellow fever. Almost from the end of the occupation, U.S. public health officials expressed fear that the Cuban government was unwilling or unable to continue

[58]Deborah J. Neill, *Networks in Tropical Medicine: Internationalism, Colonialism and the Rise of a Medical Specialty, 1890-1930*. (Stanford: Stanford University Press, 2012), 2.

the yellow fever control strategies that had been implemented under U.S. rule. Doing so not only would serve as a testament to the quality of the public health system which the Cubans now controlled but also would mitigate against any possible U.S. intervention on the island under the terms of the Platt Amendment. As Mariola Espinosa has noted of the young Cuban republic's post-occupation anti-yellow fever program, "Cuban officials and health authorities knew well the importance of sanitation to both the health and the independence of their country and worked diligently to maintain the highest possible standards."[59]

Yet, while they were combating yellow fever, Cuban health and medical officials were also eager to show that they were in concert with the modern nations of the globe in their attempt to stem the spread of tuberculosis. By addressing the tuberculosis crisis on the island, and specifically in the capital city of Havana, Cuban doctors and civil authorities sought to present an image of Cuba that pivoted away from the island's tropical otherness and toward an image of Cuba as part of a global struggle against a disease of the modern world.

It was the members of *La Liga* that most clearly articulated the connection between modernity and the campaign against tuberculosis. In the pages of its monthly *Boletín*, the organization's members laid out a series of arguments in favor of a broad national campaign against the disease and in doing so they framed that campaign as part of Cuban claims of modernity. In explaining the nexus between modernity and the campaign against tuberculosis in Cuba, members of *La Liga* offered myriad arguments. These arguments included the universality of the disease, direct comparisons with the

[59]Espinosa, *Epidemic Invasions*, 106.

anti-tuberculosis strategies employed by the United States and countries in Western Europe, and the responsibilities of modern states to their citizens.

The global nature of tuberculosis and the universality of the prescriptions to contain it—identification, isolation, and education—were important components of the arguments made by Cubans about the connection between modernity and the campaign against the disease. Cuba, for decades before the start of the American intervention of 1898, was regarded as a place infested by all manner of tropical maladies; insect-borne illnesses that were a product of geographic location and poor sanitation and public hygiene policies. Yellow fever and malaria were the diseases most associated with Cuba in the minds of U.S. physicians and scientists. This focus on tropical disorders necessarily excluded Cuba from the league of modern industrialized nations where, at the turn of the century, tuberculosis was the single greatest public health concern. The members of *La Liga* rejected this formulation of Cuba's epidemiological difference. Instead they argued that in Cuba too, tuberculosis was the single greatest cause of death from infectious disease and that the public health agenda on the island, rather than being something uniquely tropical, was little different than that of the United States, England, or France. Cuban citizens were waging the same struggle as the modern citizens of New York City, London and Paris. "Tuberculosis," as Enrique Acosta, a member of *La Liga* explained in 1902, "is a disease of every country."[60]

For Dr. Juan Pons Ferrol, *La Liga* was part of a global response by civilized nations against the disease.

> In all of the civilized nations of the world there have been established anti-tuberculosis leagues to halt the march of the frightening blow that, little by

[60] *BMLCTC*, 1:6 (November, 1902): 64.

> little, attacks the nations where, thanks to the conditions created by our way of life, tuberculosis encounters a wide and fertile field where to expand and bear fruit.[61]

What occurred in the United States and in Europe with regard to the battle against tuberculosis was of great concern and interest to Cubans. The urban centers of the United States—New York City in particular—and European capitals such as Paris and London, offered standards against which Cubans might judge their own efforts against the disease. Indeed, according to Joaquín Jacobsen, the very establishment of *La Liga* in Cuba was the result of a global movement of combating tuberculosis that began in Europe and the United States. *La Liga* was founded, Jacobsen explained:

> at the very moment when, in Europe and America, in the centers of science and in governments there were urgent debates about THE CAMPAIGN AGAINST TUBERCULOSIS.[62]

La Liga's *Boletín* was regularly filled with articles extolling one or another innovation emerging in Europe or the United States for the treatment of the tubercular. Articles on aspect of the disease's etiology and treatment were regularly translated into Spanish and published in the journal.[63] In addition, Cubans regularly employed examples drawn from the United States and Europe to illustrate their points regarding the best ways to fight tuberculosis in Cuba. In his longstanding campaign to get the Cuban government to build a sanatorium for the tubercular poor, Dr. Jacobsen pointed to the positive results yielded by sanatoria in Germany, the United States and France. The United States in particular served as an important point of reference with regard to the impact of

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[61] *BMLCTC* 2:2 (July, 1903): 17.

[62] *BMLCTC* 1:6 (November, 1902): 59

[63] See, for example, "Etiologia de La Tuberculosis" in *BMLCTC* 2:2 (July 1903): 30 which was a summary of Arthur Latham, *Some Points in the Etiology of Tuberculosis*. (London: Young J. Pentland, 1902).

sanatorium care for the sick. Jacobsen returned from a tour of the United States in the summer 1903 extolling the virtues of some of the most important American sanatoria of the era: Adirondack Cottage, Montefiore Country, and the Loomis sanatoria in New York State, and the Rutland Sanatorium in Massachusetts.[64] Jacobsen used statistical information drawn from the annual reports of the American sanatoria he had visited in an attempt to convince Cuban civil authorities of the effectiveness and necessity of these institutions in the battle against tuberculosis. In each facility the number of "cured" and "improved" patients far exceeded the number of those who failed to respond to treatment or who died from the disease while interned at the sanatorium. "As far as the results," Jacobsen wrote of the American sanatoria, "the numbers speak for themselves."[65]

Yet, in his analysis of the importance of constructing a sanatorium for the consumptive poor in Cuba, Jacobsen went beyond the statistical comparison with the sanatoria of the United States. The mere fact that the United States had decided to pursue an active and aggressive campaign of sanatoria construction was reason enough for Cuba to follow suit. "If we did not understand the importance of the sanatorium," Jacobsen wrote:

> what it represents in the treatment of tuberculosis, the benefits which the poor patient receives: if we did not know how the institution started in Germany, how it grew and became popular, and the advantages which all classes have enjoyed there, the mere fact that it has been embraced with such enthusiasm in recent years in North America, should be for us the greatest guarantee of its effectiveness.[66]

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[64]Joaquín Jacobsen, "Utilidad del Sanatoria," *BMLCTC* 2:12 (December, 1903): 114.

[65]Joaquín Jacobsen, "Utilidad del Sanatoria," *BMLCTC* 2:11 (November, 1903): 97.

[66]Ibid., 96-97.

In some cases, the comparisons to the United States and Europe served as tools through which Cubans highlighted the vast discrepancy in the quality and scope of tuberculosis care between Cuba and the United States or European nations. In 1903, when Jacobsen was explaining his vision for the anti-tuberculosis campaign in Cuba he made reference to the important role played on the island by Hospital Número Uno outside of Havana. The hospital had created a separate ward for the treatment of tubercular patients. But Jacobsen was quick to remind his readers that the Cuban hospital nevertheless was still far from being "the modern hospital which is recommended today and which we find in Germany, England, the United States, and France."[67]

If the leaders of *La Liga* were looking to Europe and the United States as guideposts in the formation of the island's anti-tubercular campaign, they were also delighted to be recognized for their efforts by doctors and anti-tuberculosis crusaders abroad. In January, 1903, the New York-based magazine *Charities* published a brief article remarking on *La Liga*'s first anniversary celebration in Havana.[68] The article did little more than to summarize the list of first year accomplishments that had been published the previous year in the *Boletín* by Dr. Emilio Martínez. But the mere mention of *La Liga* in an American magazine, and specifically in New York, was enough to warrant pride and self-congratulation:

> This article should flatter our sense of self respect as Cubans, because it clearly demonstrates that we are capable of undertaking work and pursuing ideals with the same tenacity and daring as do those countries

[67]BMLCTC, 1:8 (January, 1903): 91.

[68]"Cuban League," *Charities: A Weekly Review of Local and General Philanthropy*. 10:1 (January, 3, 1903):13.

> that are wealthier [*en mejores condiciones*] than we are, without anyone's help, and through our own efforts.[69]

These and other recognitions of the Cuban anti-tuberculosis campaign were evidence, in Cuban minds, that the international community regarded the island as a partner, albeit a minor one, in the global struggle against tuberculosis. The validation of Cuban efforts to build a sanatorium, to educate citizens about the etiology of the disease, and even to create an organization whose express purpose was to organize and guide the nation's anti-tuberculosis efforts undercut arguments that Cuba's public health challenges were of a tropical nature and therefore incompatible with the "modern" campaigns against tuberculosis which were at the heart of public health policy and practice in the Atlantic world.

Tying the Cuban anti-tuberculosis campaign led by *La Liga* to the international movement against the disease was a way of making a claim to modernity by association. But there was another way in which Cubans thought that the battle against tuberculosis might reveal something about the modern impulse on the island. Almost from its inception *La Liga* had focused not only on its own role in the campaign against the disease but on the role of the nascent Cuban state. Members of *La Liga* insisted regularly and stridently that the Cuban state could not make claims to modernity if it failed to address not only the disease but the underlying factors that contributed to its spread across the island and most pointedly in its urban centers.

Daniel Rodgers, in his essay on the complex and imperfect uses of progressivism as an interpretative framework for the social politics of the late-nineteenth and early twentieth century, has noted that the varied and often contradictory impulses that

[69]"En El Extranjero," *BMLCTC* 1:8 (January 1903): 101.

emerged during this era might best be grasped by understanding the "languages of discontent" to which reformers appealed. In the case of the United States, Rodgers identified three such languages: that of anti-monopolism, that of social bonds and the social nature of human beings, and that of social efficiency.[70] Of all three categories the least "peculiarly American" was the language of social bonds.[71] Socially, economically, and politically the "language of social bonds" attempted to articulate a vision of a modern society built on interconnectedness among citizens. In this context, the state became an important focus of reformers' attention. The state could do a great deal to promote social cohesion, namely allocating resources to address myriad social ills and marshalling the coercive nature of the law to demand certain behaviors from citizens in the name of the common good.

Rodgers argued that the language of social bonds was an "international language" that was "not fully explainable by experiences endemic to the United States."[72] Indeed, it was a language that was very present in the minds of reformers in early twentieth century Cuba, especially the members of *La Liga*. *La Liga* regularly used the language of social bonds to exhort the state to take a modern, activist role in promoting the well-being of its citizens. It framed the fight against tuberculosis as something that challenged the health, as it were, of the Cuban national self. In this way, *La Liga* was demanding a fundamental

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[70]Daniel Rodgers, "In Search of Progressivism." *Reviews in American History* 10:4 (December 1982): 123.

[71]Ibid., 124.

[72]Ibid., 125-126.

reordering of Cuban politics away "from constitutions to administration, from the consequences of aristocratic privilege to the contexts of everyday life."[73]

The three pillars upon which *La Liga* built its anti-tuberculosis campaign were prevention, education and treatment. In each of these component parts, the modern Cuban state was expected to take an active role. In the pages of the *Boletín*, members of the *La Liga* advocated for the state to intervene in virtually every sector of Cuban life to prevent the spread of the disease. To understand some of the specific ways in which members of *La Liga* expected the Cuban state to act with regard to tuberculosis, it may be useful to review some of the work of Dr. Nicolás Gómez de Rosas, a prominent Cuban physician and member of *La Liga*. In a series of articles published in the *Boletin* in 1903, de Rosas examined the manifold ways in which the Cuban state could lead the battle against the disease on the island. De Rosas believed that it would be impossible to seriously address the tuberculosis crisis on the island without the government assuming a greater role in fighting the disease. "The resolution of this issue," he wrote in April of that year, "rests with the State; appealing with its power and laws for the betterment of the current state of affairs. Being, as it should always be, the guiding light that shows the masses toward their better destiny."[74] In order to "combat and cure tuberculosis," the fledgling government of Havana would need to:

> Establish with the utmost rigor public hygiene measures with regard to housing, workshops, etc., disinfection procedures, special dispensaries, sanatoria, Hospital-based specialized clinics, and as a complement, Workmen's Insurance.[75]

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[73]Daniel Rodgers, *Atlantic Crossings*, 54.

[74]Nicolas G. De Rosas, "El Problema de la tuberculosis y como resolverlo." *BMLCTC* 1:11 (April 1903): 145.

[75]Nicolas G. De Rosas, "El Problema de la tuberculosis y como resolverlo." *BMLCTC* 1:11 (April 1903): 142-143.

Many of these proscriptions had been at the heart of the earliest work of *La Liga* in Cuba and had also been part of the infectious disease control strategies implemented under U.S. rule. Indeed, in keeping with the tuberculosis control strategies of the era, the U.S. military government of Cuba had already introduced or begun to enforce a number of prevention measures such as identifying persons infected with the disease, disinfecting their homes and places of employment, and requiring notification of infection by medical personnel. Echoing long-standing arguments made by Dr. Jacobsen and others, de Rosas called on the Cuban state to invest in the construction of a modern sanatorium for the consumptive poor and for an expansion of dispensary and hospital facilities to care for the sick. But de Rosas went beyond admonishing the state for failing to create the physical infrastructure needed to care for tubercular Cubans. He also called for a commitment on the part of the Cuban government to address the conditions that made tuberculosis so deadly particularly among the Cuban working classes. "The tuberculosis [victims] of the working classes," he wrote

> the poor to whom we refer in these works, have the right to demand that society or the State care for them in obedience to the laws of humanity and to the inevitable necessity of preventing [this disease] which threatens us all.[76]

One of the ways in which the Cuban government could stem the spread of tuberculosis among the island's working classes was to address the economic obstacles to care. De Rosas, and other members of *La Liga*, had watched as

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[76]Nicolas G. de Rosas, "Sobre Organización de los Servicios en Tuberculosis." *BMLCTC* 1:12 (May 1903): 155.

infected patients had eschewed isolation and treatment because of the financial toll it would take on their families. A workmen's insurance system, financed by deductions from the worker's wages and managed by the state under "strict restrictions," would provide economic aid to the afflicted person's family.[77] Without this *seguro del obrero*, as de Rosas called it, there was little hope that an infected worker would take leave of his job in order to be treated for the disease. "If the *seguro del obrero* does not aid him or guarantee that he can return to his job under the same conditions as before," de Rosas noted, "[the infected worker] will fight [against treatment] until the last minute, even if this dooms him, wasting precious time to cure himself and condemning his loved ones to his same fate."[78] In calling for this type of insurance program, de Rosas was making a demand not unlike that made by social reformers in the United States and Europe.79 Insurance served not only as an impetus for the sick to get care and to protect society at large from infection but also reflected, as de Rosas explained, "what [Cubans] could do and the virtues that we hold."[80]

There were many other ways in which reformers such as de Rosas envisioned the state taking a leading role in the battle against consumption. These reformers called for better working conditions for cigar workers, fines for public expectoration, the creation of

[77]Nicolas G. De Rosas, "El Problema de la Tuberculosis y como Resolverlo." *BMLCTC* 1:11 (April 1903): 145.

