

MINING BODIES:
U.S. MEDICAL EXPERIMENTATION IN GUATEMALA DURING THE TWENTIETH
CENTURY

BY

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DISSERTATION

Submitted in fulfillment of the requirements
for the degree of Doctor of Philosophy in History
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2019

Urbana, Illinois

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ABSTRACT

Mining Bodies explores the history of U.S. experimentation in the Central American and Caribbean region during the twentieth century. It focuses in particular on experiments conducted by the U.S. Public Health Service (USPHS), the Pan American Sanitary Bureau (PASB), and the Guatemalan government during the 1940s in Guatemala on sexually-transmitted infections (STIS). During these experiments, U.S. and Guatemalan doctors intentionally exposed at least 1500 Guatemalans to STIs. The doctors did not provide available treatments nor receive informed consent from the people they experimented upon. This dissertation argues that these experiments arose from a medical research network created by U.S. and Latin American institutions in Guatemala during the twentieth century. They also resulted from systemic factors that included U.S. imperialism in the Central American and Caribbean region, a culture of medicine in the United States and Guatemala, health professionals' paternalism, and racism. As this dissertation explores the historical factors that enabled doctors to construe Guatemalans as medical subjects, it also highlights the imprint that medical experimentation continues to have on Guatemalans continuing in the present day.

ACKNOWLEDGMENTS

I would like to thank my co-advisers, Kristin Hoganson and Leslie Reagan, and also my committee members, Jerry Dávila, David Carey, and Rana Hogarth. Kristin Hoganson has read countless drafts of my dissertation and remained a highly supportive mentor throughout my time at the University of Illinois. Her insight has been critical to my project, and she is an inspiration as both a scholar and a teacher. Since my first phone call with Leslie J. Reagan when I was applying to the University of Illinois, she has been an advocate for my project. Leslie has been particularly helpful in thinking through issues of gender, sexuality, and health in my work. She has also pushed me to develop my voice as a writer, an academic, and as a woman. I am grateful to have two such strong scholars and women as mentors.

Jerry Dávila has also been invaluable in helping me to develop a Latin American perspective in my work. I admire Jerry's passion and commitment to scholarship on Latin America. My project has greatly benefited from his intellect and knowledge of this topic. Since 2013 when I met David Carey in the national archives in Guatemala, he has provided me with significant help in navigating archives and research in Guatemala. Even though David works at Loyola University Maryland, he became an enthusiastic participant on my dissertation committee. Rana Hogarth has also been a key member of my committee and brings impressive knowledge on the history of medicine and race. I have further been fortunate to work with and benefit from the mentorship of many other professors at the University of Illinois, Urbana-Champaign, the University of Texas at Austin, and at Williams College. They include Marc Herzman, Ikuko Asaka, Kathy Oberdeck, Antoinette Burton, Terri Barnes, Virginia Garrard, Philippa Levine, Sue Heinzelman, Gloria González-López, and Jim Shepard.

I would also like to thank my supportive parents, Roger and Jill Crafts, who have always been ready on the phone to talk me through my most challenging moments pursuing my doctorate. Their commitment to giving me the best possible education and their continued intellectual curiosity have given me the foundations for a career in academia. Since I met my husband, Nathaniel Hassan Putnam at Williams College in 2003, he has always believed in me and encouraged me to pursue my own path in my career and in my personal life. His support and love have helped me tremendously through my PhD and other personal challenges. Finally, I would like to thank my canine pal Chloe who has been the best companion throughout the writing of my dissertation.

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INTRODUCTION: DOCTORS ACROSS BORDERS

In December 2015, Marta Lidia Orellana walked across Guatemala City's plaza central with her son, Luis, to demand a meeting with the country's Vice President.¹ Orellana is one of the survivors of experiments that the U.S. Public Health Service (USPHS), the Pan American Sanitary Bureau (PASB), and the Guatemalan government conducted in Guatemala in the 1940s. In these experiments on preventative methods and treatments for sexually-transmitted infections (STIs), U.S. and Guatemalan doctors intentionally infected at least 1300 Guatemalans with three STIs—syphilis, gonorrhea, and chancroid. Since the researchers were careless in their record-keeping, it remains unknown exactly how many Guatemalans they actually infected. The doctors did not obtain informed consent from the people they experimented upon, nor did they provide the majority of Guatemalans they infected with available treatments at the time.² In 2010, the U.S. government apologized to then Guatemalan President Alvaro Colom, not to the people actually infected with STIs.³

The legacy of these experiments remains present within the bodies and minds of generations of Guatemalans more than seventy years after they occurred. Many Guatemalans still have received neither treatment nor compensation for what happened to them. Orellana was just ten years old in the national orphanage when she said that doctors infected her with syphilis, an infectious disease caused by a spirochete that can render severe damage to the brain, heart, and other organs. Her children and grandchildren have also borne the cost of her encounter with the

¹ Interview with Marta Lidia Orellana, Guatemala City, Guatemala, December 11, 2015. I have decided to use Ms. Orellana's name because she agreed to have it made public during my interview with her. She has also chosen to have her name appear publicly in newspapers.

² Both the U.S. and the Guatemalan governments sponsored investigations and reports using archival documents located in their respective countries. See, U.S. Presidential Commission for the Study of Bioethical Issues, "'Ethically Impossible': STD Research in Guatemala from 1946 to 1948, September 2011. Informe de la Comisión Presidencial para el Esclarecimiento de los Experimentos Practicados con Humanos en Guatemala, "Consentir el Daño: Experimentos Médicos de Estados Unidos en Guatemala, 1946-1948," octubre de 2011.

³ "Joint Statement by Secretaries Clinton and Sebelius on a 1946-1948-Study," U.S. Department of Health and Human Services, October 1, 2010. Last retrieved July 19, 2018: <https://2009-2017.state.gov/secretary/20092013clinton/rm/2010/10/148464.htm>

doctors. Orellana passed syphilis congenitally to at least three of her five children (two of her children migrated to the United States and have not been tested by doctors).⁴ Now in her eighties, Orellana's efforts to obtain justice for what happened remains hampered by her physical limitations. She and Luis had repeatedly contacted the Vice President's office to ask for a meeting. Since they received no answer, they decided to show up and request a meeting in person. The journey into the center of Guatemala City was onerous for Orellana. Luis steadied his mother's arm as she walked.

Orellana's struggle to walk to the Vice President's office appeared dissonant with the *Navidad* celebrations in the plaza central on that warm December morning. Still, the buildings surrounding the square tell a history of Guatemalan state repression bolstered by the United States throughout the twentieth century. On one side of the square lies the sprawling presidential palace, built in the 1930s with forced labor by the pro-American dictator, Jorge Ubico. The Cathedral of Guatemala City, the most imposing structure in the square, has columns listing names of people disappeared and killed by the military during the Civil War (1960-1996), which became a Cold War battleground and resulted in the deaths of 200,000 people and a "scorched-earth" offensive in the Guatemalan highlands where the indigenous population is concentrated.⁵ The remains of Archbishop Juan José Gerardi, murdered in 1998 by the Guatemalan military after publishing, *Guatemala: Never Again!*, a human rights report about the atrocities committed during the war, also lie in the Cathedral.⁶ As Orellana struggles to obtain justice for what

⁴ Interview with Marta Lidia Orellana, Guatemala City, Guatemala, December 11, 2015.

⁵ The 1999 truth commission report, CEH, claimed the Guatemalan government, backed by the United States, conducted genocide against indigenous people. It also said that 93% of the human rights violations in the country were committed by the Guatemalan state and paramilitary forces. Commission for Historical Clarification (Comisión para el Esclarecimiento Histórico), "Guatemala: Memory of Silence (Guatemala: Memoria del Silencio), February 1999. REMHI, "Guatemala Never Again!" (Maryknoll, New York: Orbis Books, 1999).

⁶ Francisco Goldman, *The Art of Political Murder: Who Killed the Bishop?* (New York: Grove Press, 2008). REMHI, *Guatemala: Never Again!*

happened to her during the experiments, Guatemala's efforts to transition to democracy and address impunity in the country for human rights violations committed during the war has been hampered by the entrenched power structure in the country.⁷

The experiments form part of a long history of violence perpetrated by two states on women, indigenous, and marginalized Guatemalans. The irony was that the experiments were done in the name of medicine. Following the U.S. apology, the international press, activists, doctors, and academics expressed outrage. "*Fueron los experimentos del diablo*" (they were experiments of the devil), the son of one survivor of the experiments told journalists.⁸ An article in the local Guatemalan press compared the experiments to the "genocidal policies" committed by Nazis during World War II.⁹ In the United States, the media has generally focused on the similarities between Guatemala and a 40-year study (1932-1972) that occurred in Tuskegee, Alabama in which USPHS doctors observed the progression of syphilis in poor and African American men. The researchers intentionally deceived the men and actively kept them from receiving available treatments.¹⁰ The comparison between these two examples of controversial

⁷ President Jimmy Morales has refused to renew the contract with the United Nations on the International Commission against Impunity in Guatemala (CICIG) an organization formed to fight corruption in the country that emerged during the years of military dictatorship. See "Guatemala: Termination of CICIG agreement is latest blow to the fight against impunity," Amnesty International, January 8, 2019: <https://www.amnesty.org/en/latest/news/2019/01/guatemala-terminacion-del-acuerdo-con-cicig-es-un-nuevo-atropello-a-la-lucha-contra-impunidad>. The Guatemalan government has also recently proposed to grant amnesty for war crimes conducted during the civil war, despite protest from the U.S. State Department. Elizabeth Malkin, "Vote Could Free More than 30 Men Accused of War Crimes in Guatemala," *New York Times*, March 12, 2019: <https://www.nytimes.com/2019/03/12/world/americas/guatemala-military-amnesty-war-crimes.html>

⁸ José Elías, "Fueron los experimentos del diablo," *El País*, March 26, 2011: https://elpais.com/diario/2011/03/26/sociedad/1301094003_850215.html. Rory Carroll, "Guatemala Victims of the U.S. Syphilis Study Will be Haunted by the 'Devil's Experiment,'" *The Guardian*, June 8, 2011.

⁹ L. Reynolds, K. Reyes, C. Palma, "Comparen experimentos con las peores atrocidades cometidas por los nazis," *el periódico*, 2 de octubre 2010, 3.

¹⁰ Antonio Ordoñez y Oscar Ismatul, "Experimentos de EE.UU: Legislación facilitó pruebas en el país," *Primer Informe Sobre la Sífilis, Gonorrea, y Chancroide*, Colegio de Médicos y Cirujanos de Guatemala, AGCA, octubre de 2010. Sushma Subramanian, "Worse than Tuskegee," *Slate magazine*, February 26, 2017. Linda Villarosa, "The Guatemala Syphilis Experiment's Tuskegee Roots," *The Root*, October 2, 2010: <https://www.theroot.com/the-guatemala-syphilis-experiments-tuskegee-roots-1790881109>. Donald G. McNeil, Jr., "U.S. Apologizes for Syphilis Tests in Guatemala," *New York Times*, October 1, 2010: <https://www.nytimes.com/2010/10/02/health/research/02infect.html>. "Catholics Condemn 1940s Experiment on Guatemalans as Abuse of Power," *Catholic Review*, January 19, 2012. <https://www.archbalt.org/catholics-condemn-1940s-experiments-on-guatemalans-as-abuse-of-power>. "U.S. Infected Guatemalans during 1940s," *NPR: All Things Considered*, October 1, 2010: <https://www.npr.org/templates/story/story.php?storyId=130272412>.

research is warranted. They both emerged from the same USPHS laboratory and involved many of the same doctors, including John C. Cutler, who directed the experiment in Guatemala. In 1993, he gained notoriety for his defense of the Alabama study as beneficial for the African American community in a NOVA documentary.¹¹ Yet, these two examples of research also have an important difference. In Alabama, USPHS doctors observed the natural course of the disease in men who already had syphilis; in Guatemala, they infected people with STIs. Historian Susan Reverby, who found the archival records pertaining to Guatemala during the course of her research on Tuskegee, has said that the pervasive myth in American society that USPHS doctors infected African American men with syphilis in Alabama actually occurred further south in Guatemala.¹²

Still, painting the experiments as “Guatemala’s Tuskegee” erases the specific histories of Guatemala and U.S. imperialism in the Central American and Caribbean region that enabled this research to occur. While the stories of “Tuskegee” continue to hold power because of the truth they communicate about the history of race relations and state power in the United States, the tale of experimentation in Guatemala has effectively disappeared from U.S. popular discourse.¹³ Following a brief stir in the media, the experiments have since been forgotten or ignored by the vast majority of Americans, similarly to how U.S. empire continues to remain “invisible” to many people in the United States.¹⁴ Guatemala remains a foreign land whose history and people have little meaning to the majority of Americans. Recently, President Donald Trump has sought

¹¹ *The Deadly Deception*, PBS: NOVA, 1993.

¹² Susan M. Reverby, “‘Normal Exposure’ and Inoculation Syphilis: A PHS ‘Tuskegee’ Doctor in Guatemala, 1946-8,” *Journal of Policy History* Vol. 23, 1 (January 2011): 6-28. Amy Goodman, “From Tuskegee to Guatemala Via Nuremberg,” *Democracy Now*, October 6, 2010: https://www.democracynow.org/2010/10/6/from_tuskegee_to_guatemala_via_nuremberg.

¹³ Susan M. Reverby, *Examining Tuskegee: The Infamous Syphilis Study and Its Legacy*, (Chapel Hill: The University of North Carolina Press, 2009).

¹⁴ Although academics have in recent years done impressive work to highlight the history of U.S. empire, the vast majority of the population has yet to confront the history of U.S. involvement in the world. See the recent debate on U.S. empire: Daniel Immerwahr, *How to Hide an Empire: A History of the United States that Includes Its Territories* (New York: Farrar, Straus, and Giroux, 2019). Paul A. Kramer, “How Not to Write the History of U.S. Empire,” *Diplomatic History*, Vol. 42, 1 (2018): 911-931.

to build a border wall to keep the so-called “animals” of Central America and Mexico from migrating to the United States, ignoring how U.S. involvement in this region has shaped the circumstances causing people to flee. The language he uses to describe Central Americans resembles that of USPHS researchers when discussing Guatemalans during the 1940s. For many Americans in the past and continuing into the present day, Central Americans are racialized as “animals” and “illegal aliens,” or non-humans.

In *Mining Bodies*, I argue that these experiments serve as a useful lens through which to view the interwoven histories of the United States and Guatemala, although they also highlight the history of U.S. involvement in the entire Central American and Caribbean region. While individual doctors can be held responsible for what occurred during these experiments, I argue that systemic factors present in both countries played a greater role. These factors included the United States’ colonial relationship with Guatemala, the institutional and ethical norms of U.S. and Guatemalan medical and public health institutions, a masculinist culture of medical research that crossed national boundaries and cultures, and understandings of race in both countries. Beginning around the turn of the twentieth century, U.S. rising power led to the development of U.S. public health and medical systems that operated beyond U.S. borders in Central America, the Caribbean, and the Pacific.¹⁵ American colonial medicine and public health bolstered U.S. foreign policy goals to promote stability in foreign countries and territories, protect U.S. officers

¹⁵ Mariola Espinosa, *Yellow Fever and the Limits of Cuban Independence* (Chicago: University of Chicago Press, 2009). Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines* (Durham and London: Duke University Press, 2006). Michelle Moran, *Colonizing Leprosy: Imperialism and the Politics of Public Health in the United States* (Chapel Hill and London: University of North Carolina Press, 2007). Laura Briggs, *Reproducing Empire: Race, Sex, Science and U.S. Imperialism in Puerto Rico* (Berkeley and Los Angeles: University of California Press, 2003). Steven Palmer, *Launching Global Health: The Caribbean Odyssey of the Rockefeller Foundation* (Ann Arbor: University of Michigan Press, 2010). Anne-Emanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester and London: University of Rochester Press, 2006). Alexandra Minna Stern, “The Public Health Service in the Panama Canal: A Forgotten Chapter of U.S. Public Health,” *Public Health Reports*, Vol. 120, 6 (Nov.-Dec. 2005): 675-9. Eileen Findlay, *Imposing Decency: The Politics of Sexuality and Race in Puerto Rico, 1870-1920* (Durham and London: Duke University Press, 2000).

and soldiers stationed on bases abroad, ensure the flow of trade, and “civilize” people located in these regions. As part of this infrastructure, doctors at U.S. government agencies and private institutions conducted research on tropical medicine or afflictions that threatened the security of the United States and the liberal world order.¹⁶

Guatemala formed a key piece of this medical research network that emerged during the twentieth century. U.S. private and public institutions, including the United Fruit Company, the Rockefeller Foundation, the Office of the Institute of Inter-American Affairs (OIIAA), the Pan American Sanitary Bureau (PASB)/USPHS, and later the World Health Organization (WHO), formed a medical research network in Guatemala that built upon the country’s long history of repression and impunity. Through the infrastructure that these institutions developed, U.S. doctors formed ties with Guatemalan medical professionals who sought to uplift their careers and their nation within the bounds of economic dependency to the United States. Yet, Guatemalan doctors also demonstrated agency in their efforts to bring U.S. knowledge and technological resources to their country. In the experiments on STIs, U.S. and Guatemalan doctors bonded over a secret. Together they created a research space hidden from the laws and ethics of both countries. Although they had different reasons for participating in this research, they forged connections based upon their paternalism, sense of professional accomplishment, and the legacies of American and Spanish colonialisms.

U.S. and Guatemalan doctors by no means forged their diplomatic alliance on equal ground. I use the term alliance rather than partnership to highlight the inequalities underscoring their relationships. Many of the U.S. doctors who approved and participated in these experiments

¹⁶ Espinosa, *Epidemic Invasions*, 56-63. Michelle T. Moran, *Colonizing Leprosy*, 56-7, 108-111, 118-123. Stern, “The Public Health Service in the Panama Canal.” Susan E. Lederer, “‘Porto Ricochet’: Joking about Germs, Cancer, and Race Experimentation in the 1930s,” *American Literary History* 14, no. 4 (2002): 22-46. Palmer, *Launching Global Health*, 1

had gained renown globally for their discovery in World War II that penicillin cured syphilis.¹⁷ They benefited from the fact that the United States entered the height of its power following World War II and began channeling more money into research. Although as government doctors they lacked financial power in the United States, they remained important members of the American meritocracy and became leaders in the USPHS, World Health Organization and in U.S. universities. In contrast, Guatemalan doctors contended with authoritarian rule and political turmoil that impeded their ability to develop an effective medical and public health system and participate in research.¹⁸ They had little opportunity to assume political and intellectual leadership roles to which they believed they were entitled given their knowledge of the biological aspects of life.

Although many Guatemalan doctors decried U.S. *imperialismo* (imperialism), they still forged ties with U.S. institutions and professionals who operated in their country because they offered opportunities to gain access to medical knowledge, technology, and connections to recognized researchers in an international medical community. Scholars of the history of medicine in Latin American have highlighted that countries such as Mexico, Argentina, and Brazil led innovation in public health and medicine and developed policies specific to their geographies and nations. These countries did not just seek to emulate developments in the United States and Europe.¹⁹ In contrast, Guatemala was a small and poor country on the periphery of

¹⁷ Allan Brandt, *No Magic Bullet: A Social History of Venereal Disease Since 1880* (New York and Oxford: Oxford University Press, 1987): 17-2. Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1990* (Cambridge: Cambridge University Press, 1997): 108-113.

¹⁸ Steven Palmer, *From Popular Medicine to Medical Populism: Doctors, Healers, and Public Power in Costa Rica, 1800-1940* (Durham and London: Duke University Press, 2003): 52. David Carey, Jr., *Engendering Mayan History: Kaqchikel Women as Agents and Conduits of the Past, 1875-1970* (New York: Routledge, 2006): 44.

¹⁹ Gabriela Soto Laveaga, *Jungle Laboratories: Mexican Peasants, National Projects, and the Making of the Pill* (Durham and London: Duke University Press, 2009): 66. Espinosa, *Epidemic Invasions*, 56-63. Nancy Leys Stepan, *The Hour of Eugenics: Race, Gender, and Nation in Latin America* (Ithaca and London: Cornell University Press, 1991): 3-4. Julyan G. Peard, *Race, Place, and Medicine: The Idea of the Tropics in Nineteenth Century Brazilian Medicine* (Durham and London: Duke University Press, 1999): 3.

U.S. empire that did not have the resources to effectively participate in a global medical research network emerging during this time period, even though Guatemalan doctors also never simply followed the policies and innovations of the United States. Moreover, despite that other Central American countries such as Costa Rica developed robust medical and public health systems made possible by their incorporation of popular medical beliefs into biomedicine, political instability and repression also hampered Guatemalan doctors' efforts to assume the positions of power that they desired and to shape imperial medical policies according to their own terms.²⁰

As American imperial networks operating in Central America and the Caribbean enabled ties between U.S. and Guatemalan doctors, these doctors also bonded across borders through their paternalism. Although the doctors' paternalism was shaped by the specific histories of their countries, they still forged connections through their masculine identities and sense of professional accomplishment that led them to view themselves as above ethics and laws. U.S. and Guatemalan doctors shared convictions that they should determine the treatments for their patients and methodologies for research without interference from other government officials, lawyers, or activist groups. Historian Susan Lederer has highlighted that U.S. doctors never had complete freedom to do whatever they pleased in medical research, despite lacking clear guidelines and enforcement policies governing research prior to the end of World War II.²¹ Still, although anti-vivisectionists and social reformers challenged medical doctors' authority, in general the medical community continued to hold through much of the twentieth century that the "best men" should make decisions about the biological aspects of life.²² This view was shared by

²⁰ Steven Palmer, *From Popular Medicine to Medical Populism*, 3-7.

²¹ Lederer, *Subjected to Science*, xv.

²² David J. Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*, (New York: Basic Books, 1992): 1, 5. Harry Marks, *The Progress of Experiments*, 12.

Guatemalan doctors, even though they did not receive the respect they believed they deserved from political leadership in Guatemala.

Although scholars have highlighted the central role of paternalism in forming the identities of U.S. foreign policy actors including diplomats and soldiers, they have given less attention to doctors in shaping America's presence in the world.²³ An exception is historian Warwick Anderson who has shown how the masculine and white racial identities of U.S. Army doctors were hardened by colonialism and informed their treatment of Filipinos during the U.S. occupation at the beginning of the twentieth century.²⁴ Doctors' perceptions of themselves were also shaped by U.S. popular culture. By the 1920s, novelists, filmmakers, and journalists celebrated the medical heroism of doctors who traveled to foreign lands to conquer disease. USPHS officers charged with protecting U.S. borders were portrayed as valorous war heroes. Novels such as Paul de Kruif's *Microbe Hunters* (1926) and Sinclair Lewis' novel *Arrowsmith* (1925) further glorified doctors. In particular, these novelists celebrated U.S. Army doctor Walter Reed and the U.S. soldiers who participated in his experiments on yellow fever in Cuba during the U.S. occupation at the beginning of the twentieth century.²⁵ In contrast, Lewis denigrated the role of the Spanish immigrants who participated in Reed's experiments, describing them as "hardly more intelligent than animals," a view that reflected USPHS doctors' perceptions of the Guatemalans upon whom they experimented.²⁶ Novelists also elided the role of Cuban doctor Carlos Finlay in discovering that the mosquito was the cause of yellow fever.²⁷

²³ Robert D. Dean, *Imperial Brotherhood: Gender and the Making of Cold War Foreign Policy*, (Amherst: University of Massachusetts Press, 2001). Mary Renda, *Taking Haiti: Military Occupation and the Culture of U.S. Imperialism, 1915-1940*, (Chapel Hill and London: University of North Carolina Press, 2001). Kristin Hoganson, *Fighting for American Manhood: How Gender Politics Provoked the Spanish-American and Philippine-American War* (New Haven: Yale University Press, 2000).

²⁴ Anderson, *Colonial Pathologies*, 6-7.

²⁵ Paul de Kruif, *Microbe Hunters* (New York: Harcourt, Brace, and Company, 1926). Sinclair Lewis, *Arrowsmith* (New York: Harcourt, Brace, and Company, 1925).

²⁶ Quoted in Lederer, *Subjected to Science*, 132.

²⁷ In truth, both Finlay and Reed can take credit for this discovery. Finlay identified the mosquito that was the vector of the disease, but Reed conducted experiments showing that the mosquito transmitted the disease. Moreover, it was Jesse Lazear, a

Among Cuban nationalists and Latin American medical professionals, the omission of Finlay's discovery became a *cause célèbre* to denounce U.S. intellectual and medical imperialism.

Although U.S. and Guatemalan doctors shared a sense of paternalism, U.S. doctors still harbored superior attitudes towards Latin American doctors.

Despite competition with U.S. doctors, Guatemalan medical professionals saw themselves as contenders in the international medical sphere. In the tradition of Latin American doctors who have taken a decidedly active role in public life, Guatemalan doctors also viewed themselves as rightful leaders of their countries.²⁸ Their gender, class, and race privilege further influenced their identities.²⁹ As Guatemalan Historian Arturo Taracena Arriola has observed, the Guatemalan nation has been imagined as Ladino, an identity defined in opposition to indigenous identity.³⁰ Guatemalan doctors who participated in these experiments were Ladinos. Many Guatemalan doctors had ties to the "oligarchy," a term that still applies to the country and refers to the entrenched power of the agricultural and business elite and its ties to the military and political leaders.³¹ Doctors often had opportunities to study at elite universities in the United States and in Europe. Sharp inequality defined Guatemalan society, the development of Guatemalan medicine, and the doctors' perceptions of women, marginalized and indigenous Guatemalans.

U.S. and Guatemalan doctors' shared paternalism further was shaped by the influence of eugenics on their public health and medical work. The term eugenics was coined in the late nineteenth century by Francis Galton, Charles Darwin's cousin. Eugenicists believed they could

member of the U.S. commission to study yellow fever, who initiated the experiments with mosquitos. See Espinosa, *Epidemic Invasions*, 56-7.

²⁸ Marcos Cueto and Steven Palmer, *Medicine and Public Health in Latin America: A History* (Cambridge: Cambridge University Press, 2015): 65.

²⁹ Ibid, 61.

³⁰ Arturo Taracena Arriola, *Etnicidad, estado y nación en Guatemala, 1808-1944* Vol. 1 (Antigua: CIRMA, 2002): 24.

³¹ Ibid, 109-111. Marta Elena Casaús Arzú, *Guatemala: Linaje y Racismo*, (Guatemala: F & G Editores, 2010): 115-116, 169.

draw upon fields of human knowledge in order to promote “better breeding” and perfect human society according to their ideals of race, gender, sexuality, class. In both the United States and Guatemala, two countries with strong racial divides, venereal disease engaged anxieties about racial crossings and the reproduction of populations that would become burdens to society, since it could cause disabilities in the offspring of women who had the disease. Although by World War II Nazi Germany had rendered scientific racism out of fashion in the United States, the practice of eugenics continued to inform U.S. family planning, population control efforts, and sex research.³² Many USPHS/PASB leaders had been trained in eugenics and these ideas continued to influence the organization’s research in Alabama and Guatemala.³³ The eugenics movement also remained strong in Latin America continuing through the 1940s.³⁴ Both U.S. and Guatemalan doctors saw themselves as entitled to assert control over women’s reproduction and the bodies of poor and indigenous Guatemalans for the wellbeing of their nations.

Although scholars have presented Latin American eugenics as developed in opposition to a “hardline” U.S. and European eugenics, the experiments in Guatemala show that the distinctions between the two were not as definitive as has been assumed by scholars and practitioners. Historian Nancy Leys Stepan’s seminal work, *The Hour of Eugenics*, argued that Latin American eugenicists, challenging the racism of the United States and Europe and informed by the Catholicism in their countries, adopted a preventative approach to eugenics in which they sought to cleanse the environment of “racial poisons” such as venereal disease,

³² Alexandra Minna Stern, *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America* (Berkeley and Los Angeles: University of California Press, 2005): 2-3. Johanna Schoen, *Choice and Coercion: Birth Control, Sterilization, and Abortion in Public Health and Welfare* (Chapel Hill and London: University of North Carolina Press, 2005): 7. Linda Gordon, *Woman’s Body, Woman’s Right: Birth Control in America* (New York: Penguin Books, 1974), 340-4.

³³ Paul A. Lombardo and Gregory M. Dorr, “Eugenics, Medical Education, and the Public Health Service: Another Perspective on the Tuskegee Syphilis Experiment,” *Bulletin of the History of Medicine*, Vol. 80 (2006): 291-316.

³⁴ Nancy Leys Stepan, “The Hour of Eugenics”: Race, Gender, and Nation in Latin America, (Ithaca: Cornell University Press, 1991): 194.

alcohol, and tuberculosis.³⁵ She contended that Latin Americans have avoided interventionist policies that U.S. and European eugenicists have used to control reproduction including sterilization. Yet, recently Latin American historians have shown that interventionist eugenic policies such as sterilization were much more widespread than had been previously assumed.³⁶ Likewise, the experiments represent an interventionist approach on the part of both U.S. and Guatemalan physicians. In their effort to gain knowledge about venereal disease, doctors harmed the reproductive health of Guatemalans for generations. Through their research, they sought to gain better control over the spread of disease in the populations who were the subjects of their public health work.

As paternalism bonded U.S. and Guatemalan doctors across national divides, USPHS doctors' ethical understandings were still informed by the border they envisioned between the United States and Latin America. USPHS doctors believed that they could follow a different set of ethical parameters in Guatemala than they followed in the United States. As members of a medical force trained to protect U.S. national borders and with a history of inspecting Latin American immigrants on the U.S.-Mexico border who they presumed were immoral and rife with disease, USPHS doctors imagined Guatemala as a land where they could escape the criticism of social reformers and laws in the United States.³⁷ During the STI experiments, USPHS Surgeon General Thomas Parran was reported by another USPHS officer to have said

³⁵ Stepan, "'The Hour of Eugenics,'" 85.

³⁶ Alexandra Minna Stern, "'The Hour of Eugenics' in Veracruz, Mexico: Radical Politics, Public Health, and Latin America's Only Sterilization Law," *Hispanic American Historical Review*, Vol. 93, 3 (2011): 431-443. Yolanda Eraso, "Biotypology, Endocrinology, and Sterilization: The Practice of Eugenics in the Treatment of Argentinian Women During the 1930s," *Bulletin of the History of Medicine*, Vol. 81, 4 (2007): 793-822. Elizabeth O'Brien, "The Mismeasurement of Women," presented at Yale University's History of Medicine graduate student conference, "Critical Histories and Activist Futures: Science, Medicine, and Racial Violence, February 24-25, 2017.

³⁷ Alexandra Minna Stern, "Buildings, Boundaries, and Blood: Medicalization and Nation-Building on the U.S.-Mexico Border, 1910-1930," *Hispanic American Historical Review* Vol. 79, 1 (1999): 41-81. Amy L. Fairchild, *Science at the Borders: Immigrant Medical Inspection and the Shaping of the Modern Industrial Labor Force*, (Baltimore and London: Johns Hopkins University Press, 2003).

that these experiments could never have been conducted in the United States.³⁸ In the same letter, the USPHS officer, who had visited Cutler in Guatemala and observed his research, claimed that he was “looking over the fence” with envy at the freedoms that he believed U.S. medical researchers enjoyed in Guatemala.³⁹

Yet, the border that USPHS officers envisioned between the United States and Latin America was not as distinctive as they had supposed. Concerns about sexuality and morality also remained strong in Guatemala. Knowing that the experiments would be controversial in the United States and in Guatemala, doctors from both countries forged an alliance to keep them a secret. The experiments in Guatemala became lore among USPHS officers, but Cutler and his team never published an article about it.⁴⁰ In contrast, USPHS officers published numerous articles about their study in Alabama in leading medical journals, although they did not mention the deceptive tactics they used to convince the men to cooperate with them.⁴¹ In Guatemala, doctors also did not publish an article about the intentional-exposure experiments. As in the United States, the experiments became known within Guatemalan medical circles, but the majority of the population remained in the dark about what had happened until the public revelation in 2010.

USPHS officials’ perceptions of the ethical differences in these two examples of research were further informed by their understandings of race and STIs. In Alabama, doctors justified their work as a “study in nature.”⁴² They claimed that they were not interfering in the men’s lives, a contention informed by their racialized understandings that dated to the slavery about the

³⁸ G. Robert Coatney to John Cutler, May 17, 1947, Correspondence, Records of John C. Cutler.

³⁹ Ibid.

⁴⁰ Interview with Susan M. Reverby, Cambridge, Massachusetts, August 3, 2016.

⁴¹ Reverby, *Examining Tuskegee*, 70.

⁴² Allan M. Brandt, “Racism and Research: The Case of the Tuskegee Syphilis Study,” *The Hastings Center Report* Vol. 8, 6 (1978): 22.

“naturalness” of black male’s excessive sexuality and beliefs that the men would have been unable to access healthcare resources. Yet, nothing about their perceptions of these men nor the study was natural. USPHS officers actively kept the men from obtaining treatment. USPHS doctors also believed that syphilis was not infectious during the latent stages. In fact, syphilis can remain contagious in the latent stages and continues to have severe effects on the heart, brains, and other organs.⁴³ The doctors further limited the study just to men in part to limit the spread of syphilis congenitally through women to their offspring. USPHS doctors did not take these precautions in Guatemala. In the Central American region, the doctors also believed it was “natural” to not provide medical treatment to the people they infected with syphilis. The doctors violated what they understood to be their duties as public health officers to contain syphilis at its early stages when it was most infectious.⁴⁴

Indeed, the fact that doctors intentionally infected Guatemalans with a disease transmitted sexuality strongly influenced the decision to keep these experiments hidden. Although the United States had no formal guidelines governing medical research before World War II, doctors demonstrated particular caution in their studies during World II in which they used an inoculant to infect men with gonorrhea.⁴⁵ Many in the United States continued to view STIs as divine punishment and remained wary of research on these infections. These perceptions made doctors more inclined to keep their research from the American public. Similar concerns about research on sexuality and reproduction led researchers to conduct clinical trials on the birth control pill in

⁴³ “Stages of Syphilis,” University of Michigan Medicine: last retrieved April 9, 2019: <https://www.uofmhealth.org/health-library/tm6404>.

⁴⁴ In USPHS doctors’ defense in the lawsuit on the study in Tuskegee, Alabama, they argued that since the men had entered the latent phase of syphilis when it was not as infectious their public health duty had ended. Reverby, *Examining Tuskegee*, 106.

⁴⁵ Rothman, *Strangers at the Bedside*, 48.

Puerto Rico in the 1950s.⁴⁶ As the American public has remained wary of research on sexuality and reproduction, U.S. scientists have conducted their work in colonial sites in order to avoid criticism and laws.

Doctors also kept the experiments secret because they used sex workers to transmit the disease to soldiers and prisoners. Sex work was illegal in the United States, even though military commanders tolerated and even encouraged soldiers to visit brothels in foreign countries. Surgeon General Parran had led the charge during World War II to force the military to repress sex work surrounding military bases.⁴⁷ In 1941, Parran and fellow USPHS officer Raymond Vonderlehr published *Plain Words About Venereal Disease*, in which they lambasted the military for its toleration of prostitution.⁴⁸ Given the illegality of sex work in the United States and the USPHS role in suppressing it, the doctors believed it imperative to hide their research. Guatemala had a legalized system of sex work in which women had to register with the state and report for regular vaginal inspections. USPHS doctors believed that this system offered an opportunity to study “natural exposure,” or to gain a better understanding of the transmission of the disease. In a tropical country like Guatemala that had legalized sex work, doctors also viewed their work as a “study in nature.” Despite that the USPHS had criticized military policies of tolerating sex work during the war, doctors like many other U.S. officials have adhered to different legal and moral standards in the domestic sphere as opposed to in colonized locations.

As U.S. doctors envisioned Central America as a land apart from the concerns hampering their research in the United States, Guatemalan doctors’ distance from the poor and indigenous

⁴⁶ Liz Watkins, *On the Pill: A Social History of Oral Contraceptives, 1950-1970* (Baltimore and London: Johns Hopkins University Press, 1998). Lara Marks, *Sexual Chemistry: A History of the Contraceptive Pill* (New Haven: Yale University Press, 2001). Briggs, *Reproducing Empire*, 132-140.

⁴⁷ Mary Louise Roberts, *What Soldiers Do: Sex and the American GI in World War II France* (Chicago and London: University of Chicago Press, 2013). Beth Bailey and David Farber, “Hotel Street: Prostitution and the Politics of War,” *Radical History Review* 15 (January 1992): 54-77.