[78]Ibid., 144.

[79]For a discussion of the international currents surrounding the creation of "workingmen's insurance" see Daniel Rodgers, *Atlantic Crossings: Social Politics in a Progressive Age*. (Cambridge: Belknap Press of Harvard University Press, 1998, 2001), 209-266.

[80]Nicolas G. De Rosas, "El Problema de la tuberculosis y como resolverlo." *BMLCTC* 1:11 (April 1903): 145.

an anti-tuberculosis curriculum for Cuban schools, calls for ecclesiastical authorities to give sermons on the prevention of the disease, the construction of new, well-ventilated housing for the Cuban working classes, and even a demand for a tax increase on alcohol.[81] These recommendations, many of which required legislative action, evinced a belief on the part of reformers that private initiative alone would never suffice in the battle against the disease. The government, like every other sector of Cuban society, had a set of responsibilities in the national campaign against the disease. And the success of the anti-tuberculosis campaign on the island depended on every sector of Cuban society working in concert. "To avoid this terrible illness," Dr. Luis Perna argued in 1903, "we must all unite: the doctor, the priest, the teacher, the journalist, the economist, the architect."[82] Controlling the spread of tuberculosis was a national project that demanded conscientious behavior and obedience to the norms of good hygiene on the part of the Cuban citizenry, the expertise of the Cuban medical community, and the financial and legislative support of the Cuban state. Nothing short of this would suffice to contain tuberculosis in Cuba.

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In one of his many articles on the role of the state in the fight against tuberculosis, Nicolas de Rosas made an appeal to the pride of Cuba's political leaders. "Imagine the glory," he wrote, "for the leader who bequeaths a solution to the

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[81]For an overview of these proposals see Enrique Acosta, "Profilaxis de la Tuberculosis en la Isla de Cuba." *BMLCTC* 1:8 (January 1903): 95-98.

[82]Luis Perna, "Algo Sobre Tuberculosis." *BMLCTC* 2:10 (October 1903): 69.

tuberculosis problem to his successors!"[83] Yet, as early as 1903 it was obvious that when it came to the health and sanitation of the island, Cuba's leaders demonstrated little political will and had few resources to fight disease. Sanitation and disinfection, the two lynchpins of Cuban health under U.S. rule, quickly fell by the wayside as local municipalities failed to appropriate sufficient funding for projects to keep cities clean and free of disease. Cities such as Matanzas, Cienfuegos and Santiago de Cuba all suffered reversals with regard to sanitation, disinfection, and most troublingly for U.S. observers, mosquito control and eradication.[84]

The reappearance of yellow fever in Cuba late in 1904 had serious consequences for the Cuban government. Reports of the disease appeared first in Santiago de Cuba in November and the American response was immediate. Secretary of State John Hay ordered the U.S. minister in Havana, Herbert Squiers, to inform the Cuban government that the failure to control yellow fever might result in a quarantine of the island. By the end of the month, Squiers had made the views of the U.S. government known directly to President Estrada Palma. Soon thereafter, the Cuban government allocated funds to improve the sanitary condition of Santiago de Cuba.85

What was clear from this episode was that Cuba lacked the public health infrastructure to contain yellow fever. The United States demanded that the Cuban government make the structural improvements to its cities that had been planned under the Wood government. The Cubans, for their part, claimed that they lacked the financial

[83]Nicolas de Rosas, "Sobre organización de los Servicios en Tuberculosis." *BMLCTC* 1:12 (May 1903): 157.

[84]Espinosa, *Epidemic Invasions*, 87.

[85]Espinosa, *Epidemic Invasions*, 87-88.

resources to undertake new projects as costly as sewers, new street paving and waterworks. The American public health project in Cuba had run headlong into the fiscal frailty of the early Cuban state.

By October, 1905, sanitary conditions on the island had deteriorated once more. Cases of yellow fever were reported in Havana and shortly thereafter in Matanzas. The U.S. government called on Estrada Palma's government to take action but the financial limitations of the Cuban state were now compounded by a political crisis that threatened to tear the nation apart and to draw the United States back into the island.

The crisis caused by the reappearance of yellow fever and the political impasse between Estrada Palma and his opponents in the Liberal Party overshadowed any chance of a national campaign against tuberculosis. The best efforts of *La Liga* had yielded little movement from the government with regard to building sanatoria for the consumptive poor and creating and financing a national campaign against the disease. What is more the disease seemed to resist even the best efforts at eradicating it. By 1906, tuberculosis accounted for twelve percent of all the deaths registered on the island. Only dysentery and diarrhea, diseases that claimed mainly the lives of young Cuban children, accounted for a higher percentage of the total number of deaths in Cuba.[86]

For the members of *La Liga*, the inaction of the Cuban government was surely frustrating. Over the course of five years they had made arguments not only about how best to combat the disease on the island but had also made arguments that presented the anti-tuberculosis campaign as a sign of Cuba's modernity and progressivism. Whether attending international conferences on the disease, meeting with counterparts in other

[86]U.S. Bureau of the Census, *Cuba: Population, History and Resources, 1907*. (Washington: United States Bureau of the Census, 1909), 127.

parts of Atlantic world, or writing in the *Boletín*, the reform-minded leaders of *La Liga* viewed themselves and their nation as partners in a global campaign against the world's deadliest disease. But the political and economic circumstance on the island belied this vision of Cuba. The collapse of the Estrada Palma government and the subsequent intervention of the United States in 1906 raised serious questions about whether Cuba was indeed a modern state. As we shall see, however, the American interregnum of 1906-1909 would inaugurate a new chapter in the history of the struggle against tuberculosis in Cuba; a struggle which would bring to fruition some of *La Liga*'s long-sought objectives but also reveal profound differences between U.S. and Cuban ideas about the nature of the anti-tuberculosis struggle.

Chapter 4:

Intervention, Tuberculosis and Politics, 1906-1909

Theodore Roosevelt was still basking in the glow of his electoral victory when he delivered his Fifth Annual Address to Congress on December 6, 1904. The text detailed the ambitious agenda that Roosevelt had set for himself during his second term. Taking office in 1901 after the assassination of President William McKinley, Roosevelt had spent his first term beating back challenges from the most conservative elements of the Republican Party, excoriating the "real and great evils" of monopolies, and advancing U.S. interests abroad.[1] His second term promised to be no less dynamic. Roosevelt laid out a domestic agenda that touched on everything from labor rights and the use of public lands, to the enactment of a National Quarantine Law and the regulation of corporations. On the international front, Roosevelt called for a foreign policy that increased trade with China, secured the rights and safety of U.S. citizens abroad, and employed the military force of the United States Army and Navy to "bring ever nearer the day when there shall prevail throughout the world the peace of justice."[2]

Of course, as much as Roosevelt's address of that year is recalled for its grand goals in domestic and foreign affairs, it is perhaps most widely remembered for what historians would call the "Roosevelt Corollary" to the Monroe Doctrine. The president had written explicitly about United States policy toward the nations of the Western Hemisphere. He rejected the idea that his nation's interest in the affairs of its southern

[1]Theodore Roosevelt, First Annual Address, 1901.

[2]Theodore Roosevelt, Fifth Annual Address, December 6, 1905.

neighbors extended only so far as it might protect its own interests or expand its military power. "All that this country desires," he wrote to Congress:

> is to see the neighboring countries, stable, orderly and prosperous. Any country whose people conduct themselves well can count upon our hearty friendship. If a nation shows that it knows how to act with reasonable efficiency and decency in social and political matters, it keeps order and pays its obligations; it need fear no interference from the United States.[3]

The failure of the American republics to meet the standards of stability, orderliness, and prosperity that Roosevelt envisioned, however, might force the United States to act. "Chronic wrongdoing, or an impotence which results in a general loosening of the ties of civilized society," he argued:

> may in America, as elsewhere, ultimately require intervention by some civilized nation, and in the Western Hemisphere the adherence of the United States to the Monroe Doctrine, may force the United States, however reluctantly, in flagrant cases of such wrongdoing or impotence, to the exercise of an international police power.[4]

Critics at home and abroad derided Roosevelt's language. An editorial in the *New York Times* did not dispute the idea that the United States had the right under some circumstances to interfere in the affairs of "misgoverned and intolerably erring American Republics."[5] But it recoiled at what it regarded as Roosevelt's "unnecessary and untimely language."[6] Meanwhile, the *Daily Chronicle* in London, despite offering support for Roosevelt's agenda, could not help but ridicule him as "Police Constable Roosevelt of the International Police."[7]

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[3]Ibid.

[4]Ibid.

[5]*New York Times*, 7 December 1904, 8.

[6]Ibid.

[7]*Daily Chronicle* as quoted in *New York Times*, 7 December 1904, 5.

Nevertheless, as much as the Fifth Annual Address called for a more robust American response to the instability and political conflicts that seemed to regularly roil the Americas, Roosevelt also held one Latin American government as a model with which the United States could live in peaceful coexistence. For Roosevelt, there was no better illustration of the Latin American capacity for successful self-rule than Cuba. Just a few years removed from his service with the Rough Riders, Roosevelt now offered Cuba as a shining example of modern, stable, progressive state administration. "If every country washed by the Caribbean Sea would show the progress in stable and just civilization which with the aid of the Platt Amendment Cuba has shown since our troops left the island," he wrote, "all questions of interference by this nation with their affairs would be at an end."[8]

Yet, less than two years after Roosevelt had praised Cuba for its transition from colony to democracy, his opinion of the island underwent a reversal. Throughout the summer of 1905 Cuba's political parties moved further away from political competition and compromise and closer to civil war. President Tomás Estrada Palma and his ruling *Partido Moderado* clashed with the *Partido Liberal* of José Miguel Gómez and Alfredo Zayas. Once seen as a man for whom nation trumped party, in 1905 Estrada Palma had affiliated himself with the *moderados* faction. The conservative-leaning *moderados*, many of whom had formed part of the "civilian wing of the old separatist coalition," feared the

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[8]Theodore Roosevelt, *Fifth Annual Address, December 6, 1905*. [Electronic Resource]. http://www.presidency.ucsb.edu/ws/?pid=29546. [Accessed on April 3, 2013]

populist-infused politics of the *liberales*.[9] That fear, together with their desire to preserve their privileged position in the Cuban government, with its seemingly endless supply of patronage and sinecures, drove them to purge the Cuban government of the Liberal Party faithful. In the months before the island was set to elect a new President, Estrada Palma's allies replaced *liberales* at virtually every level of the Cuban government. The logic of the purge was simple: since elections were under the jurisdiction of local electoral boards, control over the local political machinery improved a party's chances of winning an election irrespective of the results produced by actual ballots. When the purge was coupled with acts of political violence directed against Liberal Party leaders in places such as Santa Clara, the opposition refused to participate in the election. Gómez did not wait to see the certain victory of the *moderados* and in October he fled to the United States claiming that he feared for his life.[10] On December 1, 1905, under a pall of electoral fraud and intimidation, Estrada Palma was reelected president of Cuba.

Liberal resentment refused to dissipate after Estrada Palma's reelection. By the summer 1906, political opposition turned into open military rebellion against the Cuban government. On August 16th, Faustino "Pino" Guerra rallied liberal allies in Pinar del Rio province and launched an uprising against the Estrada Palma government. Within weeks the revolt had spread throughout the island. The Cuban government was not the only target of the rebels. Foreign-

[9]Perez, Jr. *Cuba Under the Platt Amendment*, 91.

[10]David Lockmiller, *Magoon in Cuba: A History of the Second Intervention, 1906-1909*. (Chapel Hill: University of North Carolina Press, 1938), 31.

owned properties were targeted by the insurgents as well. Railroad lines and cars were demolished, sugar mills were torched. Unsurprisingly, the loss of property and the threat of even greater upheaval placed the Cuban question squarely in the hands of President Roosevelt and his advisers.[11]

News of the insurrection and of the Cuban government's seeming incapability of resolving it reached Roosevelt while he was at Oyster Bay, Long Island. President Estrada Palma had attempted to secure peace by offering amnesty to the rebels if they laid down their arms. The rebels refused. Estrada Palma responded by suspending the Constitution and ordering the arrest of Liberal leaders. He also did something else. Recognizing that the Cuban army might be ill-equipped, ill-trained and outnumbered, he sent a message to Roosevelt asking him to send U.S. warships to the island in accordance with the terms of the Platt Amendment. Roosevelt granted Estrada Palma's request but he was infuriated by the situation. "Just at the moment," he wrote to Henry White, the U.S. Ambassador to Italy and a confidant, "I am so angry with that infernal little Cuban republic that I would like to wipe its people off the face of the earth."[12]

As U.S. ships steamed toward Cuba, Roosevelt convened Secretary of War William Howard Taft, Assistant Secretary of State Robert Bacon, and Secretary of the Navy Charles Bonaparte to Sagamore Hill where they could

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[11] Lockmiller, *Magoon in Cuba*, 36-39; Thomas, *Cuba or the Pursuit of Freedom*, 474-475.