⁴⁸ Thomas Parran and Raymond Vonderlehr, *Plain Words About Venereal Disease*, (New York: Reynal and Hitchcock, 1941).

groups they experimented upon also informed their ethical understandings. When news broke about the experiments in 2010, the Guatemalan media highlighted the controversy surrounding the fact that this research occurred during Guatemala's Revolution (1944-1954), a period with considerable symbolic weight among Guatemala's left. Known as "Ten Years of Spring," the Revolution was a period of democratization in a country otherwise marked by authoritarian rule. Soon after the revelation of the experiments, a newspaper article quoted Alfonso Bauer Paiz, an administrator during this period who commented that he was not surprised the *gringos* would accuse the revolutionary leader, President Juan José Arévalo, of having approved these experiments now that he had passed away.⁴⁹ To some, the experiments and the public revelation represented another attempt by the United States to meddle in Guatemalan affairs and historical memory.

The Revolution did indeed mark a watershed in Guatemalan history. The government passed a labor law and implemented a social security system. Although Arévalo was more moderate in his reforms, President Jacobo Arbenz Gúzman demonstrated a commitment to indigenous and labor demands and passed agrarian reform that included confiscating land from the United Fruit Company (a measure that some historians have argued was instrumental in convincing the CIA to back a coup against the administration in 1954 that unceremoniously ended the Revolution).⁵⁰ The historical literature on the Revolution has primarily focused on diplomatic relations between U.S. and Guatemalan political actors, the United Fruit Company, and agrarian reform.⁵¹

⁴⁹ L. Reynolds, K. Reyes, C. Palma, "Comparan experimentos con los peores atrocidades cometidas por los Nazis," *el periódico*, 2 de octubre, pg. 3.

⁵⁰ Stephen Kinzer, *Bitter Fruit: The Untold Story of the American Coup in Guatemala*, (Garden City and New York: Anchor Books, 1982).

⁵¹ Stephen E. Ambrose, *Ike's Spies: Eisenhower and the Espionage Establishment* (Garden City and New York: Doubleday, 1981). José M. Aybar de Soto, *Dependency and Intervention: The Case of Guatemala in 1954* (Boulder: Westview Press, 1978). Alfonso Bauer Paiz and Julio Valladares Castillo, *La Frutera Ante La Ley: Los Conflictos Laborales de Izabal y Tiquisate*

Yet, the Revolution was certainly not “Ten Years of Spring” for all people in the country. The experiments provide a different perspective on U.S. and Guatemalan relations during this ten-year period by showing that the Guatemalan government continued to seek foreign aid and technical expertise from the United States, especially during the Arévalo period, despite claims to national sovereignty.⁵² Moreover, a few studies have highlighted the violence towards women, indigenous, and marginalized Guatemalans that occurred during this period and the social instability that it spurred in the countryside.⁵³

By examining the medical arena, we further see the repression that continued during the revolutionary period. Doctors did not view their policies as repressive; they sought to implement a “*regeneración*” (regeneration) of the people following years of dictatorial rule. They aimed to heal what they viewed as Guatemala’s “broken body,” or divisions between the Ladino and indigenous populations and to address issues of poverty and disease in the country that they believed hampered national development.⁵⁴ Although scholars have often presented the ladino/indigenous divide as based upon cultural differences, Guatemalan Anthropologist Marta Casaus Arzú highlighted in her groundbreaking study that understandings of “blood purity” informed elite ladino/a perceptions of their identities.⁵⁵ As Casaus Arzú and Taracena Arriola

(Guatemala: Publicaciones del Gobierno de Guatemala, Ministerio de Economía y Trabajo, 1949). Nicholas Cullather, *Operation PBSUCCESS: The United States and Guatemala, 1952-1954* (Washington, DC: Center for the Study of Intelligence, CIA), 1992. Piero Gleijeses, *Shattered Hope: The Guatemalan Revolution and the United States, 1944-1954* (Princeton: Princeton University Press, 1991). Richard Immerman, *The CIA in Guatemala* (Austin: University of Texas Press, 1982). Stephen Schlesinger and Kinzer, *Bitter Fruit*.

⁵² This point has also been highlighted in, Richard N. Adams, *Crucifixion of Power: Essays on Guatemalan National Social Structure* (Austin: University of Texas, Press, 1970): 187.

⁵³ Cindy Forster, *The Time of Freedom: Campesino Workers in Guatemala’s Revolution* (Pittsburgh: University of Pittsburgh Press, 2001). Jim Handy, *Revolution in the Countryside: Rural Conflict and Agrarian Reform in Guatemala, 1944-1954* (Chapel Hill and London: University of North Carolina Press, 1994). Taracena Arriola, *Etnicidad, estado y nación en Guatemala, 1944-1985*, Vol. 2. Timothy J. Smith and Abigail E. Adams, *After the Coup: An Ethnographic Reframing of Guatemala 1954* (Urbana: University of Illinois Press, Marta Elena Casaus Arzú, *Guatemala: Linaje y Racismo* (Guatemala: F&G Editores, 2010). Diane M. Nelson, *A Finger in the Wound: Body Politics in Quincentennial Guatemala* (Berkeley and Los Angeles: University of California Press, 1999), 227-228. Greg Grandin, *The Blood of Guatemala*. J.T. Way, *The Mayan in the Mall: Globalization, Development, and the Making of Modern Guatemala* (Durham and London: Duke University Press).

⁵⁴ Nelson, *Finger in the Wound*, 208-11, 243. Way, *The Mayan in the Mall*, 62. Casaus Arzú, *Guatemala: Linaje y Racismo*.

⁵⁵ Casaus Arzú, 2. *Guatemala: Linaje y Racismo*. Nelson, *A Finger in the Wound*, 212.

have shown, Ladino nationalism has primarily promoted segregationist policies with indigenous peoples in order to protect the economic and political power of elites.⁵⁶

In contrast, the Revolution was a period focused on nation-building and assimilation of indigenous people into Ladino values and nationalism, even though segregationist policies continued during this period. Therefore, it is not surprising that concerns about sexuality and reproduction became central in doctors' efforts to build a unified population and a new Guatemala.⁵⁷ Venereal disease control and the regulation of sex work became a key focus of doctors and political leaders touting "*regeneración*." Discourse surrounding venereal disease and sex work became a path for doctors to teach Guatemalans their views of morality and reproductive health in order to promote the wellbeing of future generations and Ladinoize the population. Their policies were directed not only at indigenous peoples but also poor ladino/as who they also viewed as prone to criminality, alcohol, and sex work. Through this discourse, social reformers sought to build men capable of contributing to economic development and family welfare, and women able to nurture and rear their children. Although scholarly literature on Guatemala has often focused on divisions between indigenous and ladino/a identities, my dissertation also shows the centrality of class to the national project. The experiments arose from this climate of reform and heightened efforts to change Guatemalans' bodies and minds.

Viewing the Revolution through the lens of medicine also reveals continuities between this period and the state-sanctioned violence that have occurred in other moments of Guatemalan history. In her oral history interview and in newspaper articles, Marta Lidia Orellana has described her encounter with doctors as sexual assault.⁵⁸ Her recollection of the experiments

⁵⁶ Taracena Arriola *Etnicidad, estado y nación*, 35.

⁵⁷ Nelson, *A Finger in the Wound*, 228.

⁵⁸ Interview with Marta Lidia Orellana, Guatemala City, Guatemala, December 11, 2015.

provides a powerful interpretation of the bodily harm that Guatemalans experienced in the experiments. Moreover, writing on the experiments, Bioethicist Charlene Galarneau has also pointed out that forcing sex workers, prisoners, and soldiers to have sexual intercourse without their consent constitutes rape.⁵⁹ The experiments fit into a long history of state-sanctioned sexual and gender-based violence in Guatemala. Historian Greg Grandin has noted the “intimate” nature of violence in Guatemala forged within plantation cultures underpinned by rape and sex.⁶⁰ Ladinos have presumed sexual access to indigenous women throughout the country’s history. During the 36-year war, the Guatemalan military used rape as a weapon of war against not only indigenous women but also Ladin@s who joined the guerilla movement or did not conform to gender norms.⁶¹ In the postwar era, gender violence and femicides have increased.⁶² Most recently, women have begun to flee Central America in response to gang and gender-based violence.⁶³ Yet, women have found no escape from violence through migrating to the United States where they have been subjected to sexual assault by coyotes and U.S. border patrol authorities.⁶⁴ The experiments not only highlight the state-sanctioned sexual violence that occurred against women during the revolutionary period, they also show that men should further be considered as victims within this scholarship on sexual and gender-based violence in

⁵⁹ Charlene Galarneau, “‘Ever Vigilant’ in ‘Ethically Impossible’: Structural Injustice and Responsibility in PHS Research in Guatemala,” *Hastings Center Report* Vol. 43 (May-June 2013): 40.

⁶⁰ Greg Grandin, *The Last Colonial Massacre: Latin America and the Cold War*, (Chicago: University of Chicago Press, 2004): 32.

⁶¹ Jean Franco, “Rape: A Weapon of War,” *Social Text* Vol. 25, No. 2 (Summer 2007). M. Gabriela Torres, “Blood Deeds/Hechos Sangrientos—Reading Guatemala’s Record of Political Violence in Cadaver Reports,” in *When States Kill*, eds. Cecilia Menjivar and Nestor Rodriguez (Austin: University of Texas Press, 2005). 143-169.

⁶² David Carey, Jr. and M. Gabriela Torres, “Precursors to Femicide: Guatemalan Women in a Vortex of Violence,” *Latin American Research Review*, Vol. 45, No. 3 (2010): 142-164. Cecilia Menjivar, *Enduring Violence: Ladina Women’s Lives in Guatemala* (Berkeley and Los Angeles, 2011). Victoria Sanford, “From Genocide to Femicide: Impunity and Human Rights in Twenty-First Century Guatemala,” *Journal of Human Rights*, Vol. 7 (2008): 104-22.

⁶³ Sofia Martínez, “Today’s Migrant Flow is Different,” *The Atlantic*, June 26, 2018:

<https://www.theatlantic.com/international/archive/2018/06/central-america-border-immigration/563744/>. Laura Gottesdiener and John Washington, “They’re Refugees, Fleeing Gang Violence and Domestic Abuse. Why Won’t the Trump Administration Let Them In?” *The Nation*, November 28, 2018: <https://www.thenation.com/article/trump-asylum-gangs-domestic-violence>.

⁶⁴ Sylvanna Falcón, “Rape as a Weapon of War: Advancing Human Rights for Women at the U.S.-Mexico Border,” *Social Justice* Vol. 28, 2 (2001): 31-50. Linda Green, “The Nobodies: Neoliberalism, Violence, and Migration,” *Medical Anthropology* Vol. 30, 4 (2011): 266-285.

Guatemala. Ladino elites have presumed access to poor and indigenous Guatemalan men who they use to perform the sexual and bodily labor necessary for economic growth or national development.

Despite both U.S. and Guatemalan doctors' presumption about their use of Guatemalan men and women's bodies for experimentation, they did not encounter the docile subjects that they had expected. Many Guatemalans fought back in the experiments. Parents of school children wielded machetes at U.S. and Guatemalan researchers, sex workers refused to participate in the experiments, and prisoners protested having their blood drawn. Nevertheless, Guatemalans were also subjected to extreme power imbalances in their encounter with doctors who had the backing of two states, including one at the height of its global power. The limited archival documents and oral histories of the people subjected to experimentation speaks to their powerlessness within the context of experimentation.

In my efforts to highlight Guatemalan voices, I have drawn upon archival sources in the United States and Guatemala. They include letters written to government authorities and doctors, hospital patient records, theses of medical and social work students, newspapers, medical and anthropological field notes, journal articles and novels. Still, Guatemalan voices often remain mediated through anthropologists, doctors, and court officials. Although no historical documents exist of Guatemalans directly voicing their protests against the experiments, I have tried to read documents "against the grain" in an effort to highlight their experiences.⁶⁵

Since the revelation of the experiments, a few people have also come forward publicly as survivors of the experiments. The reasons that people may continue to remain silent are multifold. Since the doctors never obtained consent nor informed Guatemalans about their

⁶⁵ Gayatri Chakravorty Spivak, "Can the Subaltern Speak?" in *Colonial Discourse and Post-Colonial Theory: A Reader*, eds. Patrick Williams and Laura Chrisman (New York: Columbia University Press, 1994): 66-111.

research, many people likely do not know that they were part of the experiments. Moreover, Guatemalans may fear repercussions for coming forward. After Orellana appeared in a news article about the experiments, she was extorted by her neighbors who believed that she had received money from a foreign organization.⁶⁶ The Guatemalan government continues to be riddled with corruption and to condone violence towards people in the country. Many Guatemalans prefer to remain unknown to authorities. Although recent lawsuits include survivors and the relatives of survivors, they have not come forward publicly about their experiences.⁶⁷ In an effort to protect Guatemalans who were subjected to experimentation from further harm and from having their medical information exposed publicly, I have given them pseudonyms. I have made an exception for oral histories where my interviewees chose to make their name public.

Orellana remains one of the only survivors who continues to openly to seek justice for what happened more than seventy years ago. On that warm December morning as she reached the Vice President's Office, she climbed up a long set of stairs with the help of her son. Yet, only the Vice President's secretary could meet with them that day. She told Orellana and her son to return the following week. Traveling again to the plaza central will pose a huge challenge Orellana. Yet, as long as the U.S. and Guatemalan governments ignore the people who continue to suffer the effects of these experiments, the need for a fuller accounting for justice will persist.

⁶⁶ Interview with Marta Lidia Orellana.

⁶⁷ Jonathan Stempel, "Johns Hopkins, Bristol-Myers must face \$1 billion syphilis infections suit," Reuters, March 29, 2018. Scott Dance, "Hopkins faces \$1B lawsuit over role in government study that gave subjects STDs," *Baltimore Sun*, April 1, 2015.

CHAPTER 1: BUILDING AN AMERICAN RESEARCH NETWORK

In 1913, Neil MacPhail, “the Scottish doctor,” arrived in Quiriguá, on Guatemala’s southeastern border with Honduras, where he would direct the United Fruit Company’s hospital for the next forty years. The hospital was also located in proximity to Puerto Barrios, Guatemala’s Atlantic coastline port that *el bananero* (the banana grower) had controlled from the beginning of the twentieth century when it established operations in the country. MacPhail’s hospital would become a nexus connecting prominent scientists and medical doctors primarily from the United States and Latin America. Travelers also entered Guatemala through Puerto Barrios and made their first stop to tour the Mayan ceremonial site near MacPhail’s hospital. In 1947, when British writer Aldous Huxley visited Quiriguá, he described MacPhail as the “universal godfather” of the country.⁶⁸

MacPhail’s influence in Guatemala arose with expanding U.S. power in the Central American and Caribbean region during the early twentieth century.⁶⁹ As powerful corporations such as United Fruit (known as “*el pulpo*” or the octopus by Guatemalans for the hold it had over the country’s economic and political affairs) established enclave communities in Caribbean countries to harvest “green gold,” they built hospitals to safeguard the health of their managers and laboring class.⁷⁰ MacPhail and other medical professionals further conducted research on tropical diseases that endangered the Company’s crops and workers. Since United Fruit held close connections to both Guatemalan and U.S. government and private institutions, the

⁶⁸ E. Croft Long, “The Beloved Doctor: Macphail of Quiriguá,” CIRMA.

⁶⁹ Paul J. Dosal, *Doing Business with Dictators: A Political History of United Fruit in Guatemala, 1899-1944* (Wilmington: SR Books, 1993). Ingrid Yulisa Castaneda, “Dismantling the Enclave: Land, Labor, and National Belonging on Guatemala’s Caribbean Coast, 1904-1954,” (Yale University: Dissertation, 2014). Stephen Schlesinger and Stephen Kinzer, *Bitter Fruit: The Story of the American Coup in Guatemala*, (Cambridge: Harvard University Press, 2005).

⁷⁰ Catherine C. LeGrand, *Living in Macondo: Economy and Culture in a United Fruit Company Banana Enclave in Colombia* (Durham and London: Duke University Press, 1998).

Company helped to forge ties that led to the establishment of an American medical research network in Guatemala.

United Fruit was not the only organization that connected U.S. researchers and medical professionals to Guatemala. The medical research network established in the country during the first half of the twentieth century also emerged through the Rockefeller Foundation's International Health Division (IHD).⁷¹ Established in 1913 through the philanthropy of oil tycoon John D. Rockefeller, the IHD developed operations in 80 different countries.⁷² It helped establish U.S. imperial networks around the world. U.S. empire has often operated through “informal” networks such as philanthropic organizations and corporations rather than establishing colonial offices in foreign countries. Although other philanthropic organizations such as the Carnegie Foundation sent researchers to the Guatemala as well, United Fruit and the IHD were particularly powerful in the medical sector and had close ties with governmental organizations such as U.S. Public Health Service and the U.S. Army Medical Corps.

These organizations also helped to forge connections with Guatemalan medical professionals in public health and military institutions. The ties that U.S. and Guatemalan researchers established in the country brought opportunities for work and study in the United States. As in other Latin American countries, the Rockefeller Foundation funded Guatemalan medical professionals to pursue postgraduate work in the United States, namely at Johns Hopkins University, where the philanthropic organization had invested significantly in the development of

⁷¹ Steven Palmer, *Launching Global Health: The Caribbean Odyssey of the Rockefeller Foundation* (Ann Arbor: University of Michigan Press, 2010). For other work on the Rockefeller Foundation, see Marcos Cueto, *Missionaries of Science: The Rockefeller Foundation and Latin America*, (Bloomington: Indiana University Press, 1994). Anne Emanuelle-Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester: University of Rochester Press, 2006). John Farley, *To Cast Out Disease: A History of the International Health Division of the Rockefeller Foundation (1913-1951)*, New York: Oxford University Press, 2004).

⁷² The IHD had several different names. It was first called the International Health Commission (IHC) before in 1916 it was renamed the International Health Board (IHB) and then in 1927 the International Health Division (IHD).

medical education and research. Although many Guatemalan doctors opposed the imperialism of U.S. institutions and resisted the authoritarianism of their government, they still sought opportunities through these organizations to grow their careers and to develop the Guatemalan national medical and public health infrastructure.

In establishing these networks, U.S. and Guatemalan doctors built a culture of medicine in Guatemala. This culture developed both from Guatemala's history of medicine and the United States' emerging role in the twentieth century as a leader in medical research. Guatemalan medical and public institutions evolved within the context of colonialism and a repressive state system that had a history of compelling women, indigenous, and marginalized Guatemalans to cooperate with government health policies and labor regimes. The United States' historical roots in empire further influenced the emergence of its public health and medical institutions. As U.S. doctors envisioned their country as a world leader, they developed paternalistic attitudes that led them to see themselves as uniquely positioned to mold fit and healthy bodies around the world.⁷³ Trained in institutions such as Johns Hopkins University, doctors learned their trades through experimentation and studies on marginalized peoples in the United States and sites of empire in Central America, the Caribbean, and in the Pacific. As Guatemalan doctors increasingly came to study in these institutions, they brought aspects of the U.S. culture of medicine back to their country and helped cement ties with U.S. researchers and institutions.

Together, U.S. and Guatemalan doctors helped each other to achieve their ambitions to further their status in an international medical research community and to build Guatemala's medical infrastructure. The story of how U.S. and medical researchers created a medical research

⁷³ Anderson, *Colonial Pathologies*, 6-7.

network begins with rising U.S. imperialism in Central America during the early twentieth century.

American Empire and Public Health

U.S. imperialism in Central America and the Caribbean during the early twentieth century facilitated the establishment of a U.S. medical infrastructure and research in Guatemala. Following the “closing of the frontier” and the U.S. annexation of Cuba, Puerto Rico, the Philippines, and Guam in the Spanish-American War, the U.S. government looked southward towards Central America.⁷⁴ In 1903, when the U.S. government began constructing the Panama Canal, symbolizing for many in the United States the country’s rising world power and superior scientific and public health institutions, the United States’ relationship with the isthmus fundamentally changed.⁷⁵ In the next 30 years, the U.S. government invaded the region more than 30 times.⁷⁶ In seeking to protect its investment in the region, the United States aimed to ensure the stability of countries in Central America through squelching revolutionary movements and implementing “dollar diplomacy” that enabled U.S. banks to gain greater control over countries’ finances.⁷⁷ Although couched as “soft power,” U.S. policies developed by governmental and private institutions were backed by the Marine Corps that the government readily employed when faced with a challenge to its hegemony in the region.

U.S. power in Central America enabled private institutions to gain considerable influence in the region. Although many within the State Department remained wary of United Fruit’s

⁷⁴ Frederick Turner, “The Significance of the Frontier in American History,” American Historical Association (AHA), During the World Columbian Exposition in Chicago, July 12, 1893.

⁷⁵ Alexandra Stern, *Eugenic Nation*, 27-31.

⁷⁶ Greg Grandin, *Empire’s Workshop: Latin America, the United States, and the Rise of New Imperialism* (New York: Holt Paperbacks, 2006), 20.

⁷⁷ Thomas M. Leonard, *Central America and the United States* (Athens and Georgia: University of Georgia Press, 1991), xv.

power, the U.S. government also depended upon the Company.⁷⁸ In Latin America, the U.S. government has a history of leaning on corporations operating in the region for information and consultation on foreign policy. The U.S. government helped to maintain the fruit company's power by backing it in negotiations with the Guatemalan government.⁷⁹ Even in comparison with other Central American and Caribbean countries, U.S. institutions' such as the United Fruit Company operated with nearly unchecked power in Guatemala for the first half of the twentieth century. One Company official wrote that United Fruit began its first operations in Guatemala because, "a good portion of the country contained prime banana land and because at the time we entered Central America, Guatemala's government was the region's weakest, most corrupt, and most pliable."⁸⁰

La Frutera also gained power in Guatemala due to the pro-American dictatorships that ran Guatemala during the beginning of the twentieth century and the aspirations of the agricultural elite. The Liberal elites who took control of the government at the end of the nineteenth century believed that democracy would arise only after economic growth. They sought to attract foreign capital and investment in the country.⁸¹ As part of efforts to spur industrial development, the Guatemalan government embarked upon building a railroad system that would enable the export of coffee and other agricultural goods to foreign markets. In the 1890s, these efforts stalled in response to an economic crisis. United Fruit eventually took over construction efforts at the beginning of the twentieth century. In return for the construction of the railroad, the Company entered into a 90-year contract with the Guatemalan government during

⁷⁸ Dosal, *Doing Business With Dictators*, 3.

⁷⁹ Ibid.

⁸⁰ Thomas P. McCann, *An American Company: The Tragedy of United Fruit* (New York: Crown Publishers, 1976), 46. Quoted by Yulisa Castañeda, "Dismantling the Enclave," 2.

⁸¹ Leonard, *Central America and the United States*, 41-2.

which officials could not tax the banana company nor regulate its internal affairs.⁸² Due to that agreement, the Guatemalan government also had little leeway to oversee medical research that occurred in the UFCO hospitals and plantations. Building the railroad further granted the organization control over coffee plantation owners who relied upon these transportation networks to export their products to the international market. In addition, UFCO came to operate two major ports on the Pacific and the Atlantic and the telegraph company. As the banana company established control over much of the country's infrastructure, it effectively operated as a colonial power in Guatemala.

The Rockefeller Foundation's International Health Division (IHD) also established an office and implemented its programs in Guatemala. The IHD's first program focused on studying and treating hookworm in the Caribbean and Central American region. Labeled the "germ of laziness," the Rockefeller Foundation had launched a program to eradicate hookworm in the southern United States before extending its operations to "America's backyard." The organization focused on hookworm not just as a means to eradicate the disease but also to spur the development of public health infrastructures in countries around the world.⁸³ In doing so, the Rockefeller Foundation sought to promote stability in countries and promote U.S. culture. Historian Steven Palmer has said that the IHD viewed the Caribbean and Central American and Caribbean region as a "geopolitical laboratory" where it could quietly experiment with treatments and campaigns to control hookworm before applying its policies to the rest of the world.⁸⁴

⁸² Dosal, *Doing Business with Dictators*, 46-7.

⁸³ John Farley, *To Cast Out Disease*, 27.

⁸⁴ Palmer, *Launching Public Health*, 209.

The Guatemalan dictator at the time, Manuel Estrada Cabrera (1898-1920), welcomed the Rockefeller Foundation and its programs. In a rebuff to local medical doctors, Estrada Cabrera made Alvin Struse, the Rockefeller representative in Guatemala, head of the *Consejo Superior*, the country's main office overseeing the medical and public health system.⁸⁵ As the dictator favored the investment of foreign organizations, he also held foreign medical doctors to be superior to the health professionals in his own country. Yet, although Estrada Cabrera was a "warm friend of the United States," the country had a limited public health and medical infrastructure upon which Rockefeller Foundation officers could build their programs.⁸⁶ The government also did little to cooperate with IHD officials and many doctors in the capital remained hostile to what they viewed as the imperialistic intentions of the philanthropic organization.⁸⁷ The inability of IHD to work with government institutions distinguished Guatemala from the other Caribbean and Central American countries.

In the absence of an infrastructure upon which to build its programs, the IHD worked with the agricultural elite who opened their plantations to its hookworm programs. To help facilitate their programs, the Rockefeller Foundation hired Guatemalan medical students who came from elite families.⁸⁸ IHD field workers functioned seamlessly within the structure of the Guatemalan plantation system. One IHD worker lauded the Guatemalan agricultural elites who he met during the course of his work: "I must state that the people of Guatemala impress me as being the cream of Central America. The unfortunate mixture of negro blood so common in Spanish countries is almost nil."⁸⁹ He did not mention in his regards the Guatemalans who he experimented upon and treated for hookworm disease.

⁸⁵ Ibid., 190.

⁸⁶ Ibid., 177.

⁸⁷ Ibid., 86.

⁸⁸ Ibid., 103.

⁸⁹ "Memorandum to Dr. William Rose Regarding Guatemala," RG 5, Series 2_319 Projects, Box, 31, Folder 183.

The U.S. government and institutions did confront challenges to their power in Guatemala from the German community. German settlers owned a large number of the Guatemalan coffee *fincas* (plantations) particularly in the region of Alta Verapaz in the Central Highlands of the country where the indigenous population is concentrated.⁹⁰ Coffee brought them considerable access to money and power. By the end of the nineteenth century, Guatemala was the world's fourth largest producer of coffee.⁹¹ Still, United Fruit's control of the railroad gave them leeway over the German coffee planters. Moreover, during World War I when Guatemalan coffee lost access to European markets, Estrada Cabrera joined the Allies and participated in the surveillance of the German population.⁹² The proximity of the United States and the force that it held over the economy granted it greater control over its Central American neighbors than the German community was able to exert.

U.S. institutions facilitated the rise of an American public health and medical infrastructure in Guatemala. Many of the medical officers who worked for United Fruit Company and the Rockefeller Foundation had first served in the USPHS or in the military. UFCO and IHD also had advisers in the U.S. Public Health Service, including Joseph H. White who helped the IHD to facilitate agreements with Central American governments when it established its operations.⁹³ These private organizations provided a base in Central America upon which the U.S. government could capitalize upon should it want to intervene in the country's affairs. In 1918, during an outbreak of yellow fever in the country that threatened U.S. soldiers stationed in the region, Rockefeller commissioned White to control the yellow fever epidemic in

⁹⁰ Julie Gibbins, "Mestizaje in the Age of Fascism: German and Q'eqchi' May Interracial Unions in Alta Verapaz, Guatemala," *German History*, Vol. 34, 2 (2016): 214-236.

⁹¹ Jim Handy, *Revolution in the Countryside: Rural Conflict and Agrarian Reform in Guatemala, 1944-1954* (Chapel Hill and London: University of North Carolina Press, 1994): 9

⁹² Leonard, *Central America and the United States*, 76.

⁹³ Palmer, *Launching Global Health*, 60.

Guatemala.⁹⁴ As a representative for the IHD, White became an international actor and avoided the label of a colonial officer in the region.

These medical and public health institutions also facilitated the growth of an American medical research network. At first, the medical departments of *La Frutera* and the IHD worked closely together on public health campaigns. Even after United Fruit sought to gain control over its own plantations and labor force it enabled U.S. researchers to gain access to its plantations and laborers for medical research.⁹⁵ The presence of these organizations in Guatemala allowed for U.S. government medical and public health employees, as well as university researchers, to easily access the country for both public health campaigns and research. These organizations brought opportunities for Guatemalan doctors to gain opportunities to develop their professional careers as researchers and health professionals.

A Medical System Built Through Repression

U.S. public health and medical institutions built upon a culture of medicine that had developed in Guatemala in the nineteenth and twentieth centuries. Guatemalan public health and medical institutions emerged within a state system and plantation economies that depended upon compulsion. Since Guatemalan biomedical institutions were weak and had little legitimacy among indigenous and poor populations, public health and medical officers often resorted to violence when forcing populations to cooperate with programs.

The public health and medical system in Guatemala had not always just been based upon coercion. In the colonial era, the Guatemalan medical community and the University of San

⁹⁴ “Memorandum of an interview with Doctor Deeks, Medical Superintendent, United Fruit Company, with Regard to Yellow Fever in Guatemala,” June 26, 1918, RF Rcorrds, RG 5, Series 2, Subseries 319, Box 31, Folder 183.

⁹⁵ Palmer, *Launching Global Health*, 62-3.

Carlos' medical school earned international reputé. Guatemala had a recognized medical school that attracted students from throughout Central America. Guatemalan physicians became known as elite practitioners and innovators in their fields.⁹⁶ In the Spanish Royal Vaccination Expedition (1803-1806) for smallpox, Guatemalan doctor José Flores incorporated indigenous views to assuage their patients' fears and garner their cooperation. Historian Martha Few says that Guatemalan doctors were driven by humanitarian influences towards the Guatemalan indigenous population.⁹⁷ Yet, Spanish colonial medicine was implemented in other instances through force and targeted indigenous practices for idolatry and sorcery. *Indígenas* often hid their children, fled or actively resisted medical practitioners.⁹⁸

Following independence from Spain that brought heightened political and social unrest in the country, the prestige of the medical school and system declined. Although doctors throughout Central America continued to pursue degrees in Guatemala, increasingly they went to Europe and the United States to study.⁹⁹ Guatemala further did not have an adequate number of doctors to build a sustainable biomedical program. In fact, only 20 licensed medical professionals practiced in the entire Central American region during the twentieth century.¹⁰⁰ The majority of these doctors lived in the capital and had little contact with Mayan groups. In this dearth of medical and public health resources, traditional medicine flourished. In fact, many indigenous and poor Guatemalans preferred to visit *curanderos*, midwives, and healers.

Doctors and government officials viewed these healers as threats to their influence and national development. They sought to force Guatemalans to cooperate with public health

⁹⁶ Martha Few, *For All of Humanity: Mesoamerican and Colonial Medicine in Enlightenment Guatemala* (Tucson: University of Arizona Press, 2015). Palmer, *From Popular Medicine to Medical Populism*, 51, 72.

⁹⁷ Few, *For All Humanity*, 10-11.

⁹⁸ *Ibid*, 16-17.

⁹⁹ Palmer, *From Popular Medicine to Medical Populism*, 39-44, 52-55, 65-66. Corea Fonseca, *Historia de la medicina en Nicaragua*. Botey Sobrado, "La epidemia del cólera (1856)" 373.

¹⁰⁰ Palmer, *From Popular Medicine to Medical Populism*, 17.

programs. In 1837, when a worldwide cholera epidemic was ravaging Central America, political elites and doctors blamed Mayan cultural practices and foods including chilies, homebrews, and spices as the causes of the disease.¹⁰¹ Oral histories conducted in the present day reveal that the violent nature of public health campaigns still imprint the historical memories of indigenous Guatemalans.¹⁰² During the cholera epidemic, local priests spread rumors that the chemicals the government put in the water were intended to poison communities.¹⁰³ This story precipitated a widespread revolt that led to the overthrow of the government. Rafael Carrera, a conservative mestizo who implemented protectionist measures for indigenous populations, took power as president for the majority of the next twenty years (1844-1848, 1851-1866).

Yet, the state's protection of indigenous populations was short-lived. In 1871, coffee planters led by Justo Rufino Barrios overtook the country in a Liberal Revolution. The leaders of this movement were mestizos; they attacked the power of the Creole oligarchy and solidified Ladino rule. In spite of their rhetoric of equal rights, political elites set about constructing a police state aimed at bolstering the agricultural-export business. They stripped Mayans of their land. The government instituted forced labor laws to ensure that planters had access to sufficient manpower. It also restrained the power of the Catholic church and confiscated its property. As the state lacked popular legitimacy, it adopted increasingly brutal tactics to maintain control of the country.¹⁰⁴

¹⁰¹ As the cholera epidemic raged throughout the world, medical doctors and public health professionals in other parts of the world blamed the disease on the poor. In Guatemala, medical elites blamed the indigenous poor for the spread of disease. See Charles E. Rosenberg, *The Cholera Years: The United States in 1832, 1849, and 1866* (Chicago and London: University of Chicago Press, 1962), 85. Grandin, *The Blood of Guatemala*, 97. Ralph Lee Woodward, Jr., *Rafael Carrera and the Emergence of the Republic of Guatemala, 1821-1871* (Athens: University of Georgia Press, 1993), 54, 60-83. David McCreery, *Rural Guatemala, 1760-1940* (Stanford: Stanford University Press, 1994), 23, 56, 148-149. Lilia V. Oliver, "El cólera y los barrios de Guadalajara en 1833 y en 1850," in *Salud, Cultura y Sociedad en América Latina*, ed. Marcos Cueto (Washington, DC: Organización Panamericana de la Salud—Instituto de Estudios Peruanos, 1996), 87-100.

¹⁰² David Carey, Jr. *Our Elders Teach Us: Maya-Kaqchikel Historical Perspectives: xkib'ij kan qaté qatatá*, (Tuscaloosa: University of Alabama Press, 2001), 116.

¹⁰³ Carey, Jr. "The Ethnicity of Health Care in Twentieth Century Latin America: Indigenous People and Public Health in Guatemala and Ecuador," forthcoming.

¹⁰⁴ Grandin, *The Blood of Guatemala*, 8.

The new Liberal elite believed public health and education would bring progress and order to the country. Intellectuals and professionals aspired to solve the so-called “Indian problem” and to “cure” Mayans of their perceived backwardness¹⁰⁵ Presented by elites in a paternalistic manner, these efforts focused on ridding indigenous people of their cultural practices. Mayans have closely tied medicine and healing to their spiritual beliefs, which they have interwoven with Spanish culture and the Catholic Church. They view the body as a holistic entity and as interconnected with the natural world.¹⁰⁶ Mayans healers have sought to foster balance within individuals and communities. Liberal elites held their practices to be harmful to national development and sought to foster the assimilation of indigenous people into the norms of biomedicine.

Although the Liberal government saw public health and medicine as necessary for building a “civilized” country, the development of this infrastructure remained limited. The medical school at the national university did once again begin to train future medical professionals in the country. The faculty renewed its program of study after it had fallen into disarray from political turmoil in the nineteenth century. Yet, the medical school did not return to the flourishing intellectual center that it had been in the colonial period.¹⁰⁷ The country remained constrained by financial resources. Moreover, politicians were more committed to forcing indigenous and poor Guatemalans to labor on coffee plantations than they were with improving their health. Public health in the countryside was mainly confined to *fincas*, where agricultural elites invested limited time and money in laborers’ health except when it benefited their profits.

¹⁰⁵ Grandin, *The Blood of Guatemala*, 9.

¹⁰⁶ Emma Chirix, *Los Deseos de Nuestro Cuerpo* (Guatemala: Ediciones del Pensativo, 2010), 52.

¹⁰⁷ Martínez Durán, *La Ciencias Médicas en Guatemala*, 600.

The government often issued ill-timed responses to epidemics. The reach of the state was limited and could not force populations throughout the country to cooperate with its programs.

In the beginning of the twentieth century, the government did embark upon efforts to build a more robust public health and medical system, but its development still remained hampered by the country's authoritarian government. In 1898, Dictator Manuel Estrada Cabrera assumed power and ruled Guatemala for the next twenty years as his personal fiefdom. In his novel, *El Señor Presidente*, the famed Guatemalan novelist, Miguel Angel Asturias, immortalized Estrada Cabrera. Asturias described the dictator's mobilization of the military, police, and a network of informants to maintain strict control over the country and his power.¹⁰⁸ Corruption, limited financial resources, and an entrenched social hierarchy influenced the country's medical culture. Asturias wrote that the doctors practiced surgery on the "Indians" in the hospital; they refined their "hands" for people deemed to be more important members of society.¹⁰⁹ The practice of medicine laid bare stark inequalities in the country.