[12]Theodore Roosevelt to Henry Write, September 13, 1906, as cited in Edmund Morris, *Theodore Rex*. (New York: Random House, 2001), 456.

discuss their options in Cuba. Roosevelt ordered Taft and Bacon to the island to impress upon Estrada Palma the need for a workable truce and his own reluctance to put U.S. troops on the island. The duo arrived in Havana on September 19th and by the following day Taft could not help but explain the crisis in terms that revealed less about the political situation on the island than they did about his views of the Cubans. The crisis, we wrote to his wife Helen, demonstrated "the utter unfitness of these people for self-government."[13] Within a week of their arrival, Taft and Bacon had presented Estrada Palma with a plan that would preserve his presidency but create a coalition government representing all sides of the conflict. This time, it was Estrada Palma who refused to compromise. On September 28, 1906, despite Roosevelt's implorations to remain in Havana at the head of the Cuban government, Tomás Estrada Palma resigned along with his vice-president and the entire Cuban cabinet.[14] By the following day, Taft had issued a proclamation establishing a U.S.-led provisional government on the island and naming himself provisional governor. Less than five years after General Leonard Wood had ended the first American occupation of Cuba, a new occupation had begun.

The Roosevelt Administration was careful to frame the second U.S. intervention as something different from that of 1898. According to Taft, the goal of the United States was "to restore order, protect life and property on the island

[13]William Howard Taft to Helen Taft, September 20, 1906 as cited in Ralph Eldin Minger, "William H. Taft and the United States Intervention in Cuba in 1906." *Hispanic American Historical Review* 41:1 (February 1961): 80.

[14]Ibid., 85.

of Cuba."[15] In particular, the provisional government would function in accordance with the Cuban constitution. As a practical matter, Taft wrote:

> The Cuban flag will be hoisted, as usual, over the government buildings on the island. All the executive departments and the provincial and municipal governments including that of Habana, will continue to be administered as under the Cuban Republic. The courts will continue to administer justice, and all laws not in their nature inapplicable by reason of the temporary and emergent character of the government will be in force.[16]

Yet as much as American officials proclaimed the "temporary and emergent character" of the Provisional Government, there would be many significant changes in Cuba over the course of the nearly three years of provisional U.S. governance. The U.S. officials who arrived on the island in October 1906 and over the following months held many of the same ideas about modern, progressive governance as did their predecessors in 1898. The Provisional Government embarked on an ambitious public works program across the island that would fundamentally transform transportation and communication. They created new legal codes that governed the administration of the island's provinces and municipalities and the interactions between these and the Cuban national government. Finally, they reordered Cuba's health and sanitary services focusing not just on a resurgence of yellow fever but also systematically addressing the issue of tuberculosis.

Much like their predecessors, the U.S. authorities in Cuba in 1906 addressed the issue of yellow fever. They were concerned that the resurgence of

[15]William H. Taft as cited in Lockmiller, *Magoon in Cuba*, 57.

[16]Ibid., 58.

yellow fever in Cuba posed a threat to the United States and to commercial relations between the two countries. Not surprisingly, a good part of the initial public health program implemented by the Provisional Government focused on the disease and its vectors of transmission. But the public health agenda of the Provisional Government went beyond reinforcing and increasing the anti-yellow fever strategies that had been developed and employed on the island after 1901. American civil and medical authorities in Cuba encountered a nation where other public health issues had emerged and become important in the years after the end of the first occupation. Perhaps no other public health issue was as prominent in the minds of many Cuban doctors and sanitarians as tuberculosis. The Provisional Government, in a break with the policies of the American Military Government that preceded it, sought to ameliorate the tuberculosis crisis on the island by investing in the construction of important infrastructure, by continuing many of the prevention and education strategies, and by supporting Cuban efforts to be active participants in the global campaign against the disease. Yet, by the end of the occupation it would also be clear that U.S. ideas about how best to contend with tuberculosis did not correspond with Cuban political and economic realities. For the members of La Liga, in particular, this tension with U.S. officials would fundamentally weaken their role in Cuba.

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Charles Magoon was not Theodore Roosevelt's first choice to be Provisional Governor of Cuba. Within days of William Taft's declaration of a U.S. provisional government in Cuba, President Roosevelt had, by most accounts,

settled on Beekman Winthrop as the man for the job in Havana. The New Jersey-born, New York-raised scion of a family whose origins went back to the founding of the Massachusetts Bay Colony, Winthrop was a wunderkind who had been appointed by Roosevelt to serve as Governor of Puerto Rico in 1904 when he was just 28 years of age. Within months of his appointment, Winthrop was already being hailed for "ruling wisely" and bringing "order out of the chaos left by long misgovernment" on the island.[17] Cuba, with a population roughly double that of Puerto Rico and an area more than ten times the size of its former companion colony, would have been the next great challenge for Winthrop.

But while Winthrop seemed to be destined for a move from San Juan to Havana, Secretary of State Elihu Root lobbied President Roosevelt to appoint Magoon to the position instead. Root and Magoon had a long history of collaboration stretching back to 1899 when Magoon served as a legal adviser to the War Department and later Law Officer in the Bureau of Insular Affairs. Root had been so impressed with his work in explaining the legal framework for managing America's new overseas possessions that in 1902 he ordered that his reports be bound and published "for the use of the officers concerned in the government of the islands."[18] In 1905, when Root needed an able if not charismatic official to manage the U.S. Canal Zone in Panama, he turned to his former counsel. Magoon thrived in the turbulent environment of Panama by

[17]Frederick T. Birchall, "A Colonial Governor at Twenty-Eight." *Leslie's Monthly Magazine* 59:2 (December 1904): 172.

[18]Charles E. Magoon, *Reports on the Law of Civil Government in Territory Subject to Military Occupation by the Military Forces of the United States.* (Washington: Government Printing Office, 1902), 3.

demonstrating a remarkable ability to meet excitability and passion with calm and reserve. He was "large and serene," Root wrote to Taft on October 2, 1906, "…of sound judgement [sic], good temper, never fears responsibility and perfectly adapted to control excitable elements which have to be dealt with."[19] Magoon was a perfect match, if Root could ever have imagined one, for the delicate task of managing an intervention that required more diplomatic acumen rather than any military expertise. On October 6th, thanks to Root's lobbying and support, President Roosevelt abandoned his support for Winthrop and commissioned Magoon as the new Provisional Governor of Cuba. Three days later, Magoon arrived in Havana.

Magoon may have been new to Cuba but a number of the U.S. officials under his command in Havana knew the island well. Many had served under General Leonard Wood during the first American occupation, including Lt. Col. William Black, who had directed the Department of Public Works from 1899 to 1902; Major Herbert Slocum, the senior adviser to the Cuban Rural Guard under Wood; and Major Jefferson Randolph Kean, who had served on William Crawford Gorgas' celebrated Yellow Fever Commission and later as head of the Department of Charities.[20] Black and Kean, together with Colonel Enoch Crowder and Lt. Colonel Edwin St. John Greble, were appointed secretaries of the Provisional Government and assigned to provide oversight and advice to the five

[19]Root to Magoon, October 2, 1906 as cited in Millet, *The Politics of Intervention*…, 149.

[20]Millett, *The Politics of Intervention,*152-153.

departments that managed the island's affairs during the second intervention.[21] In this way, Magoon hoped to ensure that Cuban officials would retain control over government offices while guaranteeing that the government operated under "close financial control and an American-oriented administration."[22]

Magoon's immediate challenge upon arriving in Havana was the pacification of the country and the disarming of the insurgents who had initiated the rebellion that led to American intervention. The Army of Cuban Pacification was constituted less than one week after Magoon's arrival on the island. With more than 6,000 soldiers in its service, the force occupied a curious position in Cuba. On the one hand the soldiers were expected to facilitate the end of the insurrection against the Cuban government; on the other President Roosevelt had given explicit instructions that troops be the "moral force" behind the intervention but little more. "I feel it is most important," Roosevelt explained to Taft, "that if any bloodshed occurs it should be between Cubans and Cubans, not Americans and Cubans. I am most anxious that there should be no blood shed between Americans and Cubans."[23]

Operating within the parameters established by the President, General James Franklin Bell, a veteran of the U.S. occupation of the Philippines, first ordered his men to those areas where the rebellion had been most active and where the threats to sugar plantations were most serious. Within weeks, the Army

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[21]The assignments were: Crowder (Departments of State and Justice); St. John Greble (Department of Government); Black (Department of Public Works); Kean (Department of Sanitation). Millet, *The Politics of Intervention*, 151.

[22]Ibid.

[23]Roosevelt to Taft, October 2, 1906 as cited in Millet, *The Politics of Intervention*, 123.

of Cuban Pacification had garrisons in twelve of the island's fourteen largest cities with additional garrisons in small towns in particularly troublesome provinces such as Santa Clara.[24] By the end of first month of the occupation, the U.S. authorities could confidently point to the steady progress made in disarming the island. In a public display of the success of the American-led pacification, troops from Havana towed confiscated and surrendered weapons into Havana harbor and dumped them into the sea.[25]

Pacifying Cuba did not resolve the underlying conflicts that had led to the collapse of political compromise on the island. The intervention of the United States in Cuba in 1906 had been precipitated by a collapse of the republic's fledgling political system. The Roosevelt Administration was eager to restructure the island's political system in order to avoid the prospect of repeated direct U.S. military involvement in Cuba. This would require a fundamental reorganization of the Cuban legal system starting with the nation's electoral law and extending to municipal and provincial laws. The work was difficult. "In 1906," as Hugh Thomas noted, "the law of Cuba consisted of an immense rabbit warren of Spanish statutes and customs, modified by various royal decrees in the nineteenth century, by various acts of the first U.S. occupation and some of Estrada's."[26] Magoon charged Crowder with managing the process of legal reform and soon the Provisional Government was overseeing the work of four committees, composed

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[24]Millet, *The Politics of Intervention*, 127.

[25] Lockmiller, *Magoon in Cuba*, 81.

[26]Thomas, *Cuba: Or the Pursuit of Freedom*, 486.

of Cuban and American officials, which were tasked with making recommendations about the modernization of the island's electoral, judicial, civil service, municipal and provincial laws.[27]

Perhaps the most far-reaching and successful of the legal reforms instituted by Magoon was the island's new electoral law. Drafted by Crowder, the new law stipulated the qualifications of voters and candidates, established an electoral board with representatives from the island's two major parties, and empowered a national electoral board to oversee the functioning of the system. The result of the changes, according to one contemporary observer, was the creation of a "perfect electoral instrument or at least proof against frauds and electoral abuses."[28] By 1908, the new electoral system was ready to be tested. Municipal and provincial elections were held in August, 1908; more than 270,000 voters cast ballots. The results were disheartening to Liberals whose internal conflicts left them far short of the electoral sweep they had hoped for. Some months later, when the nation again headed to the polls to elect a new president, the Liberals laid aside their internal disagreements and united to elect José Miguel Gómez as the second President of the Cuban republic.[29]

As important as the pacification of the island and the establishment of a new and reliable electoral system were to the success of the U.S. project in Cuba,

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[27]Ibid., 487.

[28]Leland Jenks, *Our Cuban Colony*, 100.

[29]During the municipal and provincial elections of August, the Liberals had been divided between supporters of José Miguel Gómez and Alfredo Zayas. The split in the party allowed the Conservative Party to win a respectable 28 of 81 mayoral contests and three of the country's six provincial governorships. Thomas, *Cuba: Or the Pursuit of Freedom*, 489.

public health occupied a central place in objectives for the island. Although a political crisis had precipitated the United States' involvement in Cuba in 1906, for public health authorities in the U.S. concerns about the Cuban republic's commitment to disease control—particularly as it related to yellow fever—preceded the arrival of the Magoon and the Provisional Government. In 1904, the number of cases of yellow fever on the island had raised concerns in Washington and elsewhere in the United States that the Cuban authorities were failing to meet their responsibilities with regard to disease control. By October of the following year, the disease was spreading through Havana once again. It would take months to control the outbreak but not before twenty-six people died.[30]

By 1906, yellow fever seemed to have recovered its grip on the island. After obtaining a "firm-foothold" in Matanzas province, the U.S. Surgeon General reported, the disease had "spread eastward until foci [were] reported in every province of the Republic, except for Pinar del Rio."[31] Thus, when U.S. civil and military personnel reached the island in October 1906, they were entering a place where, much like their predecessors, combating yellow fever was a central public health objective. Moreover, the increased geographic dispersion of non-immune immigrants to towns and cities in the Cuban interior in the years after the end of the first U.S. occupation, meant that controlling the spread of the disease would require a campaign that stretched far afield from Havana and into parts of the island where sanitary infrastructure was weak or non-existent. Yet,

[30]Espinosa, *Epidemic Invasions*, 89.

[31]United States Public Health Service, *Annual Report of the Surgeon General, 1908* (Washington: Government Printing Office, 1909): 132. As cited in Espinoza, *Epidemic Invasions*, 90.

unlike the first occupation, during which authorities had struggled to understand the etiology of the disease, Magoon's administration had the advantage of understanding the measures needed to control the spread of yellow fever. For the Provisional Government, the challenge was implementing these measures throughout the island, not just in Havana.

Much of the work of controlling yellow fever fell on Jefferson Randolph Kean, the Virginia-born doctor who had served alongside Dr. Gorgas and Walter Reed during the first occupation. The day after arriving in Cuba he set off for Las Ánimas Hospital to meet with members of the "Yellow Fever Diagnosis Board," where he reviewed three suspicious cases of infection.[32] Those cases together with reports from elsewhere in Havana and throughout the country concerned Kean greatly. One week later, word of an outbreak of the disease in the province of Santa Clara led Magoon to declare the area around the towns of Palmira, Lajas, Ranchuelo and Cruces as an "infected zone."[33] Within days, military and medical personnel descended on the region creating a detention camp for non-immunes, organizing disinfection brigades to disinfect buildings and destroy mosquito breeding grounds, and military and police forces to enforce the Provisional Governor's orders.[34]

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[32]Jefforson Randolph Kean, *Selected Diaries of Jefferson Randolph Kean: The Cuban Service Series*, October 6th, 1906, 102. [Hereafter JRK Diaries]

[33]"Decree of Provisional Governor of Cuba relative to measures against yellow fever at Cruces, Santa Clara Province. October 13, 1906" *Public Health Reports* 21:45 (November 9, 1906): 1332.

[34]Ibid., 1332-1333.

Kean faced a disease that seemed to threaten every corner of the island. The arrival of thousands of non-immune immigrants to Cuba in the years after 1902 and their dispersal throughout Cubans towns and villages made the scope of the yellow fever crisis much larger in geographic terms than the crisis that greeted the sanitary officials of the first American occupation. Table 4.1 shows not only the acceleration in the number of immigrants arriving in Cuba after 1902 but also the proportion of these immigrants who hailed from Spain.

Table 4.1: Immigration to Cuba, 1902-1906

Year	Total Immigrants	Spaniards	Spaniards as Percent of Total
1902	11,986	9,716	81
1903	18,054	16,726	91
1904	29,116	23,759	81
1905	54,219	47,902	88
1906	33,556	26,923	78

From: Fe Iglesias García, "Características de la inmigración española en Cuba, 1904-1930." In Nicolás Sánchez Albornoz, Españoles Hacia América: La Emigración en Masa, 1880-1930. (Madrid: Alianza América, 1988, 1995), 282.

In the years after the departure of Leonard Wood and his military government, yellow fever had become a national problem afflicting every part of Cuba. Problematically, Cuba's public health system was dedicated almost entirely toward safeguarding the health of Havana and to a lesser extent the island's key port cities. Kean began to realize that any success in controlling the disease would depend on having the tools to eliminate breeding grounds not only in Havana and the port cities but also in the island's smaller cities, towns and villages. One of those tools, Kean surmised, would be a national health service responsible for managing sanitation and public health. Magoon was aware of the threat posed by yellow fever but he expressed concern about the expense of fighting the disease in the comprehensive way envisioned by Kean and others.

Lacking General Wood's medical training and, more importantly still, his predecessor's desire to turn Cuba into a showcase for modern U.S. led strategies of sanitation and public health, Magoon seemed to equivocate in his commitment to an aggressive program of disease control and eradication in Cuba. Shortly after arriving in Cuba, Kean met with Magoon to discuss the public health situation on the island and received a rather passionate response from the provisional governor. Magoon, Kean noted in his diary, "went off into a harangue on the subject of the extravigence [sic] of Sanitarians and Doctors."[35]

In time, however, Magoon realized that controlling yellow fever was critical not only to the success of the occupation but also to the public health agenda of sanitarians and civil authorities in the United States. This became clear when the United States imposed a quarantine against Cuba in the spring 1907 that lasted until December of that year. The quarantine was the first to be employed against Cuba by the United States since the end of the first occupation and it signaled to Magoon that the control and eradication of the disease were essential to the resumption of the island's regular economic and political life.[36] Washington would not allow the sanitary condition of the island to threaten the United States. Roosevelt and his advisers fully expected Magoon to control the spread of the disease.

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[35]*JRK Diaries*, October 15th 1906, 104. Beyond his concern over the cost of the public health program proposed by Kean, there also seemed to be some animosity between the two men. By the end of the first month of the occupation, Kean complained in his diary that Magoon was failing to grant him the independence in managing the sanitary affairs of the island that Secretary of War Taft had promised. Magoon, he wrote, is "apparently not well disposed to me." *JRK Diaries*, October 23rd 1906, 105.

[36]Espinosa, Epidemic Invasions, 91-92.

The months of the quarantine were filled with efforts by Kean and sanitary authorities on the island to reinforce the disease control and mosquito-eradication strategies that had proved so successful under General Wood. The results of these efforts were mixed. In November Kean bemoaned the resiliency of the disease. "Yellow fever still keeps up," he noted in his diary, "nearly a case every day."[37] But by the end of the following January, there was cautious optimism that the disease had finally been tamed. Not a single case of the disease had been reported since the previous Christmas. In the spring, however, the disease reappeared; this time in the area around Nueva Paz just south of Havana. In the summer, the city of Cienfuegos suffered through a significant outbreak of the disease. Clearly, the efforts of the Provisional Government to control the disease failed to yield the necessary results, particularly outside of Havana.

In April of 1906, Kean had suggested to Magoon that the government nationalize the island's sanitation services. The public health system bequeathed to the Cubans in the aftermath of the first occupation had left disease control and prevention work in the hands of local officials. Because these local health officials often owed their jobs to local political chieftains, self-preservation often proved a more powerful force than science. The Cuban interior had become a place where "political considerations often hampered the enforcement of sanitary regulations at the municipal level."[38] Kean, eager to standardize the fight against yellow fever and other diseases, suggested abolishing the local health boards

[37]JRK Diaries, November 15, 1906, 106.

[38]Espinosa, *Epidemic Invasions*, 91.

across the island and replacing them with a "national service for all municipalities."[39]

Kean's idea was a radical one. Even in the United States, local health officials had jealously guarded their autonomy in matters of public health and efforts to create a centralized National Health Service had failed to generate support in Washington. Of course, in Cuba, American sanitary authorities could act with a freedom unimaginable to doctors and public health officials in the United States. For months Magoon delayed approving the measure. Kean worried that Magoon's penchant for playing politics would undermine the establishment of the board. He was especially concerned about how Cuban political leaders might attempt to politicize the board and attempt to turn the appointment of local health officials into a source of patronage. "The ravens," Kean noted in July 1907, "are gathering around us for the feast."[40] He so distrusted Magoon's ability to create the national board and keep it free of politicization that when the provisional governor insisted that taking politics into account when appointing sanitary officers was not entirely a mistake, Kean wrote to his superiors in Washington to complain. In private, he fumed that Magoon was capitulating to the desires of Cuban politicians who cared more about power than they did about public health. "I interpret [Magoon] to mean," he wrote of the provisional governor's admonition about the importance of political considerations in appointing local health officers, "that Jose Miguel Gómez and

[39]JRK Diaries. April 7, 1907, 12.

[40]JRK Diaries, July 20, 1907, 29.

that greasy little nigger Juan Gualberto Gómez are to have a say in the selection of local sanitary officers."[41] In August, another outbreak of yellow fever, again in Cienfuegos, increased pressure on Magoon to address the spread of the disease outside of Havana. The success of the provisional government now seemed to rest on its ability to accomplish what Wood and his men had done years earlier: control yellow fever. On August 26th, following Kean's recommendation and eager to bring yellow fever under control, Magoon established the National Board of Sanitation (NBS).

The NBS assumed responsibility for sanitation and hygiene in Cuban towns with populations over one thousand persons. In addition, it distributed educational materials on the prevention of infectious diseases throughout the island.[42] The newly-created sanitary service had an immediate challenge since the island suffered yet another outbreak of yellow fever the same month. In response, it began to apply the same disinfection and control strategies in the cities of the Cuban interior that had so well served Havana. By January 1908, the city of Cienfuegos was free of the disease; the following month, the same was true in Santa Clara province. By the summer, all but one of Cuba's six provinces reported that they were free of the disease. Looking back on the work of the NBS in his final report on the sanitation of the island, Kean remarked that the department had been "able to suppress with promptness and certainty all

[41]JRK Diaries, July 21, 1907, 29-30. Juan Gualberto Gómez was one of Cuba's most prominent leaders of African descent.

[42]Charles Magoon, *Annual report of Charles E. Magoon, provisional Governor of Cuba, to the Secretary of War 1909*, (Washington: Government Printing Office, 1909): 450.

outbreaks of the disease and to secure, as I now believe to be certainly the case, its final extinction throughout the territory of the republic."[43]

The Provisional Government's triumph over yellow fever was important, as it had been during the first U.S. occupation, because of the threat that the disease posed to American ports and cities and to the continued arrival of Spanish immigrants on the island. But unlike the military government of Leonard Wood, the Provisional Government, and especially its medical corps, had other public health concerns that they wanted to address in Cuba. Among these other issues, perhaps none was more important than tuberculosis.

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In February 1907, Jefferson Kean was at the center of American efforts to control the spread of yellow fever on the island. In the previous months he had watched as the Provisional Government had struggled to control the disease in the far corners of the country. Yet, yellow fever was not Kean's only concern in Cuba. During the last week of February he had plans to take up the health and sanitation budget for the next fiscal year as well as "the reorganization of the office—the consolidation of *sanidad marítima* and *sanidad terrestre* and the tuberculosis work in Havana."[44]

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[43]Kean in Magoon, *Annual report 1909*, 437. It is worth noting that Kean's success against the disease was often overlooked by American public health officials. In April 1908, American authorities imposed yet another quarantine on Cuba, even though Kean and the NBS had effectively controlled the spread of the disease. Kean called the quarantine "not only unnecessary but a violation of the sanitary convention existing between the United States and Cuba." He railed specifically against the health authorities in Tampa and Key West, two cities who had supported the quarantine as a measure to protect their cities from infection. A more sensible policy, Kean wrote, would have been "to protect these towns by the same measure of municipal cleanliness and mosquito prevention which have made the Cuban cities untenable for yellow fever." Kean in Magoon, *Annual report 1909*, 439-440.

[44]JRK Diaries, February 23, 1907, 4.

Kean's interest in addressing tuberculosis in Cuba was born of his recognition that the disease caused great mortality on the island. In his first annual report on the sanitary condition of Cuba under the Provisional Government, Kean had explained that "the importance of the yellow fever campaign has not been allowed to entirely overshadow other sanitary work, of which the prevention of tuberculosis in the larger cities and specially Havana, is most important."[45] The reason for this focus on tuberculosis, Kean continued, was because the "disease constitutes for the Cuban population the most formidable of all infectious diseases and causes more fatalities than all the other infectious diseases combined."[46] Kean was not alone among American officials in acknowledging the deadly toll that tuberculosis took in Cuba. In 1905, a U.S. government report on the commercial conditions of Cuba painted a grim picture of the spread of the disease on the island, noting: "Tuberculosis claims many more victims among Cubans than yellow fever and is to-day the most serious problem which confronts the public health officials of Cuba."[47]

Data collected by American authorities during the first full year of the provisional government, made clear the challenge posed by tuberculosis. As Figure 4.1 below shows, the death rate for tuberculosis in Havana was higher than

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[45]Report of the Sanitation Division, Magoon Report, 1906-1907. P. 459. It is worth noting that Magoon himself recognized the importance of tuberculosis to the public health work of the Provisional Government. In 1908 he pointed out that the "victory over yellow fever leaves the Sanitary Department free to devote itself to the still greater and more important war against tuberculosis." Magoon, *Annual Report 1907-1908*, 144.

[46]Ibid., 459.

it was for any other infectious disease in the city. Only cardiovascular disease registered a higher mortality rate than tuberculosis. As troubling as the high death rate attributable to tuberculosis in the Cuban capital, what must have been all the more alarming to Kean and other sanitary officials, was the resiliency of the disease since the end of Spanish rule. The period between American interventions had been filled with Cuban-led attempts to control tuberculosis: the expansion of educational efforts in Havana, an aggressive program of disease surveillance, attempts to improve the sanitary condition of workplaces where the disease seemed to thrive, and the expansion of an organization, *La Liga Contra La Tuberculosis en Cuba*, designed to organize all of these efforts into a cohesive national strategy to combat the spread of the disease. Yet, despite these efforts, tuberculosis seemed to withstand the best efforts of Cubans to detain its spread. While Havana's general mortality rate had declined in the years since the first American intervention, the tuberculosis death rate was higher in 1907 (379/100,000) than it had been in 1901 (360.8/100,000). Tuberculosis, it seemed, was immune to the medical and sanitary interventions directed against it by health authorities on the island.

[47]United States Department of Commerce and Labor, *Commercial Cuba in 1905: Area, Population, Production, Transportation Systems, Revenues, Industry, Foreign Commerce and Recent Tariff and Reciprocity Arrangements.* (Washington D.C.: Government Printing Office, 1905), 3964.

Table 4.2: Death Rate in Havana, 1907	
Disease	Death Rate
Respiratory Tuberculosis	379
Other infectious and parasitic diseases	236.7
Malignant and benign tumors	139
Cardiovascular diseases	779.4
Influenza, pneumonia, bronchitis	188.1
Diarrhea, gastritis, enteritis	207.6
Certain degenerative diseases	113
Complications of pregnancy	20.4
Certain diseases of infancy	69.8
Accidents and violence	81.8
All other and unknown causes	311.3

Source: Sergio Díaz-Briquets, Health Revolution in Cuba, p. 58-59

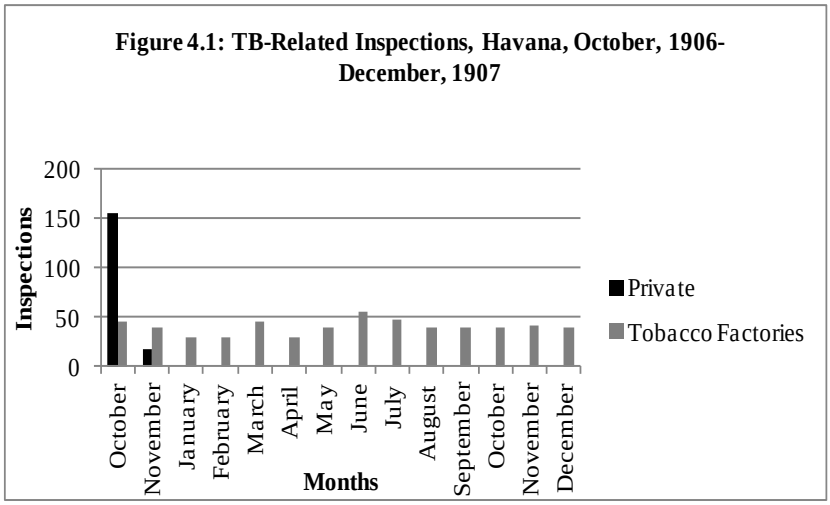
Kean recognized that the resolution to the tuberculosis crisis in Cuba was, in many ways, the same as it was in the major cities of the United States of Europe. The disease thrived in those places where poverty was rampant, where hunger weakened people and made them susceptible to infection, where Cubans found themselves living in cramped and often squalid housing. For Kean the "remedy" for these conditions was found "in the construction of sanitary dwellings at low rents, together with the social and sanitary education of the people."[48] But the construction of dwellings that were plentiful, well ventilated, safe and affordable was something that had proved unfeasible in the United States and in the wealthier nations of Europe. Cuba, still struggling to rebuild its economy after the war against Spain, was unable to finance the construction of new housing for its poorest citizens.