Fancying himself a benevolent ruler, Estrada Cabrera spearheaded efforts to create a permanent public health department. In 1906, Guatemalan government established the *Primer Consejo Superior de Salubridad Pública* (Supreme Council of Public Salubrity) with a mission to oversee and respond to public health concerns throughout the country. The Supreme Council named medical commissions to address epidemics of yellow fever, typhus, smallpox, and malaria. They coordinated these campaigns with the *Jefe Político*, the local governors of each of Guatemala's twenty-two departments and the town boards who were also responsible for ensuring labor drafts on coffee plantations.¹¹⁰ In 1925, the government replaced the Supreme

¹⁰⁸ Miguel 'Angel Asturias, *El Señor Presidente*, (Costa-Amic, 1946).

¹⁰⁹ Ibid, 33.

¹¹⁰ Ibid. In 1925, the government replaced the Supreme Council with the Dirección General de Salubridad (General Direction of Healthfulness), and then changed its name in 1932 to the Dirección General de Sanidad Pública (General Direction of Public Sanitation).

Council with the *Dirección General de Salubridad* (General Direction of Healthfulness), and then changed its name in 1932 to the *Dirección General de Sanidad Pública* (General Direction of Public Sanitation).

Still, the government failed to provide the necessary funding to support the public health department; its reach remained limited and focused on containing epidemics and eliminating parasites.¹¹¹ As only 200 physicians existed in the entire country in the early twentieth century, the vast majority of them were located in Guatemala City. According to a Rockefeller Foundation officer, most of the Guatemalan territory did not have a “single medical man.”¹¹² Dr. Alberto Padilla, the head of the *Consejo Superior* during the majority of the dictatorship, did not even receive a salary.¹¹³ A Rockefeller Foundation representative working in the country at the time said that Padilla served solely for “patriotic” purposes and due to his aspirations to affect the “sanitation betterment” of his country.¹¹⁴ Other Guatemalan medical doctors also assumed government posts as service to the country but received no compensation.

In the capital, public health worked in tandem with the policing and surveillance of marginalized groups. The Guatemalan government passed prostitution laws that were among the most repressive in the world.¹¹⁵ Although Guatemala lagged behind the United States and the majority of other Latin American countries in medicine and science, the government strictly enforced venereal disease laws. A Rockefeller Foundation officer commenting upon the dearth of public health resources in the country reported that, “a complete set of regulations governing

¹¹¹ Carey, *Engendering Mayan History: Kaqchikel Women as Agents and Conduits of the Past, 1875-1970* (New York: Routledge, 2006), 44.

¹¹² “Memorandum of an Interview with Doctor Deeks, Medical Superintendent, the United Fruit Company, with Regard to Yellow Fever in Guatemala,” June 26, 1918. RF Records, RG 5, Series 2, Subseries 319, Box 31, Folder 183.

¹¹³ “Memorandum to Doctor Rose Regarding Guatemala” RF Records, RG 5, Series 2, Subseries 319, Box 31, Folder 183.

¹¹⁴ *Ibid.*

¹¹⁵ In Costa Rica, women were not sent to brothels for “bad conduct,” but they did have to spend time in jail. See Lara Putnam, *The Company They Kept: Migrants and the Politics of Gender in Caribbean, Costa Rica, 1870-1960* (Chapel Hill and London: University of North Carolina Press, 2002), 88.

prostitution is in force, and its provisions are being actively carried out.”¹¹⁶ In the early twentieth century, the government implemented venereal disease policies primarily to protect elite men who frequented brothels and their families.

Like other Latin American countries influenced by the French medical system, Guatemala had adopted a regulation system at the end of the nineteenth century. In 1881, Guatemalan laws began to confine sex work to *bordels* (brothels), which were run by *matronas*, or women managers.¹¹⁷ Sex workers had to register with the state and submit to weekly vaginal inspections that were performed by male medical doctors. The law dictated that all women who had demonstrated “bad conduct” needed to register with the brothels.¹¹⁸ While these laws particularly made poor women who had little access to privacy susceptible to charges, they also required women of all classes to carefully guard their honor. Guatemalan prostitution laws mirrored the system of debt-labor on agricultural plantations. Women registered as sex workers had to carry a *libreto* (pay book) in which the *matrona* recorded any of their existing debts for medical care, laundry, makeup, or for any money advanced by the madam.¹¹⁹ Other agricultural-export societies that relied upon forced labor, such as Mexico during Porfirio Díaz’s regime, also compelled women to perform “debt labor” in *bordels*.¹²⁰ In spite of these laws, a number of women still avoided registering with the state and refused to work in brothels. Although the state tried to enforce strict policies, its power remained limited and often thwarted by the women who refused to comply with the laws.

¹¹⁶ Memorandum to Dr. Rose Regarding Guatemala. RF Records, 319, Series 2, Box 31.

¹¹⁷ David McCreery, “‘This Life of Misery and Shame’: Female Prostitution in Guatemala City, 1880-1920,” *Journal of Latin American Studies*, 18, No. 2 (November 1986): 340.

¹¹⁸ McCreery, “‘This Life of Misery and Shame,’” 341.

¹¹⁹ *Ibid.*, 341.

¹²⁰ *Ibid.*, 333. Bliss, *Compromised Positions*, 55. This system also reflected the practices of the British empire that tolerated more repressive prostitution laws in its colonies. In India, the British relied upon *dhais*, or local women who oversaw the health and registration of prostitutes and collected debts from them. Although the British derided the *dhais* practices as “backwards,” they continued to rely upon them in order to maintain social order in colonial locations. See Philippa Levine, *Prostitution, Race, and Politics: Policing Venereal Disease in the British Empire*, (New York and London: Routledge, 2003), 80-81.

The state not only punished women for sex work but also for reproductive crimes. In Guatemala, as in other parts of the world, crimes were gendered and maintained the patriarchal order. Historian David Carey found that indigenous women had relatively more freedom in the criminal justice system than Ladinas who the state viewed as a greater threat to Ladino male power.¹²¹ Doctors remained wary of women who lost their babies and even accused them of clandestine prostitution. Merely accusing a woman of abortion was enough to ruin her reputation.¹²² In a prominent national newspaper, a writer wrote that prostitution resulted from the same “instinctual drive” in women that led them to also commit infanticide or obtain abortions.¹²³ In 1899, one medical student wrote that syphilis was the most common cause of an abortion or a stillbirth; therefore he judged women as immoral rather than focusing on the medical problems that could have affected their loss.¹²⁴ Poor women were most susceptible to these accusations because they lacked access to healthcare and had limited means to care for their children. Doctors also often blamed women for miscarriages or stillbirths, holding that their nutritional or hygienic habits during pregnancy as responsible for causing the fetus harm, rather than considering conditions of poverty. Moreover, state officials and doctors often blamed mental illness in the Guatemalan population on women; they claimed that the high rates of people in the mental institution resulted in large part from “hereditary syphilis,” creating people who were “*incapaces de vivir*” (incapable of living).

The repressive nature of Guatemalan public health and medicine further influenced policies at the mental institution which served effectively as an extension of the prison system. In

¹²¹ Carey, *I Ask for Justice*, 7.

¹²² Women in Central America continue to be criminalized for having a miscarriage in the present day. See Rachel Nolan, “Innocents: Where pregnant women have more to fear than Zika,” *Harper’s Magazine*, October 2016. Last retrieved July 31, 2018: <https://harpers.org/archive/2016/10/innocents>.

¹²³ “Prostitución Clandestina,” *Diario de Centro América*, 10 de mayo de 1899.

¹²⁴ Neri Paniagua, “Sífilis y Aborto,” (Guatemala: Tipografía Sánchez de Guise, Año de 1899). Fondo Antiguo 3595.

the *Asilo de Alienados*, the majority of inmates could not pay for medical services, nor did they have families to support them in their homes. They had worked as day laborers, farmers, weavers, construction workers, seamstresses, laundresses, and cooks.¹²⁵ Estrada Cabrera used the institution to punish his enemies and have them diagnosed as “degenerate.” Yet, as one of the only institutions of its kind in the region, people from around Central America visited the *Asilo*. Despite the limited infrastructure for public health and medicine, Guatemalan doctors continued to have a strong reputation for medicine in the Central American region.¹²⁶ Still, the *Asilo* had financial constraints and shortages in staffing and supplies. Following the 1917-1918 earthquake that destroyed much of Guatemala City, the psychiatric institution kept inmates in temporary shacks with poor ventilation until the 1930s.¹²⁷

As the government used public health as a means for policing poor Guatemalans in urban areas, rural indigenous communities continued to meet medical commissions sent to the countryside with fierce protest. *Indígenas* ignored and actively resisted government efforts to vaccinate them for typhus or smallpox. The coffee plantations worked with the government to impose social control, enforcing vaccination campaigns among laborers. Mayans feared hospitals as places of death and only brought their loved ones there for treatment as a last resort. Yet, historian David Carey has also shown that *indígenas* at times welcomed public health interventions in their communities. Government officials furthermore at times showed sensitivity and openness towards indigenous cultural practices. A Guatemala hospital financially supported by the Rockefeller Foundation incorporated aspects of indigenous culture; it used Mayan

¹²⁵ Hilda Virginia Miranda, “Historia del Hospital Nacional de Salud Mental,” (Tesis, Facultad de Humanidades, Universidad de San Carlos de Guatemala, 2004), 18.

¹²⁶ *Ibid.*

¹²⁷ *Memoria de las Labores Realizadas en el Ramo de Beneficencia Pública y Previsión Social Durante el Año de 1936* (Guatemala, C.A., 1937), 103.

blankets and brass knobs on beds to make their patients more comfortable.¹²⁸ In 1927, Maya communities collaborated to drain Lake Quinizilapa, a breeding ground for mosquitos that spread malaria.¹²⁹ It is indeed too simplistic to presume that biomedicine and traditional medicine were diametrically opposed to each other in Guatemala. Yet, medical professionals in countries such as Costa Rica and Ecuador arguably made greater concessions to incorporate popular medicine than they did in Guatemala.¹³⁰

During the Ubico dictatorship (1931-1944), the government worked to improve public health services and bring biomedicine to the countryside. Often referred to as a “Liberal dictator,” Ubico used public health efforts to project his desired image as a protector of the people. These efforts further formed part of his agenda to centralize the government and undercut the authority of agricultural elites. A populist leader, Ubico was known for driving his motorcycle around the countryside so he could personally attend to people’s concerns. Although the global financial crisis had a considerable effect on Guatemala, the government still aimed to better coordinate and reorganize the hospital system throughout the countryside and stepped up efforts to fight epidemic disease rural areas.¹³¹ Guatemala further held the *Primer Congreso Sanitario de Centroamérica y Panama* (The First Sanitary Congress of Central America and Panama).¹³² It sought to cast itself once again as a leader of public health in the region.

Yet, many of the efforts to instill public health continued to be done so in a coercive manner, reflecting the terror that punctuated daily life under the caudillo. In 1935, the

¹²⁸ Carey, “The Ethnicity of Healthcare in Twentieth-Century Latin America.”

¹²⁹ David Carey Jr., “Malaria Miasmas: Labor, Health, and Land in a Lake Draining Project, 1920-1948,” *New England Council of Latin American Studies Annual Meeting*, November 9, 2013.

¹³⁰ Palmer, *From Popular Medicine to Medical Populism*, 38. Carey, “The Ethnicity of Health Care in Twentieth Century Latin America,” 7.

¹³¹ *Memoria de los Trabajos Realizados por la Dirección General de Sanidad Pública en el Año de 1937*, (Guatemala, C.A., 1938): 4, 9.

¹³² *Boletín Sanitario de Guatemala*, Año IX, No. 46 (enero-diciembre de 1938).

Guatemalan government launched its most intensive campaign yet to round up sex workers.¹³³

This campaign extended to the military, where officials employed punishing tactics to ensure that soldiers also did not hide their infections.¹³⁴ Not just women but men also felt the effects of this campaign. Under Jorge Ubico's dictatorship, the government passed new laws that claimed to "humanize" prostitution laws, but in reality just gave police greater control over the women. In 1938, the government implemented the *Reglamento*.¹³⁵ This law diminished the power of the *matronas* and the state-regulated brothel system, allowing women to work in their private residences. Although women no longer had to contend with "debt labor," the laws augmented the power of the male police force over their personal lives.

In the countryside and the capital, Ubico's government tried to impose biomedicine through criminalizing traditional healers. The national police pursued a campaign against midwifery, charlatans, and *brujería* (medical charlatry and witchcraft).¹³⁶ Fueling support for the campaign, the newsletter of the national police published sensationalized accounts of *brujos* and detailed accounts of their arrests; one article described how police had found wooden idols, fragments of women's hair, and a mysterious carafe with an amber colored liquid.¹³⁷ Other articles in police and sanitation periodicals railed against *indígenas* for their idolatry, deriding them for trusting "mystics" more than medical doctors.¹³⁸ In competition with traditional healers, the majority of medical doctors supported the police and their efforts to control traditional medicine. In his medical thesis, one student who later worked for the government cited the

¹³³ *Memoria de las Labores Realizadas en el Ramo de Beneficencia Pública y Previsión Social Durante el Año de 1935*, (Guatemala, C.A., 1936): 48.

¹³⁴ *Ibid.*

¹³⁵ Dirección General de Sanidad Pública, *Reglamento de la Sección de Profilaxia Sexual y de Enfermedades Venéreas*, Guatemala, C.A., junio de 1938.

¹³⁶ Carey, *Engendering Mayan History*, 45.

¹³⁷ "Galería de brujos, adivinos, zahories y curanderos de ambos sexos," *La Gaceta: Revista de Policía y Variedades*, Num. 17, Año XV, (1935): 1071.

¹³⁸ *Ibid.*, 1064. Dr. Hernan Martinez Sobral, "Ideas Religiosas de los Indígenas," *Boletín Sanitario de Guatemala*, (19 de julio de 1935): 1021-1092.

“rudimentary” and “ridiculous” social rituals of the Mayan population and their lack of trust in biomedicine as the reasons that they became susceptible to disease and thereby threatened national health.¹³⁹

Despite state efforts to bring biomedicine to rural areas, Guatemalan laws remained weakly enforced or nonexistent in much of the country. Hospitals were overcrowded in both the capital and in the countryside. Many areas of the country still lacked a hospital or a single medical doctor.¹⁴⁰ Public health and medical infrastructure was insufficient in Guatemala City as well. The director of the venereal disease hospital, which just treated women, said it had a woefully insufficient capacity to accommodate the hundreds of its patients who needed services each year.¹⁴¹ Infant mortality also remained high during the dictatorship.¹⁴² In the capital, people lived in shacks with poor sanitary conditions in informal settlements known as “El Gallito,” “Llano de Paloma,” and “La Palmita.” The homes were poorly constructed and not regulated by the government. A sanitation professional blamed the people who built these homes for destroying the “harmony” of “urban health.”¹⁴³ Occasionally the police would destroy these homes. In Guatemala, the public that government officials sought to protect in public health campaigns did not include poor and indigenous Guatemalans.

Guatemalan Political Doctors

Although the development of Guatemalan public health and medical systems remained limited, Guatemalan doctors still developed a robust discourse on social and medical policy. In

¹³⁹ Ruano “Consideraciones sobre nuestra higiene rural,” 20.

¹⁴⁰ *Memoria de las Labores Realizadas en el Ramo de Beneficencia Pública y Previsión Social Durante el Año de 1934*, (Guatemala, C.A., 1936): 4-5.

¹⁴¹ *Ibid*, 139.

¹⁴² Dr. Alvaro Idigoras, “Protección de la Infancia,” *Boletín Sanitario de Guatemala*, (19 de julio de 1935): 1123-1130.

¹⁴³ Ingeniero Angel H. Balcárcel, “La vivienda de las clases pobres de Guatemala,” *Boletín Sanitario de Guatemala*, Año X, No. 47 (enero-diciembre de 1939): 302-312.

the tradition of doctors in Latin America who have adopted public role in their countries, Guatemalan doctors believed that they were uniquely positioned to guide the body politic on a path of national development. Yet, in their efforts to build their power, doctors drew upon eugenic discourse that painted women, indigenous, and poor Guatemalans as threats to the nation. In an attempt to build their power, doctors contributed to Guatemala's repressive medical culture.

Guatemalan doctors did not represent a monolithic group. They had varied backgrounds and viewpoints. Some had close ties with the authoritarian government, while others more forcefully denounced Guatemalan dictatorships and U.S. imperialism. Yet, their professions led them to align with Liberals who believed that the development of biomedicine was imperative for the nation's future. They also had similar views of race and ethnicity as many of the country's agricultural elite and political leaders. Doctors viewed indigenous and marginalized Guatemalans as harming efforts to progress economically and politically. Furthermore, the majority of doctors upheld normative gender roles and traditional family structures which they believed were instrumental for building healthy nations and preventing the spread of disease. Social hierarchies informed the identities and practices of doctors.

Guatemalan doctors had aspirations to rebuild the country's role as a leader of medicine in Central America. They wanted to renew the country's distinguished colonial tradition. Some doctors did gain international renown during the early twentieth century. For instance, Dr. Rodolfo Robles earned fame in medical circles around the world for his discovery of onchocerciasis (also known as river blindness), a disease caused by a parasitic worm that can cause blindness, in Central America. Still, the authoritarian dictatorships limited the medical community's ability to flourish. During the dictatorships of Estrada Cabera and later under Ubico

(1931-1944), the police and the military held more power than intellectuals. The dictators relied upon police and military networks to maintain their control over the country. The national police's main publication indicates the disrespect frequently shown to medical doctors. In one article, the writer blamed doctors for leading lives of luxury in the capital while some rural areas did not have any medical professionals. It railed against doctors for driving fancy automobiles, drinking daily cocktails, and earning cushy government salaries.¹⁴⁴ Rather than pointing out the limited government resources in rural areas, members of the police blamed doctors for failing to fulfill their service to the nation.

In spite of the insults doctors endured from government authorities, they still maintained aspirations to build a robust medical infrastructure. During the late nineteenth century, biomedicine underwent professionalization and increased in prestige in countries around the world.¹⁴⁵ The development of bacteriology brought new methods for preventing and treating disease. Latin American countries followed these developments.¹⁴⁶ Many Guatemalan doctors had developed their expertise abroad in universities in Europe and North America, like other doctors in Latin America. Foreign influences in public health also came from German settlers on agricultural estates who established coffee plantations.¹⁴⁷ German doctors aligned with the *hacienda* elite provided the *finqueros* (plantation owners) with expertise on preventing and treating diseases in the plantation zones.

Guatemalan doctors also closely followed developments in medicine among their neighbors in Latin America. In the beginning of the twentieth century, many Latin American

¹⁴⁴ Galería de brujos, adivinos, zahories y curanderos de ambos sexos,” *La Gaceta: Revista de Policía y Variedades*, Num. 17, Año XV, (1935): 1071.

¹⁴⁵ Palmer, *From Popular Medicine to Medical Populism*, 67.

¹⁴⁶ *Ibid*, 67.

¹⁴⁷ Julie Gibbings, “Mestizaje in the Age of Fascism: German and Q’eqchi’ Maya Interracial Unions in Alta Verapaz, Guatemala,” *German History* Vol. 34, No. 2 (2016): 214-236.

physicians ascribed to Auguste Comte's theory of positivism that described society as functioning akin to an organism. Doctors, particularly ones associated with the government, viewed their role as diagnosing and healing the body politic.¹⁴⁸ Compared to other countries, Latin American medical professionals more often assumed the role as state functionaries.¹⁴⁹ In Costa Rica between 1920-1948, doctors made up almost forty percent of the members of congress.¹⁵⁰ In Honduras and Nicaragua between 1883 and 1965, four presidents were doctors. Fewer physicians in the United States directly participated in politics due to the push for privatized medical services.¹⁵¹ Still, a number of U.S. doctors also had vested interests and used their work to influence politics.

Although Guatemala looked to other Latin American countries for guidance on medicine and public health, they were increasingly aware of their limited ability to keep pace with them. Around the turn of the twentieth century, many Latin American physicians in Brazil, Mexico, and Cuba were at the vanguard of medical research and had established medical, public health, and research institutions in their countries.¹⁵² The lack of medical infrastructure in Guatemala frustrated the country's globe-trotting medical personnel attuned to innovations around the world. Moreover, despite the influence of positivism on Guatemala, not all doctors ascribed to these views. Indeed, many physicians were Catholics and concerned about what they viewed as the radical materialism of positivism.¹⁵³

¹⁴⁸ Cueto and Palmer, *Medicine and Public Health in Latin America*, 67.

¹⁴⁹ *Ibid.*, 69.

¹⁵⁰ David Carey, Jr. "The Politics and Culture of Medicine and Disease in Central America," forthcoming. Martínez García, "Michel Foucault y su planteamiento teórico. Palmer, *From Popular Medicine to Medical Populations*, 67-73. Peña Torres and Palmer, "A Rockefeller Foundation Health Primer," 55.

¹⁵¹ *Ibid.*, 68.

¹⁵² Cueto and Palmer, *Medicine and Public Health in Latin America*, 58.

¹⁵³ *Ibid.*, 25.

In 1920, after Estrada Cabrera was overthrown, the broader intellectual community in Guatemala began to more openly advocate for social reform. The relative democratic opening in the country inspired a flourishing of discourse among intellectuals who wrote about their hopes for the country's future. They established the *Sociedad de Geografía e Historia de Guatemala*, an organization that sought to build a concept of national identity.¹⁵⁴ Yet, in their writings these Ladino intellectuals often blamed *indígenas* for the problem of national formation. Doctors, lawyers, and other writers of the so-called “Generación 20” (Generation 20) published prolifically on the “Indian problem.”

These intellectuals included famed Guatemalan novelist Miguel Ángel Asturias.¹⁵⁵ In his 1924 thesis on the “Indian problem” that he wrote at the national university, Asturias drew from eugenic theory in recommending that the government prohibit early marriages and unions between people with disease. He also proposed policies to improve nutrition, reduce hours of work, promote education, hygiene, racial mixing, and European immigration. Some Guatemalan eugenicists promoted immigration as a means for erasing the indigenous “blood” in the country.¹⁵⁶ These writers deemed Mayan cultural practices as key impediments to the nation and promoted policies aimed at whitening *indígenas*.

Eugenic influences in Guatemala followed trends in other Latin American countries. By the 1920s, eugenics influenced countries throughout the United States, Europe, and Latin America. Latin Americans overall rejected the biological determinism of North American and European eugenicists. Instead, they focused on preventative methods and cleansing the environment of “racial poisons,” including venereal disease, alcohol, and tuberculosis. A

¹⁵⁴ Taracena, *Etnicidad, estado y nación en Guatemala*, 109.

¹⁵⁵ Miguel Ángel Asturias, *El Problema Social del Indio* (Universidad de San Carlos: Editorial Universitaria, 1924), 54, 62, 107.

¹⁵⁶ Ruano, “Consideraciones sobre nuestra higiene rural,” 18.

Guatemalan delegate attended the international conference on eugenics in New York (1921) and later the first Pan American eugenics conference in Havana (1927). Yet, unlike Latin American countries including Mexico, Brazil, and El Salvador, and Nicaragua that celebrated *mestizaje*, Guatemalan Ladino reformers in general favored segregation over integration with the indigenous majority.¹⁵⁷ Even though many promoted racial mixing, their goal was to limit the influence of indigenous culture in the country. In this way, their views were closer to those of eugenicists within the United States who also pushed for segregationist policies between white and non-white populations in their country.

Doctors' expertise on the biological aspects of life distinguished them among intellectuals in the Generation 20s. The doctors sought to rebuild the intellectual medical culture centered around the medical school at the national university. During the country's dictatorship, the university did not have autonomy. The Rockefeller Foundation also reported that the university did not have a budget to support a regular staff at the medical school, only half of the time did professors show up to their classes, and the school did not have sufficient laboratories for students to conduct research.¹⁵⁸ Since it was voluntary service, professors had limited time to invest in students. In 1917-1918, an earthquake destroyed the medical school and almost all of its archives. Later in 1921, some "interesados" (self-interested people) burned the medical archives.¹⁵⁹ Political turmoil in the country hampered efforts to develop a strong academic center at the medical school. Still, doctors were prolific in their articles on topics relating to sexuality,

¹⁵⁷ Taracena, *Etnicidad, estado y nación*, 35. Thomas Skidmore, *Black Into White: Race and Nationality in Brazilian Thought*, (Durham and London: Duke University Press, 1992). Jerry Dávila, *Diploma of Whiteness: Race and Social Policy in Brazil, 1917-1945* (Durham and London: Duke University of Press, 2003). Jeffrey Gould and Aldo A. Lauria-Santiago, *To Rise in Darkness: Revolution, Repression, and Memory in El Salvador, 1920-1932*, (Durham and London: Duke University Press, 2008). Jeffrey Gould, *To Die This Way: Nicaraguan Indians and the Myth of Mestizaje, 1880-1965*, (Durham and London: Duke University Press, 1998). Gilbert Joseph and Jürgen Buchenau, *Mexico's Once and Future Revolution* (Durham and London: Duke University Press, 2013).

¹⁵⁸ Dr. Ochoa, "Hospital System, Nursing Aid, and Doctors." RF Records, RG 5, Series 2, Subseries 319, Box 31, Folder 183.

¹⁵⁹ Amaya Abad, "Facultad de Ciencias Médicas," 20.

reproduction, infant mortality, alcoholism, and mental hygiene. Doctors viewed these issues as key to building a new nation, and saw themselves as the rightful vanguards to implement these measures.

Despite this period of democratic opening in the 1920s, the Guatemalan government remained hampered by corruption, authoritarianism, and political turmoil. Their vision for the country was frustrated by many of the same challenges they had experienced during the dictatorship. The eugenics program in Guatemala suffered in comparison to countries including Argentina, Mexico, and Brazil. Dr. Federico Mora, the director of the psychiatric institution, struggled to build the eugenic program he desired. After studying abroad with Sigmund Freud, he returned to Guatemala and sought to build the status of the psychiatric institution. For many years, he advocated for the foundation of a mental hygiene league, which would coordinate and promote eugenic programs in the country. Between the world wars, Latin American countries including Mexico, Brazil, and Argentina established mental hygiene leagues.¹⁶⁰ In Guatemala, no such league would exist until the 1940s.

Still, Mora remained a staunch proponent of eugenics. He wrote books that classified indigenous Guatemalans as mentally ill and sought to implement policies that “cured” these populations of their afflictions.¹⁶¹ Mora contended that alcoholism, regarded widely in Guatemala as an indigenous affliction, was an acute cause of “mental degeneracy” and “psychosis.” In a later work, Mora wrote that alcoholism, malnutrition, and the harm that indigenous groups had suffered since the Spanish conquest had made them unable to adapt to the conditions of modern and civilized life.¹⁶² Mora was influenced by the field of mental hygiene,

¹⁶⁰ Stepan, “*The Hour of Eugenics*,” 50-51, 57.

¹⁶¹ Carlos Federico Mora, *Manual de Medicina Forense* (Guatemala, C.A., 1931)

¹⁶² Carlos Federico Mora, *Higiene Psiquica: Eugenesia* (Guatemala, C.A., 1947): 57.

which he presented as a progressive approach to crime and insanity. Italian criminologist Cesare Lombroso's theories of hereditarianism, which proposed that certain individuals and groups had a natural propensity towards crime, influenced this field.¹⁶³ He was also a leader in the government. Mora served as ambassador to Germany and the rector of the national university. Despite his role as a Latin American political doctor, he did not have the power to establish a thriving intellectual medical culture

Still, doctors continued to publish articles and promoted eugenic policies. During the 1920s and 1930s, doctors became preoccupied with preventing infant mortality in the country. Like other Latin American eugenicists around this time period, Guatemalan doctors adopted interest in puericulture. Founded by French obstetrician Adolphe Pinard, puericulture called for the scientific cultivation of the child to protect the "biological resources" of the nation.¹⁶⁴ Pinard developed this field at the beginning of the twentieth century in response to concerns over the low fertility rates in France. In Guatemala, physicians believed that puericulture could reduce infant mortality rates, which they reported as exceedingly high, even though they lacked accurate statistics on the number of child deaths per year particularly in rural areas. In addition to a focus on children, puericulture called for closely monitoring women's health during the prenatal and natal periods. Doctors stressed the role of syphilis, malnutrition, poverty, poor hygiene, alcoholism, ignorance, and disease in causing infant mortality.¹⁶⁵ In 1926, one doctor and prominent *indigenista* wrote that the government should criminalize people who knowingly spread an infectious disease to others by refusing vaccinations.¹⁶⁶ Since Mayans often feared

¹⁶³ Stepan, "The Hour of Eugenics," 51.

¹⁶⁴ Ibid, 76-78.

¹⁶⁵ Dr. José Azurdia, "A Mortalidad Infantil en Guatemala," (Guatemala, C.A., 1925). Fondo Antiguo 4743. Flavio Andrade M. "Mortalidad Infantil en Guatemala y medios para combatirlo," (Tesis: Facultad de Medicina y Cirugía, Universidad de San Carlos, 1922).

¹⁶⁶ Dr. José Azurdia, "La Infección es un delito," (Guatemala: Tipografía Sanchez and De Guise, 1926), 7. Fondo Antiguo 2548.

vaccination, he implicitly called for penalizing if they did not cooperate with biomedical programs.

The government followed doctors' recommendation to increase awareness about infant mortality and child health. In 1923, the country established el "*Día del Niño*," (the day of the child) to educate the public about puericulture. In an effort to protect children from immoral influences, the state also passed laws against establishing brothels, cantinas, or liquor stores within proximity to schools. Yet again, medical doctors and journalists lamented that the government did not do more to prevent infant mortality. Dr. Luis Gaitán, the chair of hygiene at the national university who later became the Minister of Health, said that "disgracefully" Guatemala did not have the economic resources to implement eugenic policies and advance scientifically.¹⁶⁷ A prominent local newspaper lambasted the Guatemalan government over its failure to address infant mortality, saying that the country could only reduce child deaths if state officials would take these problems seriously.¹⁶⁸

Guatemalan doctors also continued to advocate for repressive venereal disease laws. During the 1920s, Guatemalan activists began to advocate on behalf of sex workers. In one newspaper, writers penned passionate critiques decrying the inhumane treatment of women in the state's prostitution laws. They defended the women who they said were cast as "slaves" and "*víctimas*" (victims) of men. They added that these laws violated Christian values. One writer queried, "Is it dignified for a highly civilized society to abandon the most wretched members of society to this misery?"¹⁶⁹ Some journalists denounced the practice of regular pelvic

¹⁶⁷ Gaitán, "La Primera Conferencia del Doctor Luis Gaitán," 10.

¹⁶⁸ "El 'Carnet' de la Madres: Puericultura Práctica," *Diario de Centroamérica*, 15 de febrero, 1913, pg. 3. AGCA.

¹⁶⁹ "Casas de tolerancia," *Diario de Centro América*, 9 de abril de 1912. AGCA.

examinations, calling for the construction of dispensaries next to the general hospital, which would have treated infection with venereal disease as a health concern rather than a crime.

Yet, many doctors defended these policies which they held protected Guatemalan society. Venereal disease policies were central to eugenic programs at this time in Latin America, the United States, and Europe. Syphilis could cause physical and mental handicaps that medical professionals and government employees feared would harm the labor force and place a social burden on government services. In fact, medical doctors such as Dr. Alberto Padilla advocated for heightened enforcement of venereal disease policies. He wanted more surveillance of women's lives, in order to help quell disorder and protect the wellbeing of neighborhoods. Moreover, Padilla challenged calls for making prostitution illegal. He insisted that the Guatemalan government was doing a better job addressing the problems surrounding prostitution than the United States, where the government had made the practice illegal.¹⁷⁰ As a medical doctor charged with overseeing public health, Padilla was concerned with how Guatemala's public health laws reflected the dignity of the country and his own office. He did not show concern for the women.

Although Padilla advocated to maintain government policies, other medical doctors during this time period used the democratic opening and the interest in eugenics to challenge the fact that Guatemalan venereal disease policies did not extend to the United Fruit Company plantations. During the 1920s, the anti-imperialist sentiments in the Central American region were also strong among some sectors.¹⁷¹ Guatemalan doctors argued that the introduction of Afro-Caribbean laborers by the United Fruit Company would spread venereal disease to

¹⁷⁰ Ibid.

¹⁷¹ Paul J. Dosal, *Doing Business with Dictators: A Political History of United Fruit in Guatemala, 1899-1944* (Wilmington: SR Books, 1993). 106. ADD IN LEONARD

Guatemalans.¹⁷² These views were influenced by racialized assumptions that people of African descent were more prone to venereal disease. In 1926, a medical student who later worked for the Ministry of Health, stated that the fruit company's contraction of black male laborers had brought about a "repugnant" propagation of these diseases.¹⁷³ Although *La Frutera's* medical staff frequently treated venereal disease in the hospital, in general the organization downplayed the prevalence of these infections in surrounding communities, likely so as to mitigate controversy over its labor choices.¹⁷⁴ The Guatemalan government had also avoided pushing the banana company to implement stricter policies. Instead, the military adopted punitive measures towards women living in these areas. The military forced women accused of "bad conduct" to grind corn for local garrisons.¹⁷⁵

The medical community also sought to extend public health programs to indigenous communities as part of an effort to facilitate the uplift of the country. Two distinguished doctors at the medical school called upon the government to lead a hygiene campaign among *campesinos* and the proletariat.¹⁷⁶ They warned that "degeneration" among these groups threatened to spread disease, physical and mental deformities to the Guatemalan "race." One local newspaper blamed Mayans' "absolute" lack of hygiene and ignorance as the cause of a recent smallpox outbreak.¹⁷⁷ The article said that *indígenas* resisted vaccination, believing "santa viruela" (saint smallpox) to be of divine origin.¹⁷⁸ Yet, the writer did not just place the responsibility on Mayans. He also criticized the state for its failure to demonstrate "solidarity" with the Guatemalan people. The

¹⁷² Carlos Ruano T., "Consideraciones sobre muestra higiene rural," Tesis presentada a la Junta Directiva de Medicina y Cirugía," (Guatemala, C.A. noviembre de 1926), 17. AGCA 5606.

¹⁷³ Ibid.

¹⁷⁴ Putnam, *The Company They Kept*, 88.

¹⁷⁵ Ibid., 88.

¹⁷⁶ "Propaganda de Higiene," *Diario de Centroamérica*, 11 de enero de 1928, pg. 3. AGCA.

¹⁷⁷ "La higiene entre la clase indígena," *Diario de Centro América*, 13 de enero de 1928, pg. 3. AGCA.

¹⁷⁸ Ibid.

writer also placed the onus on “barbarian” plantation owners who used indigenous labor as a “source of inexhaustible wealth.”¹⁷⁹ This article reflected the views of many left-leaning intellectuals during this time period who blamed the Liberal Revolution and planter elite for Guatemala’s backwardness. Despite a push for attention in rural areas, the public health infrastructure in this region remained weak. Medical authorities reported that municipal leaders did not cooperate with the *Consejo de Salubridad*, unless a locality was struck by an outbreak of disease.¹⁸⁰ Doctors also remarked on the enormous challenge they had combatting the ignorance of people in rural areas.¹⁸¹ Doctors continued to paint rural areas as riven with vice, disease, and filth.¹⁸²

As doctors advocated for strengthening the public health and medical systems, they also engaged in a vibrant conversation among themselves on the need to increase medicine’s stature in the country, as part of their efforts to increase their own stature. This discourse reflected their paternalism and efforts to improve the profession as a whole during this time period. No formal guidelines regulated medicine. In 1927 a medical student debated doctors’ “moral” obligation to protect patient confidentiality as opposed to his duty to safeguard society.¹⁸³ The doctor believed that in general society should allow medical professionals to use their conscience when deciding to report a disease or a crime. He denounced the penal code that criminalized doctors for failing reporting disease or a crime to authorities, suggesting that by virtue of their profession and expertise on disease that they should be free to best decide the wellbeing of their patients and society. In the case of syphilis, the medical student said that doctors should forgo patient privacy

¹⁷⁹ Ibid.

¹⁸⁰ Gaitán, “La primera conferencia del Doctor Luis Gaitán,” 7.

¹⁸¹ “Nuestros Propósitos,” *Boletín Sanitario de Guatemala*, Año II, No. 1 (septiembre de 1929): 5-6.

¹⁸² Ibid.

¹⁸³ Francisco Sanchez U. “Algunas consideraciones sobre el secreto médico y su legislación en Guatemala” (Tesis, Facultad de Medicina y Cirugía, Universidad de San Carlos, 1927): 18. Fondo Antiguo 3969.

to consider the health of society at large.¹⁸⁴ Because of the severity of the disease, the doctor did not believe that his colleagues should be immune from state intervention.¹⁸⁵ Doctors were willing to make exceptions to their standard ethical practice to limit the spread of STIs within the national body.

Despite efforts to develop the medical field, one doctor wrote about the limited power of the medical profession in the country. In 1937, in the main publication of the public health department, a doctor decried that in rural areas many doctors worked on *fincas* where their influence was limited by the power of *patrons*.¹⁸⁶ Although most indigenous Guatemalans avoided medical doctors, on the *fincas* estate owners required their laborers to report to the resident physician. Yet in general, he added that the *finsa* owners and doctors who worked on the estates did little to preserve laborers' health. There was high infant mortality on the *fincas* and children who cut sugar cane suffered from poor health conditions. By advocating for inspections of the *fincas*, the doctor sought to augment the role of urban doctors connected to the government in gaining control over the health of local populations.

In the 1930s, the medical community was increasingly stifled during the dictatorship of Jorge Ubico. Many intellectuals, lawyers, and doctors went into exile. Some of the doctors fled from state repression. The national university did not have autonomy from the government, and was thus handicapped as an intellectual center. Doctors went abroad to study. Others worked in private practice or for the government, creating an underground subversive force in the country. In an oral history, Dr. José Barnoya recalled the frequent parties at his house in the capital. Novelist Miguel Angel Asturias was a close member of the family, and Barnoya said that many

¹⁸⁴ Ibid, 23, 52.

¹⁸⁵ Ibid, 69.

¹⁸⁶ Dr. Jorge Fuentes Novella, "Reorganización del Cuerpo Médico," *Boletín Sanitario de Guatemala* No. 46, Año IX (enero-diciembre 1938): 457.

prominent intellectuals and feminists also were frequent visitors.¹⁸⁷ These communities continued to quietly criticize the dictatorship and dream of reform.

American Laboratories in Guatemala

As Guatemalan doctors struggled to find the support to develop professionally and gain political influence in their countries, some began to form alliances with U.S. institutions working in the country. Doctors who formed connections with the Rockefeller Foundation and United Fruit grew more closely connected to an international medical network, built their careers in public health and medicine, and brought resources to their country. They shared similar views with U.S. researchers of the indigenous and marginalized Guatemalans who became the focus of the IHD and *La Frutera's* research and public health campaigns. As many Guatemalan doctors viewed these populations as impediments to national development, they had less concern within protecting them as subjects of experimentation. U.S. institutions built upon the climate of medicine in the country in establishing their medical research community.

The Rockefeller Foundation capitalized upon the coercive plantation economies to gain access to indigenous bodies for experimentation. In Guatemala, the IHD public health and medical research programs operated within the “private sovereignty” of coffee plantations.¹⁸⁸ They took advantage of the fact that the *indígenas* were “bought and sold by large landowners like so many animals.”¹⁸⁹ Still, the IHD officers’ alliance with plantation owners could also harm their research. They encountered trouble gaining trust from laborers. On the Guatemalan *fincas*, the IHD did surveys on diseases, collected and examined stool samples, constructed privies, and

¹⁸⁷ Oral history with José Barnoya, Guatemala City, August 18, 2015.

¹⁸⁸ Greg Grandin, *The Last Colonial Massacre: Latin America and the Cold War* (Chicago: University of Chicago Press, 2004): 26.

¹⁸⁹ Ibid.

gave public lectures.¹⁹⁰ The IHD director in Guatemala reported that the “Indian is “so suspicious of treatment” that they have to be “forced to take it” by the plantation managers.¹⁹¹

Despite resistance from laborers, the Rockefeller Foundation with the support of Guatemalan medical professionals did numerous experiments. The IHD did experiments on upwards of ten thousand people in Guatemala, Nicaragua, and Costa Rica on the use and dosage of the oil of *Chenopodium* to treat hookworm, a medication that destroyed and expelled hookworm from the gut.¹⁹² These experiments were dangerous. Too high a dose of the medicine had proved toxic. In some cases, the medicine had been fatal.¹⁹³ In their experiments, the IHD documented 200 deaths from the oil of *chenopodium*, although the number was likely higher. On *fincas* located on the Pacific Coast of Guatemala, the Department of Uncinariasis which served as the local Guatemalan office for the IHD hookworm program, did an experiment with *mozos*, or agricultural laborers, to determine the appropriate dosage that they should use.¹⁹⁴ They took enormous risks with Guatemalans’ lives in order to perfect their methods.

Still, Rockefeller officers reported no fatalities in Guatemala. While IHD officers may have had more success using this treatment, the limited statistics could have also resulted from a lack of concern about the people who they experimented upon or an inability to track them. IHD employees may also have wanted to hide the deaths from authorities.¹⁹⁵ In Costa Rica, the death of a Hispanic mestizo child from the treatment of oil of *chenopodium* led to the arrest, incarceration, and trial of the technical assistants who had treated him. IHD officers did not take

¹⁹⁰ W.H. Rowan, “Report on Work for the Relief and Control of Uncinariasis in Guatemala, from March 20, 1915, to December 31 1916, November 15, 1916. RF, RG 5, Series 2_319 Projects, Box 31, Folder 187.

¹⁹¹ Alvin M. Struse, “Relief and Control of Hookworm Disease in Guatemala, from March 15, 1915 to December 31, 1917,” October 19, 1918, RF, RG 5_319 Projects, Box 31, Folder 187.

¹⁹² Palmer, *Launching Global Health*, 129.

¹⁹³ Dr. Miguel Muñoz Ochoa, “*Chenopodium Officinale*,” *Revista de Medicina y Cirugía de Guatemala*, Año 2, Num. 2 (abril a junio de 1925).

¹⁹⁴ *Ibid.*

¹⁹⁵ Steven Palmer, “Toward Responsibility in International Health: Death Following Treatment in Rockefeller Hookworm Campaigns, 1914-1934,” *Medical History* Vol. 54, no. 2 (2010): 149-170.

responsibility for these fatalities, but rather blamed the victims for their poor health.¹⁹⁶ In fact, the Rockefeller Foundation reported “favorable” to “excellent” results, suggesting a blatant disregard of their responsibility for the fatalities that did occur.¹⁹⁷ Costa Rica, with its more developed public health infrastructure, had more ability than Guatemala to monitor the work of the philanthropic organization.

IHD officers did try to teach laborers about the treatment, although it is not clear that they explained the potential risks associated with it. They made house visits to talk to people about their concerns and distributed written information, (which seemed primarily for officials and elites since the majority of poor and indigenous Guatemalans could not read).¹⁹⁸ Yet, the fieldworkers’ ability to lecture on hookworm and treatment was also limited by the fact that indigenous laborers spoke a number of different languages. In the lectures, IHD officers tried to accommodate varied languages by using illustrated explanations of their program. Many of the laborers attended the lectures, interested in finding ways to lessen their problems with hookworm and disease.¹⁹⁹ They were not opposed to treatment if they trusted the doctors and understood their methods. In fact, as the laborers began to witness the treatment expel the parasites, they grew more cooperative with the program. Fieldworkers reported that laborers became “willing and anxious to receive it (treatment).”²⁰⁰ Still, if they had known that too high a dose could be fatal, the laborers likely would not have been so eager to receive the treatment, or they would have been extremely concerned about the dosage.

¹⁹⁶ Ibid.

¹⁹⁷ Dr. Miguel Muñoz Ochoa, “Chenopodium Officinalis,” *Revista de Medicina y Cirugía de Guatemala*, Año 2, Num. 2 (abril a junio de 1925).

¹⁹⁸ Ibid.

¹⁹⁹ W.H. Rowan, “Relief and Control of Uncinariasis in Guatemala,” from March 20, 1915, to June 30, 1915, RF, RG 5 Series 2_319 Projects, Box 31, Folder 187.

²⁰⁰ Ibid.

Fieldworkers also experimented with a highly dangerous treatment called thymol. This medication was known to be harmful if not taken correctly or combined with alcohol. It also had unpleasant side effects such as nausea, dizziness, and vomiting.²⁰¹ The use of this drug was particularly dangerous in Guatemala given that the IHB had little ability to know the whereabouts of laborers who frequently migrated to different plantations.²⁰² On coffee plantations, alcohol formed part of the economy.²⁰³ Labor contractors plied indigenous workers with alcohol. After men awoke from drinking binges, labor contractors presented them with a bill and forced them to work until they paid it off. No evidence indicates that the plantation managers limited the distribution of alcohol when the experiments began. Moreover, field workers could not count on the indigenous laborers to take their medication or cooperate with the program, especially because many were suspicious of the treatment methods.²⁰⁴ These factors apparently did not deter IHB fieldworkers from experimenting with the medication.

Continuing through the 1920s, IHB conducted and funded campaigns and studies on intestinal parasites, hygiene and sanitation, yellow fever, malaria, and hookworm.²⁰⁵ Yet, the Rockefeller Foundation remained wary of working in countries that could not offer financial support nor the infrastructure with which they needed to carry out public health campaigns. It eventually began to focus more on larger countries such as Mexico and Brazil that had more established public health and research infrastructures. By the 1930s, the organization scaled back

²⁰¹ Palmer, *Launching Global Health*, 128-9.

²⁰² Alvin M. Struse, "Relief and Control of Hookworm Disease in Guatemala, from March 15, 1915 to December 31, 1917," October 19, 1918, RF, RG 5_319 Projects, Box 31, Folder 187.

²⁰³ Carey, *I Ask for Justice*, 72.

²⁰⁴ W.H. Rowan, "Relief and Control of Uncinariasis in Guatemala," from March 20, 1915, to June 30, 1915, RF, RG 5 Series 2_319 Projects, Box 31, Folder 187.

²⁰⁵ "Labor sanitaria de la Institución Rockefeller contra parasitismo intestinal," *Boletín Sanitario de Guatemala*, Año 1, Núm. 1 (julio de 1927): 25. "Resumen de las leyes y disposiciones dictadas sobre sanidad pública en Guatemala," *Boletín Sanitario de Guatemala* Año XV, Núm. 53 (enero-diciembre 1945): 26.

its programs in Guatemala, although it continued to fund Guatemalan medical doctors who sought educational opportunities in the United States.

As the Rockefeller Foundation drew back its activities in Guatemala, the United Fruit Company's medical division maintained a strong presence in the country. Working on a United Fruit Company plantation was an attractive option to both U.S. and Guatemalan researchers. As one Company representative commented, "many problems in tropical medicine still remained unsolved, and not a few of them are encountered in the world of the United Fruit Company's plantations."²⁰⁶ Dr. Richard P. Strong, professor of tropical medicine at Harvard University, capitalized on the "opportunities" for research at UFCO plantations.²⁰⁷ He used *La Frutera's* laborers to study onchocerciasis and compared his findings in Guatemala to his study of the disease in Africa. A representative from the Guatemalan public health department assisted Strong in the study.²⁰⁸ Through connections with United Fruit, the public health official developed a relationship with a leading researcher in tropical medicine at the time.

Strong likely would have done little to push for increased oversight of experimentation on vulnerable people in Guatemala. Before coming to the isthmus, he faced criminal charges for studies he did in the Philippines during which he inoculated prisoners with a vaccine contaminated with the bubonic plague.²⁰⁹ Although several of the prisoners died, the charges were dropped. In the United States, there was little concern for the rights of people in colonized locations. Researching disease on a United Fruit Company plantation safe from government

²⁰⁶ Ibid.

²⁰⁷ Richard P. Strong, "Onchocerciasis in Guatemala — A Preliminary Report," in United Fruit Company Medical Department — Twentieth Annual Report, 152

²⁰⁸ Ibid, 160.

²⁰⁹ Kristine A. Campbell, "Knots in the Fabric: Richard Pearson Strong and the Bilibid Prison Vaccine, 1905-1906," *Bulletin of the History of Medicine* 68 (winter 1994): 600-38.

intervention and people who might take issue with his methods, Strong had fewer reasons to suspect that he would encounter critiques for his work.

Dr. John Rock also spent time working with MacPhail in Guatemala. A young researcher in Guatemala, Rock went on to become instrumental in the development of “the pill,” the first oral contraceptive for women. In Guatemala, Rock witnessed how outposts of American empire could function as sites of experimentation. Later, he would conduct his research on the birth control pill in Puerto Rico. In the 1950s, Rock and fellow researcher George Pincus tested the first oral contraceptive pill on women in a mental institution in Massachusetts. Since the distribution of birth control was illegal in Massachusetts, Rock and Pincus performed clinical trials for the pill in Puerto Rico where no laws prohibited the distribution of birth control because of concerns about overpopulation on the island. Birth control crusader Margaret Sanger, and heiress named Katherine McCormick, provided the financial backing for the clinical trials as they sought to grant women greater control over reproduction. McCormick’s description of the women who participated in the trials as a “cage of ovulating females” suggests the attitudes that the American researchers and philanthropists held of the women they experimented upon.²¹⁰ In Guatemala, U.S. and Guatemalan researchers also frequently used animalistic imagery to describe the people they experimented upon.

Although Rock had a reputation as an ethical researcher, his decision to participate in this trial was informed by his paternalism towards “Third World” countries.²¹¹ Concerns about overpopulation particularly in poor countries such as Puerto Rico convinced Rock of the importance of these studies. Scientists and medical doctors who participated in the global population control movement often demonstrated paternalistic attitudes towards the

²¹⁰ Katherine McCormick quoted in Laura Briggs, *Reproducing Empire*, 135.

²¹¹ *Ibid.*, 134.

predominantly non-white and poor women whose bodies the scientists sought to better control in order to prevent reproduction.²¹² Rock had developed these attitudes towards Central American and Caribbean countries partly in Guatemala. In the late 1940s, a few years before his work in Puerto Rico, Rock wrote a letter in commemoration of MacPhail after his death. He wrote “there has not been one other man who had such a stabilizing influence on all classes of people in Guatemala.”²¹³ He appeared to believe that Guatemalans of all classes needed guidance from the United Fruit Company’s doctor. A similar attitude justified his research in Puerto Rico.

Yet, some Guatemalan doctors shared Rock’s view that MacPhail and the United Fruit Company’s medical division brought important benefits to the country. Local authorities collaborated with United Fruit on sanitation campaigns. MacPhail attended conferences with Guatemalan medical professionals and provided them with information on the latest efforts to control and treat malaria.²¹⁴ Dr. Luis Gaitán, who became Minister of Public Health and had strong ties with *el bananero*, praised United Fruit for improving health and sanitation standards in the Montagua Valley where the Company’s plantations were located. Before UFCO arrived in the country, Gaitán wrote that the Montagua Valley was a “deadly” land where people died daily in overwhelming numbers from malaria. He said that due to MacPhail’s efforts malaria had a fairly benign effect on the area.²¹⁵ Through connections to United Fruit, Guatemala doctors also gained opportunities to work with elite members of the international medical establishment. *La Frutera* formed connections with researchers in tropical medicine at Harvard, Tulane, the U.S.

²¹² María Carranza, “In the Name of Forests”: Highlights for a History of Family Planning in Costa Rica,” *Canadian Journal of Latin American and Caribbean Studies* 35, 69 (May 2014): 119-154. Briggs, *Reproducing Empire*. Liz Watkins, *On the Pill: A Social History of Oral Contraceptives, 1950-1970* (Baltimore and London: Johns Hopkins University Press, 1998). Lara Marks, *Sexual Chemistry: A History of the Contraceptive Pill* (New Haven: Yale University Press, 2001). Linda Gordon, *Woman’s Body, Woman’s Right: A Social History of Birth Control in America* (New York: Viking Press, 1976).

²¹³ *Ibid.*

²¹⁴ Dr. Neil MacPhail, “La Plasmoquina como coadyuvante en la prevención de las enfermedades palúdicas,” *Boletín Sanitario de Guatemala*, Año II, No. 8, 9, 10,) abril, mayo y junio de 1930): 246. Dr. Luis Gaitán, “Justicia al Mérito,” Papers of Neil P. MacPhail, CIRMA.

²¹⁵ Dr. Luis Gaitán, “Justicia al Mérito,” Papers of Neil P. MacPhail, CIRMA.

Public Health Service, and the military.²¹⁶ Guatemalan medical students wrote their theses working at *La Frutera*'s hospital. MacPhail provided links between Guatemala and intellectuals and researchers from around the world.

The power United Fruit exercised in Guatemala influenced medical doctors' views of themselves. United Fruit Company officials imagined themselves as "modern conquerors."²¹⁷ They identified their work as part of the white man's mission to civilize the tropical world, denigrating the work of Latin American doctors before them. *La Frutera* built its main Caribbean port, Puerto Barrios, by draining a swamp and filling it in with the Company buildings and a railway. One medical professional boasted that before this project Puerto Barrios was "notorious" among *La Frutera*'s steamship crews as having the most unsanitary port.²¹⁸ By taming the region of tropical diseases, the Company aimed to construct a habitable location for its managerial class that came primarily from North America and Europe. It also built golf courses, tennis courts, swimming pools, and baseball grounds to keep their white personnel content in a tropical and foreign land.²¹⁹

Although Guatemalan doctors such as Gaitán praised the improvements United Fruit made to the Montagua Valley, the living conditions and medical care that the Company provided its laborers were poor. While the Company gave screens to the "better class" of employees to keep out mosquitos that spread malaria, banana officials told the laborers to sleep with mosquito nets.²²⁰ When laborers fell ill with malaria, the Company blamed the workers. United Fruit hired

²¹⁶ John Farley, *To Cast Out Disease: A History of the International Health Division of the Rockefeller Foundation, 1913-1951*, (New York: Oxford University Press, 2004). Palmer, *Launching Public Health*, 63.

²¹⁷ William E. Deeks, "Address of Welcome," International Conference on Health Problems in Tropical America, Kingston, Jamaica, July 22nd to August 1, 1924, by Invitation of the Medical Department, United Fruit Company (Boston: Press of George H. Ellis Co, 1924), 1. Dosal, *Doing Business with Dictators*, 75. Anderson, *Colonial Pathologies*. Espinosa, *Epidemic Invasions*.

²¹⁸ United Fruit Company Medical Department, Annual Report, 1918, (Boston: Press of George H. Ellis Co, 1919): 7.

²¹⁹ William E. Deeks, "Activities of the Medical Department of the United Fruit Company, International Conference on Health Problems in Tropical America, 1908.

²²⁰ United Fruit Company Medical Department: Tenth Annual Report, (Boston: Press of George H. Ellis Co, 1921): 6.

the majority of its workers from the West Indies, believing that African-descendant populations would be less likely to contract malaria.²²¹ One officer complained about the difficulty of controlling the spread of malaria due to the “mentality and lack of education of most of our laborers.”²²² In Guatemala, a far higher number of patients suffered from malaria than in other countries.²²³ The poor public health infrastructure in the country likely made more Guatemalan laborers susceptible to disease. Moreover, high rates of illiteracy, particularly in Guatemala, rendered it difficult for sanitation workers to communicate information about hygiene and sanitation.²²⁴ Fancying themselves conquerors, Company doctors failed to win the cooperation of the workers who distrusted their intentions.

Like the IHD, the Company conducted a number of medical experiments on its laborers with no oversight from the Guatemalan government. Banana laborers served as “material” in investigations on the Company plantations.²²⁵ In his hospital, Macphail did research on the most effective dosage, preparation, and administration of the antimalarial drug quinine.²²⁶ No longer recommended as an anti-malaria treatment by the World Health Organization, quinine can cause life-threatening conditions including kidney failure, blood and cardiovascular conditions, as well as side effects that include nausea, headaches, vertigo, and sweating. Nevertheless, quinine was commonly used at the time to treat and prevent malaria. MacPhail acknowledged that his patients became “tired” of the taste of liquid quinine.²²⁷ He did not mention that they may have also been suffering side effects from the drug.

²²¹ United Fruit Company Medical Department, Annual Report, 1912 (Boston: Press of George H. Ellis Co, 1913): 33.

²²² *Ibid*, 5.

²²³ United Fruit Company Medical Department: Fourteenth Annual Report (Boston: Press of George H. Ellis Co, 1925): 18.

²²⁴ *Ibid*, 18.

²²⁵ Dr. Luis Gaitan, “Justicia al Mérito,” Records of Dr. Neil MacPhail, CIRMA. Neil MacPhail, “Administration of Quinine in Acute Malaria: With Special Reference to the Value of Intramuscular Injections,” in *International Conference on Health Problems in Tropical America, Kingston, Jamaica*, (Boston: Press of George H. Ellis Co, 1924): 89-109.

²²⁶ MacPhail, “Administration of Quinine in Acute Malaria: With Special Reference to the Value of Intramuscular Injections,” 113. Neil MacPhail, “Plasmochin as an Aid in Malaria Prevention,” *Annals of Internal Medicine* 4 (1931): 1218.

²²⁷ *Ibid*, 109.

The Scottish doctor also did other experiments on malaria treatments and the United Fruit Company used pesticides detrimental to worker health. In 1926, a German company gave United Fruit an anti-malarial drug called Plasmochin to conduct clinical trials in its hospitals. Following treatment with quinine, Company doctors found that the parasite causing malaria was still present in blood samples of patients. MacPhail experimented with patients at his hospital on the dosage of Plasmochin that should be administered.²²⁸ He took blood samples daily and also gave some patients a combination of Plasmochin and quinine. He found that too high a dosage of Plasmochin was toxic and caused in a “small amount” of patients’ pain in the abdomen, cyanosis of the lips and nails, and nausea.²²⁹ Due to these symptoms, he recommended that a smaller dosage of plasmochin be used among health workers in the field. *La Frutera* also used Paris Green, a highly toxic insecticide used to eradicate mosquito larvae.²³⁰ When the Company was not able to drain water in proximity to their plantations, they instead used Paris Green to control malaria.²³¹

Although MacPhail received little pushback in Guatemala, he contended with critique in international medical circles. He did studies comparing the efficacy of giving quinine orally as opposed to conducting an intramuscular, intravenous, or subcutaneous injections of the drug through a soluble solution.²³² Despite finding that the intramuscular method could cause necrosis, or tissue damage in patients, MacPhail used it in patients with potentially fatal cases of malaria. In 1924, at the United Fruit Company’s International Conference on Health Problems in Tropical America in Kingston, Jamaica, a medical professional in attendance rebuked

²²⁸ MacPhail, “Plasmochin as an Aid in Malaria Prevention,” 1218.

²²⁹ Ibid.

²³⁰ Chomsky, *West Indian Workers and the United Fruit Company in Costa Rica, 1879-1940* (Baton Rouge and London: Louisiana State University Press, 1996): 102.

²³¹ MacPhail, “Plasmochin as an Aid in Malaria Prevention,” 1217-1220.

²³² MacPhail, “Administration of Quinine in Acute Malaria: With Special Reference to the Value of Intramuscular Injections,” International Conference on Health Problems in Tropical America,” 89.

MacPhail's method.²³³ He said that MacPhail should try injecting himself with the intramuscular injection method rather than trying it first on his patients. Prior self-experimentation was standard ethical practice for medical professionals at the time. MacPhail defended his study. He also said that this doctor did not have enough experience combatting malaria in tropical areas to understand the necessity of using intramuscular injections in acute cases.²³⁴ MacPhail suggested that he believed in a different ethical standard in tropical areas; the challenges of controlling tropical disease justified experimental risks.

Guatemalan medical professionals did not just seek alliances with U.S. organizations, but also formed connections with Latin American medical professionals and institutions. In 1935, the Brazilian hygiene league invited Guatemala to attend the First Inter-American Conference on Mental Hygiene in Rio de Janeiro and to "intensify the intellectual exchange" between the two countries.²³⁵ A Guatemalan delegate accepted the invitation and visited the Oswaldo Cruz Institute. He also went to the hospitals, insane asylums, prisons, and sanitation organizations.²³⁶ Doctors wanted to develop a mental hygiene league similar to the one that had existed in Brazil for almost two decades and whose membership included many of the most prominent medical scientists. Yet again, this vision did not materialize. Doctors had more opportunities to advance in their careers and to gain access to resources locally from U.S. organizations that had established their own medical departments in the country. The expansion of U.S. imperial networks in the country enabled Guatemalan doctors to more easily gain access to international medical networks.

²³³ Ibid, 96.

²³⁴ Ibid, 106.

²³⁵ "Brazil-Guatemala," *Jornal de Comercio*, 28 de julio 1935. AGCA.

²³⁶ Carta de Lic. Don Alfredo Skinner Klée, Señor Ministro de Relaciones Exteriores al Señor Ministro de Brasil, 20 de julio de 1935.

An Emerging U.S. Medical Research Culture

Through connections to U.S. institutions operating in Central America and the Caribbean, Guatemalan doctors gained opportunities to pursue postgraduate education in the United States. By studying at universities such as Johns Hopkins, Guatemalan doctors also became exposed to the culture of U.S. medical research developing in the first half of the twentieth century. They in turn helped to strengthen the development of an American medical research network in Guatemala.

Guatemalan medical professionals sought opportunities to study public health and medicine in the United States through the IHD which funded Latin American doctors pursuing postgraduate education in the United States, even after the organization scaled back its public health efforts in the country. The vast majority of doctors went to the Johns Hopkins School of Hygiene and Public Health. Established in 1916 with a grant from the Rockefeller Foundation, Hopkins had the first and one of the most preeminent public health academic program in the United States. Guatemalan doctors with close connections to the U.S. private institutions and government officials gained these opportunities. In 1921, Dr. Luis Gaitán, who later became the Minister of Health, received a fellowship from the Rockefeller Foundation to study public health at Hopkins.²³⁷ The rapport he had built with the IHD, United Fruit, the USPHS, and U.S. military during a 1918 yellow fever outbreak in the country helped to ensure his place at the university. His relationship with military doctors, including U.S. Army Surgeon General William Gorgas, known for his work on yellow fever and malaria control in Florida, Havana, and the Panama Canal, placed him in good stead to win the fellowship. MacPhail also recommended Gaitan.

²³⁷ Fellowship to Dr. Luis Gaitán, October 1921. RF, RG 10, Box 11.

These individuals and institutions served as gateways for Guatemalan doctors seeking opportunities to develop their careers and the Guatemalan medical and public health systems.

At Hopkins, Guatemalan doctors were also exposed to an emerging culture of U.S. medical research. By the end of the nineteenth century, Johns Hopkins University's School of Medicine adopted the new model of medical education focused on laboratory instruction. This model had expanded with the discovery of germ theory. In his survey on medical education, Abraham Flexner, known for his reform of medical education in the United States to focus on laboratory instruction and clinical experience, held Hopkins to be the ideal and determined that the other medical schools were lacking in their instruction.²³⁸ The Rockefeller Foundation also heralded the rise of laboratory medicine. In 1904, the Rockefeller Institute of Medical Research opened its laboratories and was devoted completely to medical research.²³⁹ By connecting to these institutions, Guatemalan doctors became aligned with leading doctors and institutions promoting medical research in the United States.

Johns Hopkins researchers have a history of experimenting on vulnerable people. Many medical and public health students trained in Johns Hopkins Hospital which primarily served the poor and African American population surrounding the university. Built in 1899, Hopkins was established as a charity hospital serving the local community. The African American population believed the university built the hospital in their neighborhood so that medical researchers could conduct experiments on their poor and black patients. The folklorist Gladys-Marie Fry traced the African American oral tradition about "night doctors" who allegedly kidnapped African Americans for experimentation and dissection between the 1880s and World War I, when more blacks were migrating north to cities like Baltimore and the Hopkins' hospital established its

²³⁸ Susan E. Lederer, *Subjected to Science*, 55.

²³⁹ *Ibid.*, 77.

operations.²⁴⁰ These fears gained greater credence with the discovery that in 1951 Hopkins doctors had taken cancer cells from an African American woman named Henrietta Lacks before she died without her consent. These cells became known as the immortal HeLa cells that have been sold for the study of cancer, influenza, sexually-transmitted infections (STIs), Parkinson's, and other diseases.²⁴¹

Some Guatemalan doctors came to Hopkins specifically to study venereal disease control and research. Between the 1920s and 1940s, Johns Hopkins grew into an epicenter of research on venereal disease. The Rockefeller Institute also devoted considerable resources to the study of syphilis and funded programs at Hopkins.²⁴² The U.S. government also began focusing on venereal disease control during World War I. Venereal disease posed a serious problem to U.S. Army that lost almost seven million days of active duty due to these diseases.²⁴³ Following the war in the 1920s, the U.S. government significantly curtailed funding for venereal disease, but groups including the U.S. Public Health Service, the Rockefeller Foundation, and Hopkins continued to view these infectious as a priority.

One of the preeminent syphilis researchers in the world, Dr. Joseph E. Moore, worked as a professor at the university. Also trained at Hopkins, Moore became focused on venereal disease during World War I. For close to twenty years Moore headed a famed syphilis clinic that served primarily indigent African Americans living in the surrounding Baltimore area.²⁴⁴ The clinic was known as Hopkin's "Department L," which stood for "lues venerea." Moore allegedly hated the name, but it was meant to protect patients from the embarrassment of visiting the syphilis clinic.

²⁴⁰ Lederer, *Subjected to Science*, 7.

²⁴¹ Rebecca Skloot, *The Immortal Life of Henrietta Lacks*, (New York: Crown Publishing Group, 2010), 1-4.

²⁴² Lederer, *Subjected to Science*, 82.

²⁴³ Allan M. Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States Since 1880* (New York and Oxford: Oxford University Press, 1987): 115.

²⁴⁴ Reverby, *Examining Tuskegee*, 136

He conducted many of his studies on syphilis with the patients who visited his clinic.²⁴⁵ Through his work at the clinic and research, he became convinced that “syphilis in the negro is in many respects almost a different disease from syphilis in the white.”²⁴⁶ He also has become known as what Historian Susan M. Reverby has called the “godfather” of the syphilis study in Tuskegee, Alabama. Through observing and collecting longitudinal data on African American men in Alabama, the USPHS sought to explore Moore’s preposition that race had a direct effect on the manifestations of syphilis.

In 1939, Guatemalan Dr. Enrique Padilla would become the first Latin American medical professional to take a postgraduate course at Hopkins on syphilis control and research. The course would be the first of its kind and focused on venereal disease control and research in East Baltimore, a predominantly African American area of the city. Padilla had taken the professional routes in Guatemala that granted him access to opportunities to pursue postgraduate education in the United States. After obtaining his medical degree from the national university, he had worked as a military surgeon before becoming a medical doctor with the United Fruit Company on its Tiquisate plantation located near the Pacific Coast.²⁴⁷ His references for the course at Hopkins included MacPhail and Gaitan, who had maintained close ties with the Rockefeller Foundation since his return from Hopkins in the 1920s. As more Guatemalan doctors became linked to this medical network with the United States, they recommended their mentees for further study abroad so that they could develop the Guatemalan medical and public health system.

The fact that Padilla was the only Latin American officer to take this course shows the close links between Guatemala and the United States. It also highlights the Guatemalan

²⁴⁵ Reverby, *Examining Tuskegee*, 136-7. Jones, *Bad Blood*, 103-108.

²⁴⁶ Quoted in Reverby, *Examining Tuskegee*, 136.

²⁴⁷ Fellowship Card, Dr. Enrique Padilla, RF, RG_1.1, Series_319E, Box_171, Folder_2639.

government's commitment to addressing problems of venereal disease control, despite the limitations of other aspects of its public health infrastructure. The vast majority of other students in the course were USPHS officers, highlighting the close links between the national health organization and Hopkins. One student came from Hawaii, then a territory of the United States.²⁴⁸ U.S. colonial links in other parts of the world also facilitated medical professionals travel to the United States for study. Other students comprised of state public health service officers from New York, North Carolina, Ohio, Texas, Florida, California, and West Virginia. Padilla later brought the knowledge he gained about venereal disease control back to the Guatemalan government which was increasing efforts during the Ubico dictatorship to lower rates of venereal disease.

Dr. Thomas Turner, another leading syphilis researcher at Johns Hopkins University who later approved the experiments in Guatemala, led the postgraduate course. Turner's memoir, *Part of Medicine, Part of Me: Musings of a Johns Hopkins Dean*, illuminates how the U.S. culture of medical research, race, and colonial medicine led to his formation as a medical doctor and as a professor of venereal disease.²⁴⁹ Often described as a "Maryland Gentleman of the old school," Turner was born in the southern part of the state near what had once been tobacco plantations.²⁵⁰ After earning his medical degree at the University of Maryland, he received a postdoctoral fellowship at Johns Hopkins. There, he met Alan Mason Chesney and Moore who served as his primary mentors. Chesney and Moore trained the next generation of preeminent venereal disease researchers and gave them a strong foundation of clinical research.²⁵¹ Both Turner and another researcher in the group, Dr. Harry Eagle, would go onto form part of the syphilis study section

²⁴⁸ Correspondence, Dr. Thomas B. Turner to Dr. John A. Ferrell, RF, RG_1.1, Series_200, Folder_322.

²⁴⁹ Thomas B. Turner, *Part of Medicine, Part of Me: Musings of a Johns Hopkins Dean* (Baltimore: Waverly Press, 1981).

²⁵⁰ *The Gazette Online: The Newspaper of the Johns Hopkins University* 32, no. 5 (September 20, 2002), Last retrieved June 19, 2019: <https://pages.jh.edu/~gazette/2002/30sep02/30turner.html>.

²⁵¹ *Ibid.*, 50.

that reviewed and recommended that the UPSHS conduct experiments on venereal disease in Guatemala during the 1940s. Turner described the camaraderie and sense of mission that the syphilis study group shared, saying that they “all worked hard and occasionally played hard.”²⁵² Chesney, who had begun his career at the Rockefeller Institute Hospital in New York City soon after it opened was an ardent supporter of “unrestricted” clinical research.²⁵³ He also strongly opposed the anti-vivisectionist movement. During his time at Hopkins, Chesney led an effort that allowed medical schools the right to use animals from the city pound for experiments. Turner became inculcated into the norms of medical research at the time which held experimentation as moral and pertinent for the survival of humankind.

Turner’s professional identity was also forged by expanding U.S. power around the world. Outposts of American empire in the Caribbean, Central America, and South Pacific served as key training grounds for young researchers like Turner. He traveled to Haiti where Hopkins was conducting a study of tropical diseases including yaws, an infectious disease that affects the skin, bones, and joints and is caused by the same spirochete as syphilis. Turner arrived in Haiti during the U.S. occupation of the country (1915-1934) which was marred by the U.S. Marine Corps racism and violence towards Haitians.²⁵⁴ In 1931, the IHD began to fund the yaws research and Turner stayed on to lead the effort.²⁵⁵ The links between Johns Hopkins and the Rockefeller Foundation made Turner an easy choice for the leadership role.²⁵⁶ Turner then went on to lead yaws research in Jamaica for the IHD. In his memoir, he described the experience in Jamaica as challenging and emotional. He recalled one young girl who arrived at

²⁵² Turner, *Part of Medicine, Part of Me*, 50.

²⁵³ Lederer, *Subjected to Science*, 6. Dr. Alan Chesney; “Ex-Dean of Medical School Dies in Baltimore at 76,” *New York Times*, September 23, 1964.

²⁵⁴ Renda, *Taking Haiti*, 11.

²⁵⁵ Turner, *Part of Medicine, Part of Me*, 52-54.

²⁵⁶ *Ibid*, 66.

his clinic on a donkey in a straw saddle bag. “Her legs and buttocks were the sites of deep ulcers, her joints distorted by healed scars, her body emaciated, and her mind untutored but bright,” Turner wrote.²⁵⁷ Across boundaries of nation and racial understandings, Turner showed some empathy for his patients.

Yet, away from the clinic, Turner and his fellow researchers remained detached from the local Jamaican population. He came to affiliate with other Rockefeller Foundation officers including Hugh Smith, a virologist, who had also received his medical degree at Johns Hopkins University. In his autobiography, *Life’s a Pleasant Institution: The Peregrinations of a Rockefeller Doctor*, Smith described how he, “Tommy Turner” and a doctor with the United Fruit Company would go to the United Fruit Company’s Myrtle Bank Hotel pool to swim and drink punch on the weekends.²⁵⁸ The doctors would socialize with American and British tourists who arrived weekly on cruise ships. Rockefeller researchers lived in the screened homes of the United Fruit Company, setting them apart from the predominantly Afro-Caribbean laborers who lived in unscreened homes segregated from the white managerial staff. Smith also describes the researchers attending tennis parties at private homes, leisurely afternoons playing golf, or attending horse races. These activities provided distance for the researchers from the poverty and illness on the island.