How then, should the Provisional Government attempt to address the disease and its impact on Cuba? The answer was a complex one that required the implementation of myriad sanitary initiatives. Moreover, when American health officials arrived in Cuba in

[48]Jefferson Randolph Kean, "Report of the Sanitation Division," in Magoon, *Annual Report, 1906-1907*, 460.

the fall of 1906, they arrived on an island where there was a core group of doctors, sanitarians, and civil officials who had attempted to control the disease through their work as members of *La Liga Contra La Tuberculosis en Cuba*. For these Cubans, the disease and efforts to control its spread had become a campaign that transcended public health. In creating La Liga they had made claims about Cuba's place not only in the global fraternity against the disease but also about its place among the modern nations of the world. The officials of the Provisional Government could not ignore La Liga as the island's leading voice on the control and treatment of tuberculosis.

The Provisional Government's first step in controlling the spread of the disease in Havana was to focus on the inspection of private homes and buildings and of tobacco factories. The inspection system had been part of the public health apparatus that the first military government had left to the Cuban republic. Cuban officials inspected these buildings and factories searching for nodes of infection. Later, special disinfection squads would return to clean the sites. Between the start of the second occupation in October 1906 and December 1907, the majority of the inspections focused on the city's tobacco factories. These had long been the target of anti-tuberculosis crusaders and municipal health officials who regarded the cramped and poorly-ventilated factories as ideal breeding grounds for the tubercle bacilli. During this fifteen month period an average of 40 tobacco factories was inspected each month. By contrast, during the nine months preceding the American intervention, Havana health officials inspected a monthly average of 26 factories.

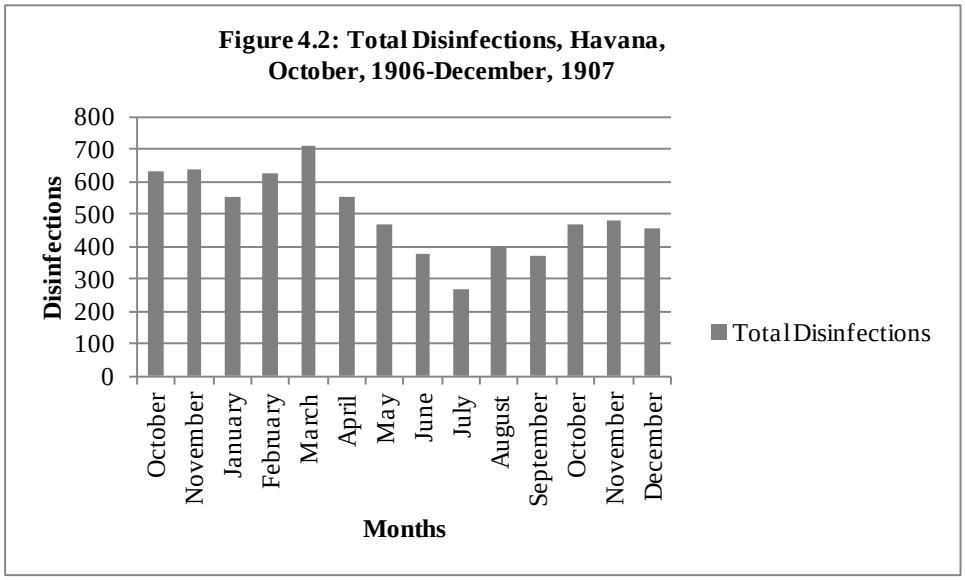


Source: Charles Magoon, ***Report of Provisional Administration from October 13th, 1906 to December 1st, 1908 . (Washington: Government Printing Office, 1909).***

As indicated in Figure 4.1, after a short-lived decline in inspections of tobacco factories in the immediate aftermath of the occupation, there was an increase in these inspections during the late winter of 1907. Except for the month of April 1907, tobacco factory inspections remained at or above 39 inspections per month from May 1907 until December 1907. One other notable issue surrounding the inspection process was that tuberculosis-related inspections of private homes all but ended after November 1906. It is unclear why the sanitary authorities of the provisional government decided to abandon the private home inspections although it may have been that these inspections were replaced with home-visits conducted by staff from the health department's Tuberculosis Division.

After inspections were conducted, specially-trained disinfection brigades would visit sites where an infectious disease had been discovered. Figure 4.2 indicates that the sanitary authorities of the provisional government increased the number of disinfections targeting infectious diseases relatively quickly. After reaching a high of more than 700

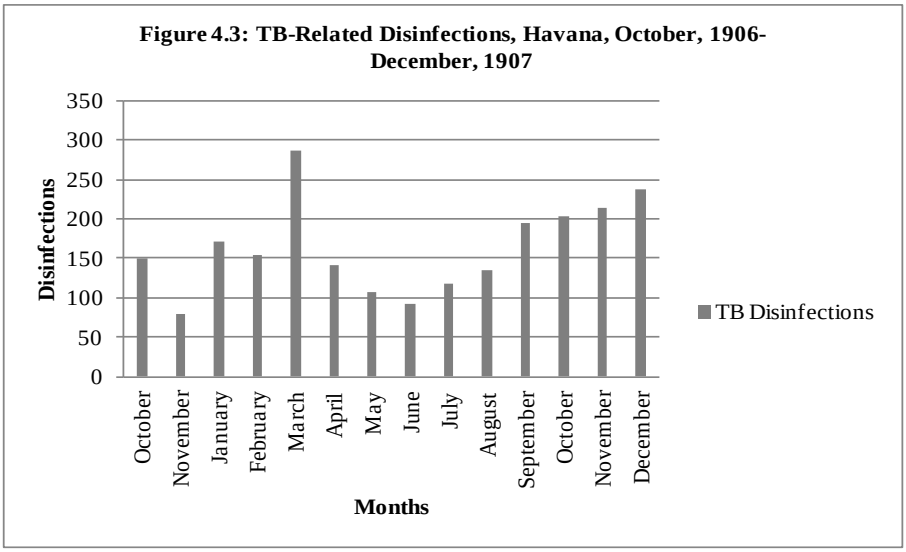
inspections in March 1907, the number of inspections declined through July before enjoying a resurgence during the last months of 1907.



Source: Charles Magoon, ***Report of Provisional Administration from October 13th, 1906 to December 1st, 1908. (Washington: Government Printing Office, 1909).***

While the disinfection campaign was designed to combat all infectious diseases, it is clear from the monthly health reports prepared by the sanitary department of Havana that much of the focus of the disinfection campaign centered on tuberculosis. As Figure 4.3 demonstrates, after a decrease in the number of tuberculosis-related disinfections in Havana during the first month of the second U.S. occupation, there was an increase over the next several months reaching a high of nearly 300 disinfections in March 1907. In the following months there was a steady decline in the number of tuberculosis-related disinfections in the city as a result of the great attention given over to the stubborn problem of yellow fever on the island. Yet, after June 1907, there was a steady increase in the number of disinfections targeting tuberculosis. By the end of 1907 52.5 percent of

all infectious disease-related disinfections taking place in Havana were aimed at tuberculosis.



Source: Charles Magoon, ***Report of Provisional Administration from October 13th, 1906 to December 1st, 1908. (Washington: Government Printing Office, 1909).***

That tuberculosis should have dominated the inspections and disinfections conducted in Havana during the Provisional Government is not surprising. Surveillance and disinfection were key parts of the tuberculosis control strategy of most major cities. They allowed public health authorities to track infected persons but also to locate infection sites and destroy the bacilli before it might infect another host. Disinfection also served two other purposes. First it was a public and visible symbol of the government's commitment to combating the disease. Disinfections, by definition, reflected the fact that prevention and education had failed. But they also offered the government an opportunity to present itself as an active participant in the struggle against the disease. Secondly, disinfections reminded citizens about the power that sanitary officials had over their lives. Disinfection brigades entered into private spaces—be they individual residences or businesses—to accomplish their tasks and in so doing served as a

potent symbol of the state's power to infringe upon personal freedom in the service of public health.

There was substantially more to the Provisional Government's anti-tuberculosis work than a continuation of the identification and disinfection work that had begun under the Wood government. Education, too, played an important role in the government's strategy to combat the disease. Kean had been explicit about the need for investment in the "social and sanitary education" of the Cuban people.[49] Education included the distribution of cards (*la cartilla anti-tuberculosa*) explaining how the disease was spread and how to limit exposure to tubercular individuals. But perhaps the most common educational tool used to raise awareness of tuberculosis control in Havana was the workplace workshop. As had been the case during the first U.S. intervention, a doctor or other health worker would visit a worksite where tuberculosis infection was commonplace and offer workers and employers strategies for controlling the spread of the disease. The importance of these workshops or "lectures" was well-understood by the leaders of the global anti-tuberculosis movement. Workshops not only disseminated knowledge about the etiology of the disease and the best strategies to prevent its spread but they also sought to refute the manifold misconceptions that surrounded tuberculosis and the tubercular. In particular, as S.A. Knopf noted, no workshop was complete without "an ardent remonstrance against phtisiophobia—that insane, exaggerated fear of the consumptive."[50] By demystifying the disease, the tubercular patient ceased to be a

[49]Report of the Sanitation Division, Magoon Report, 1906-1907, 460.

[50]S.A. Knopf, "Public Measures in the Prophylaxsis of Tuberculosis," in Arnold Carl Klebs, *Tuberculosis: a treatise by American authors on its etiology, pathology, frequency, semeiology, diagnosis, prognosis, prevention, and treatment*. (New York and London: D. Appleton and Company, 1909): 416.

regarded as an uncontrollable threat. Instead, the workshop participant learned that "the clean conscientious consumptive who takes care of his expectoration is no more a source of danger to his fellow men than any healthy citizen."[51]

No industry attracted more attention on the part of health officials during this period than did the city's tobacco factories. In the months before the second military intervention, Cuban authorities had attempted to address the insalubrious condition of the country's tobacco factories by enacting a series of ordinances designed to mitigate against the spread of tuberculosis. These provisions included prohibitions on spitting in the workplace, the requirement that workplaces be equipped with spittoons, and a number of specific prescriptions to increase ventilation including ordering that the top half of windows in factories be open, offering workers exposure to fresh air.[52] These were many of the same changes that the Wood government had imposed on the cigar industry during the first U.S. occupation. It is a reflection of the difficulty of making the factories abide by these regulations that five years after Wood left Cuba, Magoon found it necessary to reissue them.

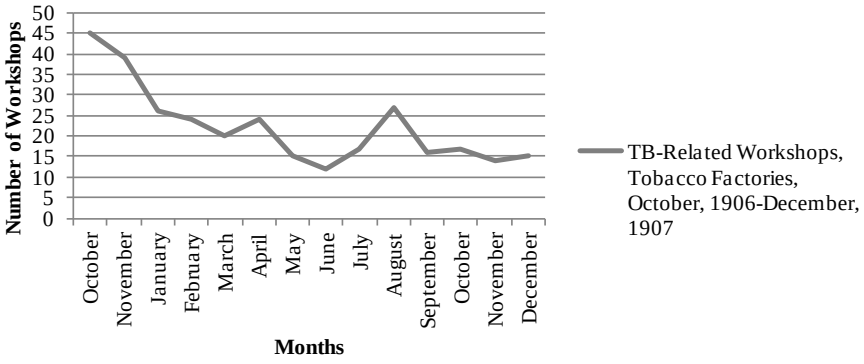
Yet, as much as the Provisional Government and Cuban sanitary authorities understood that the city's tobacco factories were a central node of tuberculosis infection in the city, educational workshops at the factories became less frequent over the course of the U.S. occupation after 1906. As may be noted in Figure 4.4, the total number of tuberculosis-related workshops held in Havana's cigar factories declined significantly

[51]Knopf, "Public Measures in the Prophylaxsis of Tuberculosis," 417.

[52]*Ordenanzas sanitarias para el régimen de los ayuntamientos de la República: Pub. en la "Gaceta oficial" del 12 de enero y 27 febrero de 1906*. Decretos presidenciales nums. 17 y 53 (Havana: Rambla y Bouza, 1906), 51.

from the start of the occupation through December 1907. It is unclear what prompted the U.S. authorities to turn their attention away from education although labor unrest in the industry may have contributed to the decision of sanitary authorities to roll back education efforts in the city's factories.[53]

Figure 4.4: TB-Related Workshops, Tobacco Factories, October, 1906-December, 1907

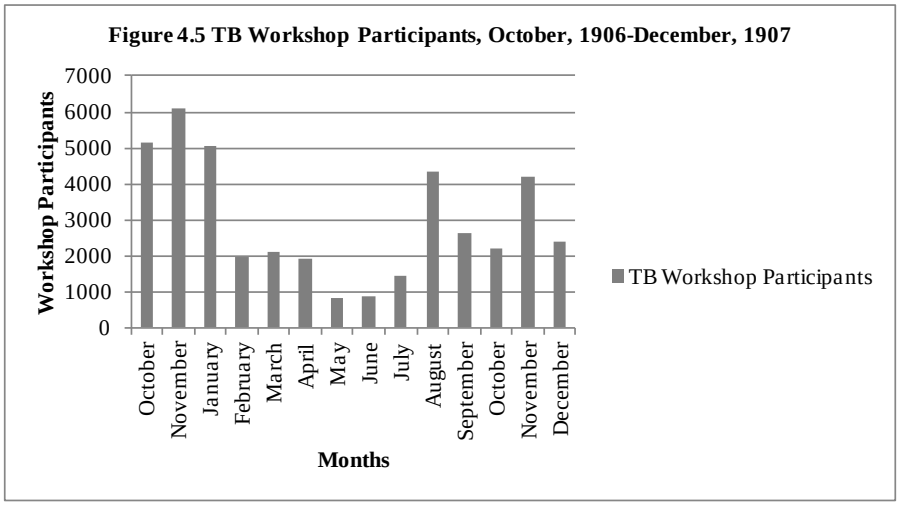


Source: Charles Magoon, ***Report of Provisional Administration from October 13th, 1906 to December 1st, 1908. (Washington: Government Printing Office, 1909).***

Despite the total decline in educational workshops, however, thousands of Cubans still were exposed to the hygienic instructions of local health authorities. As Figure 4.6 demonstrates, except for a significant decline in the number of workshop participants at the height of the cigar workers' union "Money Strike" between February and July 1907, public health officials were still able to share information on tuberculosis etiology and control strategies with several thousand *habaneros* during this period. And once the strike ended, there

[53]Labor actions rocked Cuba during much of 1907 and cigar workers were at the center of many of these events including, most famously, the so-called "Huelga de la Moneda." This strike lasted from February through July and ended with striking workers achieving their goal of receiving wages in U.S. dollars instead of less valuable Spanish pesetas. During the strike period, many of the city's factories were shuttered precluding any educational conferences on tuberculosis. See Thomas, *Cuba, or the Pursuit of Freedom*, 491 and Robert J. Alexander, *A History of Organized Labor in Cuba*, (Westport, CT: Greenwood Publishing Group, 2002), 18.

was a notable increase in the number of persons who participated in the government's tuberculosis education workshops.