When Turner returned from the Caribbean and resumed his post at Hopkins, he established the postgraduate course on syphilis that Dr. Padilla attended. Understandings of race informed the class structure and adhered to dominant understandings of venereal disease in the medical community at the time. Turner shared with Moore the view that syphilis was a different disease in African American as opposed to European descendant populations. Drawing upon data

²⁵⁷ Ibid, 59.

²⁵⁸ Hugh H. Smith, *Life’s a Pleasant Institution: The Peregrinations of a Rockefeller Doctor* (1978): 95-96.

collected at Moore's syphilis clinic, Turner concluded that racial and sexual differences existed in the disease.²⁵⁹ The postgraduate course included instruction on syphilis control and research in the Eastern Health District of Baltimore which had predominantly African American community and Turner believed formed a "representative urban community."²⁶⁰ The research in the Eastern Health District were funded by Rockefeller's IHD, and focused on epidemiology and laboratory work on immunology and the storage of blood plasma. Students in the postgraduate course researched the prevalence of syphilis in African American as opposed to white populations. Their findings showed that the African American population had higher rates of syphilis, confirming stereotypes at this time that they were a "syphilis-soaked" race. Yet, the researchers collected many more samples of African Americans than they did of white populations, a fact that they noted in their reports as influencing their results.²⁶¹

The Eastern Health District was just one place where Johns Hopkins had established field sites to study the epidemiology of syphilis. Hopkins researchers also had established field sites in the Chapel Hill-Durham, North Carolina region and in San Joaquin County, California. Researchers sought to study and compare the extent of syphilis in different populations that included a metropolitan area, Baltimore, the rural south, North Carolina, and the far West in San Joaquin County that had a large migratory population. During the Greater Depression, "Okies," or poor whites from the Midwest and southwest, made known by John Steinbeck's *The Grapes of Wrath*, migrated to San Joaquin County. Filipino and Mexican-American populations also lived in the region.²⁶² In San Joaquin, researchers investigated the role of sex work as a source of

²⁵⁹ Reverby, *Examining Tuskegee*, 136.

²⁶⁰ Correspondence from Thomas B. Turner to John A. Ferrell of the Rockefeller Foundation. RG, RG_1.1, Series_200, Box_29, Folder_322.

²⁶¹ "Studies on Syphilis in the Eastern Health District of Baltimore City, An Analysis of Serologic Tests from 1937-1939," RF_RG 1.1., Series_200, Box_29, Folder_325.

²⁶² Thomas B. Turner, "Proposal for the Continuation of Studies on Syphilis at the Johns Hopkins School of Hygiene and Public Health, Submitted to the International Health Division, Rockefeller Foundation." RF, RG_1.1, Series_200, Box_29, Folder_325.

the spread of infections. The focus on prostitution in this area as opposed to others suggests assumptions about sexual license in migratory poor white, Latin American, and Filipino populations.

In the early 1940s, Turner aimed to expand Johns Hopkins' field sites internationally. He wrote a proposal to the Rockefeller Foundation calling upon the organization to provide funds for the establishment of a venereal disease laboratory abroad. He said that at present no laboratories existed internationally on research concerning syphilis, and he suggested that the IHD establish a field site in "representative regions of the world as opportunity presents and qualified personnel becomes available."²⁶³ Turner said that such field sites could be established in Latin America, the "Romance language areas" of Western Europe, Russia, India, or China. Several years before the Pan American Sanitary Bureau/U.S. Public Health Service built a venereal disease research laboratory in Guatemala, Turner and the Rockefeller Foundation had ambitions to develop a field site in Latin America.

The Guatemalan doctors who received funding from the Rockefeller Foundation and trained at Hopkins provided future contacts for U.S. doctors seeking to expand their work in the Latin American region. As Chapter Two will demonstrate, doctors such as Padilla continued to collaborate with U.S. researchers who came to the country through organizations such as the Institute of Inter-American Affairs and the Pan American Sanitary Bureau (PASB).²⁶⁴ Trained in the United States, these Guatemalan doctors linked U.S. and Guatemalan medicine and public health and enabled the growth of an American research network in the country.

²⁶³ Ibid.

²⁶⁴ Records of the Office of the Coordinator for Inter-American Affairs. Report for January 1945-Special Project #S-P-142m January 31, 1945. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box 1.

Guatemalan doctors drew upon their experiences with the Rockefeller Foundation and their education in the United States to advocate for the Guatemalan government to improve public health and medical programs in the country. Dr. Gaitán, who after returning from Johns Hopkins became chair of hygiene at the national university, wrote admiringly of public hygiene in the United States that he had observed as a student, describing it as at the “vanguard” of countries when it came to health.²⁶⁵ He proposed that Guatemala should mimic the U.S. public health program. Following their training in elite U.S. public health institutions, Guatemalan doctors brought aspects of the culture of U.S. medicine back to their country.

Conclusion

U.S. rising imperial power in the Central American and Caribbean region enabled the growth of an American medical research network in Guatemala. This network emerged through U.S. institutions such as the United Fruit Company and the Rockefeller Foundation. Yet, local circumstances in Guatemala also led to the growth of this medical research network.

Guatemala’s authoritarian leaders and the agricultural elite, seeking to attract foreign investment in the country, welcomed U.S. institutions in the country and facilitated their work. Doctors also aimed to rekindle Guatemala’s distinguished tradition in medicine and establish their roles as leaders of the body politic. They further formed ties with these U.S. organizations; they gained opportunities to work with these institutions and to study in the United States at elite universities of public health and medicine.

Through the network that U.S. and Guatemalan medical professionals developed at the beginning of the twentieth century, they began to create a culture of medical research in the

²⁶⁵ Gaitán, “La Primera Conferencia del Doctor Luis Gaitán,” 10.

country. This American-medical research network built upon the history of repression in public health and medical institutions in Guatemala. Yet, it was also influenced by American imperial medicine and by a growing focus on research in the United States at institutions such as the Rockefeller Foundation and Johns Hopkins University. The culture of medicine in Guatemala facilitated the medical violence that researchers conducted on women, indigenous, and marginalized Guatemalans.

As the next chapter will demonstrate, Guatemala's role as a central site for medical research became solidified during World War II. As the U.S. international health infrastructure in the Latin American region expanded, Guatemala became a key piece of the medical research network that emerged during this period.

CHAPTER 2: BORDERING PAN AMERICAN HEALTH

When the United States entered World War II, it embarked upon a militarization campaign in the Latin America to protect the region from invasion. As part of these efforts, the U.S. government invested in the development of a health and sanitation infrastructure in Latin American countries. The State Department created the Office of Inter-American Affairs (OIIAA) to develop multilateral programs with Latin American countries on health, sanitation, and agriculture. The U.S. government also funneled money into the Pan American Sanitary Bureau (PASB), which essentially served as an arm of the USPHS for the first half of the twentieth century before becoming an office of the WHO in the Americas in the late 1940s.²⁶⁶ Through these organizations, the U.S. government intended to “win hearts and minds” in Latin America, build the infrastructure necessary for defense, and protect U.S. soldiers stationed in the region from the spread of disease. Latin American health and sanitation professionals in general enthusiastically participated in, encouraged, and supported many of these programs.²⁶⁷

Yet, Latin American professionals’ participation did not mean that the United States built this infrastructure in complete solidarity with its southern neighbors, nor did it emerge from the grassroots concerns of people subjected to these programs. To U.S. health professionals, the land south of Mexico remained polluted with vice, immorality, exotic peoples and disease.²⁶⁸ Latin American officials also at times differed from U.S. health professionals in how they approached the containment of health and disease. They rejected U.S. views of Latin American racial

²⁶⁶ Marcos Cueto, *The Value of Health: A History of the Pan American Health Organization* (Washington, DC: Pan American Health Organization, 2006).

²⁶⁷ Anne-Emanuelle Birn, “No More Surprising Than a Broken Pitcher?” Maternal and Child Health in the Early Years of the Pan American Sanitary Bureau *Canadian Bulletin of Medical History* Vol. 19 (2002): 17-46. Marcos Cueto and Steven Palmer, *Medicine and Public Health in Latin America: A History* (Cambridge: Cambridge University Press, 2015).

²⁶⁸ Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (Routledge Classics, 1966).

inferiority that informed many U.S. public health and medical programs.²⁶⁹ U.S. and Latin American health and sanitation professionals did, however, share views of the people who were the subjects of health campaigns. Both U.S. and Latin American health professionals believed that women, non-white, and marginalized groups needed to be reformed to ensure hemispheric defense and national development.

The boundaries envisioned and created by health professionals and the people they researched facilitated the creation of a medical research hub in Guatemala. U.S. professionals' views of Central American countries as immoral also informed their beliefs that they would serve as effective sites of research. In Guatemala, health professionals facilitated U.S.-funded research on vulnerable peoples. During World War II and continuing into the postwar era Guatemala became a center of experimentation in which scientists and doctors sought to research diseases that threatened hemispheric security and soldier health.²⁷⁰ In fact, during this period, Guatemala became one of the first and arguably the most important field sites for the PASB.²⁷¹ It was second in size only to the Bureau's headquarters in Washington, DC. The IIAA and the U.S. military also conducted research in the country. That Guatemala became a center for experimentation is significant given the small size of the country and its relatively limited influence in Latin American medicine.²⁷²

Guatemala's history as a close friend of the United States was also an important reason why the country became an attractive site for research. The country's geographical location as

²⁶⁹ Nancy Leys Stepan, *"The Hour of Eugenics": Race, Gender, and Nation in Latin America*, (Cornell University Press: Ithaca, 1991).

²⁷⁰ Greg Grandin has argued that Guatemala served as a "workshop" in which the United States developed its foreign policy toward for the rest of the world. See, *Empire's Workshop*.

²⁷¹ Cueto, *The Value of Health*, 62-3. Fred Soper, "The Pioneer International Health Organization," *Boletín de la Oficina Sanitaria Panamericana* 27, No. 10 (octubre de 1948): 913. M.F. Haralson, "The Organization and Aims of the Pan American Sanitary Bureau in the Americas and Along the United States-Mexico Border," *Boletín de la Oficina Sanitaria Panamericana*, 27, No. 10 (octubre de 1948): 923.

²⁷² Stepan, *"The Hour of Eugenics."*

the weaker and smaller neighbor of Mexico, and its ambitions to lead Central America, has historically made the country a willing partner of the United States.²⁷³ Throughout his time in power (1931-1944), Dictator Ubico “placed himself in the shadow of Uncle Sam” as a strategy for mitigating Mexico’s influence in the country and gaining international power.²⁷⁴ At the beginning of World War II, Ubico “declared emphatically... fully cognizant of how little material aid Guatemala could offer, (that) she was with the United States in any needed capacity all the way.”²⁷⁵ In 1942, Ubico and Roosevelt established an agreement that permitted the stationing of U.S. troops in the country.²⁷⁶ The Guatemalan government helped the United States track down German residents in the country, confiscate their property, and place them in exile. Guatemala’s pro-American stance also led the country to become a site of experimentation on diseases that threatened national security and U.S. soldier health in tropical locations.

U.S. institutions built upon and greatly expanded the medical research infrastructure already established in Guatemala by the Rockefeller Foundation and the United Fruit Company. Guatemalan doctors who had received fellowships from the Rockefeller Foundation and studied at Johns Hopkins University became key point persons for U.S. institutions, health professionals, and researchers. The energy for research and money that U.S. institutions had from the United States during World War II served as the catalyst that rendered the country a “Third World Model” for experimentation continuing into the Cold War.

²⁷³ Jurgen Buchenau, *In the Shadow of the Giant: The Making of Mexico’s Central American Policy, 1876-1930* (Tuscaloosa: University of Alabama Press, 1996).

²⁷⁴ Letter from R.M. deLambert to Mr. White, April 11, 1933. RG 59, General Records of the U.S. State Department, 1930-1944, NARA, College Park, Maryland.

²⁷⁵ Legation in Guatemala, Memorandum of Conversation with General Ubico, RG 59, General Records of the U.S. Department of State, 1930-1944, NARA, College Park, Maryland.

²⁷⁶ Thomas M. Leonard, *Central America and the United States* (Athens: University of Georgia Press, 1991): 114.

Building Pan American Health

The international health infrastructure that emerged during World War II built upon earlier efforts to forge Pan American health. Attempts to develop public health across the Americas have often been led by the United States and riven by divisions, competitions, and inequalities. Yet, Latin American health professionals also actively participated in establishing Pan American health initiatives. Regional cooperation helped Latin Americans move towards their goals of constructing public health and medical infrastructures in their countries. Concerns about the threats posed by marginalized members of Latin American society have bounded U.S. and Latin American health professionals across borders.

In 1902, during the first Pan American sanitary convention, the American republics established the International Sanitary Bureau (ISB) at the urging of the United States. The oldest international health organization, it emerged several years before the creation of two other influential international health organizations: the Paris Office International d'Hygiène and the Health Organization of the League of Nations. Operating on a shoestring budget, the organization established the foundations of an Inter-American medical and public health infrastructure. The ISB was later renamed the Pan American Sanitary Bureau (PASB) and then the Pan American Health Organization (PAHO), when it became the regional office of the World Health Organization. This chapter will use the term PASB, since the organization was called that for the majority of the first half of the twentieth century.

For its first half of the twentieth century, U.S. interests dominated the PASB. The USPHS (known in its early years as the Marine Hospital Service) ran the PASB for the first fifty years. At the organization's foundation, U.S. Surgeon General Walt Wyman addressed the 11 countries represented and declared, "health, cleanliness, intellect, and morals might well be the motto of

this conference.”²⁷⁷ U.S. Surgeon Generals served as the Directors of the PASB until 1947, when a Rockefeller man, Fred Soper, assumed the helm of the organization. USPHS and PASB shared the same office, budget, and personnel. USPHS officers, on assignment with PASB, assumed positions as international actors, no longer subject to the laws of the United States. They conducted studies and public health campaigns that aided U.S. goals to bulwark regional defense, while also pursuing their own research agendas. The PASB helped to mask the imperial nature of U.S. public health work in the region.

The PASB at first had little influence in Latin America. In the early years, PASB had few financial resources nor the ability to implement programs.²⁷⁸ It focused on collecting and circulating information about disease to member countries and organized sanitation conferences. Many Latin Americans remained wary of PASB’s mission to cultivate regional solidarity. Cuban intellectual José Martí suspected that Pan Americanism served as a disguise for U.S. imperialism. Others such as literary critics Rubén Darío and José Enrique, remained skeptical of Pan Americanism as a concept: they charged that the materialistic proclivities of Anglo Americans could never be reconciled with a more spiritual Latin American culture.²⁷⁹

Still, both U.S. and Latin American delegates attended PASB conferences where they had lively debates about port sanitation, quarantine, and the control of disease.²⁸⁰ By the 1920s, the Bureau stepped up its operations and gained more power to operate in Latin American countries. In 1924, at the Pan American Sanitary Conference in Havana, Cuba, the Bureau further established itself as an international health organization by creating the Pan American Sanitary

²⁷⁷ Birn, “No More Surprising than a Broken Pitcher,” 25.

²⁷⁸ Fred Soper, “The Pioneer International Health Organization,” *Boletín de la Oficina Sanitaria Panamericana* 27. No. 10 (octubre 1948): 912.

²⁷⁹ Cueto, *The Value of Health*, 17.

²⁸⁰ Ibid, 32-5. Birn, “No More Surprising than a Broken Pitcher,” 19.

Code, which was ratified by all the American republics and continues to remain in place in the current day.²⁸¹

The Pan American Sanitary Code provided the Bureau with considerable power to operate in Latin America. It established PASB as the central coordinating agency to collect and distribute information on disease and sanitation in the Americas. As an international health organization, the Bureau could also sidestep diplomatic channels and engage directly with health and sanitation authorities on efforts to control and prevent disease.²⁸² USPHS officers and health authorities in Latin American countries had significant leeway to direct disease control measures and studies with little oversight from governmental regulatory bodies. The Bureau could further place national health service employees on contract as representatives while still keeping their jobs. For the first half of the twentieth century, this measure mainly helped the USPHS. From the beginning, the Code made research central to the organization. The Bureau had the ability to hire experts to do epidemiological studies and other investigations.²⁸³ Nevertheless, countries had to request technical assistance; PASB could not impose projects on countries without local support.

For the first half of the twentieth century, the PASB served the USPHS's primary goals to protect U.S. national borders and citizens. In 1798, USPHS had begun as a network of hospitals for merchant seaman. By the 1900s, USPHS conducted research, controlled infectious diseases, and implemented quarantines. The U.S. annexation of Cuba, Puerto Rico, and the Philippines during the Spanish-American War (1898) and the building of the Panama Canal Zone (1904-1914) raised new concerns about managing health and sanitation of populations in the newly

²⁸¹ Cueto, *The Value of Health*, 50.

²⁸² Soper, "The Pioneer International Health Organization," 912. "Pan American Sanitary Code," in *Transactions of the Seventh Pan American Sanitary Conference of the American Republics, held in Havana, Cuba, November 5 to 15, 1924* (Washington, DC: Pan American Sanitary Bureau, 1925): 134.

²⁸³ Ibid.

acquired territories and ensuring that diseases would not spread to the mainland.²⁸⁴ During the construction of the Panama Canal, the USPHS managed quarantine operations, manned hospitals and laboratories in the Panama Canal Zone, and sought to eradicate rats and mosquito larvae.²⁸⁵ Historian Alexandra Stern has observed that the USPHS made the Canal Zone “a working laboratory where U.S. officials had an enormous amount of power to study disease and enforce strategies of containment and eradication.”²⁸⁶ The USPHS acted as an “occupying force” in the Panama Canal Zone, operating outside the organization’s purview as a national organization.²⁸⁷

As the United States expanded its international health programs in the region in an effort to protect the United States from the spread of communicable diseases, the USPHS also sought to limit the influx of Latin American immigrants. Between the 1890s to the 1920s, USPHS officers determined which immigrants posed “biological threats” to the nation.²⁸⁸ They devised tests to detect “feeble-minded” immigrants who they suspected would fail to contribute to the industrial labor force.²⁸⁹ One officer wrote that these tests were critical in preventing the United States from becoming another Mexico.²⁹⁰ At the time, the Mexican Revolution was underway, sparking popular uprisings throughout the country. On the U.S.-Mexico border, USPHS officers conducted particularly onerous examinations of immigrants.²⁹¹ In El Paso, USPHS officers, fearing an outbreak of typhus, forced Mexicans seeking to enter the United States to strip naked

²⁸⁴ Espinosa, *Epidemic Invasions*, 8-9.

²⁸⁵ Alexandra Minna Stern, “The Public Health Service in the Panama Canal: A Forgotten Chapter of U.S. Public Health,” *Public Health Reports* Vol. 120 (Nov.-Dec. 2005): 675-9.

²⁸⁶ *Ibid.*

²⁸⁷ *Ibid.*

²⁸⁸ Reverby, *Examining Tuskegee*, 19. Alan M. Kraut, *Silent Travelers: Germs, Genes, and the “Immigrant Menace,”* (Baltimore and London: Johns Hopkins University Press, 1994). Amy L. Fairchild, *Science at the Borders: Immigrant Medical Inspection and the Shaping of the Modern Industrial Labor Force*, (Baltimore and London: Johns Hopkins University Press, 2003). Judith Walzer Leavitt, *Typhoid Mary: Captive to the Public’s Health*, (Boston: Beacon Press, 1996).

²⁸⁹ Howard A. Knox, Assistant Surgeon, USPHS, “Tests for Mental Defects” *The Journal of Heredity* Vol. 5, Issue 3, (March 1914): 122-130. Fairchild, *Science at the Borders*, 15.

²⁹⁰ Knox, “Tests for Mental Defects,” 127.

²⁹¹ Fairchild, *Science at the Borders*, 153.

and bathe.²⁹² They were more lenient with foreign physicians who continued to migrate in significant numbers to fill hospital shortages, contributing to the “brain drain” that occurred in other countries.²⁹³ By 1924 when the U.S. imposed stricter quotas for immigration, the federal government moved medical inspection of immigrants abroad to U.S. consulates, where USPHS staff and immigration officials still inspected immigrants for physical and mental disabilities and defects.²⁹⁴

U.S. immigration policies towards Latin Americans and hardline approach to eugenics hampered efforts to forge Pan American collaboration in health and sanitation. In 1927, at the First Pan American Conference on Eugenics and Homiculture in Havana, Charles Davenport, a leader of the U.S. eugenics movement, and a Cuban eugenicist named Domingo y Ramos, proposed that the Latin American delegates adopt a Code of Eugenics. It called for classifying people according to their genetic fitness, sterilizing the mentally ill and criminals and prohibiting migration from American countries that did not meet eugenic standards.²⁹⁵ Many delegates at the conference, including the Mexican representative, Rafael Santamarina, protested the Code. He expressed concern that U.S. eugenicists had subjected Mexican American children in the United States to mental tests, claiming to prove their inferior intelligence.²⁹⁶ Latin American delegates had good reason to suspect that the Code would be used against their countries. Moreover, the Catholic influence in Latin America deterred member states from supporting the proposal for sterilization. Given these concerns, Latin American delegates refused to adopt the Code.²⁹⁷

²⁹² Alexandra Minna Stern, “Buildings, Boundaries, and blood: Medicalization and Nation-Building on the U.S.-Mexico Border, 1910-1930,” *Hispanic American Historical Review* 79, no. 1 (1999): 45.

²⁹³ Rosemary Stevens, *Foreign Trained Physicians and American Medicine* (New Haven: Yale University Medical School 1972): xiv.

²⁹⁴ Fairchild, *Science at the Borders*, 264.

²⁹⁵ Stepan, “*The Hour of Eugenics*,” 176-177.

²⁹⁶ Ibid, 180. Alexandra Minna Stern, *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America*, (Berkeley and Los Angeles, 2005), 92-3.

²⁹⁷ Stepan “*The Hour of Eugenics*,” 179.

At other Pan American conferences, Latin Americans also challenged U.S. eugenic policies. They argued that countries adopt their approach to the control of reproduction. During the early Pan American Congresses, Latin American delegates pushed the PASB to address maternal and child health care.²⁹⁸ Influenced by French puericulture, or homiculture in the Cuban-coined version, Latin Americans were also influenced by eugenics and believed that maternal and child health was critical to nation-building.²⁹⁹ Their concern for women was secondary in these programs. Until the 1940s, PASB ignored Latin Americans' requests. The Bureau preferred to focus on technical solutions to contain the spread of disease, avoiding responsibility for the development of national infrastructure, let alone the funding of maternal health clinics and child care services. Even in the United States, healthcare providers struggled to secure state funding for maternal and child healthcare, despite the increasing numbers of women who went to hospitals for childbirth by the 1920s and 1930s.³⁰⁰ Historian Anne-Emanuelle Birn says that U.S. concerns about the rising influence of socialism shaped PASB's decision to stay out of socially-oriented policies, which were more common in the French models.³⁰¹ PASB Director and USPHS Surgeon General Hugh Cumming (1920-1947), like many of his contemporaries, was distrustful of social medicine. He did not want state-run medicine to curb efforts to build private or voluntary initiatives.³⁰²

Yet, Cumming was also a eugenicist. He sought to use his platform as USPHS Surgeon General to build government support for the American eugenics movement.³⁰³ The so-called

²⁹⁸ Birn, "No More Surprising Than a Broken Pitcher?" 17-42.

²⁹⁹ In 1911, two Cuban physicians coined the term homiculture as a science that comprised the study of human heredity in society. Stepan, *The Hour of Eugenics*, 76-77.

³⁰⁰ Birn, "No More Surprising Than a Broken Pitcher," 21. Judith Walzer Leavitt, *Brought to Bed: Childbearing in America, 1750 to 1950*, (Cambridge: Oxford University Press, 1986). Molly Ladd-Taylor, ed. *Raising a Baby the Government Way: Mothers' Letters to the Children's Bureau 1915-1932*, (New Brunswick: Rutgers University Press, 1986).

³⁰¹ Birn, "No More Surprising Than a Broken Pitcher," 39.

³⁰² *Ibid.*, 29.

³⁰³ Paul A. Lombardo PA, and Gregory M. Door, "Eugenics, medical education, and the Public Health Service: Another perspective on the Tuskegee syphilis experiment," *Bulletin of the History of Medicine* 80, no. 2 (2006): 291-316.

“cavalier of Virginia,” (according to Cuban eugenicist Domingo Ramos), Cumming was a member of the American Eugenics Society and served on its advisory council. He was also a delegate for the second Pan American Conference on Eugenics in 1934.³⁰⁴ Seeking to protect the so-called American racial stock, he initiated a study on the relationship between insanity and immigration in the United States.³⁰⁵ In his articles, Cumming stressed the importance of hereditary factors and eugenics in preventative medicine.³⁰⁶ As PASB director, he appeared more interested in containing the spread of disease to protect the U.S. white population than supporting Latin American approaches to “better breeding.”

Despite receiving no support from the PASB, Latin American eugenicists expanded the Pan American network. Latin American feminists, doctors, and lawyers organized eight Pan American Child Congresses between 1916 and 1942.³⁰⁷ The conferences were not just for Latin Americans. The U.S. Children’s Bureau also participated in several conferences, urging Latin American countries to move away from state-sponsored welfare programs and to instead use a mix of public and private solutions.³⁰⁸ The primary focus of the conferences was the development of a welfare state to address maternal and child health.³⁰⁹ The commitment of Latin American feminists, medical doctors, and lawyers to state puericulture demonstrates the continued influence of French medicine in Latin America, and Latin American social reformers’ rejection of aspects of U.S. healthcare policies.

Although U.S. and Latin American eugenicists disagreed about maternal and infant care, neither of their approaches emerged from the interests of women who were the targets of these

³⁰⁴ Ibid.

³⁰⁵ Ibid., 310-311.

³⁰⁶ Hugh S. Cumming, “The Progress of Medicine,” *The Washington Post*, January 8, 1928. SM1.

³⁰⁷ Guy, “The Pan American Child Congresses, 272-291.

³⁰⁸ Birn, “No More Surprising Than a Broken Pitcher?” 31.

³⁰⁹ Ibid, 273.

programs. For instance, in Puerto Rico, nationalists and the Catholic Church sharply criticized U.S. family planning programs on the island and accused them of being part of a genocidal plot.³¹⁰ New Deal policies and later Clarence Gamble provided funding for birthing clinics and milk stations. In the clinics, health workers sterilized women without their consent and used them in clinical trials to test birth control, with officials giving women foam powders, contraceptive jellies, and condoms to test their effectiveness.³¹¹ The outcry over U.S. family planning programs coincided with the 1930 discovery that a Rockefeller Foundation researcher named Cornelius P. Rhoades wrote a private letter to a colleague in which he claimed to have tried to “exterminate” Puerto Ricans by giving them cancer.³¹² Despite efforts to control women’s reproduction through the family planning programs, many Puerto Rican women wanted access to reproductive control. In their debates, Puerto Rican nationalists did not represent the views of many of the women. Instead, nationalists used the women as symbols of the U.S. violation of its national sovereignty.

Despite sparring with Latin American health professionals, PASB stepped up efforts to work on disease control in South America. In the 1920s, PASB began to send USPHS officer Dr. John D. Long as their lone representative to visit Latin American countries and form relationships with their health departments.³¹³ Long’s ability to travel to different Latin American countries through the PASB allowed USPHS a greater role in the control of diseases in Latin America. One of the Bureau’s key efforts in the interwar years was the eradication of the plague in South America. Long, who had been at the forefront of USPHS efforts to contain the

³¹⁰ Briggs, *Reproducing Empire*. Schoen, *Choice and Coercion*.

³¹¹ Schoen, *Choice and Coercion*, 198.

³¹² “Revisiting a 1930s Scandal, AACR to Rename Prize,” *Science Magazine*, 300, (April 25, 2003): 573-574. Investigations by the Rockefeller Foundation and the Puerto Rican government did not find any evidence to support Rhoades’ claims. In the United States, *Time Magazine* also dismissed the incident as “Porto Richochet,” the Anglicized spelling at the time, lamenting that U.S. well intentioned efforts to help the island had backfired.

³¹³ Transactions of the Seventh Pan American Sanitary Conference of the American Republics, 272.

plague in California and the Philippines, was well equipped to lead these initiatives.³¹⁴ He focused primarily on Peru and Ecuador. Since 1903, when the plague first invaded Peru, the country had suffered outbreaks every year. Peruvian officials contended with widespread protest in their efforts to control the disease.³¹⁵ Crowds threw stones at the “death wagon,” which carried away infected people for treatment.³¹⁶ Family members hid their relatives, fled the lazarettos, and staged minor revolts when health officials tried to disinfect and burn their homes.³¹⁷

In 1930, the PASB signed an agreement with the Peruvian and Ecuadorian health authorities to begin a plague eradication campaign and strengthen regional commitment to fighting infectious disease. The Bureau (and hence USPHS) largely funded the effort.³¹⁸ Long and PASB epidemiologist C.R. Eskey arrived in the country. They launched a National Anti-Plague Service, trained health workers in Lima, and sent them around the country to trap rats and fleas.³¹⁹ The campaign was successful in drastically lowering plague rates. They also led research on disease control and epidemiological studies.³²⁰ Long and a Peruvian officer proposed that the plague had originated from infected fleas in jute bags carried by Indian shipping vessels.³²¹ They had found that the people who had handled the jute bags stricken with the plague, and discovered dead fleas in the jute bags. Around the turn of the twentieth century, India had been devastated during a worldwide plague outbreak, concerning public health

³¹⁴ Dr. Fred Soper, “International Health Work in the Americas,” National Health Assembly, May 3, 1948,” The Fred L. Soper Papers, U.S. National Library of Medicine.

³¹⁵ Dr. Aristides A. Moll and Mrs. Shirley Baughman O’Leary, “Plague in the Americas: Peru,” *Boletín de la Oficina Sanitaria*, 20, no. 7 (julio de 1941): 607-713.

³¹⁶ Marcos Cueto, *The Return of Epidemics: Health and Society in Peru During the Twentieth Century* (Burlington: Ashgate Publishing Company, 2001), 16.

³¹⁷ Cueto, *The Return of Epidemics*, 14.

³¹⁸ *Ibid.*, 23.

³¹⁹ *Ibid.*, 713.

³²⁰ “Plague in the Americas: A Historical and Quasi-Epidemiological Survey,” *Boletín de la Oficina Sanitaria Panamericana*, 20 (abril de 1941): 365-373. 711.

³²¹ *Ibid.*, 706.

authorities around the world.³²² These concerns likely formed health workers' presumptions about the plague's spread. Yet, further studies suggested that no one person, rat, or flea was the sole source of the disease.³²³

U.S. and Peruvian official's prejudices shaped their epidemiological and disease control work. Peruvian health officials painted newly arrived Chinese immigrants as vectors of the disease, as had USPHS officers in California during the plague outbreak at the turn of twentieth century.³²⁴ They also charged that indigenous groups' poor sanitation and cultural practices led to the spread of the plague. Public health workers, mainly from Peru and Ecuador, scrutinized the cultural habits of indigenous groups in epidemiological studies. In Ecuador, health workers said that indigenous funeral practices, in which mourners stayed together for several at wakes, facilitated the spread of the plague.³²⁵ Health authorities began requiring rapid burials where they disinfected and wrapped dead bodies in blankets, and then buried them two feet below the ground. These burials led to sharp protest from indigenous groups.³²⁶ Peruvian authorities also claimed that the ponchos and blankets of indigenous people were "infested" with fleas.³²⁷ Yet, they did not find high rates of plague in highland communities where many indigenous people lived.³²⁸ As in Guatemala, health authorities had presumed that indigenous people's cultural practices rendered them disease vectors, despite lacking clear evidence of this fact.

Although PASB had limited personnel to send to Latin American countries during these campaigns, the organization gained regional influence through its main publication. Beginning in

³²² Shah, *Contagious Divides: Epidemics and Race in San Francisco's Chinatown* (Berkeley and Los Angeles: University of California Press, 2001): 125.

³²³ Soper, "International Health Work in the Americas," 2.

³²⁴ Shah, *Contagious Divides*, 127.

³²⁵ "Plague in the Americas: A Historical and Quasi-Epidemiological Survey," 365

³²⁶ Cueto, *The Return of Epidemics*, 17.

³²⁷ "Plague in the Americas: A Historical and Quasi-Epidemiological Survey," 365

³²⁸ *Ibid*, 370.

the 1920s, the PASB published and distributed the *Boletín de la Oficina Sanitaria Internacional* for free to 30 countries.³²⁹ The publication disseminated information on the latest technical developments to improve sanitation and contain the spread of disease. The publication also helped to build the Bureau's reputation in Latin America.

By the 1930s the United States stepped up efforts to build good will in the region through the Good Neighbor program. The Mexican Revolution and resistance in Nicaragua during the 1920s had forced U.S. officials and members of the public to acknowledge that “gun boat diplomacy” did little to further the protection of U.S. economic and political interests. The United States moved to secure its economic interests in the region from European competitors by strengthening its political, economic, and cultural ties with Latin America.³³⁰ Although no longer seeking to strong arm Latin Americans into compliance with U.S. foreign policy and corporate interests, this use of “soft power” was still rooted in efforts to expand U.S. power. Nevertheless, many Latin American countries demonstrated enthusiastic support for Roosevelt's new foreign policy approach towards their countries and welcomed programs that they believed would strengthen their economies and prevent disease.

As part of efforts to develop neighborly initiatives, the PASB helped Chile develop health legislation and in Central America supported the construction of the Pan American Highway by carrying out sanitation campaigns in nearby communities. Still PASB's influence remained limited in the years leading up to the war. Fred Soper, who worked for the Rockefeller Foundation before later becoming PASB director, interacted with PASB officers on efforts to control yellow fever while in Brazil. He criticized the Bureau as “inadequate” and “dependent

³²⁹ Birn, “No More Surprising Than a Broken Pitcher,” 30.

³³⁰ Grandin, *Empire's Workshop*, 30-34.

almost entirely on UPSHS for technical personnel.”³³¹ Despite a successful campaign to contain the plague, PASB did not yet have the support from the U.S. government to play a significant role in the development of Latin American medicine and public health.

As mentioned in Chapter One, the primary work of the United States in international health until the 1940s was conducted by the Rockefeller Foundation’s IHD. Focusing on the control of yellow fever, malaria, and hookworm in countries throughout Latin America, Rockefeller eventually began to pursue relationships only with countries that could economically sustain public health efforts.³³² Brazil became its most established program, although Rockefeller also gave considerable attention to Mexico.³³³ In Brazil, Rockefeller Foundation officers worked on the development of a vaccine for fellow fever. Hugh Smith, a Rockefeller Foundation officer, found that the “benevolent dictatorship” of Getulio Vargas during the 1930s was “most helpful” in supporting yellow fever control.³³⁴ The first vaccinations were carried out on coffee plantations in Minas Gerais, a southeastern state in Brazil. Smith went first to the largest *fazendas*, or plantations to establish rapport with the *fazendeiros* (estate owners). The *fazendeiro* would inquire as to how many people the researchers wanted then issue orders to his lieutenants for that number to appear at the specified hour on the following day. As demonstrated in Guatemala, Latin American countries with authoritarian governments and entrenched social inequality served as useful field sites for U.S. public health and medical officers.

³³¹ Duffy, *Ventures in World Health*, 316.

³³² Ann Zulawski, *Unequal Cures: Public Health and Political Change in Bolivia, 1900-1950* (Durham and London: Duke University Press, 2007): 90.

³³³ Anne-Emanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico* (Rochester: University of Rochester Press, 2006): 3.

³³⁴ Hugh H. Smith, *Life’s a Pleasant Institution: The Peregrinations of a Rockefeller Doctor* (self-published, 1978): 120.