Source: Charles Magoon, ***Report of Provisional Administration from October 13th, 1906 to December 1st, 1908. (Washington: Government Printing Office, 1909).***

One of the focal points of the provisional government's anti-tuberculosis efforts was the municipal dispensary. Established under the Wood administration, the dispensary had become the most prominent public symbol of the government's commitment to combat the disease. As tuberculosis infection increased in Cuba the dispensary grew as well. It provided a number of important services including: a laboratory to inspect sputum samples in order to confirm infection, direct medical care to patients, fitness instruction and food to strengthen tubercular children or those from infected homes and instruction for patients on how to prevent spreading the disease to others.

The Provisional Government proposed a series of changes for the municipal dispensary. One was to restructure the type of patient that received services at the site. For some years the number of patients registered with the

dispensary included those who were suspected of being at risk of infection but whose sputum analysis revealed that they were free of the disease. Despite not being tubercular they were counted in the dispensary's patient census. It appears that the dispensary staff registered these patients in an effort to provide them with education, medical care, and nutrition that would keep them free of the disease. The Provisional Government authorities disagreed with this strategy and ordered that only persons "suffering from tuberculosis" should be treated.[54] Additionally it stipulated that only these patients should continue to receive "treatment, medicine and food."[55] Figure 4.7 indicates that the change implemented by the Provisional Government resulted in a steep decline in the number of patients who were registered with the dispensary. While there had been a steady increase in the number of registered patients since before the arrival of American troops, reaching a high point in March 1907, thereafter the dispensary dropped patients from its census and focused on those patients whose infection had been confirmed.

The decrease in the total number of patients registered with the dispensary had effects beyond simply dwindling the dispensary's number of patients. News that the dispensary would only provide services to those with proven cases of tuberculosis meant that fewer patients came to the site to be examined by physicians. Figure 4.8 indicates that patient examinations remained above 1,000/month before the intervention. Thereafter, examinations declined steadily,

[54]Magoon, *Annual Report 1906-1907*, 485

[55]Ibid., 485.

if not regularly, until December 1907. This decrease in examinations at the dispensary was accompanied by a decline in-home visits to the infirmed. Home visits had been considered an important component of any modern anti-tuberculosis campaign. Doctors or nurses would visit patients to evaluate the condition of their home and whether the hygienic condition of the home posed a threat to the patient's health. So many of the tubercular patients in Cuba hailed from the city's poorer neighborhoods that it is likely that these homes were ill-ventilated and crowded and, therefore, a threat to the health of their inhabitants. Home visits allowed the dispensary staff to ensure that patients were following the medical instructions given to them, that they were observing the rules of hygienic personal behavior, and, in the case of patients who had failed to return to the dispensary for further examinations and care, to ascertain why they had abandoned treatment and compel them to return to the dispensary for care. Figure 4.9 demonstrates that after a substantial increase in the number of home visits conducted by the dispensary staff in the first two months of the American occupation, there was a significant decline in the number of home visits through much of 1907 reaching a low of just nine visits in August. It is curious that the Provisional Government allowed the home visit program to decline so significantly. In much of the United States, especially in major cities the home visit program, especially as conducted by trained nurses, was an important feature of modern tuberculosis care.[56] The most likely explanation again can be found in the significant decline in the number of tubercular patients registered with the

[56]See, for example, Cynthia A. Connolly, "Nurses: The Early Twentieth Century Tuberculosis Preventorium's 'Connecting Link.'" *Nursing History Review* 10 (2002): 127-157.

dispensary. A decrease in the total patient census would likely have meant a drop in the number of patients to be visited by dispensary doctors or nurses. In any event it is clear that by 1907 home visits became a less significant part of the provisional government's anti-tuberculosis campaign.

The municipal dispensary may have been the focal point of the daily anti-tuberculosis work conducted by the government in Havana, but it was the construction of a sanatorium for the city's consumptive poor dominated the thoughts of the city's anti-tuberculosis leaders. As indicated in the previous chapter, the construction of the sanatorium had been a source of great interest and ultimately frustration for *La Liga Contra La Tuberculosis en Cuba*. The failure of the Cuban government to allocate funds to begin construction of the project, even when the land had been purchased and handed to the Estrada Palma administration before the end of the first U.S. occupation, had become a powerful symbol of the state's ambivalence toward the anti-tuberculosis campaign. Four years after the end of the first U.S. occupation of the island, the sanatorium was no closer to opening than when Wood and his government had left the island.

Kean, of course, had been aware of the sanatorium issue from his first tour of duty. As a colleague of Valery Havard and Charles Furbush, the two American officers who had most pressed the Wood administration to address the tuberculosis crisis on the island in 1901, he understood that the military government had initiated its campaign against tuberculosis late in the occupation and had treated the disease as a matter of secondary importance. Within a couple

of months of his arrival in Cuba in 1906 Kean sought to reverse at least one element of this legacy by finally constructing Cuba's first sanatorium for the poor.

By February 1907, Kean had begun planning his tuberculosis work for the next fiscal year in Cuba. The sanatorium was at the top of his list of projects. On April 20th, he joined Joaquín Jacobsen, Gonzalo Aróstegui and Gustavo Du Plessis on a tour of the site where the sanatorium would be built, the Asunción farm near the Havana suburb of Arroyo Naranjo.[57] The site, some ten miles south of the Cuban capital, was at a higher altitude than the city of Havana, something that many medical personnel argued would benefit patients in need of fresh air and it included "a very big house with a high and commanding position."[58] The location seemed ideal. All that was needed was an investment to modernize some of the buildings on the site and to provide equipment and salaries for staff. Kean moved quickly to accomplish this. Within a few weeks of his visit to Asunción with the members of *La Liga* he had secured a commitment from Magoon to finance the construction of the sanatorium. Decree 583 was issued by Magoon on May 16, 1907 and allocated $60,000 "for the construction of the necessary buildings and the purchase of the necessary equipment for the establishment of the sanatorium…on a scale to receive not less than fifty (50) patients."[59]

In order to accelerate the opening of the sanatorium, Kean ordered the Cuban staff charged with the construction of the facility to avoid demolishing the

[57]JRK Diaries, April 20th, 1907, 14.

[58]JRK Diaries, April 20th, 1907, 14.

[59]Cuba. Provisional Government. Decree 583. May 16, 1907. Official Gazette. May 22, 1907. NP.

main house on the farm and instead refashioning it so that patients could be admitted immediately.[60] The plan was to admit poor Cuban men and women to stay at the sanatorium where they would receive medical care and meals, instruction in the management of their disease, and a respite from the often suffocating conditions of the Havana slums. Part of the food supply for the sanatorium would come from an arrangement that the government struck with a local planter who, in exchange for use of some of the farm's land, donated fruits and vegetable to the institution's commissary.[61] Patients would be recommended to the site by their physicians and the cost of treatment would be subsidized by the government of Havana. Construction began late in October 1907. By the following April half of the total number of beds planned were open and nine patients were in treatment.[62] At first only men were admitted to the sanatorium. Construction of single-sex pavilions for women was delayed but by year's end these too had been opened. Years after plans for its construction were first debated in Havana the sanatorium was now a reality.

The construction of La Esperanza Sanatorium was the culmination of arguably the most important anti-tuberculosis initiative of the early Cuban republic. The purchase of the land for the facility under the Wood administration and the subsequent ambivalence and lack of support for the project by the Cuban government of Tomás Estrada Palma had driven Cuban doctors, sanitarians, and

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[60]Ibid., 5.

[61]Juan B. Fuentes, *El Sanatorio Para Tuberculosos Pobres "La Esperanza."* (La Habana: La Moderna Poesía, 1908), 11

[62]Ibid., 6, 11.

civic leaders to lobby for its construction. Yet, in the aftermath of the construction of La Esperanza, there was little noticeable celebration that Cuba now had a sanatorium to care for its consumptive poor, particularly from those who most fought for its creation. Carlos Finlay, the most respected health official and leader in Republican Cuba noted dryly in his annual report on the health of Cuba, that the sanatorium had been "erected in conformity with the most important modern requisites."[63] Doctor Juan B. Fuentes, noted that the sanatorium would "do honor to Cuba and offer invaluable benefits to our people."[64] But the pages of *La Liga*'s *Boletín*, which for years had chronicled the fight for the sanatorium, were silent on the issue. And the sanatorium's most forceful advocate in the years before the Provisional Government, Joaquín Jacobsen, said little about the project despite having been part of the initial group to visit the site with Dr. Kean in 1907.

In attempting to understand why the construction of the sanatorium elicited such muted responses from those who had most ardently argued for its construction the most complex part of the Provisional Government's anti-tuberculosis campaign must be examined: its relationship with La Liga. As indicated in the previous chapter, La Liga played a number of important roles in the anti-tuberculosis movement in Cuba. Through its dispensary it was a provider of medical care to tubercular residents of Havana. Through its *Boletín* it was a

[63]Carlos Finlay, "Annual Report of the National Sanitary Board" in Charles Magoon, *Report of Provisional Administration from October 13th, 1906 to December 1st, 1908*. (Washington: Government Printing Office, 1909), 445.

[64]Fuentes, *El Sanatorio Para Tuberculosos Pobres "La Esperanza,"*12.

clearinghouse of information not only on the latest trends and developments in the care of tubercular patients but also as a chronicle of how the disease manifested itself in Cuba. Yet, perhaps the most important role that La Liga played during these years was that of booster to the anti-tuberculosis movement in Cuba. At a moment when the public health priorities of the young Cuban republic seemed to begin and end with the control of yellow fever, La Liga argued for Cuba to join the global crusade against a disease that "profoundly concerned all of the civilized nations [of the world]."[65] Because it advocated for the Cuban government to actively address the social conditions that facilitated the spread of the disease and because it called on the Cuban government to allocate resources to support the health care infrastructure needed to contain the disease and treat its victims, La Liga articulated a public health agenda that was in many ways at odds with the agenda advanced by the Cuban government and demanded by the American one.

This is not to suggest that the Provisional Government was unmoved by the prevalence of infectious diseases in Cuba. There were early signs that U.S. medical and sanitary authorities in Cuba were eager to address public health issues that went beyond the control of yellow fever. The persistence of diseases such as enteric fever, diphtheria and tetanus troubled American sanitarians and their Cuban counterparts. In response, the Provisional Government moved to remedy these and other infectious diseases by increasing surveillance and disinfection and by investing in modern sanitary interventions such as the distribution of disinfection kits to the mothers of newborns in order to reduce

[65]Ibid., 11.

deaths from tetanus). These interventions succeeded. By 1908, Carlos Finlay noted with pride that the island had seen a "marked decrease in the number of deaths caused by preventable disease," including enteritis and tetanus.[66]

Yet, fighting tuberculosis required something more complex than the strategies that had yielded results with other infectious diseases. La Liga had called for a nationwide effort against the disease that included a concerted effort on the part of governmental and private institutions to educate Cubans about the etiology of the disease and the creation of a health infrastructure to treat the infected. The organization's leaders regarded themselves as partners with the Cuban government in this effort. The government might have its own dispensary and provide surveillance and disinfection, but the task of education and policy making, and of presenting Cuba's anti-tuberculosis campaign to the world, was something for which *La Liga*'s members were expertly suited.

In the immediate aftermath of the U.S. occupation of Cuba in 1906, it appeared that *La Liga* was well-positioned to take advantage of the arrival of American sanitary and medical authorities. Dr. Jacobsen had long standing ties to two key figures in the American medico-military community, Dr. Kean and Dr. Valery Havard. Jacobsen knew both men well from their service during the Wood Administration and he might well have thought that their presence on the island signaled that *La Liga* would receive much greater official support for its work than it had received under the Estrada Palma administration.

[66]Finlay, *Annual Report*, 441.

Shortly after their arrival in Cuba, Kean and Havard were invited to visit *La Liga*'s dispensary. Kean was unable to attend this meeting with *La Liga*'s leaders but Havard did.[67] It is unclear from the record of this meeting published in the *Boletín* what the subject of the conversation was between Havard and Jacobsen and his associates. Nevertheless, it seems very likely that two issues were at the center of this discussion: construction of the sanatorium and government support for *La Liga* and its programs. On the first count, it is clear that the Provisonal Government's sanitary authorities worked with Dr. Jacobsen and *La Liga* to finally see the sanatorium project through to completion. Not only was *La Liga*'s leadership invited to accompany Dr. Kean on his visit to Asunción in the spring of 1907 but the members of the organization were also charged with proposing the facility's first budget. After so many years of lobbying for the construction of a sanatorium, *La Liga* was working alongside the Provisional Government to turn the long-delayed project into reality.

Yet, for as much success as *La Liga* seemed to enjoy on the sanatorium project, the matter of *La Liga*'s broader role in the government's anti-tuberculosis campaign was less certain. Unfortunately for *La Liga*, shortly after his visit to the organization's dispensary, Col. Havard left Cuba for Washington D.C. where he had been working in the office of the Surgeon General.[68] Havard had been an early supporter of *La Liga* and its work against tuberculosis. Without him in Havana, *La Liga* lost a powerful ally. This lack of political influence within the

[67]"El Dr. Havard en El Dispensario," *BMLCTC* 6:5 (November 1906):65.

[68]James M. Phalen, "Valery Havard, Colonel, Medical Corps, U.S. Army." *Army Medical Bulletin* No. 50 (October, 1939): 128.

Provisional Government became obvious once discussions started on the reorganization of the country's sanitary service.

In May, 1907, Edwin V. Morgan, the U.S. minister in Cuba, wrote to Secretary of State Elihu Root about the tuberculosis crisis in Cuba. After noting that there had been in the previous months a "gratifying decrease in contagious diseases," Morgan lamented that tuberculosis was "an exception."[69] After sharing with Root a statistical analysis of the mortality caused by the disease in Havana and detailing the provisional government's recent actions in favor of the construction of the sanatorium, Morgan turned to the matter of *La Liga*. The organization had done "good work," Morgan wrote, but its "membership is small and unfortunately is confined to doctors largely instead of being generously distributed among men and women of various professions and occupations."[70] Even so, with the support of Dr. Kean, "the scope and success of the League will be materially increased."[71]

Yet, just a few months after Morgan's missive, it appeared that the Provisional Government's support for *La Liga* had already begun to wane. In late August, when Gov. Magoon announced the creation of the National Sanitary Board, Dr. Jacobsen found himself removed from the group of directors and relegated to the position of honorary member. On August 26th, Kean attended the first meeting of the newly constituted board and there met with Jacobsen. The

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[69]Edwin V. Morgan to Elihu Root, May 25, 1907. US National Archives, Records of the Bureau of Insular Affairs, Record Group 350, Central Classified Files, 1898-1945, Entry 5, Box 759, File 16240, 1.

[70] Ibid., 3

[71] Ibid., 3.

Cuban doctor expressed his disappointment at the Governor's decision to limit his participation on the board calling it a "great blow."[72] For his part, Kean largely dismissed Jacobsen's complaints. It was "an advantage," Kean noted in his diary, that *La Liga* be "disconnected from government."[73] The purpose of organizations such as *La Liga*, Kean argued, was precisely to operate as an adjunct to government sanitary and health measures. *La Liga*'s work, like that of anti-tuberculosis leagues around the world, was to promote awareness of the disease and the best measures through which it might be controlled. If the organization believed that it would be of service to the Cuban people to offer direct medical care, it should be able to secure support for its work from private citizens and corporations on the island. As if Kean's arguments were not clear enough to *La Liga*, Magoon himself addressed the board through his secretary, Frederick Foltz. Foltz informed *La Liga*'s Board that while Magoon supported the organization's work, he also believed that its links to the government had "restrained private initiative."[74]

La Liga rejected the arguments in favor of a split between the government and the organization. For years, the minutes of *La Liga*'s monthly meetings were filled with complaints about the lack of resources to fund its anti-tuberculosis programs. Buffeted by the economic chaos and crisis of the early years of republican rule, the organization had been able to secure some donations from

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[72] JRK Diaries, August 26th, 1907, 40.

[73] JRK Diaries, August 26th, 1907, 40.

[74] Letter of Frederick Foltz to the Board of Directors of La Liga Contra la Tuberculosis en Cuba. Reprinted in *BMLCTC*, 7:7 (January 1908): 104.

individuals and corporation but never enough to finance its work independent of the largesse of the state. The universe of Cuban philanthropists who might finance *La Liga*'s work was too small to effectively support the organization. Jacobsen and the other members of *La Liga* understood the value of developing a broad group of private supporters. Since its inception, *La Liga* and its leaders had argued that the only successful anti-tuberculosis campaign was one that recruited supporters from every sector of Cuban society to the fight against the disease. In fact, at the start of 1907, the organization had declared that it was "a social more than a medical institution."[75] It suggested, in this way, that it viewed itself as an organization that operated in places far beyond the bacteriological laboratory or the dispensary examination room. But there was a wide chasm between *La Liga*'s vision of itself and the reality of its finances.

After learning of Magoon's decision to remove them from the National Sanitary Board, *La Liga*'s members reacted by claiming that the United States was forcing a standard upon the Cuban organization that did not reflect the economic reality of the young republic and its citizenry. Depending solely on private support "may be applicable in other countries, such as the United States," an editorial in the *Boletín* blared, "in places where charitable organizations have the support of the rich and the poor; but not in ours, which has not been inspired by these healthy practices."[76] Kean was unmoved by *La Liga*'s arguments and seems to have contented himself with the knowledge that he had achieved in a

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[75]"La Liga Contra la Tuberculosis es una institución más social que médica." *BMLCTC* 6:7 (January 1907): 98.

few short months the construction of the sanatorium and with it the completion of the most public anti-tuberculosis project on the island. The survival of *La Liga* was not his primary concern.

The Provisional Government's decision to separate *La Liga* from the government was a great disappointment not just because it seemed to sentence the organization to perpetual financial struggle but also because it undercut *La Liga*'s argument that it was the architect of Cuba's anti-tuberculosis campaign. How might the organization sustain its claim to speak for the island on matters related to the disease if it could barely finance its services to the tubercular and lacked the policy-making power inherent in membership on the National Sanitary Board? What is more, after years of serving as the Cuban point of contact in the global struggle against tuberculosis, what would happen to its international standing now that the government had set it adrift?

Late in 1907, *La Liga* learned that it would have an opportunity to explain the anti-tuberculosis campaign in Cuba and its place in that campaign when it was invited to participate in the Sixth International Congress on Tuberculosis, to be held in Washington in September, 1908. The Congress attracted leaders from throughout the global anti-tuberculosis movement to provide updates on their work in controlling the spread of the disease in their specific cities and nations and also to share new scientific research. An invitation to the conference, therefore, was a validation of a particular nation or organization's place within the worldwide struggle against tuberculosis.

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[76]"A Nuestros Lectores." *BMLCTC* 7:3 (September 1907): 36.

For Cuban anti-tuberculosis campaigners, the reaction to the invitation from the Congress was immediate. Members of *La Liga* from throughout Cuba formed a national committee to select who would represent the nation at the conference. The representatives chosen were Jacobsen, Diego Tamayo, Fernando Rensoli, Filiberto Rivero, and José Peña.[77] For the members of *La Liga*, in particular, the invitation to take part in the conference was welcome recognition of their efforts on the island. It also offered an opportunity to contrast the support of the international community with the seeming equivocation of leaders in Cuba. "Our work is not lost in the abyss," wrote *Liga* member Candido De Hoyos, before adding:

> In our own land, La Liga Contra La Tuberculosis stumbles over great obstacles at every turn, and those that are supposed to watch over her do not, that does not happen outside [of Cuba], where societies that are better constituted and perfectly developed, recognize its work better than do we [Cubans], who have the bad habit of drowning good works.[78]

After electing representatives, the most important issue facing the Cubans was the matter of financing the costs of participation in the congress. Lacking both individual and institutional resources to underwrite their travel to Washington, the delegation would need help from other sources. Dr. Kean recognized the importance of the conference not only because it was the most significant tuberculosis-related gathering on the globe but because Cuba's participation in the conference would reflect positively on the Provisional Government and its sanitary work on the island. Kean appropriated $3,900 from

[77]Magoon, *Annual Report,1908*, 191.

[78]*BMLCTC,* 7:4 (October 1907): 49.

the island's sanitary budget to support the costs of the trip and added himself to the delegation as it chairman.[79] In late September, 1908, Kean and the Cuban delegation left the island for Washington and the Congress. Kean was largely absent from the proceedings. On September 25th, he and Rensoli attended a banquet in honor of the Latin American delegates to the Congress at the New Willard Hotel.[80] Afterward, he retreated to visit with friends and family in neighboring Virginia.[81]

The job of explaining Cuba's anti-tuberculosis work fell to Dr. Jacobsen. On the morning of Tuesday, September 29th, he strode to the dais of the New National Hotel and delivered a talk entitled, "The Problem of Tuberculosis in Cuba." The audience knew Jacobsen well. Over the years he had become one of Latin America's most articulate and forceful advocates against tuberculosis. In recognition of his work, the participants in the Congress' "State and Municipal Control of Tuberculosis" Session had elected him the previous afternoon to serve as one of the session's honorary presidents.[82] Jacobsen's talk that morning touched on virtually every aspect of his nearly decade-long struggle against tuberculosis in Cuba and included, among many things, a very direct criticism of the recent divestment of the government from *La Liga*.

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[79]Magoon, *Annual Report, 1908*, 217.

[80]"A Social Function in Honor of Latin America." *Bulletin of the International Bureau of the American Republics*. 27:4 (October 1908): 668.

[81]JRK Diaries, 1908, 106-108.

[82]The only other Latin American to be similarly honored by his colleagues with an honorary presidency was Mexico's Eduardo Liceaga. See: *Transactions of the Sixth International Congress on Tuberculosis*. Washington, September 28 to October 5, 1908, 4:1 (Chicago: W.F. Fell 1908): 1.

Jacobsen began his presentation at the Congress by placing tuberculosis in Cuba within the context of the global struggle against the disease. Cuba may be a tropical nation but the problem of the disease was "the same…as in any other country."[83] Tuberculosis in Cuba, he said, showed "the same evolution, clinical varieties and is due to the causes known everywhere else."[84] Of course, as much as the disease—meaning the actual bacillus—was the same in Havana as it was in Paris, there were some sites of infection that were unique to Cuba. He pointed in particular to the intractable problem of tuberculosis infection in the country's tobacco factories. The data on how many tobacco workers were infected with tuberculosis were elusive but what data Jacobsen was able to compile from the municipal dispensary, *La Liga*'s dispensary and other facilities supported his contention that the factories were dangerous breeding grounds for the disease. Jacobsen added that he believed that the high rates of infection were due to something more than just the damp and poorly-ventilated conditions of the factories. He noted that he was conducting research along with Dr. Juan Dávalos to examine "whether tobacco might exercise some specific action on the development of the disease."[85] Jacobsen noted too that there were other occupations in Cuba that seemed to perpetuate conditions amenable to infection

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[83]Joaquín Jacobsen, "The Problem of Tuberculosis in Cuba." *Transactions of the Sixth International Congress on Tuberculosis*. Washington, September 28 to October 5, 1908, 4:1 (Chicago: W.F. Fell 1908): 113.

[84]Ibid., 113.

[85]Ibid., 114.

including the "linen-ironing trade" and the many stores in Havana and elsewhere where clerks slept each night in "badly ventilated and overcrowded" rooms.[86]

Yet, the bulk of Jacobsen's remarks that early fall day were directed at the issue of the role of the state in the fight against tuberculosis and an evaluation of *La Liga*. Still stung by Magoon's decision to put an end to the relationship between the Cuban government and *La Liga*, Jacobsen decried the lack of official support for his organization. He recalled that from the earliest moments of its existence, he had argued that *La Liga* "ought to have official protection in order that its efforts might be effectively directed."[87] The failure to have support from the Cuban government had diminished the organization's effectiveness. Looking back over the previous six years of *La Liga*'s existence, Jacobsen noted how the organization's effectiveness had been compromised by the lack of government aid. "I do not deny that some good work has been done," he said somberly, "but it is not worth comparing with the time employed, nor with the exertions that have been made."[88]

Jacobsen explained how *La Liga*'s impact on Cuba had decreased in recent years. The monthly *Boletín* lacked much of the original work that had characterized its earliest issues. The organization's membership and staff had declined as well. What was more troubling for Jacobsen was that in the years since its establishment there had been little change in the number of deaths caused

[86]Ibid., 116-117.

[87]Ibid., 118.

[88]Ibid., 119.

by tuberculosis in Havana. Six years had elapsed since *La Liga* had come into existence and he sounded like a man who had little to show for his efforts.

Jacobsen argued that *La Liga* need not find itself in this predicament. There were numerous models for government-sponsored associations dedicated to fighting tuberculosis. The governments of England and Germany had each opted to partner with private associations to combat the disease. And even the United States offered a useful model. Buoyed by private support, tuberculosis organizations in the United States "powerfully reinforce[d] and round[ed] out the state's actions."[89] The success of this partnership between the state and private associations was nothing less than a testament to the "social solidarity," "culture" and "prosperity" of the United States.[90]

Yet, as much as Jacobsen admired the U.S. model he was very clear that it was ill-suited to Cuba. "It is not possible," he told the assembly, "with our deficiencies to hope for the application of such elements to the solution of the tuberculosis problem in Cuba."[91] Jacobsen pointed to the complex elements of a comprehensive anti-tuberculosis campaign: the collection of statistics, inspections, sanatoria, dispensaries, hygienic housing for the poor, and a special service dedicated to identifying the disease among infants and children. "All of this work," he noted, was "slow and complicated."[92] But success was possible. Still, in Cuba, the lack of a concerted strategy to tackle tuberculosis and the lack

[89] Ibid., 118.

[90] Ibid., 119.

[91] Ibid., 119.

[92] Ibid., 123.

of support for La Liga had left the island virtually defenseless against the disease. In Cuba, he explained, "tuberculosis does not diminish."[93] After nearly a decade of leading the battle against tuberculosis, Jacobsen appeared resigned to the futility of the enterprise he had made his life's work.

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It is unclear how Jefferson Kean or the other U.S. sanitary officials in Cuba reacted to Jacobsen's remarks at the International Congress on Tuberculosis. Shortly after the delegation returned to Cuba, details of the American withdrawal from the island began to circulate.[94] These would be months of drawing down military personnel and handing over control of the Cuban government—including the National Sanitary Board—to the administration of José Miguel Gómez. Governor Magoon's final report on the Provisional Government revealed a profound self-satisfaction with the public health accomplishments of the preceding years. The U.S. had accomplished two major objectives: controlling the spread of yellow fever and improving the sanitary condition of municipalities across the island. The latter accomplishment resulted in a decline in the national death rate something that left him "satisfied that it has given great satisfaction to the Cuban people."[95] Surprisingly, Magoon made special mention of tuberculosis in his final report. He noted the construction of La Esperanza Sanatorium and of the expansion and reorganization

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[93] Ibid., 123.

[94] Kean Diary, December 11, 1908, 126.