World War II and International Health

During World War II and continuing into the postwar era, the U.S. government began to funnel money into international health in Latin America.³³⁵ As part of these efforts, the United States vastly expanded its financing of PASB. In 1942, the U.S. government also established the Office of the Institute of Inter-American Affairs (IIAA) under the U.S. State Department, “to further the general welfare and to strengthen friendship and understanding of the peoples of the American Republics.”³³⁶ The IIAA expanded the goals of the Good Neighbor Program to spur collaboration between U.S. and Latin American professionals and sought to implement public health programs that had already proven effective in the United States.³³⁷

Headed by Nelson A. Rockefeller, grandson of the oil magnate John D. Rockefeller, the IIAA set up its health and sanitation programs in the model of Rockefeller Foundation. During World War II and in the postwar era, the Rockefeller Foundation increasingly adopted a “retired empire’s role.”³³⁸ As the U.S. government took on a greater role in funding international health, the Rockefeller Foundation began to scale back its efforts but remained a consultant to the new government institutions. In the 1940s, the Rockefeller Foundation increasingly focused on agriculture and malnutrition, which IHD and other U.S. scientists and officials believed held back development in the region.³³⁹ As will be discussed later in this chapter, these efforts developed in Mexico and later in Central America.

³³⁵ Soper, *The Value of Health*, 320.

³³⁶ “The Work of the *Servicio Cooperativo Interamericano de Salud Pública* and the Institute of Inter-American Affairs in Guatemala, September 12, 1951. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box. 1. NARA College Park, Maryland.

³³⁷ Cueto, *The Value of Health*, 64.

³³⁸ Anne Emanuelle-Birn, “Backstage: The Relationship Between the Rockefeller Foundation and the World Health Organization, 1940s-1960s,” *Public Health* 128 (2014): 132.

³³⁹ Marcos Cueto, *Missionaries of Science: The Rockefeller Foundation and Latin America* (Bloomington: Indiana University Press, 1994).

Together the IIAA and PASB built upon previous efforts of U.S. private organizations and expanded efforts to establish a medical network that supported hemispheric defense. The IIAA provided fellowships for Latin Americans to study at U.S. universities and created greater links between U.S. and Latin American medical professionals. This investment in resources and the war generated greater solidarity between U.S. and Latin American doctors. By 1951, the IIAA had provided fellowships for 39 Guatemalan doctors, nurses, and engineers to study in the United States.³⁴⁰ They included Dr. Juan Funes, a key participant in the USPHS venereal disease experiments that occurred later in the 1940s. The IIAA also conducted several studies on diseases in countries throughout Latin America.³⁴¹ The IIAA received far more funds from the U.S. government than the PASB.³⁴² Still, the two organizations collaborated in efforts. IIAA funded several projects at the Bureau. The two organizations held joint conferences on sanitary engineering and nurses' training. They also collaborated in conducting studies and experiments.³⁴³

Guatemala was among the eighteen Latin American countries that received aid from the U.S. State Department during the war.³⁴⁴ The IIAA established a *Servicio* (Service) or a division in Guatemala City. The *Servicio* employed and paid the salaries of physicians, engineers, nurses, and technicians, many of whom were Guatemalan.³⁴⁵ It had close contacts with doctors who had

³⁴⁰ "The Work of the *Servicio Cooperativo Interamericano de Salud Pública* and the Institute of Inter-American Affairs in Guatemala, September 12, 1951. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box. 1. NARA College Park, Maryland.

³⁴¹ Institute of Inter-American Affairs: Hearings Before Subcommittee No. 4—State Department Organization and Personnel of the Committee on Foreign Affairs, House of Representatives, Eightieth Congress, First Session on H.R. 4163, June 20 and 27, 1947 (Washington: Government Printing Office, 1947), 13-14.

³⁴² *Ibid.*, 313.

³⁴³ *Report of the Director of the Pan American Sanitary Bureau to the Member Governments of the Pan American Sanitary Organization*, 29-30, The Fred L. Soper Papers, NLM.

³⁴⁴ Institute of Inter-American Affairs: Hearings Before Subcommittee No. 4—State Department Organization and Personnel of the Committee on Foreign Affairs, 1.

³⁴⁵ The Work of the *Servicio Cooperativo Interamericano de Salud Pública* and the Institute of Inter-American Affairs in Guatemala, September 12, 1951. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box. 1. NARA College Park, Maryland.

previously received fellowships from the Rockefeller Foundation and trained at Johns Hopkins. They included Dr. Enrique Padilla who had taken the venereal disease control and research course at Hopkins and began working for the *Servicio* on a part time basis.³⁴⁶ He provided training to other doctors and interns at the Guatemalan health department on how to conduct dark field examinations for syphilis.³⁴⁷

The IIAA sought to develop the health infrastructure in Guatemala in order to further stability and readiness for war. The IIAA signed an agreement with Dictator Jorge Ubico to partially fund and construct the new Roosevelt Hospital, which was to be located in the capital. It would become the largest public hospital in the country. The *Servicio* also assisted with the development of Guatemala's public health infrastructure by building health clinics in poor neighborhoods in Guatemala City and in rural areas and through developing water and sewage systems. It further had a program to train midwives so as to reduce the rates of maternal and infant mortality, implemented campaigns to control malaria and typhus, treated patients for venereal disease at health clinics, improved sanitation in Guatemala's major ports in San José and Puerto Barrios, and worked with the PASB on research initiatives.

The PASB also focused on preparing the region for war by establishing field sites in three key locations: one in El Paso on the U.S.-Mexico border, one in Lima, Peru that gave the institution a foothold in South America, and one in Guatemala City, Guatemala that established PASB presence in the Central American and Caribbean region. The afflictions that the PASB focused on in these sites suggest how certain populations and regions of the Americas became associated with specific diseases. In the Lima office, the Bureau continued to combat the plague.

³⁴⁶ Report for January 1945, Special Project #S-P-142, January 31, 1945. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box. 1 NARA College Park, Maryland.

³⁴⁷ Report of Meeting Held at Sanidad Pública, April 11, 1945, IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box. 1 NARA College Park, Maryland.

PASB officers conducted epidemiology and research and continued to develop their methods for controlling the disease.³⁴⁸ The Lima Office also built a focus on sanitary engineering, which included the trapping of rats and fleas that spread the plague.

In the El Paso office, the Bureau focused on containing the spread of infectious disease across the U.S.-Mexico border. One of PASB officers' main efforts focused on mitigating the spread of venereal disease.³⁴⁹ PASB/USPHS officials still saw the land south of Mexico as ridden with venereal disease. U.S. officials' views of Latin Americans as having looser morals and incompetent governments who lacked control of their populations informed these ideas. Many people in the United States feared that U.S. troops in Latin American ports would become infected with syphilis or gonorrhea within mere days of being stationed there.³⁵⁰ During World War I, General John J. Pershing, who later became the commander-in-chief of the American Expeditionary Forces in Europe, had instituted a regulated system of prostitution in Mexico for his troops in an effort to quell the spread of venereal disease.³⁵¹ Although sex work was illegal in the United States, in foreign and border locations the U.S. military has often tolerated and regulated prostitution. Military commanders have privately believed that their soldiers needed access to brothels in order to contain their sexual assault of women and also thought that suppressing prostitution in foreign populations was unrealistic. They further held that local authorities in Latin America were incapable of controlling venereal diseases.

During World War II, PASB/USPHS officer Joseph Spoto, launched the *Campaña Antivenérea Internacional* (International Anti-Venereal Disease Campaign). Through the Bureau office, U.S. and Mexican governments coordinated new efforts to lower rates of venereal

³⁴⁸ Fred Soper, "Informe sobre el programa de la Oficina Panamericana," *Boletín de la Oficina Sanitaria Panamericana*, 27, No. 11 (noviembre de 1948): 985.

³⁴⁹ Ibid. Soper, "The Pioneer International Health Organization," 913.

³⁵⁰ Cueto, *The Value of Health*, 20.

³⁵¹ Brandt, *No Magic Bullet*, 98.

disease. The U.S. government did not want venereal disease to spread across the border, and Mexican officials had also been centrally concerned about the spread of venereal disease since the Mexican Revolution.³⁵² Spoto also carried out physical examinations of Braceros, or Mexican farmworkers contracted to work in the United States during the war.³⁵³ USPHS officers scrutinized Braceros bodies in medical inspections. They searched the men for lice that could spread typhus and for signs of venereal disease. They used x-rays to check the Braceros for tuberculosis, deloused them with DDT to prevent the spread of typhus and malaria, and disinfected their clothes while they were forced to shower.³⁵⁴ USPHS officers made sure the men would be good workers; they screened the men to ensure that they were young, well built, cooperative, and immune from radical politics.³⁵⁵ For USPHS officers, the presence of disease served as indications of the men's characters. They presumed that men who had venereal disease were weak and immoral, and those who had typhus to be unhygienic and lazy.

Under the newly developed Border Public Health Program, the USPHS exported its public health programs to Mexico, although by the 1940s, both the United States and Mexico legally suppressed prostitution.³⁵⁶ Sister cities implemented the same public health programs and exchanged epidemiological information.³⁵⁷ In El Paso and Ciudad Juárez, officials led intensive campaigns to arrest sex workers. Mexican government officials welcomed the assistance of U.S. health workers. The PASB also provided fellowships to train Mexican public health workers with the USPHS on venereal disease control, installed dispensaries, and distributed educational

³⁵² Bliss, *Compromised Positions*, 16.

³⁵³ Abigail E. Adams and Laura Giraudo, "An Inter-American Problem:" Race, National Security, Onchocerciasis, and the "Secret" Syphilis Experiments of Guatemala's October Revolution (Unpublished article shared by Adams, 2018) 11.

³⁵⁴ Deborah Cohen, *Braceros: Migrant Citizens and Transnational Subjects in the Postwar United States and Mexico* (Chapel Hill and London: The University of North Carolina Press, 2011), 98-100.

³⁵⁵ Ibid.

³⁵⁶ Bliss, *Compromised Positions*, 205.

³⁵⁷ Dr. Jaime Velarde Thomé, "La Oficina Sanitaria Panamericana y la campaña antivenérea internacional en la frontera México Estadounidense," *Boletín de la Oficina Sanitaria Panamericana* 27, No. 10 (octubre de 1948): 898.

information on venereal disease control in Spanish.³⁵⁸ The PASB's El Paso field office enabled the USPHS to gain more direct influence on public health activities across national boundaries.

U.S. military and health professionals' concerns about the spread of venereal disease extended to Panama, Guatemala, Mexico, and Cuba where U.S. troops were stationed during the war. In each location, U.S. Military Surgeons remained concerned that troops were particularly susceptible to venereal disease in Latin American countries. During World War II, a military surgeon located in the Panama Canal Zone complained that Central American governments tolerated prostitution and saw it as a "lucrative business." In these "tropical areas of the world," the surgeon said that soldiers contended with strange and foreign customs that fundamentally challenged Anglo-Saxon and Puritan values.³⁵⁹ The military surgeon implicitly associated the predominantly Catholic religious values and Latin backgrounds with what he viewed as immorality. He added that the economic conditions near military bases made sex work an attractive business in Panama; local populations viewed American soldiers as a "gold mine."³⁶⁰ Since Panama tolerated prostitution and had a registration system, there were a number of brothels that soldiers could visit and, according to the military surgeon, there were "legions of clandestines, in hotels and parks."³⁶¹ The presence of U.S. soldiers also brought new cantinas that "sprang up with fungus-like rapidity around outlying camps and bases."³⁶² Military surgeons viewed the soldiers as victims of local populations and circumstances, and did not acknowledge that their demand for sex workers led to the rise in business.

³⁵⁸ Ibid. M M.F. Haralson, "The Organization and Aims of the Pan American Sanitary Bureau in the Americas and Along the United States-Mexico Border," *Boletín de la Oficina Sanitaria Panamericana* 26, No. 9 (diciembre 1947): 924.

³⁵⁹ The Department included Panama, Costa Rica, Nicaragua, Guatemala, Ecuador, and Peru. See Wesley Cox, "The Prevention of Disease in the United States Army During World War II," The Panama Canal Department, January 1, 1940 to October 1945, Vol. 1, RG 112 Office of the Surgeon General (Army) VD Reports by Command. 726.1: Declassification Review Project 795145 Entry 31, Box 1274.

³⁶⁰ Ibid.

³⁶¹ Ibid.

³⁶² Ibid.

The military's medical department tried to lower rates of venereal disease among the troops. It embarked upon an education campaign for soldiers, provided prophylactic kits, and at the recommendation of USPHS used contact investigation to try to track down people who were the sources of the spread of disease.³⁶³ The local Panamanian venereal disease hospital cooperated with efforts and treated the women for their infections. Yet, U.S. military surgeons complained that commanders failed to do more to address the problem. They claimed that nearly all sex workers in Panama were infected with venereal disease. Nevertheless, the U.S. military contributed to the problem. Although U.S. federal law required the repression of prostitution near military bases, in practice military commanders both tolerated and encouraged troops to visit brothels. In fact, the U.S. military has implemented some forms of regulatory measures in Cuba, Haiti, Nicaragua, Santo Domingo, the Panama Canal Zone, Hawaii, the Philippines, France, Arizona, Texas, Florida, and Guatemala.³⁶⁴ In the postwar era, the U.S. even handed out pamphlets to soldiers with information about brothels located throughout the Panama Canal and Central American region.³⁶⁵ Military commanders often encouraged soldiers to visit brothels to deter the sexual assault of local women. Many commanders also privately assumed a connection between virility and soldierly prowess.

In Guatemala, the U.S. military also implemented methods to control venereal disease. The military command in Guatemala was under the umbrella of the Panama Canal Department and followed similar guidelines in seeking to limit the spread of infectious disease. The military with the cooperation of local authorities began inspections of cantinas, restaurants, dance

³⁶³ Ibid.

³⁶⁴ Briggs, *Reproducing Empire*, 30. Mary Louise Roberts, *What Soldiers Do: Sex and the American GI in World War II France* (Chicago and London: University of Chicago Press, 2013). Beth Bailey and David Farber, "Hotel Street: Prostitution and Politics of War," *Radical History Review*, 52 (January 1992): 54-77.

³⁶⁵ Lesley Gill, *The School of the Americas: Military Training and Political Violence in the Americas*, (Durham and London: Duke University Press, 2004).

halls.³⁶⁶ In Guatemala, the military managed to convince the government to expand Guatemala's regulation system. Ubico's desire to please the U.S. government and military officials granted them more leeway to implement programs. At the urging of the U.S. Army, Ubico passed laws requiring that not just women accused of "bad conduct" but also waitresses, barmaids, and women who worked in dance halls regularly report for gynecological inspections.³⁶⁷ This law implied presumptions about the morality of the working class women who most often labored in these establishments.

The Guatemalan population vociferously protested the implementation of this law because it subjected more women to gynecological scrutiny by male medical professionals.³⁶⁸ During this time, many in Guatemalan society continued to see vaginal inspections as a form of punishment for women who had committed sexual transgressions.³⁶⁹ Women who submitted to these inspections often experienced shame and embarrassment. These laws show the burdens that women had to endure in order to protect the health of U.S. white male soldiers. As the United States sought to develop health and sanitation programs with its southern neighbors during the war, many of these programs adversely affected women and marginalized populations in Latin American societies. These programs were not aimed not only at promoting health; they also sought to increase the surveillance and control of people deemed as threats to hemispheric defense.

In a newspaper article, a Guatemalan doctor named Epaminondas Quintana, who had received an IIAA fellowship to study health education at the University of California, Berkeley

³⁶⁶ "Extract of Professional History of Internal Medicine in World War II, January 1940 to October 1945, the Panama Canal Department, Vol. 1, Special Disease Problems. RG 112 Office of the Surgeon General (Army) VD Reports by Command. 726.1: Declassification Review Project 795145 Entry 31, Box 1274.

³⁶⁷ "Examen profiláctico de las meseras de restaurantes," *El Imparcial*, 6 e julio, 1945.

³⁶⁸ Ibid.

³⁶⁹ Forster, "Violent and Violated Women: Justice and Gender in Rural Guatemala," 69.

challenged the notion that local women and governments victimized U.S. white soldiers stationed in their countries. Quintana's time in the United States did not translate into support for U.S. soldiers who he viewed as harming his compatriots. He ironically commented that the "splendidness of the men in uniform" had brought about surge of venereal disease in the country.³⁷⁰ Sex workers from across the Central American region had flocked to the areas surrounding where U.S. soldiers were stationed in Guatemala City and in San José near the Pacific coastline. While before Guatemalan doctors had estimated that 8 to 10 percent of the population had venereal disease, now Quintana said that this number had reached far higher numbers especially among the youth.

The U.S. Army established dispensaries that instituted rapid treatment methods like those in the United States during the war but they were mainly to serve the needs of U.S. soldiers. The IIAA sought to address the problem of venereal disease in the country by establishing health clinics in Guatemala City and in rural areas. Drawing from his studies in the United States, Quintana also participated in a propaganda campaign to raise awareness about venereal disease and the need for treatment. In 1945, the IIAA provided penicillin to treat patients for venereal disease, but this medicine still remained in short supply at this time.³⁷¹ Yet, given the rise in venereal disease, these new health clinics were not sufficient to meet Guatemalans' health needs.

A Key Experimental Site

Imagining Latin America as a land of immorality and weak government regulations, U.S. health professionals and researchers also saw it as a place where the ethics and laws that impeded

³⁷⁰ Epaminondas Quintana, "Situación Actual del Problema Venéreo en la República," *El Imparcial*, 25 de abril de 1947, 3.

³⁷¹ Monthly Report, No. 4—Sanidad Municipal, April 1945. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, Dates and Box, TKTK 1. NARA College Park, Maryland.

their research in the United States did not apply. Beginning in World War II, the Guatemala office became the most active PASB research site. Ubico's efforts to accommodate the U.S. military and institutions operating in the country provided a welcome environment for research on vulnerable populations. Furthermore, Guatemalan doctors, many of whom had received fellowships to study at U.S. universities from the Rockefeller Foundation or the IIAA, helped to facilitate and participate in research studies. A PASB officer who wrote about the research in Guatemala on typhus, onchocerciasis, venereal disease, malaria, and malnutrition stated that these projects "may be considered more as investigative or research in nature than as definite public health programs."³⁷² The article described the research underway in Guatemala as "far reaching," suggesting that it was not developed to help just Guatemala but rather were deemed applicable to other countries and regions of the world.³⁷³ USPHS funded several of these studies on malaria, onchocerciasis, venereal disease, and on malnutrition.³⁷⁴

The rise of research on human subjects and animals in Guatemala followed trends in the United States. Before World War II, the federal government had provided little financial support for scientific research. In 1941, responding to the needs of the war effort and competition with countries including Japan and Germany, President Franklin Delano Roosevelt established the Office of Scientific Research and Development (OSRD). It had a Committee on Medical Research (CMR) that oversaw experiments on human and animal subjects. The U.S. government's centralization and increased funding for research led to an expansion of collaborative studies between government and private researchers in academia and industry in

³⁷² Haralson, "The Organization and Aims of the Pan American Sanitary Bureau in the Americas and Along the United States-Mexico Border," 923.

³⁷³ Ibid, 922.

³⁷⁴ Soper, "Informe sobre el programa de la Oficina Panamericana," 985.

areas that benefitted the U.S. military and national security.³⁷⁵ These cooperative studies, in which scientists at universities directed physicians on the use of drugs and treatments, also allowed for a vast rise in the number of so-called “patients” used in studies.³⁷⁶

As the U.S. government centralized research and funding during the war, it also drastically expanded the power of the USPHS to direct medical research. In 1944, in response to the advocacy of Surgeon General Thomas Parran, Congress gave the USPHS the right to make grants to universities, hospitals, laboratories, and individual researchers, providing the framework for what would become the postwar National Institute of Health (NIH) extramural program.³⁷⁷ Following the war, the NIH took over the OSRD grants program. Due to the creation of this grants program, the NIH became the foremost biomedical research institution in the United States. By the late 1960s, the NIH gave annual appropriations of more than one billion.³⁷⁸

During World War II, USPHS researchers and the military conducted a number of studies on human subjects. U.S. researchers used populations of “convenience” who included soldiers, mental health patients, and children in orphanages in medical research.³⁷⁹ The people with the least amount of power to fight back against powerful U.S. institutions and researchers were most often rendered the subjects of experimentation. The USPHS used U.S. sailors in a study on penicillin and streptomycin to treat tuberculosis.³⁸⁰ The streptomycin studies show what USPHS researchers deemed acceptable ethical practice during World war II. USPHS gave one group of

³⁷⁵ Baader, Gerhard, et. al. “Pathways to Human Experimentation, 1933-1945: Germany, Japan, and the United States,” *Osiris* 20 (2005): 205-31. Harry M. Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1909* (Cambridge: Cambridge University Press, 1997): 98-99.

³⁷⁶ Marks, *The Progress of Experiment*, 99.

³⁷⁷ Daniel M. Fox, “The Politics of the NIH Extramural Program, 1937=1950,” *The Journal of the History of Medicine and Allied Sciences* 42, No. 4 (1987): 454.

³⁷⁸ Advisory Committee on Human Radiation Experiments – Final Report, (Washington, DC: U.S. Government Printing Office, 1995).

³⁷⁹ Allen M. Hornblum, *Acres of Skin: Human Experiments at Holmesburg Prison*, (New York: Routledge, 1999). David J. and Sheila M. Rothman, *The Willowbrook Wars: Bringing the Mentally Disabled into the Community* (New York: Harper & Row, 1984). Lederer, “Pathways to Human Experimentation, 1933-1945,” 224.

³⁸⁰ *Ibid*, 109, 121.

patients the drug streptomycin to treat tuberculosis, while withholding treatment from members of a control group, despite recognition in a previous study at the Veterans Administration that this protocol would be controversial.³⁸¹ USPHS officers tried to avoid controversy by not telling people in the control group that they were part of the study. Many other experiments were conducted during World War II and continuing into the Cold War. The U.S. military subjected unknowing soldiers to mustard gas and nuclear radiation.³⁸² Manhattan Project doctors injected hospital patients, pregnant women, and disabled children with plutonium. On the Marshall Islands, people were subjected to radiation from the U.S. military's testing of atomic bombs.³⁸³

This may seem egregious, but U.S. scientists had a long history of experimenting on vulnerable people. In the nineteenth century, J. Marion Sims, the so-called “father of gynecology,” developed the speculum through experiments he conducted on enslaved women.³⁸⁴ In 1916, University of Michigan Researcher Udo Wile published a study describing his “dental drill” experiments on patients at a mental institution. He sought to prove the effect of syphilis on the brain through this drilling.³⁸⁵ Before World War II, U.S. researchers had few formal guidelines governing their use of human subjects in medical research. In 1916, the American Medical Association had almost amended its code of ethics to require that researchers obtain informed consent from human subjects, but received pushback from leading scientists in the field.³⁸⁶ Only in 1946 following World War II would the AMA include informed consent in its code.

³⁸¹ Ibid, 122-3.

³⁸² Susan. L. Smith, *Toxic Exposures: Mustard Gas and the Health Consequences of World War II in the United States* (New Brunswick: Rutgers University Press, 2017).

³⁸³ Eileen Welsome, *The Plutonium Files: America's Secret Medical Experiments in the Cold War* (New York: The Dial Press, 1999).

³⁸⁴ Durrenda Ojanuga, “Medical Ethics of the ‘Father of Gynecology’” *Journal of Medical Ethics* 19 (1993): 28-31.

³⁸⁵ Lederer, *Subjected to Science*, 95-97.

³⁸⁶ Ibid., 97-99.

Nevertheless, Historian Susan Lederer has shown that U.S. researchers have never operated in an ethical vacuum. They always understood what the medical field deemed best practices. Before conducting human experimentation, researchers were expected to do prior animal studies and self-experimentation.³⁸⁷ Following World War II, the passage of the 1947 Nuremberg Code gave U.S. researchers little pause. As Bioethicist Jay Katz has observed, U.S. doctors perceived the Nuremberg Code as a “code for barbarians” because it was developed in response to Nazi atrocities.³⁸⁸ Still, scientists continued to debate what constituted ethical practices. During the Atomic Energy Commission’s Human Radiation Experiments, scientists considered risks to the individual, even though they ultimately decided that national security concerns outweighed those risks.³⁸⁹ Although mid-century researchers often questioned the ethical implications of their research, they appeared less concerned with guarding the wellbeing of marginalized members of society, including African Americans, prisoners, soldiers, and mental health patients. National interests took precedence over the wellbeing of individuals, especially ones viewed as being of lesser importance to the nation.

PASB Director Hugh Cumming had a history of approving non-consensual experimental studies on vulnerable populations. In the 1920s, soon after becoming Surgeon General, Cumming placed a leprosy hospital in Carville, Louisiana under the USPHS, which became an established site of research.³⁹⁰ Later during his tenure as Surgeon General and while simultaneously serving as the Bureau’s Director, Cumming approved the USPHS syphilis study

³⁸⁷ Ibid. Lederer, “Pathways to Human Experimentation, 1933-1945,” 225.

³⁸⁸ Jay Katz, “The Consent Principle of the Nuremberg Code: Its Significance Then and Now, in *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*, eds. George J. Annas and Michael A. Grodin (Cambridge: Oxford University Press, 1992): 228

³⁸⁹ Advisory Committee on Human Radiation Experiments – Final Report (Washington, DC: U.S. Government Printing Office, 1995).

³⁹⁰ Michelle T. Moran, *Colonizing Leprosy: Imperialism and the Politics of Public Health in the United States*, (Chapel Hill and London: University of North Carolina Press, 2007): 129-130.

in Tuskegee, Alabama. This study highlights factors that led U.S. government researchers to choose sites and populations upon which to study. Macon County, where the study was conducted, offered an ideal site for the study, according to researchers. The county was more than 80 percent black and poor. The Tuskegee Institute, which USPHS officers deemed to be the “best” of historically black educational institutions, assisted with the study.³⁹¹

Scholars, activists, and journalists have heavily debated the intentions of the black health professionals who participated in the study. These African American health professionals have been misrepresented as ignorant of the study or “race traitors” who sought their own professional advancement at the expense of poor African American populations.³⁹² In particular, popular discourse has focused on Nurse Eunice Rivers, who was responsible for following up with the men in the study. In the 1997 HBO rendition of *Miss Evers’ Boys*, a film focusing on Nurse Rivers, the filmmakers portrayed her deception of the men in a sexualized manner.³⁹³ As shown with U.S researchers’ perceptions of Guatemala, some have viewed sexuality as indicative of loose morals in the realm of research. Yet, African American health professionals, who were also a different class than the men in Macon County, were committed to scientific improvement and research and appeared to see their participation in the study as potentially benefitting the African American population and building the reputation of the Tuskegee Institute. They made these decisions according to the limited resources offered to them as African American health professionals given stark racial inequality in the United States.³⁹⁴

Guatemalan physicians who collaborated with U.S. researchers on experiments had similar intentions to uplift their nation. They were interested in the research and directly

³⁹¹ Reverby, *Examining Tuskegee*, 29.

³⁹² *Ibid.*, 152.

³⁹³ *Ibid.*, 210-15.

³⁹⁴ *Ibid.*, 152-166, 178-182.

participated in it. Many of these physicians worked under the Ubico government and later continued to serve in government positions during the revolutionary period. Yet, many of the doctors were also key players in Ubico's overthrow. In fact, doctors who directly participated in the Revolution, including Minister of Health Julio Bianchi, were instrumental in facilitating experiments by foreign researchers, as will be discussed further below. Their aspirations for the nation, and their desire to advance medicine and technology in their country, influenced their decisions.

Guatemalan doctors' interest in uplift was apparent in their support of the PASB Bureau's efforts to control and study onchocerciasis, a non-fatal skin and eye disease and a major cause of blindness in the country. Onchocerciasis develops from a parasitic filarial worm transmitted by black flies. It had been common on coffee plantations and was construed as an indigenous disease.³⁹⁵ Known as "Robles disease," it had been discovered in 1915 by a Guatemalan doctor named Rofolfo Robles Valderde had discovered the disease in the Americas and observed the parasitology and its transmission through black flies. Robles' discovery has been a source of longstanding pride to the Guatemalan medical community.³⁹⁶

PASB health officials and military doctors grew concerned about onchocerciasis, a skin and eye disease transmitted by a parasitic worm and carried by black flies, during the construction of the Pan American Highway. One of the PASB's main efforts during the war was supporting efforts to construct the Pan American Highway that connected the United States to Panama and helped to improve readiness for a possible invasion. The highway ran through communities that before had little contact with the outside world. Yet, its development also opened new problems for health officers trying to contain the spread of disease in the region.

³⁹⁵ Ibid.

³⁹⁶ José Barnoya García, *La Vida, El Sueño y la Muerte*, (Guatemala: Librerías Artemis Edinter, 2006): 23-25.

Tourists could now travel more frequently along the highway. In *The Voice*, a newsletter of the English-Speaking Protestant Church in Guatemala City, one young American woman told how she and her husband drove their five-horsepower DW motorcycles over the Pan American Highway on their return home to the United States for Christmas.³⁹⁷ She said they stopped in an indigenous village with a “welcome reserved for the Pied Piper of Hamelin,” from the children who chased them as they rode through the village on their bikes.

Regardless of how much fun this was for American tourists, U.S. government officials and Latin American health officials feared that heightened contact with communities along the highway would spread diseases across international borders, ultimately rendering the region more vulnerable.³⁹⁸ To contain the spread of disease, the PASB spearheaded surveys of populations in the areas with the assistance of local public health departments, and sought to directly improve the sanitation of towns and villages along the route. The U.S. government did not try to implement any limitations on the roving *gringos*. Like U.S. soldiers, health officials presumed these tourists were vulnerable to infections but not the carriers of disease. They were not subjected to health surveys and inspections.

Health professionals were particularly worried about the spread of onchocerciasis. In 1947, the USPHS commissioned an entomologist named Herbert Dalmat to lead a new research program on onchocerciasis in coordination with the PASB field site in Guatemala. The Laboratory of Tropical Diseases of the National Institutes of Health (NIH) funded the investigations.³⁹⁹ Colleagues and friends described Dalmat, known as “Herb,” as an

³⁹⁷ Billie Young, “We Followed the Highway Home,” *The Voice of the Union Church of Guatemala* III, Num. 3 (March 1950): 5. RAC, Nelson Rockefeller Papers, RG 4, Box 37.

³⁹⁸ Soper, “The Pioneer International Health Organization,” 912.

³⁹⁹ Colvin L. Gibson and Herbert T. Dalmat, “Three New Potential Intermediate Hosts of Human Onchocerciasis in Guatemala,” *American Journal of Tropical Medicine and Hygiene* Vol. 1, no. 5 (September 1953): 848-851. Herbert T. Dalmat, “Ecology of Simuliid Vectors of Onchocerciasis in Guatemala,” *American Midland Naturalist* 52, No. 1 (July 1954): 191-2.

“enthusiastic” researcher and “champion of the underprivileged people of the third world.”⁴⁰⁰

Guatemalan and U.S. scientists assisted him in his investigations. Dalmat originally began studying tropical diseases in the U.S. Army Sanitary Corps during the war and then in Natal, Brazil where he tried to control mosquitos known to spread malaria.⁴⁰¹ In Guatemala, he and his colleague Colvin Gibson had a field office in Yepocapa, located in the department of Chimaltenango in the central highlands where the disease was endemic.⁴⁰² The town contained approximately 2200 inhabitants, the majority of whom were indigenous.

Betty Adams, a Guatemalan of German descent and the wife of Anthropologist Richard Adams, recalled being “bothered” by experiments that the scientists conducted at the Yepocapa field office.⁴⁰³ A young woman in her early twenties at the time, Adams worked as a secretary for Dalmat and Colvin Gibson. Although just an assistant who did not know the details of the research, Adams described seeing the researchers use male “volunteers” who she said were already infected with onchocerciasis and were indigenous laborers. She said the researchers treated the men like animals, placing them in cages for several hours where flies infected with onchocerciasis would bite them. For compensation, the men received a daily wage for an agricultural laborer, hardly enough money upon which to survive. Since the onchocerciasis had already severely harmed the men’s vision, they had limited opportunities to earn a living aside from serving subjects in experiments. The researchers may have been able to convince the men who had special needs to participate in their study due to the promises of compensation. Yet, since many of the laborers would likely not have spoken Spanish or English, it is likely that the

⁴⁰⁰ John B. Davies, “A Tribute to Herber T. Dalmat,” *British Simuliid Group Bulletin*. 26 (July 2006): 14.

⁴⁰¹ Herbert Dalmat, *Mosquito News* (June 1961): 165.

⁴⁰² Dalmat, “Ecology of Simuliid Vectors of Onchocerciasis in Guatemala,” 176.

⁴⁰³ Interview with Betty Adams, Panajachel, Guatemala, August 13, 2015.

researchers did not completely explain their studies to the men. Therefore, the researchers probably did not obtain informed consent from the men to participate in their research.

The scientists' papers corroborate Adams' observation. Although Dalmat and Gibson made no mention of placing men in cages, likely because they knew that this would have been controversial, they did describe an experiment in which black flies fed upon human volunteers who had onchocerciasis.⁴⁰⁴ The experiment was to determine whether the humans could induce a "normal infection" in various species of black flies.⁴⁰⁵ In this case, humans were viewed as the vectors and not the insects. Following the experiment, the scientists dissected the flies. Although Dalmat and Gibson gave little explanation as to why they used cages, they likely made it easier to contain and specify which black flies had been feeding upon the "volunteers." Equipped with this information, the scientists planned to conduct epidemiological control focusing on containing black flies most prone to infection. Yet, health professionals did not manage to eradicate onchocerciasis until decades later. Overall the studies brought little benefit to the country and to the people who participated in this research.⁴⁰⁶

PASB onchocerciasis researchers also had connections to U.S. military researchers conducting studies in Guatemala and Panama. Sites of medical research have often arisen in countries where U.S. soldiers have been stationed at military bases. Researchers from Gorgas Memorial Hospital, the U.S. Army hospital in Panama City, collected "clinical material" relating to onchocerciasis from PASB researchers. That material included blind eyes from autopsies of the Guatemalans used in the onchocerciasis studies.⁴⁰⁷ The researchers failed to mention whether

⁴⁰⁴ Gibson and Dalmat, "Three New Potential Intermediate Hosts of Human Onchocerciasis in Guatemala," 191-2.

⁴⁰⁵ Ibid, 848-9.

⁴⁰⁶ "Guatemala is the fourth country in the world to eliminate onchocerciasis, known as 'river blindness,'" Pan American Health Organization, September 26, 2016:

https://www.paho.org/hq/index.php?option=com_content&view=article&id=12520&Itemid=135&lang=pt.

⁴⁰⁷ Correspondence between Major Golden and Dr. Yaeger," Monthly Report, May 25, 1945. IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box 1, NARA College Park, Maryland.

they gained consent to collect this “material” from Guatemalan bodies. The researchers sent the “material” to a laboratory in Washington, DC for further research.⁴⁰⁸ In the syphilis study in Tuskegee, Alabama, USPHS researchers had to gain consent from family members for autopsies because of state laws. To ensure access to the autopsies, USPHS researchers provided money for the families to bury the men.⁴⁰⁹ Lederer has said that the researchers viewed the men as “cadavers” rather than humans.⁴¹⁰ As researchers used coercive tactics in Alabama, chances are they did not ask Guatemalans or their family members, given the lack of consent they obtained in other studies.

U.S. Army researchers capitalized upon the networks that had been established previously in Guatemala for research. They had close contact with Guatemalan researchers who had previously received fellowships and collaborated with the Rockefeller Foundation and the IIAA. Those researchers included Dr. Julio Herrera and Dr. Enrique Padilla who both had knowledge of and collaborated on the onchocerciasis research.⁴¹¹ U.S. military researchers from Gorgas Hospital conducted further studies in Guatemala with the help of the United Fruit Company. One researcher conducted a study on tropical ulcers. He secured “clinical material” to study tropical ulcers from the United Fruit Hospital located in Tiquisate near the Pacific Coast.⁴¹² The researchers also collected ticks and other insects to try to induce the ulcers in animal studies.

This medical research network in Guatemala also proved useful in PASB and IIAA efforts to contain typhus and conduct studies on the use of DDT in the prevention of disease. Typhus had long been a problem in Guatemala and became a focus in both PASB and IIAA

⁴⁰⁸ Ibid.

⁴⁰⁹ Reverby, *Examining Tuskegee*, 53.

⁴¹⁰ Susan Lederer, “Rethinking the Tuskegee Syphilis Study: Nurse Rivers, Silence, and the Meaning of Treatment,” in *Tuskegee’s Truths: Rethinking the Tuskegee Syphilis Study*, ed. Susan M. Reverby (Chapel Hill and London: University of North Carolina Press, 2000): 266.