[95] Magoon Annual Report, 1908, 144.

of the Tamayo Dispensary. He also laid out what remained to be accomplished to strengthen the island's anti-tuberculosis campaign. "The principal needs of this campaign," Magoon wrote, were:

> the establishment of at least two additional sanatoriums, one in the mountains of Santa Clara province and the other in the province of Oriente, and the creation of dispensaries for tuberculosis in each of the larger cities of the Island. A feature essential to efficient work in these dispensaries which has not yet been introduced into Cuba, is the introduction of trained visiting nurses who will visit the homes of the patients under treatment, to see that they carry out the instructions which they have received, and to place their homes in as good sanitary condition as may be practicable."[96]

Of course, the work of constructing new sanatoria, dispensaries and creating a visiting nurse program would be left to the incoming government of President Gómez. Curiously, Magoon made no mention of the specific impact of his government's policies on tuberculosis as a cause of death in Havana. Those statistics, as Jacobsen well knew, revealed that after months of American management, little had changed with regard to tuberculosis in the Cuban capital. Figure 4.7 indicates that in 1905 tuberculosis accounted for twenty percent of all deaths in Havana. In 1908, after more than two years of American rule and management of the sanitary affairs of the island, tuberculosis continued to represent twenty percent of all deaths registered in Havana. Additionally, the total number of deaths caused by the disease was at its highest point since 1898.

[96]Ibid., 144.

Table 4.3: TB Deaths as a Percentage of Total Deaths in Havana, 1903-1908			
Year	Total Deaths	Deaths from TB	TB as a % of Total Deaths
1903	5,465	1,027	19%
1904	5,583	1,161	21%
1905	5,832	1,179	20%
1906	6,144	1,153	19%
1907	6,708	1,176	18%
1908	5,994	1,185	20%

A decade had passed since the arrival of the U.S. in 1898. In the intervening years, yellow fever had largely been eradicated on the island and no longer posed a serious threat to the United States and its citizens. But as Magoon, Kean and the corps of American sanitary officials left the island, tuberculosis continued to kill thousands of Cubans in Havana and throughout the island. The plan to successfully combat the disease, as Jacobsen noted in his address in Washington, had been developed, all that was needed was the will to implement it. What Cuba needed most of all was "an earnest pledge to fight tuberculosis." Lamentably, it would take years more before any government would take up Jacobsen's challenge.

Conclusion

Sometime early in May, 1909, José Bailley, the son of a prominent Cuban planter from Oriente province, boarded the passenger ship *Seguranca* at Santiago de Cuba en route to New York City. Measuring a little short of six feet in height, with black hair and brown eyes, he was all of 36 years of age and unmarried. He was also dying of tuberculosis. By the time the ship carrying Bailley reached New York, on May 16th, the immigration officer in New York noted that the condition of his health was, quite simply, "bad." Bailley had come to New York in a last ditch attempt to be cured of the disease that was killing him. He planned to arrive in New York City and then head north, to Sullivan County. There, just south of the Catskill Mountains was the famed Liberty Sanatorium, founded by the late Alfred Loomis and offering hope to the hopeless.

What Bailley did not know is that he would never make it to Liberty. Instead, when his diseased state was revealed to the officials charged with ensuring that persons entering the United States were free of infectious diseases, the young Cuban was dispatched to Ellis Island to undergo a full medical examination. The results of the examination were clear: Bailley could not be admitted into the United States because he was actively infected with tuberculosis. He was quarantined at Ellis Island and scheduled to be deported to Cuba. In the weeks that followed he would appeal to the Cuban Consul in New York for help and averred that, were he admitted to the country and allowed to go to Liberty, he would not become a public charge. The Consul sought help in New York and Washington, but to no avail. As American and Cuban officials debated his fate, Bailley's condition worsened. On June 22nd, José Bailley died. His personal effects were

sent to the offices of the Cuban consulate in New York City; his body was "embalmed and placed in a receiving vault to await shipment" back to Cuba.[1]

Bailley's case was hardly unique. During the first decade of the twentieth century, an increasing number of immigrants were denied entry into the United States because they suffered from what the Department of Commerce and Labor termed "loathsome or dangerous contagious diseases." A change in U.S. immigration law in 1907 explicitly excluded persons with tuberculosis from admission into the United States.[2] In 1909 alone, more than 2,300 persons were refused admission to the United States for this reason; many of these were victims of tuberculosis.[3]

The Bailley case raises a number of questions. Why did the United States adopt a policy toward consumptive immigrants that for years had deemed "ill-advised" by many of the nation's leading experts on tuberculosis?[4] Why had Bailley been denied the opportunity to travel to Liberty, even after having proved that he would not be a public charge? But perhaps the most important question is why José Bailley, a man of apparent financial means, thought that the best medical care available to him was in New York State and not in Cuba.

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[1]The details of Bailley's case are from *New York Times*, 2 July 1909, 14. Additional information on Bailley was taken from the records of arrivals at Ellis Island, [Electronic Record] http://www.ellisisland.org/search/shipmanifest.asp?pID=101597180020&fromShip=y&letter=s&half=1&sname=Seguranca&year=1909&sdate=05/16/1909&port=Santiago,*Cuba&page= [Accessed, March 7, 2013].

[2]"The New Immigration Law*," The American Journal of International Law* 1:2 (April 1907): 454.

[3]United States. Department of Commerce and Labor. *Reports of the Department of Commerce and Labor, 1909*. (Washington: Government Printing Office, 1910), 180.

[4]For a contemporary argument against the policy of excluding all tubercular immigrants from the United States see: S.A. Knopf, "The Immigration of the Tuberculous into the United States: A Problem for Every Nation." *Medical problems of immigration: being the papers and their discussion presented at the XXXVII annual meeting of the American academy of medicine, held at Atlantic City, June 1, 1912* (Easton, PA: American Academy of Medicine Press, 1912): 111-188.

The answer to this question is clear. One decade after Spanish rule had ended in Cuba, and after two long periods of U.S. rule, Cuba was unable to systematically address the challenge of tuberculosis. There had been efforts to control the spread of the disease and provide treatment for its victims but the reality was that these were attempts hobbled by a lack of political will and economic resources. Three factors in particular seemed to have doomed the anti-tuberculosis campaigns of 1899-1909 to failure: the centrality of yellow fever to the public health program of the Cuban republic and the insistence of U.S. officials that Cubans control the disease; the ambivalence of Cuban political authorities to the tuberculosis crisis; and the general weakness of *La Liga Contra La Tuberculosis*. Taken together these factors undermined any attempt to confront what was, during this period, the single greatest causes of death among adults on the island.

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As indicated in the previous chapters, yellow fever control and eradication were at the center of the U.S. public health agenda imposed on Cuba after 1898. The reasons for this revolved mainly around two issues: guaranteeing the safety of Southern port cities in the United States after decades of periodic yellow fever outbreaks that costs thousands of lives and millions of dollars; and promoting the continued immigration of Spaniards to Cuba. Both of these objectives were central to U.S. plans for Cuba and they turned yellow fever into a key component of U.S.-Cuban relations.

During the occupation of 1898-1902 and the establishment of the Provisional Government of 1906-1909, yellow fever control was the single most important public health endeavor pursued by U.S. officials in Cuba. Large parts of the island's budget were dedicated toward the inspection of houses and businesses in search of breeding sites

for the *aedes aegyptyi*, the staffing and management of disinfection brigades, and the isolation of non-immune immigrants. The work hours of U.S. public health officials were absorbed by the need to track, quantify and corral the disease. Over the course of two occupations, U.S. officials in Cuba had devoted most of their time and resources to eradicating a disease that terrified and threatened Americans more than it did Cubans.

Of course, the U.S. preoccupation with yellow fever had a profound impact on Cubans as well. During the years of the Cuban interregnum of 1902-1906, the island's political and sanitary officials invested human and financial capital in an attempt to control a disease whose reappearance might well threaten their new-found independence. In her analysis of the intersection between yellow fever and the political relations between the United States and Cuba, Mariola Espinosa rightly points out that "Cubans remained on guard against a disease that had only rarely afflicted their fellow citizens so as to protect those who lived on the opposite shore of the Gulf of Mexico."[5]

Beyond draining the scant resources of the Cuban sanitary system, yellow fever did something more: it precluded the Cuban state from establishing a public health agenda for their new republic that reflected the needs of Cuban citizens. This is not to suggest that Cubans were disinterested in the campaign to control yellow fever. Many of the Cuban sanitary community's leading lights—Carlos Finlay, Arístides Agramonte, Juan Guiteras—had actively participated in the struggle against the disease and had enjoyed international acclaim and appreciation for their efforts. In many ways, their own personal success and legacy—especially in the case of Finlay—were tied to their work on yellow fever. But for most Cubans—unaffected by yellow fever at home or at work—the

[5]Espinosa, *Epidemic Invasions*, 97.

diversion of time and resources to yellow fever and away from other more insidious and deadlier diseases was costly.

Nowhere is this clearer than in the case of tuberculosis in Cuba. Tuberculosis killed an ever-increasing number of Cubans from 1899 until 1909. It afflicted every sector of Cuban society without regard to race, gender or national origin. It was firmly entrenched in every major city on the island. Yet, despite this, the governments led by Leonard Wood, Tomas Estrada Palma and Charles Magoon failed to address the disease with the same commitment and resources that characterized the battle against yellow fever. This is not to suggest that government officials surrendered to tuberculosis. In fact, as indicated in the previous chapters, there were efforts—especially under the governments of Wood and Magoon—to create an infrastructure to combat the disease including the creation of a Tuberculosis Division in Havana in 1901 and the construction of La Esperanza Sanatorium in 1908. Also there were specific efforts to address one or another aspect of the disease: the disinfection of homes, the creation of a dispensary in Havana, and legislative remedies to punish behaviors that facilitated infection. But these efforts occurred without the careful planning that had accompanied the struggle against yellow fever. During these years, U.S. and Cuban officials were aware of the deadly toll of tuberculosis on the island but they were simply too occupied with yellow fever to dedicate the necessary resources to root out many of the underlying causes of tuberculosis infection in Cuba.

Despite the shortcoming of both U.S. and Cuban officials, and the persistence of tuberculosis in Cuban mortality tables, the anti-tuberculosis movement in Cuba did yield results. Tuberculosis was the first disease against which Cubans organized independently

of U.S. public health imperatives. The establishment of *La Liga Contra la Tuberculosis en Cuba* in 1901 was a sign that Cubans were not passive recipients of U.S. public health knowledge and objectives. Instead, the work of Dr. Joaquín Jacobsen and others in *La Liga* demonstrates that Cubans were fully aware of the disease situation on the island, committed to creating a broad-based campaign against tuberculosis, and eager to build the private and public health infrastructure to combat the disease. Against arguments that yellow fever was the most important public health challenge facing U.S. and Cuban authorities between 1899 and 1909, *La Liga* and its allies offered a counter-claim about the deadly toll of tuberculosis.

By organizing against tuberculosis, *La Liga* was doing something more than mounting a public health campaign. In the minds of *La Liga*'s members the fight against tuberculosis was about much more than the disease itself. It was a symbol of Cuba's place among the modern nations of the world. While yellow fever shined a light on Cuba's connection to the disease world of the tropics, tuberculosis highlighted just how similar the island was to the modern, industrialized nations of Europe and to the United States. In the early years of the republic, when Cuba was confronted by limits on its sovereignty imposed by the United States and struggled to establish a democratic tradition, this was no small matter. *La Liga* articulated a vision of Cuba and of Cubans wielding not only the power to contest U.S. public health priorities but also the power to advance arguments about Cuba's nationhood and modernity. These arguments, as we have seen, were not always well received by U.S. authorities or by Cuban political leaders. Yet the fact that these arguments in favor of Cuba's modernity were made at all is important to our understanding of the Cuban republic.

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After 1909, Cuba would continue to struggle with tuberculosis. The disease would continue to claim thousands of lives and disrupt the lives of many thousands more. Over the next decade the death rate from tuberculosis would change little, from 379/100,000 in 1907 to 344/100,000 in 1919.[6] The death rate would begin to decline significantly in the 1920s and in subsequent decades.[7] Only after 1947, would there once again be a significant increase in tuberculosis mortality in Cuba, although the causes of this increase are not clear.

La Liga, for its part, approached the new government President José Miguel Gómez for support in 1909. By May, they had presented a plan to the Cuban president that "effectually minimize[d] the ravages of pulmonary consumption."8 The plan proposed "to appoint 38 traveling inspectors and construct 9 modern tuberculosis hospitals, one at each of the six provincial capitals, and others at Cienfuegos, Manzanillo and Colón."[9] It is unclear how President Gómez responded to this request but if the death rate detailed above is an indication, it is unlikely that the Cuban state invested much in *La Liga* or its plans. Indeed, in the years after the end of the second U.S. intervention, *La Liga* would slowly fall from its place of prominence in the Cuban anti-tuberculosis campaign. By the 1920s, tuberculosis would become a source of great concern for Cuban

[6]Díaz-Briquets, *The Health Revolution in Cuba*, 58.

[7]Díaz-Briquets has posited that the decline in the tuberculosis death rate during this period reflects mainly improvements in caloric consumption among Cubans. Of secondary importance, he notes, was "isolation of the sick and the dissemination of information about tuberculosis." Díaz Briquets, *The Health Revolution in Cuba*, 72.

[8]*Public Health Reports* (1896-1970) 24:22 (May 28, 1909): 743.

[9]Ibid., 743.

officials. In 1928, the Cuban government created the *Patronato Nacional Contra La Tuberculosis* as part of the country's Department of Health and Charity.[10] In 1936, under the government of Miguel M. Gómez, (José Miguel Gomez's son) the Cuban state would further expand its anti-tuberculosis initiatives by creating *Consejo Nacional de Tuberculosis*, a semi-autonomous organization charged with overseeing the public and private anti-tuberculosis work on the island.[11] The Cuban government had finally placed the struggle against tuberculosis at the heart of its public health initiatives. Unfortunately, Joaquín Jacobsen never lived to see his arguments in favor of a robust government response to the disease come to fruition. He had died, in 1934, after decades of leading the fight against tuberculosis in Cuba.

[10]Chaple, "Apuntes Para La Historia Antituberculosa en Cuba," 101.

[11]Ibid., p. 101.

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