⁴¹¹ Ibid.

⁴¹² Ibid.

health and sanitation efforts in the country. In 1944, FBI Director J. Edgar Hoover visited Guatemala and reported that typhus was endemic in the Guatemalan highlands where the indigenous population was concentrated. “The straw mats, straw roofs, and direct floors of the Indian huts make excellent breeding places for lice which carry this disease,” Hoover wrote. Reflecting the racism U.S. and Guatemalan researchers commonly showed towards Mayans, Hoover blamed the spread of disease on indigenous cultural and domestic practices rather than on their poverty.⁴¹³ In 1944, Dr. Herrera, then Minister of Public Health and a former Rockefeller Foundation fellow at Johns Hopkins University, had also visited the *Asilo de Alienados*, the mental health hospital in the capital where he reported on an epidemic of typhus that had resulted in the death of approximately 20 percent of all infected inmates.⁴¹⁴ Herrera said he could not obtain accurate numbers from the staff at the psychiatric institution despite requests from the Guatemalan public health department.

The Guatemalan public health department with the assistance of the IIAA quarantined the psychiatric institution, military hospital, and the prison. They deloused the patients, and vaccinated the technical administrative personnel in the psychiatric institution, the penitentiary, the general hospital, military hospital, and the Casa del Niño, a daycare center for children.⁴¹⁵ The health workers also collected “specimens” from autopsies and sent them for examination at the U.S. Army Medical Museum.⁴¹⁶ Once again, it is not clear whether the researchers gained consent for these autopsies. U.S. and Guatemalan personnel also received vaccinations along with U.S. military personnel stationed in Guatemala City. Notably the health workers did not

⁴¹³ J. Edgar Hoover, Federal Bureau of Investigation, “Revolutionary Activities in Guatemala,” May 30, 1944. Records of the Department of State, 1280, Microfilm Collection 12, 1940-1944, NARA College Park, Maryland.

⁴¹⁴ Report for the Month of April 1944, May 15, 1944, IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, Box 1, NARA College Park, Maryland.

⁴¹⁵ Ibid. Julio Roberto Herrera, “Informe sobre tifo exantemático ocurrido en la ciudad de Guatemala durante el mes de abril de 1944,” *Boletín de la Oficina Sanitaria*, 20, no. 7 (julio de 1941): 607.

⁴¹⁶ Ibid., 607.

appear to vaccinate the patients. The IIAA and public health department apparently did not value the patients' lives enough to try to prevent future disease.

Researchers also may not have vaccinated the patients because they wanted to use this population to conduct experiments. IIAA and Guatemalan officials planned to experiment with DDT and its potential to lower the spread of typhus, malaria, and onchocerciasis.⁴¹⁷ During the war, the discovery of DDT used to control the fleas and lice that transmitted typhus promised newfound possibilities to control the disease.⁴¹⁸ Not a single soldier died from DDT, and the insecticide had not yet been recognized for having toxic effects on humans. Although little information remains about these experiments, U.S. and Guatemalan officials applied DDT powder to psychiatric patients to understand its effects in eliminating the disease. Not until the 1960s with the publishing of Rachel Carson's *Silent Spring* would the detrimental effects of DDT become more widely recognized.⁴¹⁹ In fact, health officers at the time viewed the delousing and use of insecticide powders as more humane than stripping people's clothes and forcing them to bathe, as PHS had done with Mexicans on the U.S.-Mexico border.⁴²⁰ Still, no evidence exists indicating that the researchers received consent from people in the psychiatric institution to apply DDT.

The Guatemalan government also enthusiastically agreed to work with the PASB on a program to study the results of a large scale vaccination campaign for typhus in the Guatemalan highlands.⁴²¹ Guatemalan officials had encountered difficulties containing the spread of typhus during World War II. The disease was concentrated in particular in the highland region where the

⁴¹⁷ Report for the Month of April 1944.

⁴¹⁸ Soper, "The Pioneer International Health Organization," 914.

⁴¹⁹ Rachel Carson, *Silent Spring*, (Houghton Mifflin Company, 1962).

⁴²⁰ Fred Soper, *Ventures in World Health: The Memoirs of Fred Soper*, edited by John Duffy (Washington, DC: Pan American Health Organization, 1977): v.

⁴²¹ Editorial, "La simplicidad campaña contra el tifo," *Boletín de la Oficina Sanitaria Panamericana* 25, No. 3 (marzo 1946): 265.

majority of the indigenous population lived.⁴²² PASB officials and Guatemalan health officials planned to delouse the population with DDT. It remains unclear whether they gained consent from the Mayan communities and people whom they sprayed.⁴²³ Although photographs in health bulletins suggest that people accepted the campaign, it remains unclear if they understood the effects of DDT. Beginning in 1945, the campaign continued for three years. In 1947, President Juan José Arévalo, the president of a new and revolutionary Guatemala, referred to the typhus campaign as “focusing on the indigenous race, because of the misery and lamentable hygiene in which they live.”⁴²⁴ The PASB did not confine their research on the effects of typhus vaccinations to Guatemala. In Colombia, the Typhus Committee experimented with vaccines and DDT.⁴²⁵ The Committee also exchanged information with the Mexican Typhus Committee.

By 1946, the PASB with the assistance of IIAA and the Guatemalan public health departments, had spearheaded the vaccination of one million people in Guatemala against typhus in both rural and urban areas.⁴²⁶ Historian David Carey has reported that highland populations viewed the typhus vaccinations favorably. In contrast to previous governments, officials working under Arévalo made efforts to educate Mayan groups on the campaign using Mayan languages. Some Kachchikel communities claimed that “Arévalo” himself actually came to their homes to talk about the typhus campaigns.⁴²⁷ Indigenous Guatemalans viewed this initiative as evidence of the commitment of the revolutionary government to uplifting their standard of living.⁴²⁸ Other

⁴²² Dr. Enrique Padilla B, “Las Rickettsiasis en Guatemala,” *Boletín de la Oficina Sanitaria Panamericana*, 25, No. 6 (julio de 1948): 519-524.

⁴²³ Soper, “The Pioneer International Health Organization,” 914. Haralson, “The Organization and Aims of the Pan American Sanitary Bureau in the Americas and along the United States Border,” 923.

⁴²⁴ David Carey, Jr. *Our Elders Teach Us*, 127.

⁴²⁵ *Ibid.*, 266.

⁴²⁶ Cueto, *The Value of Health*, 63.

⁴²⁷ Carey, *Our Elders Teach Us*, 127-9.

⁴²⁸ *Ibid.*, 127.

activities carried out by the PASB did not receive as favorable responses from indigenous populations.

During the Revolution, while research was underway on venereal disease, typhus, and onchocerciasis, U.S. and Guatemalan scientists and officials were also building a new nutrition institute that would grow into a world research center during the Cold War. U.S. institutions including the Rockefeller Foundation had come to believe that malnutrition was a key problem of development in countries in the “Third World” and also served as a catalyst for the spread of communism.⁴²⁹ In the interwar years and continuing into World War II, the Rockefeller Foundation had used Mexico and China to study malnutrition.⁴³⁰ In the post-World War II era, Guatemala’s Revolution offered an opportunity to build a new nutrition institute in the country because Guatemalan health professionals sought to bring foreign researchers and money to their country to spur development. Dr. Julio Bianchi, the Guatemalan Minister of Public Health (from 1945 to 1947) invited nutritionist Robert Harris of the Massachusetts Institute of Technology (MIT) to Guatemala and proposed the creation of a nutrition institute in the capital.⁴³¹ Harris had worked with the Rockefeller Foundation on nutrition research in Mexico during World War II.⁴³² The shared interest of Bianchi and Harris in solving malnutrition problems led to the institute’s creation. U.S. government officials viewed research on malnutrition as a key priority of the Cold War.

⁴²⁹ Nicholas Cullather, *The Hungry World: America’s Cold War Battle Against Poverty in Asia* (Cambridge: Harvard University Press, 2013): 3-4.

⁴³⁰ Ibid.

⁴³¹ Nevin Scrimshaw, “The Origin and Development of INCAP, *Food and Nutrition Bulletin*” 31, No. 1 (March 2010): 4. Corinne A. Pernet, “Between Entanglements and Dependencies: Food, Nutrition, and National Development at the Central American Institute of Nutrition (INCAP) in *International Organizations and Development, 1945-1990*, eds. Marc Frey, Sonke Kunkel, and Corinna R. Unger, (Palgrave MacMillan, 2014): 107.

⁴³² Nicholas Cullather, *The Hungry World: Americas Cold War Battle Against Poverty in Asia* (Cambridge: Harvard University Press, 2013).

In 1949, U.S. and Latin American scientists celebrated the inauguration of the Institute of Nutrition of Central America and Panama (INCAP) on the day of Guatemalan independence, which was not a coincidence.⁴³³ The organization's mission was to research nutrition in the isthmus region and develop solutions to malnutrition that would help Central American governments to implement.⁴³⁴ Latin American professionals who worked for INCAP continued to believe that the organization would lead to Central American independence from the United States and food sovereignty. Yet, funding and support for the development of the new institution came primarily from U.S. organizations. The new nutrition institute operated under the PASB administration. W.K. Kellogg Funding gave the majority funding for the center. Kellogg also provided fellowships to Latin Americans to study at U.S. universities so they could then return to work at INCAP.

Dr. William Darby, one of INCAP's scientific advisory committee members and a professor at Vanderbilt University, came to Guatemala to oversee the malnutrition program's development. Around the time he was in Guatemala, he was conducting studies at the Vanderbilt prenatal clinic in Tennessee in which he served iron laced with radioactive substances to approximately 830-850 unsuspecting pregnant women.⁴³⁵ Darby told the women that he was serving them a "vitamin cocktail." His study was just one of the human radiation experiments that began in the 1940s. That Darby served as an adviser for the nutrition institution suggests the ethical understandings concerning human subjects that circulated at the new institute.

The early establishment of the PASB field office in Guatemala City and the creation of the nutrition institute made the country a hub for research. U.S. and Latin American scientists

⁴³³ Ibid.

⁴³⁴ Dr. Nevim Scrimshaw, "INCAP's First Decade," retrieved on May 8, 2018 on the website of the Institute of Nutrition of Central America and Panama: <http://www.incap.int/index.php/en/about-incap/historical-review/incaps-complete-history>.

⁴³⁵ David J. Rothman, "The Fielding Garrison Lecture: Serving Clio and Client: The Historian as Expert Witness," *Bulletin of the History of Medicine* 77 (2003): 31-2. Eileen Welsome, *The Plutonium Files*.

studying malnutrition came to view Guatemala as a “Third World Model” to study the affliction. They believed that Guatemala’s indigenous and poor populations were representative of other countries in Latin America and Asia. The PASB field site in Guatemala also continued to grow despite strained relations between the United States and Guatemala during the late 1940s and early 1950s. Although U.S. aid to Guatemala decreased after the coup that President Jacobo Arbenz implemented agrarian reform and legalized the communist party, the field site remained active.⁴³⁶ The Kellogg Foundation continued to provide funding to the nutrition institute. The fact that the PASB operated as both an international health and sanitation organization and a scientific research institution gave U.S. researchers greater leeway to continue their work in the country.

A Colonial Home in Guatemala

As the PASB field site and the IIAA *Servicio* performed medical experiments and public health campaigns, U.S. researchers and their families built an American community in Guatemala. They organized an English-speaking Protestant Church, an American School that provided bilingual classes, a Brownies club, plays, charity events, a library and community center. These networks sustained researchers and their family members during their temporary stays in Guatemala, creating the pleasures of an American home in a foreign land. By establishing these ties, researchers and their families formed networks that helped to cement Guatemala’s role as a laboratory for medical research. They built some relationships with Guatemalan doctors and researchers who collaborated in their programs. Yet, in transplanting an American community to Guatemala, they also segregated themselves from the local culture and

⁴³⁶ Piero Gleijeses, *Shattered Hope: The Guatemalan Revolution and the United States, 1944-1954* (Princeton: Princeton University Press, 1991).

the populations upon which they conducted their research. This community enabled researchers to gain greater distance from the subjects of their campaigns and research and also helped to convince them of the humanitarian nature of their work.

Even in the main central plaza of Guatemala City, the heart of the capital's cultural and community life, the American research community constructed an oasis. The Union Church in Guatemala City had a loyal following that included transient populations of U.S. researchers, diplomats, teachers, corporate leaders, and their families.⁴³⁷ Located near the presidential palace and government administration center, the church contained many members who worked with Pan American institutions, including the PASB, IIAA, the Inter-American Educational Foundation, and the Agricultural Institute.⁴³⁸ As an English-speaking Protestant church, it offered members a chance to socialize and practice their faith in their own language. Regular attendees included the family of Nevin Scrimshaw, the director of the new nutrition institute. His wife and daughter were avid Brownies members.⁴³⁹ Colvin Gibson, the onchocerciasis researcher on assignment with the USPHS, formed part of the church administration. His wife, Ethel, made guest contralto soloist appearances in the church choir.⁴⁴⁰

When church members returned to the United States, they continued to receive copies of the church newsletter, *The Voice*, and sent updates about their lives. The fact that the American scientists and their family members stayed abreast of developments in the church suggests the strength of their community in Guatemala. In 1952, William McNally, who served as the PASB

⁴³⁷ At the time there were approximately thirty union Protestant churches outside of the United States, and about eight or nine in Latin America, including several in Brazil, Peru, Chile, Mexico, and the Canal Zone.

⁴³⁸ "The Proposed New Union Church of Guatemala," Guatemala, City, 4-5. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290. Memorandum from Arthur W. Packard to Vera Goeller, "Letter of Charles T. Holman, May 26, 1948. Nelson Rockefeller Records, RG 4, Box 37, Folder, 290.

⁴³⁹ "The Voice of the Union Church of Guatemala" III, No. 2 (February 1952): 3. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

⁴⁴⁰ "The Voice of the Union Church of Guatemala" III, Num. 1 (January 1952): 7. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

Director for Central America during the time that the venereal disease experiments were underway and also oversaw typhus research in Guatemala, wrote in the newsletter that he often thought of the church community. He had begun his Master's in Public Health at the University of Pittsburgh, where USPHS Surgeon General Parran had recently established a public health school.⁴⁴¹ Other members wrote about their feelings of "homesickness" and nostalgia for Guatemala.⁴⁴² Since the American community had little ties to the country itself, it appears that what McNally really missed were his researcher friends. Although the PASB and IIAA had competed for funding, their employees fraternized in the church, suggesting the close connections between these institutions. It served as a key instrument establishing ties among the U.S. research community in Guatemala.

As scientists and medical doctors helped to promote U.S. intellectual leadership in Central America, the Union Church viewed its role as advocating for American culture and science through the Protestant faith. The church's motto was that it, "seeks to make religion as intelligent as science, as appealing as art, as vital as the day's and as inspiring as love."⁴⁴³ The Voice repeatedly stressed the important role of the Union Church in demonstrating the "vigor of the Protestant faith" in a Catholic country.⁴⁴⁴ Newsletter articles said it was vital that church members practice their faith with "dignity and beauty," as part of their efforts to build support for the Protestant Church in Guatemala.⁴⁴⁵ The Church also saw as its role to help guide the behavior of the English-speaking community, which church leaders warned "may easily become

⁴⁴¹ Ibid., 4.

⁴⁴² Ibid., 6.

⁴⁴³ "The Voice of the Union Church of Guatemala," I, Num. 3 (March 1950): 1. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

⁴⁴⁴ "The Voice of the Union Church of Guatemala," III, Num. 2 (February 1952): 1. "The Voice of the Union Church," Vol. III, Num. 1 (January 1952): 4. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

⁴⁴⁵ Ibid.

a very unwholesome community.”⁴⁴⁶ The Church seemed more concerned with behaviors surrounding alcohol or romantic relationships that challenged the sanctity of families than it was with the medical research being conducted on Guatemalan populations. A non-denominational Protestant Church, the members appeared to view it more important to promote the Protestant brand of Christianity rather than a specific faith. By allowing for all denominations of Protestantism, the Church was successful in building ties within the American community and strengthening the bonds of the scientific community.

The Union Church also served as a platform for scientists to promote and gain support for their research from other community members. Gibson presented a talk to the Women’s Auxiliary at the church on “Medical Research in Tropic Lands,” where he spoke about the work of the USPHS on tropical diseases including malaria, yellow fever, hookworm, and onchocerciasis (the focus of his research).⁴⁴⁷ He appears to have withheld details about placing agricultural workers in cages for his experiments. Nevin Scrimshaw also wrote an article in *The Voice* on the establishment of the new nutrition institute.⁴⁴⁸ The researchers viewed their work in the country as adhering to churchly principles. Their ability to profile their work in the newsletter and the support they received from the Union Church community strengthened the researchers’ perceptions of themselves as ethical actors.

American scientists and their families received many benefits living in Guatemala. Although U.S. researchers and administrators generally had middle class salaries in the United States, they lived as members of the Guatemalan elite. Children of the U.S. scientists often went

⁴⁴⁶ John G. Blane and Charles T. Holman to Charles T. Holman, “Union Church of Guatemala,” June 20, 1948. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder, 290.

⁴⁴⁷ “The Voice of the Union Church of Guatemala,” III, Num. 2 (February 1952): 3. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

⁴⁴⁸ “The Voice of the Union Church of Guatemala,” III, Num. 7 (July-August 1952): 1. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

to the American School, a non-profit educational institution established in 1945, which continues to provide one of the best educations in the country. The American School was located in the “sun-drenched” fields of the *Finca de Conchas*, near the Guatemalan airport.⁴⁴⁹ It offered classes in English that were modeled after the Cincinnati, Ohio school system, and classes in Spanish that were run by the Guatemalan Ministry of Education. Several of the American School teachers also attended the Union Church, suggesting its close ties with the American community.

Many appeared also driven by the optimistic belief in science during the postwar era. Richard and Betty Adams, who both worked for PASB (with Betty serving as the secretary to the onchocerciasis researchers), were close friends of the Scrimshaws. The Adams recall Nevin Scrimshaw as a “visionary,” “inspirational,” and a “commanding leader.”⁴⁵⁰ The nutrition institute promised to eliminate world hunger. Others seemed more taken with their power. John Cutler, the director of the venereal disease experiments, and his wife, Elise, were friends of Dalmat, the onchocerciasis researchers, and his newlywed wife, Ethel. The couples explored Guatemala together. Elise recalled the couples’ “exotic outing” to Dalmat’s “little empire” on the Pacific Coast where he was conducting research. Through ironic, Eliese Cutler’s comment suggests the American couples’ awareness of their status in the country and sense of impunity when conducting research. As Eliese Cutler came from an upper-class New York family, her husband John had working class roots. He may have felt more able to provide her with the life of luxury in Guatemala that she was accustomed to than he could have in the United States.⁴⁵¹ Another night, Eliese Cutler described how she, John, and the Dalmats danced the night away to

⁴⁴⁹ “The Voice of the Union Church of Guatemala,” I, Num. 6 (June 1950): 1. RAC, Nelson Rockefeller Records, RG 4, Box 37, Folder 290.

⁴⁵⁰ Interview with Richard and Betty Adams, Panajachel, Guatemala, August 13, 2015.

⁴⁵¹ Susan M. Reverby, “The Fielding H. Garrison Lecture Enemy of the People/Enemy of the State: Two Great(ly Infamous) Doctors, Passions, and the Judgement of History,” *Bulletin of the History of Medicine* 88 (2014): 410.

a marimba band.⁴⁵² This “exoticism” that Eliese Cutler described and the chance to live free from their concerns and obligations in the United States, appeared to inform the nostalgia that researchers felt when they left Guatemala. Dalmat thought about moving his family permanently to Guatemala, but then decided to leave in response to the increasingly tense political situation that came later during the revolutionary period.⁴⁵³ The American community in Guatemala, the relative youth of many of the researchers, and post-World War II energy for scientific research helped to fuel investigations in Guatemala during this time period. The researchers brought hope, energy and adventure, along with typical American hubris, to their research.

Protecting Pan Americanism in World Health

In the post-World War II period, at the very moment that USPHS initiated venereal disease research, the creation of the new World Health Organization (WHO) threatened to take over international health and render the PASB obsolete. Both U.S. and Latin American scientists and officials, determined to maintain an American medical infrastructure free from European intervention, fought to maintain the organization’s independence. Through their advocacy, U.S. and Latin American scientists and officials forced the WHO’s decentralization, making PASB the office of the new world health organization in the Americas. They established a boundary between Pan American health and the international health network pursued by the WHO in other parts of the world.

The creation of the WHO came as part of peace-building efforts in the post-World War II era. In 1945 at the United Nations conference, delegates from Brazil and China called for the

⁴⁵² Ibid.

⁴⁵³ Ibid., 10.

establishment of an international health organization.⁴⁵⁴ Following the U.S. dropping of the atomic bomb and the devastation caused by World War II, delegates viewed health as a means for preventing future wars. They thought it offered a means for countries to build diplomacy through participating in cooperative efforts to protect global health. In February 1946, the UN Economic and Social Council created the Technical Preparatory Committee to establish a new international health organization. WHO's rise precipitated the end of other international health organizations, including the Paris Office International d'Hygiène Publique and the Health Organization of the League of Nations. The WHO had now replaced them. Its mission conceptualized the broadest definition of health as yet to be defined by an international health organization, framing it as a human right and encompassing physical, mental, and social well-being.⁴⁵⁵

Yet, the construction of postwar international health infrastructure could not escape the tense backdrop of the early Cold War. PASB Director Cumming fought vociferously against WHO's absorption of the PASB. At a meeting to establish the WHO, he warned PASB members from both the United States and Latin America about a potential communist takeover of the new world health organization.⁴⁵⁶ His comments emerged from his concern about the participation of Eastern European delegates. Later Cumming lambasted the WHO in a 70-page report to the U.S. Department of State, denigrating it as "overly-ambitious" and designed by "star-gazers."⁴⁵⁷ He further accused the creators of the organization to be driven "out of an insane desire to destroy existing institutions."⁴⁵⁸ Brock Chisholm, the Canadian psychiatrist who became Director of

⁴⁵⁴ Allan Irving, *Brock Chisholm: Doctor to the World* (Ontario: Associated Medical Services Incorporated, 1998): 78.

⁴⁵⁵ Irving, *Brock Chisholm: Doctor to the World*, 83.

⁴⁵⁶ Javed Siddiqi, *World Health and World Politics: The World Health Organization and the UN System* (Columbus: University of South Carolina Press, 1995): 63.

⁴⁵⁷ *Ibid.*, 80.

⁴⁵⁸ *Ibid.*

WHO, grew frustrated with the PASB's efforts to maintain its independence. He shot back, "the world has drastically changed, and the time had come to aim for an ideal; this ideal should be to draw lines boldly across international boundaries and should be insisted on at whatever cost to personal or sectional interests."⁴⁵⁹ Yet, Chisholm did not just contend with Cumming: U.S. representatives and the majority of Latin American delegates also wanted the PASB to maintain a separate existence.

Surgeon General Parran tried to assuage delegates' alarm at Cumming's comments, while also arguing on PASB's behalf. He helped convince delegates that it was possible for American countries to have membership in both the PASB and WHO.⁴⁶⁰ By the post-World War II period, Latin American delegates also had pride in the organization and wanted to maintain its independence.⁴⁶¹ In the containment of the plague and during the wartime efforts, Latin American officials and scientists had seen tangible benefits from their PASB membership. The American delegates made a strong case for the WHO to adopt a decentralized structure with regional offices that acted separately from the central office in Geneva.

PASB's continued independence from WHO was primarily secured by Fred Soper, who became the PASB director after Cumming.⁴⁶² His zealous approach to public health and ambitions to eradicate disease from the American continent, fueled his defense of the Bureau. He thought it vital that PASB maintain its independence from a large and centralized world health organization in order to implement effective public health programs. In 1948, at the First World Health Assembly, convened to plan WHO's future and draft its Constitution, Soper passionately

⁴⁵⁹ Ibid., 84.

⁴⁶⁰ Cueto and Palmer, *Medicine and Public Health in Latin America*, 135.

⁴⁶¹ Stepan, *Eradication: Ridding the World of Disease Forever?* 114.

⁴⁶² Greer Williams, *The Plague Killers* (New York: Charles Scribner's Sons, 1969): 132.

argued that the new organization adopt a decentralized structure, claiming that the WHO regional offices would be better equipped to fight disease.

Soper also acknowledged his interest in maintaining the PASB's "broad power" to respond to diseases in the Western Hemisphere which was not allowed for in the WHO Constitution.⁴⁶³ He explained that the Code provided PASB the right to develop "close collaboration on the technical level," which the American states could not give up to European powers.⁴⁶⁴ Soper's interest in maintaining the PASB's authority likely stemmed more from his interest in disease control rather than his desire to use the organization to maintain U.S. hegemony in the Latin American region. His tenure was also marked by efforts to bring more Latin Americans into the Bureau.⁴⁶⁵

Aside from his impassioned arguments to world health delegates, Soper was primarily able to secure PASB's independent future through his efforts to grow its budget. In addition to support by the U.S. government, PASB received contributions from member states that were notoriously inconsistent and late.⁴⁶⁶ Soper also faced the withdrawal of U.S. funding for the Bureau following World War II. The U.S. government reduced funding for PASB after World War II and hoped that the organization would rely upon the WHO, despite American doctors' desire for PASB's independence.⁴⁶⁷ The USPHS also had plans to develop its own international office and to withdraw staff from the PASB.

Concerned about the organization's future, Soper arranged to make it possible for the organization to receive voluntary contributions from countries and private philanthropies. With a

⁴⁶³ Dr. Fred Soper, "Remarks Espousing Early Regional Organization of the World Organization at the First World Health Assembly," WHO Official Records, No. 13, 1948, 254. The Fred. L. Soper Papers, NLM.

⁴⁶⁴ Soper, "Remarks Espousing Early Regional Organization of the World Organization at the First World Health Assembly," 255.

⁴⁶⁵ Stepan, *Eradication*, 115.

⁴⁶⁶ *Ibid.*, 320.

⁴⁶⁷ Soper, *Ventures in World Health*, 317.

sharp increase in support from eight Latin American countries and the Kellogg Foundation, PASB's budget grew to the point that it was not possible for the WHO to absorb such a large organization. Soper managed to build the PASB budget at a time when WHO was still in its incipency, allowing him to secure the independence of the organization.⁴⁶⁸ This arrangement ensured that PASB would have little competition in the Americas. In 1947, PASB officially became the WHO regional office in the Americas, leaving the United States as the dominant medical power.

Soper's role as the director of PASB reflects the continued influence that the Rockefeller Foundation, and the United States, had in the development of post-World War II international health. Soper was one of the many doctors who left the Foundation after it changed its focus to the "Green Revolution." Yet, the Rockefeller Foundation paid Soper's salary during his first several years as director. In his autobiography, Soper wrote, "my move to the official international health field was not one of abandonment of the Rockefeller Foundation but rather of fulfilling its program. It was quite in keeping with Foundation policies to make my services available to PASB."⁴⁶⁹ The Rockefeller strategy of disease control, which focused on vertically imposed technical solutions to improving health while avoiding the development of public health infrastructure, infused WHO policies.⁴⁷⁰

The PASB also gained independence as a result of the United States' new role as a world hegemon. It became ever more important that the United States government cooperate with efforts to build international health in order to develop a viable World Health Organization. Previously the Health Organization of the League of Nations had been stymied by the fact that

⁴⁶⁸ Ibid., 322.

⁴⁶⁹ Soper, *Ventures in World Health*, 317.

⁴⁷⁰ Anne Emanuelle-Birn, "Backstage," 132-133.

the United States had refused to become a member. Given the influence of the United States in the post-World War II period and the fact that it provided significant funding to international organizations, the WHO was willing to make concessions to allow for the PASB's independence in order to ensure U.S. participation. In fact, WHO created an exception for the U.S. ratification process that was not extended to other member countries. The U.S. Congress was concerned that the WHO constitution could be amended without agreement from the United States. Therefore, the WHO allowed for the United States' ratification of the constitution to not be unconditional and allow it to withdraw from the organization's membership at a year's notice.⁴⁷¹ Although the WHO was founded on international cooperation, it put America's interest first.

PASB's independence from the WHO gave U.S. and Latin American researchers leeway to shape their own agenda in the organization. Soper focused his first efforts at the WHO/PASB in malaria eradication in South and Central America, which depended in large part on spraying DDT to kill the *Aedes aegypti* population.⁴⁷² Policy scholar Javed Siddiqi has argued that this campaign fit the foreign policy agenda of the United States. During the Cold War, the United States used technological developments to showcase an alternative model to development than communism. In 1949, President Harry Truman announced his "Point Four Program," a technical assistance initiative intended to win the "hearts and minds" of people in "developing countries." The U.S. foreign policy mission was also driven by the postwar moment that was marked by heightened confidence in science and its potential to solve the physical and social ills of the world, despite trepidation over the U.S. dropping of the atomic bomb in Japan during World War II. Even as Americans feared the power of science, they viewed its progress as critical to securing national security, the American way of life, global progress, and human wellbeing.

⁴⁷¹ Siddiqi, *World Health and World Politics*, 102.

⁴⁷² Malcolm Gladwell, the "Mosquito Killer," *New Yorker* July 2, 2001.

Other countries took a more critical view of U.S. power to shape international health. The Soviet Union viewed the WHO as a tool used by the United States to increase its influence in the “Third World.” In 1948, months following the formation of the World Health Organization, Soviet bloc countries left the organization. These countries complained that they did not believe countries that had been subjected to German occupation were receiving enough assistance with efforts to address the destruction caused by World War II and that membership was too costly.⁴⁷³ The fact that Soviet bloc countries left the WHO left the United States with more power to shape the international health organization in its early years. U.S. officials did so but also with the support of many Latin American scientists and physicians. Moreover, the independence of the PASB allowed for U.S. medicine and science to continue to have considerable control over the development of an American medical infrastructure in the western hemisphere at the beginning of the Cold War.

Conclusion

By World War II, Guatemala had become a well-established research hub, a key piece of an American medical research infrastructure developed in Latin America during the first half of the twentieth century. The war precipitated the U.S. government’s investment in the creation of an international health and research infrastructure Latin America. It built upon the work conducted previously by private institutions such as Rockefeller Foundation and United Fruit and through the networks that had been established previously between U.S. and Guatemalan medical researchers. While Latin Americans challenged U.S. imperial medicine and racial understandings that denigrated their nations, they also supported efforts to build public health

⁴⁷³ Ibid., 104-5.

and medical programs that benefitted their countries. Guatemalan doctors, many of whom had received fellowships from the Rockefeller Foundation and IIAA to study at U.S. institutions, served as key collaborators with American health professionals and researchers.

Yet, the international health and medical research constructed in the region was always informed by the divide between the northern and southern hemisphere. It was also marked by sharp inequalities between U.S. and Latin American health professionals and marginalized members of Latin American society. U.S. health officials and researchers and military personnel continued to view Latin America as a place rife with disease and immorality. These perceptions informed their work in the region and shaped their ethical understandings in their approach to public health campaigns and medical experimentation. They were particularly acute in Guatemala. Regardless of the tactics that they often used, U.S. and Guatemalan health professionals and researchers appeared to believe that their work in the country was humanitarian. U.S. researchers, creating closed social world with other U.S. researchers in Guatemala City, encountered little pushback in regards to their studies and health campaigns. They also aligned themselves with Guatemalan health professionals and researchers who appeared to believe in the virtue of their work.

By the end of World War II, U.S. and Latin American health professionals and scientists fought to maintain the infrastructure that they had built for public health and medical research. The influence of the PASB grew significantly during the Cold War as it became the office of the WHO in the Americas. The presence of the PASB in Guatemala helped to maintain the country as central site of U.S. research during the Cold War, thereby enabling U.S. medical experimentation on Guatemalans.

CHAPTER 3: MAKING MEDICAL SUBJECTS

Tracing exactly how Guatemalans became medical subjects in experiments on sexually-transmitted infections (STIs) requires a close examination of Guatemalan law, policy, institutions, and social structure in the forties and fifties. During the period known as “Ten Years of Spring,” Guatemala underwent a Revolution (1944-1954). An exploration of the lives of people subjected to experimentation, including sex workers, prisoners, soldiers, disabled, gay, lesbian, and indigenous Guatemalans, shows that the Revolution offered no reprieve from state repression, arbitrary arrest, police razing of homes and neighborhoods, and domestic and sexual violence.⁴⁷⁴ Political elites, doctors, lawyers, and intellectuals connected to the new government strove to implement a *regeneración* (regeneration) of the population. In an effort to heal Guatemala’s “wounded body” and to build a unified, morally and physically fit national population, they passed new public health laws and policies aimed at transforming Guatemalans’ bodies and minds.⁴⁷⁵ This chapter argues that the work of an activist state was the critical enabling factor granting researchers access to Guatemalan’s genitals and blood.⁴⁷⁶

The Revolution fell short of its egalitarian promise. It began in 1944 when a cross-class coalition of military officers, doctors, lawyers, students, urban workers, teachers, and intellectuals came together in Guatemala City to overthrow the dictatorship of Jorge Ubico Castañeda and then his handpicked successor, Juan Federico Ponce Vaides. Guatemalans from

⁴⁷⁴ Cindy Forster, “Violent and Violated Women: Justice and Gender in Rural Guatemala, 1936-1956,” *Journal of Women’s History*, Vol. 11, No. 3 (1999): 55-77. Cindy Forster, *The Time of Freedom: Campesino Workers in Guatemala’s Revolution* (Pittsburgh: University of Pittsburgh Press, 2001), 7. J.T. Way, *The Mayan in the Mall: Globalization, Development, and the Making of Modern Guatemala* (Durham and London: Duke University Press, 2012), 15. David Carey, Jr. “A Democracy Born in Violence: Maya Perceptions of the 1944 Patzicía Massacre and the 1954 Coup, in *After the Coup: An Ethnographic Reframing of Guatemala 1954*, eds. Timothy J. Smith and Abigail E. Adams (Urbana: University of Illinois Press, 2011): 77.

⁴⁷⁵ Diane M. Nelson, Way, *A Finger in the Wound: Body Politics in Quincentennial Guatemala*, (Berkeley and Los Angeles: University of California Press), 1999.

⁴⁷⁶ The United Nations Economic Commission for Latin America and developmental economists in the mid-twentieth century believed that a strong activist state could bring about economic and political modernization. See, Greg Grandin, *The Blood of Guatemala: A History of Race and Nation* (Durham and London: Duke University Press, 2000), 199-200.

all economic sectors mobilized to form a democracy. They advocated for rights to land and the dignity of workers.⁴⁷⁷ “Ten Years of Spring” spurred widespread grassroots organizing in the United Fruit Company’s banana enclaves, the countryside, and in Guatemala City.⁴⁷⁸ Yet, during the presidency of Juan José Arévalo (1945-1951), a formerly exiled philosophy professor who had been living in Argentina, government reforms brought little change to the country’s entrenched social hierarchies. Two landmark policies, the 1947 labor code and the social security system which was established in 1948, largely benefited Ladinos.⁴⁷⁹ Gender-based violence and inequality also persisted during this time period.⁴⁸⁰ The government of President Jacobo Arbenz went further to implement economic and social change and passed agrarian reform.⁴⁸¹ Still, this policy bred violence, uncertainty, and fear in rural and indigenous communities.⁴⁸² Although the government’s reforms may have eventually brought sustained social change, the CIA backed a 1954 coup of the Arbenz government, ushering in counterinsurgent forces.

As social and economic inequality endured in this ten-year period, the very institutions and doctors touting regeneration helped bring about more intensified methods of social control. Social reformers used public health and education as a means to instill Ladino middle class values in *indígenas* and poor populations and assimilate them into the nation.⁴⁸³ Reflecting the

⁴⁷⁷ For three excellent studies of the Revolution, see: Jim Handy, *Revolution in the Countryside: Rural Conflict and Agrarian Reform in Guatemala, 1944-1954* (Chapel Hill and London: University of North Carolina Press, 1994). Piero Gleijeses, *Shattered Hope: The Guatemalan Revolution and the United States, 1944-1954* (Princeton: Princeton University Press, 1991). Forster, *The Time of Freedom*.

⁴⁷⁸ Ingrid Yulisa Castañeda, “Dismantling the Enclave: Land, Labor and National Belonging on Guatemala’s Caribbean Coast, 1904-1954,” (PHD Dissertation: Yale University, 2014). Handy, *Revolution in the Countryside*.

⁴⁷⁹ Several scholars have highlighted that the vision of the Revolution was rooted in Ladino values. See Arturo Tarcena Arriola, *Etnicidad, estado y nación en Guatemala, 1944-1985*, (Antigua: CIRMA, 2004). Marta Elena Casaús Arzú, *Guatemala: Linaje y Racismo* (Guatemala: F&G Editoriales, 2010).

⁴⁸⁰ Forster, *The Time of Freedom*, 7, 35-6, 46.

⁴⁸¹ Gleijeses, *Shattered Hope*, 149.

⁴⁸² Handy, *Revolution in the Countryside*, 102. Carey, “A Democracy Born in Violence,” 77. Grandin, *The Blood of Guatemala*, 212-219. Gleijeses, *Shattered Hope*, 154-55. Daniel Wilkinson, *Silence on the Mountain: Stories of Terror, Betrayal, and Forgetting in Guatemala* (Durham and London: Duke University Press, 2004).

⁴⁸³ Throughout Latin America in the first half of the twentieth century, elite and European populations used public health and medicine as a way to reform non-white populations viewed as an impediment to national development. See, Nancy Leys Stepan, *The Hour of Eugenics: Race, Gender, and Nation in Latin America* (Ithaca: Cornell University Press, 1991). Manuella Meyer, *Reasoning Against Madness: Psychiatry and the State in Rio de Janeiro, 1830-1944* (Rochester: University of Rochester Press,

government's stated interest in uplifting disenfranchised members of Guatemalan society, social reformers claimed that these policies aimed to provide Guatemalans with greater access to public health and educational services. Yet, the Guatemalan government remained unable both economically and technologically to implement public health reform alone. The IIAA and the PASB supported and financed many of these programs.⁴⁸⁴ Although the Guatemalan government sought to assert national sovereignty, government public health officials continued to seek guidance from U.S. and Latin American bureaucrats in the realm of public health and medicine.⁴⁸⁵

This chapter examines how Guatemalan social structure, laws, and policies during the Revolution brought Guatemalans into the pipeline for experimentation. Although the people subjected to experimentation had markedly different societal roles, cultural backgrounds, and regional affiliations, what united them was their marginalization in Guatemalan society. Although state efforts around the world to regulate sexuality and disease have focused on women, in these experiments authorities believed that they could also access male bodies and sexuality for research and observation. The authorities' understandings of soldiers and male prisoners' masculinity informed their views that they were accessible for experimentation. In Guatemala, the sex worker and male soldiers and prisoners occupied similar roles in society. Guatemalan society viewed sex workers and soldiers as necessary for fulfilling the physical needs of sex and war. In the experiments, physicians sought to harness what they perceived as the deviant sexuality of their "subjects" for social, scientific, and diplomatic purposes.

2017). Julia Rodriguez, *Civilizing Argentina: Science, Medicine, and the Modern State* (Chapel Hill and London: University of North Carolina Press, 2006). Okezi T. Otovo, *Progressive Mothers: Better Babies: Race, Public Health and the State in Brazil*, (Austin: University of Texas Press, 2016).

⁴⁸⁴ IIAA Health and Sanitation Division/Subject Files Relating to Guatemala, 1950-1961, General Records of the Department of State. NARA College Park, Maryland.

⁴⁸⁵ Richard N. Adams, *Crucifixion By Power: Essays on Guatemalan National Social Structure, 1944-1946* (Austin: University of Texas Press, 1973), 185-6.

This chapter further examines the lives of specific people. Guatemalans subjected to experimentation came from throughout the country. Many resided in shantytown settlements that twisted along ravines on the borders of Guatemala City. These neighborhoods had names such as *La Palmita*, *San Pedrito*, *El Gallito*, and *La Recolección*. Others hailed from rural areas. Governors, plantation owners, police, and family members sent suspected criminals or those suffering from mental and physical ailments to the capital for detention and treatment in jails and hospitals. These men and women often came to the capital on trains owned by the United Fruit Company that connected the capital to ports on the Pacific and Atlantic coastlines. In the 1930s, the construction of the Pan-American Highway in the western part of the country made communities in rural areas more accessible to outsiders. Guatemalans came together through their associations with institutions that would later participate in the experiments; they included the lock hospital, the military barracks, the prison, the psychiatric institution, and the orphanage.⁴⁸⁶ Located primarily in the capital near the government administrative offices and business districts, the institutions' proximity to each other proved convenient for medical researchers.

My examination of the individuals caught up in medical experimentation also reveals how Guatemalans challenged the state's efforts to reform them. During the revolution, the state continued to lack legitimacy in many sectors. Sex workers bit police officers, soldiers evaded military service, and mental health patients contested doctors' assessments of them as "unfit" to participate in society. Although Guatemalans contended with a repressive state, the making of medical subjects was never an uncontested nor inevitable process.

⁴⁸⁶ While U.S. doctors also did studies in the leprosarium and in schools, I have not found archival materials about the leprosy patients. I will discuss the schools in more detail in chapter four.

“Mujeres Públicas” (Public Women) and the Lock Hospital

In March 1944, Rodrigo Contreras Bracamonte wrote a letter to the municipal governor of Guatemala City, denouncing Teresa Mendoza Vargas for practicing clandestine prostitution.⁴⁸⁷ Just twenty-four years old at the time, Mendoza was the mother of Contreras’ four-year-old daughter. Contreras was forty-two and lived at the military base in Port San José, Guatemala’s oldest port town located on the Pacific coastline and built in the nineteenth century for the coffee trade. He had originally met Mendoza in Port San José. Contreras demanded that the judge order Mendoza to give him custody of their four-year-old daughter so that he could educate her and remove her from the “bad example” of her mother. A few days later, Mendoza responded to the letter. She did not deny occasionally having worked as a sex worker but refused to give him their child. Contreras had not delivered on his promise to provide child support and she said that he had been a “bad father.” A poorly paid domestic worker in Guatemala City, Mendoza had barely been able to support herself and her daughter.

Just one month after Mendoza became known to authorities, the *Jefe Político*, the title of the municipal governor overseeing Guatemala City, reported that Mendoza had “voluntarily” registered as a sex worker at the sanitation department, meaning that she probably also had to give up custody of her daughter. In Guatemala during the forties, a woman who admittedly earned money as a prostitute had little hope of convincing government authorities of her “fitness” for motherhood. She likely would have been labeled as a “*madre desnaturalizada*” (unnatural mother), a term that police officers and journalists frequently used to describe women who endangered their children’s wellbeing.⁴⁸⁸ The law also dictated that sex workers were not

⁴⁸⁷ I have used pseudonyms for all the people subjected to experimentation by the USPHS, PASB, and the Guatemalan government. *Jefatura Política*, Guatemala, 1944, Caja 3, AGCA, Guatemala, C.A.

⁴⁸⁸ Carey, *I Ask for Justice: Maya Women, Dictators, and Crime in Guatemala City, 1898-1944* (Austin: University of Texas Press, 2013), 136.

allowed to live in the same house with their children if over the age of four, although this measure was rarely enforced. If Contreras had not sued, Mendoza may never have had to register with the state as a sex worker at all. Prostitution laws enabled men to manipulate women who they had partnerships with or to get revenge following an altercation.

The registration rendered Mendoza not only visible to state authorities but also vulnerable to medical experimentation. A few years after Mendoza formalized her profession as a prostitute, her name would appear on Cutler's list of experimental subjects.⁴⁸⁹ Although Mendoza entered the registration system before Ubico, she remained registered with the state as a prostitute during the Revolution. For Guatemalans such as Rosales, the Revolution did not mark a break from repressive state laws and policies. Rather this period brought an intensification of state intervention into their daily lives.

Like the majority of registered sex workers, Mendoza lived in the capital where the state concentrated its venereal disease control efforts. In 1945, police arrested 601 women for clandestine prostitution, which was defined as a woman who sold her body for sex without registering with the state. Police made the majority of these arrests in the capital. As some of these women may have been wrongfully accused of prostitution, others likely wanted to avoid intrusive medical examinations and fines. Moreover, some of these women may not have identified as sex workers but rather viewed it as a side gig that they did when strapped for money. The government required that they formalize their roles and professions in society as sex workers, when in practice this work was often more transient for women.

⁴⁸⁹ Although Cutler dropped "Rosales" from her name, state authorities often omitted and miswrote the names of sex workers, providing another indicator of their powerless status within Guatemalan society. Cutler may also have dropped Rosales because he thought that it was her middle name, given the conventions in U.S. society.

Sex work was choice for women but typically among other unattractive options. A survey by social worker of 105 “mujeres públicas” (public women), almost a third of the registered prostitutes in the capital, provides a rough profile of Guatemalan sex workers during the revolution.⁴⁹⁰ Her survey represented almost a third of the registered prostitutes in the capital. Although Contreras stigmatized her interviewees as “public women,” the survey shows that these women struggled to maintain their autonomy. The lives of these women followed a pattern that was similar to the lives of sex workers in countries around the world.⁴⁹¹ Some of the poor women did not identify as sex workers but rather engaged in this profession temporarily when strapped for money. These women were young, primarily between the ages of 18 and 21 years of age, although many reported having begun to work at an earlier age.⁴⁹² They were primarily single and supported themselves; only one was married and several were divorced or widowed. Many of the women had originally moved to the capital looking for work as servants. Like Mendoza, most women were domestic workers who earned money on the side as sex workers. Domestic work was one of the only options available to poor and indigenous women to earn a livelihood, along with other poor paying jobs such as working as a waitress, market vendor, laundress, or seamstress. Of the 105 registered prostitutes who Contreras interviewed, 81 listed their occupations as domestic workers. The other most common profession was waitressing.⁴⁹³

⁴⁹⁰ Maria Evangelina Contreras Cisneros, “La evolución social y su relación con la prostitución,” Tesis presentada por Maria Evangelina Contreras Cisneros al recibir el título de trabajadora social, Guatemala, C.A., 1954.

⁴⁹¹ Judith R. Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State*, (Cambridge and New York: Cambridge University Press, 1980). Ruth Rosen, *The Lost Sisterhood: Prostitution in America, 1900-1918*, (Baltimore: Johns Hopkins University Press, 1982). Donna Guy, *Sex and Danger in Buenos Aires: Prostitution, Family, and Nation in Argentina*, (Lincoln: University of Nebraska, 1991). Lara Putnam, *The Company They Kept: Migrants and the Politics of Gender in Caribbean Costa Rica, 1870-1960*, (Chapel Hill: University of North Carolina Press, 2002). Katherine Bliss, *Compromised Positions: Prostitution, Public Health, and Gender Politics in Revolutionary Mexico City*, (University Park: Pennsylvania State University Press, 2001).

⁴⁹² Contreras Cisneros, *La Evolución Social y su Relación con la Prostitución*, 71-4.

⁴⁹³ *Ibid.*, 70-71.

The Revolution did little to increase protection for women who worked as domestic laborers. Women from rural areas frequently came to Guatemala City in search of domestic labor because wages were higher in the capital than the meager sums they earned in rural areas.⁴⁹⁴ Yet even in the capital domestic servants hardly earned enough to sustain themselves and often had to find other means to survive.⁴⁹⁵ The 1947 Labor Code, a key piece of revolutionary reform, did not bring significant change to the regulation of domestic work. Their workday was not subject to the same restrictions as agricultural laborers; employers were legally allowed to make servants work fourteen-hour shifts. Domestic workers also did not have a minimum wage and could be paid as little as one time per month. Given that the money domestic workers earned was typically less than half of the mandated minimum wage and they only received a paycheck one time per month, it is not surprising that women would turn to prostitution.⁴⁹⁶ The few job opportunities offered to women and the state's weak regulation of women's labor often left them with few options but to enter the sex trade.

During her interviews, a social worker discovered the endemic sexual assault of female domestic workers by their employers. She found in her interviews that after male employers had subjected servants to "moral evil" and fired them, women then turned to the "snares" of prostitution.⁴⁹⁷ Despite the lack of protection offered by labor laws from workplace harassment, servants protested this abuse by writing letters to the *Jefe Político* in Guatemala City. The *Jefe Político* was viewed as a paternalistic figure in Guatemalan society. Marginalized populations who endured harassment from authority figures would often appeal to the protection of the municipal governor in their letters. Matilde García, a sixteen-year-old domestic worker in

⁴⁹⁴ Forster, *The Time of Freedom*, 106.

⁴⁹⁵ *Ibid.*

⁴⁹⁶ *Ibid.*, 102-106.

⁴⁹⁷ *Ibid.*, 20.

Guatemala City wrote to the municipal governor of the Department of Guatemala requesting that the son of her former employer send her money for their child.⁴⁹⁸ She said that the employer's son had raped her and she had then become pregnant. As a result of the pregnancy, she had lost her job and could not provide for her daughter.

Even in the Revolution, women continued to have little power to fight sexual abuse. In the Latin American honor/shame gender code system, poor and indigenous women who did not have "purity of blood" have been deemed as sexually available by middle and upper class men. Women who were viewed as "dishonorable" or who were poor almost never were successful pursuing rape charges against men with more social capital.⁴⁹⁹ During the Revolution, women continued to have little success securing convictions of men who had assaulted them.⁵⁰⁰ Many white male elites harbored beliefs that their blood was superior to the indigenous "race" and probably viewed the rape of indigenous maids as a favor.⁵⁰¹ Predominant societal perceptions also deemed the sexual accessibility of poorer and non-white women as necessary to allow elite women to maintain their honor. Still, through writing letters to the municipal governor, poor women sought to reclaim their honor and challenged male ownership of their bodies.

When women failed to gain protection from the governor and entered into the sex trade, they had to contend with an entanglement of state authorities, clients, pimps, and *matronas* (female heads of brothels) who sought to capitalize off of their precarious positions. The *matronas* and male pimps tried to exert complete control over the women's lives.⁵⁰² The *matronas* demanded at least half of the women's earnings.⁵⁰³ A number of women in the survey

⁴⁹⁸ *Jefatura Política*, Guatemala, 1945, Caja 2, AGCA, Guatemala, C.A.

⁴⁹⁹ Forster, "Violent or Violated Women: Justice and Gender in Rural Guatemala," 61.

⁵⁰⁰ *Ibid.*

⁵⁰¹ Diane Nelson, *A Finger in the Wound*, 215.

⁵⁰² Contreras Cisneros, "*La Evolución Social y su Relación con la Prostitución*," 75.

⁵⁰³ *Ibid.*, 76.

were afraid to participate in studies by social workers. They feared repercussions from the matronas and pimps for providing information about their lives without their oversight.⁵⁰⁴ Police also took money from the women and repeatedly sexually and physically abused them.⁵⁰⁵ If a woman refused the advances of a police officer, she risked being arrested for violating the sanitation code. Prostitution laws were vague and left women vulnerable to arbitrary arrest. For example, the law stipulated that sex workers were only allowed to wear “moderate makeup.” Police officers were allowed to enter a woman’s residence at any moment to ensure she was complying with venereal disease laws. State laws effectively enabled police officers’ repeated sexual and physical assault of these women with impunity.⁵⁰⁶

Police documents contain the arrest records of some of the women who would later be subjected to experimentation. These women were well known to police authorities. Fichas, or arrest cards, contain sparse information about arrestees: such as the names of the person, their charge, and date of detainment. Many of the women were brought in by police for crimes in addition to prostitution that included theft, public brawls, swindling, assaults, inebriation, and “immoral acts in public.” The frequency with which they were arrested suggests their poverty and that they did not have a secluded place in which they could earn money. Maria Garcia Espinosa, whose name appears in Cutler’s records, was first arrested for “public brawling.”⁵⁰⁷ The police later picked her up for practicing clandestine prostitution, twice for violating venereal disease regulation laws, and once more for public brawling. Another woman, Rosa Escobar Cruz, whose name also appears in the Cutler records, was arrested four times for theft and once

⁵⁰⁴ Ibid, 69.

⁵⁰⁵ Jorge Palmieri, “Carta de una hija de puta” *El Gráfico*, (29 de septiembre de 1988): 9.

⁵⁰⁶ Dirección General de Sanidad Pública, *Reglamento de la Sección de Profilaxis Sexual y de Enfermedades Venéreas*, Guatemala, C.A., junio de 1938.

⁵⁰⁷ Even though the police records are public, I have still used a pseudonym to protect the health information and identities of people subjected to experimentation. Ficha de Marcia Garcia Espinosa. Guardia Civil, AHPN.

for clandestine prostitution, indicating that she had limited resources to support herself and as a result turned to illicit measures to obtain money.⁵⁰⁸ The repeated arrests highlight that police were frequently involved in the lives of women from urban poor communities.

Police officers not only sexually assaulted women but also apparently misled authorities about their encounters with sex workers. A medical student found that sex workers had been spreading syphilis by biting police officers.⁵⁰⁹ The police officers who had worked in the brothels had chancres in the same area where they had been bitten by sex workers.⁵¹⁰ Since syphilis is transmitted through sexual intercourse or congenitally, it is more likely that the police officers were acquiring syphilis as a result of their sexual assault of women, or that they coerced women into having sex with them in order to avoid arrests for various “violations.” Police officers were as likely to have been infectors as the women. They may have claimed that they were bitten so that they would not be blamed by authorities for catching syphilis through having sex with prostitutes. The evidence of chancres may or may have not come about from the prostitutes themselves. These claims also may have had some truth and reveal women’s resistance to sexual assault.

Women who were registered as sex workers and had to visit the lock hospital twice per week for gynecological inspections faced further stigmatization. The visibility of sex workers who reported to the lock hospital made it difficult for them to ever escape their designation as “public women.” The overwhelming societal perception was that the venereal disease hospital only served “*mujeres de mal vivir*” (women who lived evil lives). Until the late thirties, the hospital had been an annex to the women’s prison. The state then moved the hospital to an

⁵⁰⁸ Ficha de Rosa Escobar Cruz, Guardia Civil, AHPN.

⁵⁰⁹ Rene Chicas Carillo, “Consideraciones sobre la sífilis precoz y su tratamiento,” Tesis presentada a la Junta Directiva de la Facultad de Ciencias Médicas de la Universidad de San Carlos de Guatemala, marzo de 1947.

⁵¹⁰ Ibid., 21, 30.

independent building located near the sanitation department in an effort to combat the view that it was only for female prisoners. Still, continuing into the forties the lock hospital was seen as a hospital for “dishonorable” women.⁵¹¹ It was in poor condition and did not have enough beds for all of the women who needed to stay for treatment.⁵¹² The overwhelming social perception was that gynecological exams served as punishment for women who had allegedly made sexual transgressions.

The hospital did not have any quarters for men, showing how the burden of the crime of prostitution and venereal disease was placed squarely on women. In fact, the law explicitly defined sex work as a female profession.⁵¹³ Although male sex workers likely existed during this time period, the state did not pursue clandestine male prostitution nor require men to register with the state. Although heavily stigmatized in Guatemalan society, homosexuality was not a crime in Guatemala.⁵¹⁴ The state also did not pursue the arrests of pimps or *matronas* who operated without licenses or who were deemed to be potential threats to venereal disease control. The lock hospital continued to be a place for women who were deemed to be the primary vectors of sexually-transmitted disease.

During the revolution, the government implemented new measures that subjected women to stricter measures of social control. Doctors, including those who would later participate in the experiments, sought to reinstate a law originally passed at the request of the U.S. military during World War II and mentioned in Chapter Two. It required that women who worked in comestible establishments serving men also had to report for monthly inspections.⁵¹⁵ As this law had been

⁵¹¹ Luis Galich, “Breve reseña del hospital de profilaxis sexual y enfermedades venéreas de la Ciudad de Guatemala y proyecto para un hospital especializado,” Ministerio de Salud Pública y Asistencia Social, Guatemala, C.A., 1947, 5.

⁵¹² “Indispensable sección para hombres en el departamento,” *El Imparcial*, 29 de marzo de 1946, 2.

⁵¹³ “Reglamento de la Sección de la Profilaxis Sexual y de Enfermedades Venéreas.”

⁵¹⁴ David Carey, “Oficios de su raza y sexo (Occupation Appropriate to her Race and Sex): Mayan Women and Expanding Gender Identities in Twentieth-Century Guatemala,” *Journal of Women’s History* 20, no. 1 (Spring 2008): 114-148.

⁵¹⁵ “Examen Profiláctico de las Meseras de Restaurantes,” *El Imparcial*, 6 de julio, 1945.

met with widespread resistance within Guatemalan society during World War II, the government had retracted it following the war. In May 1947, the government again required that all female employees at restaurants, cabarets, bars, refreshment stalls, and “similar establishments” report for regular medical inspections and undergo gynecological examinations one time per month.⁵¹⁶ The stated intention of the law was to suppress clandestine prostitution and to ensure better control of venereal disease. Although revolutionary leaders aimed to assert independence from the United States, policymakers continued to draw upon laws that the U.S. military had requested be passed during the war to protect soldiers stationed in allied countries.⁵¹⁷ The history of U.S. imperialism in the region influenced policies and laws that later rendered greater sectors of economically and socially disadvantaged women as vulnerable to medical experimentation.⁵¹⁸

As before, national newspapers met the decision to mandate gynecological inspections of waitresses and barmaids with sharp rebuke. The response shows that the general population supported authorities’ stigmatization of prostitutes but would not withstand the denigration of poor women more generally. When efforts were underway by physicians and lawmakers to pass this regulation, a prominent newspaper published an editorial arguing that it constituted an affront to the women who worked in these establishments.⁵¹⁹ The journalist stated, “there are among hundreds of girls who work in restaurants and bars who perform honest work despite the difficult circumstances of dealing with the nuisances and rudeness of inebriated patrons.” These

⁵¹⁶ *Reglamento de la Sección de Profilaxis Sexual y de Enfermedades Venéreas*, 28.

⁵¹⁷ In other countries with postwar allied occupations such as Japan and Germany, U.S. implemented fraternization laws which prevented local populations from visiting restaurants frequented by U.S. soldiers but did not require that the female employees submit to regular gynecological examinations. Particularly in the Japanese population, the U.S. military believed there was a prevalence of venereal disease and established these laws in an effort to lower rates among the troops. The fraternization measures were less restrictive in Germany, indicating how the U.S. military policies adopted related to understandings of race and disease. See, Sarah Kovner, *Occupying Power: Sex Workers and Servicemen in Postwar Japan*, (Stanford: Stanford University Press, 2012): 30. Petra Goedde, *GIs and Germans: Culture, Gender, and Foreign Relations, 1945-1949* (New Haven: Yale University Press, 2003): 93.

⁵¹⁸ Juan M. Funes, “Proyecto de Nueva Legislación Antivenérea, Consideraciones Generales,” *Salubridad y Asistencia Social*, núm. 3 (marzo de 1949): 3-4.

⁵¹⁹ “Examen Profiláctico de las Meseras de Restaurantes,” *El Imparcial*, 6 de julio, 1945.

newspapers opposed the shaming of “honorable” women and that they would have to undergo the same treatment that prostitutes endured when registering with the police and visiting the lock hospital. They thought that only sex workers or women of ill repute should have their bodies probed with speculums and inspected by male physicians. They were concerned that some of these men may not have been married, and as a result their inspections of these women also placed them at moral risk.⁵²⁰ Although the newspapers opposed this poor treatment of waitresses, they did not oppose the regulation system in general. By protesting on behalf of some women and by ignoring others, the newspapers effectively supported the punishment of those presumed to have transgressed moral boundaries.

Along with laws mandating medical inspections of women working in service occupations, the government also intensified its inspection of the establishments where they worked. The increased number of petitions during the revolution from restaurants requesting to remain open into the early morning hours suggests greater vigilance on the part of the government to monitor the “morality” of the pueblo.⁵²¹ During debates over the Labor Code, some legislators advocated that women older than eighteen-years-old should be prohibited from working in establishments that sold alcohol.⁵²² The article mentioned a 1919 law passed in Washington, DC that prohibited women from working in establishments that sold alcohol, revealing another moment when Guatemala’s revolutionary leaders looked to U.S. law for

⁵²⁰ In other countries, the speculum has also been associated with prostitution. Historian Judith Walkowitz says that because the speculum was first used by medical doctors to examine sex workers for venereal disease in Parisian lock hospitals in the 1830s, the British populace in the mid-nineteenth century had deemed it an “immoral” instrument that should not be used with “virtuous” women.⁵²⁰ See Judith Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State*, (New York: Cambridge University Press): 1982 55-56. As the speculum was developed on poor women in England, in the United States Dr. Marion Sims, the so-called “father of modern gynecology,” devised the duck-billed speculum by experimenting on enslaved African American Women. His legacy as one of the “great doctors” continues to be contested due to his research practices. See Susan M. Reverby, “Memory and Medicine: A Historian’s Perspective on Commemorating J. Marion Sims,” *AHA Today*, September 18, 2017. Forster, “Violent and Violated Women,” 68.

⁵²¹ The *Reglamento de Profilaxis Sexual y Enfermedades Venéreas* mandated that police officers should regularly inspect restaurants, cabarets, and hotels to ensure that owners did not tolerate clandestine prostitution within their premises.

⁵²² “El Trabajo de la Mujer: Comentarios al Proyecto de Código de Trabajo,” *El Imparcial*, 25 de agosto, 1945.

guidance on the implementation of moralizing efforts. In response to heightened surveillance on the part of the state, the *Jefe Político* received a number of letters from restaurants requesting that their businesses be allowed to remain open during the nighttime hours.⁵²³

Although the state also intensified its policing of male behavior, women continued to remain the primary targets of moralizing campaigns. As newspapers defended the honor of waitresses and barmaids, upper and middle class neighborhoods drew upon the rhetoric of political leaders. They participated in surveilling women and poor populations. Residents of the neighborhood of Luna Park, which was located just outside the business district, published an article in the main newspaper of Guatemala complaining about the growth of prostitution in their community.⁵²⁴ The fact that the neighborhood was located close to the business district may have made it attractive for bars and brothels that young men would visit after work. Neighborhood representatives mentioned the recent establishment of saloons, dance halls, and brothels near the park. They described intoxicated and “libidinous” partygoers awake late into the nighttime hours who were slamming doors, fighting, falling asleep on the sidewalks, playing loud music, and partaking in other “scandals.” “Is this the regeneration of Guatemala, the springing forth of a new Guatemala?” the neighbors queried in the article. They argued that these circumstances led to the further degeneration and impoverishment of Guatemalans.

Yet, neighborhoods had more power to enforce policing in their communities than indicated in the article. Venereal disease laws dictated that anyone who suspected a woman of “clandestine prostitution” had an obligation to report her to police authorities.⁵²⁵ Once a woman had been denounced to the police, officers would then surveil her for a period of ten days to

⁵²³ *Jefatura Política*, Guatemala, Caja 1, 1946. AGCA.

⁵²⁴ “Foco de Prostitución y Vicios,” *El Imparcial*, 25 de octubre de 1948.

⁵²⁵ “Foco de Prostitución y Vicios,” *El Imparcial*, 25 de octubre de 1948, 4, 6.

determine whether or not she was a sex worker, granting the police inordinate power to determine the woman's fate. If the police suspected that the woman was indeed a prostitute, they would subject her to a gynecological inspection to determine her "honorability." Women who were poor or outsiders in these neighborhoods had to tread carefully in order to avoid gossip that might place them under the suspicion of authorities.⁵²⁶

Although policymakers' main emphasis was to police and punish women, some Guatemalan social welfare proponents advocated rehabilitation. One agency wanted to develop a farm where prostitutes would learn skills to find alternative forms of employment.⁵²⁷ A medical doctor who was the director of sanitation proposed using the lock hospital as a place to train sex workers in domestic trades. The government also abolished a law requiring that registered sex workers contribute part of their monthly allowance to a savings account.⁵²⁸ That measure had been intended to help sex workers save money and leave the trade, but it served to impoverish them further. Although intended to regenerate sex workers and poor women, the policy had the effect of placing their lives under greater scrutiny by government officials, police, and community members. As a result, not just sex workers but poor women in general became susceptible to medical experimentation by Guatemalan and U.S. researchers.

Soldiers and the Military Barracks

Military buses came often to Federico Ramos' town, San Agustín Acasaguastlán, located in the dry, mountainous area of eastern Guatemala. All men who could not pay a fee had to serve, or else face prison time. In 1948, Ramos was just twenty-two years old. Seeing no other

⁵²⁶ *Reglamento de la Sección de Profilaxis Sexual y de Enfermedades Venéreas.*

⁵²⁷ "Granja Reformativo Para Combatir la Prostitución," *El Imparcial*, 2 de octubre, 1947.

⁵²⁸ *Reglamento de la Sección de Profilaxis Sexual y de Enfermedades Venéreas.*

option, he boarded the bus and made his journey to the capital. He worked for thirty months in the air force, standing guard over the planes on the air force base in Guatemala City. During his time in the military, Ramos recalls being examined by doctors from the United States. He believes that they gave him syphilis, but Ramos did not know he had the disease until many years after he left the military. At the time, he thought that the doctors were performing routine medical examinations. He had grown accustomed to medical inspections by doctors. As part of the revolution, the government sought to strengthen the military through the establishment of sanitation programs. Military surgeons held that science could transform poor and indigenous men into a fighting force fit to defend a new Guatemala.⁵²⁹

During the Revolution, the government viewed the military as a key site in which to *ladinoize* indigenous enlistees and transform them into men prepared to protect the newly formed democratic government. The majority of soldiers came from marginalized communities. Since the late nineteenth century, state law mandated that men who could not pay a fee had to report to military duty. Guatemalan policymakers sought to strengthen the military as part of efforts to centralize the government and gain control over the labor force. Although the government initially only drafted literate and ladino men, it had no choice but to rely upon indigenous labor in order to meet sufficient numbers.⁵³⁰ Anthropologist Richard Adams has described a “caste” that has existed in the military; officers primarily hailed from elite families while soldiers came from urban and rural poor communities.⁵³¹ Soldiers were treated as the “objects” of the military

⁵²⁹ Interview with Benjamin and Federico Ramos, March 11, 2016. I have made the Ramos names public at their request. Sushma Subramanian, “Worse than Tuskegee,” *Slate Magazine*, February 26, 2017.

⁵³⁰ The government also had to rely on the forced labor of indigenous populations for the agro-export economy. Plantation owners and the military would compete for access to indigenous labor. Richard Adams, “Race and Ethnicity in the Guatemala Army, 1914,” in *Military Struggle and Identity Formation in Latin America: Race, Nation, and Community During the Liberal Period*, eds. Nicola Foote and Rene D. Harder Horst, (Gainesville: University of Florida Press, 2010): 109.

⁵³¹ Richard N. Adams, “The Development of the Guatemalan Military,” *Studies in Comparative International Development* 4, no. 5 (May 1968): 95.

and not the “subjects.”⁵³² They were expected to quiescently adhere to officers’ commands. Indigenous soldiers in particular underwent harsh treatment. Although revolutionary policies aimed to improve conditions for the men, many soldiers saw conscription as a continuation of policies formed by past dictatorships

Venereal disease control was central to the military’s efforts to build new men. In 1945, at the beginning of the revolution, Guatemalan military surgeons established a policy to eradicate venereal disease. The military sought to follow U.S. military policies passed during the second world war, but it did not have the financial means to do so. Instead, the Guatemalan military reprinted a Spanish version of the U.S. military’s sanitation plan.⁵³³ The U.S. government had provided this pamphlet to the Guatemalan government as a guide for sanitation efforts at the beginning of World War II. This pamphlet emphasized that venereal disease control efforts should include the distribution of condoms and require that soldiers report to chemical prophylaxis treatments after they returned from their evenings out.⁵³⁴ Although Guatemalan military wanted to give condoms to the men free of charge, they were too expensive. The military also did not have resources to offer chemical prophylaxis.⁵³⁵ Military leaders instead settled for providing the condoms to the men at cost and to ensure that they were of good quality.⁵³⁶ They required that military cantinas have condoms available for the soldiers to purchase.⁵³⁷ This measure in the cantinas along with the new law passed requiring waitresses to

⁵³² Ibid, 109.

⁵³³ Ministerio de la Guerra, “Reglamento del servicio en campaña, sanidad militar,” 11 de agosto de 1945, Spanish translation of English Manual, U.S. Government Printing Office, July 31, 1940.

⁵³⁴ *Memorias de las labores del organismo ejecutivo en el ramo de la defensa nacional, durante el año administrativo de 1944. Presentada al congreso de la república en sus sesiones ordinarios de 1945*, Guatemala, C.A, marzo de 1945; 40. Carlos Tejeda, “Dos observaciones relacionadas con la venereología,” *Salubridad y Asistencia Social* Tomo II. núm. 8, Guatemala, C.A (agosto de 1949): 98-9.

⁵³⁵ As will be discussed in chapter four, military medical doctors would request that John C. Cutler design a program of prophylaxis for the military. *Memoria de las Labores del Organismo Ejecutivo en el Ramo de la Defensa Nacional*, 42.

⁵³⁶ *Memoria de las Labores del Organismo Ejecutivo en el Ramo de la Defensa Nacional, 1944-1945*, Guatemala, C.A., marzo de 1945, 42-43.

⁵³⁷ Ministerio de la Guerra, “Reglamento de Servicio en Campaña, Sanidad Militar,” 127.

report for vaginal examinations were aimed at suppressing the spread of venereal diseases at one of its main sources. The Guatemalan military also required that unit commanders teach soldiers about venereal disease and safe sex practices. Like the U.S. military, the Guatemalan military adopted contradictory policies by preaching continence while at the same time believing in the futility of controlling male sexuality.

In Guatemala as in other parts of the world, the sex worker and the soldier have occupied similar roles in society. The government and society at large have deemed them “necessary” to protect society but have simultaneously seen them as threats to public health. As in the United States, the sex worker and the soldier have been viewed as the uncivilized or “barbarian” elements of society that are nonetheless crucial for satisfying the physical demands of sex and war.⁵³⁸ In Guatemala and other Latin countries that had the regulation system, societal norms largely represented the sex worker as necessary for protecting elite women from rape, while the soldier killed to safeguard families, communities, and the nation. Although the Guatemalan military sought to reform soldiers, their roles as the lowest rank of soldiers and their poverty and indigenous ethnicity kept them from ever assuming an idealized version of manhood. Likewise, women without financial resources or who did not ascribe to Ladino middle class domestic values could never live up to quintessential feminine values in the country.

The similarities between sex workers and soldiers in Guatemalan society are also evident in that they both were subjected to routine medical inspections. The military and the lock hospital both sought to exert total control over their bodies. Only soldiers lower than a rank of sergeant had to submit to weekly medical examinations. Military surgeons instructed the men to strip naked so that they could find evidence of venereal disease in its early stages. The military

⁵³⁸ Cynthia Lutz, *Homefront: A Military City and the American 21st Century*, (Boston: Beacon Press Books, 2001): 230.

implemented this policy because they had found that some “reluctant elements” refused to report to the military surgeons when they had become sick.⁵³⁹ The enlistees may have not trusted the military medical team, or have wanted to avoid disciplinary measures for contracting venereal disease. The men also may have felt uncomfortable having the doctors inspect their genitals. Following the guidelines laid out in the U.S. pamphlet, the sanitation team aimed to do these exams in the early morning hours or immediately after the men returned from their duties.⁵⁴⁰ The fact that Guatemalan soldiers had forced examinations suggests the coercive power dynamics in the military.

The military was also a major vehicle for implementing venereal disease control policies in the country. During the Revolution, some government doctors wanted to abolish the regulation system which they saw as ineffective in lowering the rates of venereal disease, but they faced pushback from lawmakers who continued to see prostitution as “necessary” to prevent sexual assault. The military also continued its policies of working closely with the Department of Sanitation and the police to enforce prostitution laws. Since military officials worried that venereal disease would impede soldier strength, women continued to be susceptible to arrest and harassment. The military demanded that the soldiers help them track down women suspected of clandestine prostitution. It required that men infected with venereal disease report the names of the women who had infected them.⁵⁴¹

In addition to regulating sex and disease, venereal disease control also reflected anxieties about perfecting the “race” and national formation. During the Revolution, the Guatemalan military followed the example of the United States by developing propaganda to deter men from

⁵³⁹ *Memoria de las Labores del Organismo Ejecutivo en el Ramo de la Defensa Nacional*, 42-43.

⁵⁴⁰ Ministerio de la Guerra, “Reglamento de Servicio en Campaña, Sanidad Militar,” 80.

⁵⁴¹ *Memoria de las Labores del Organismo Ejecutivo en el Ramo de la Defensa Nacional*, 43.

visiting brothels. The Guatemalan military sought the help of local artists in order to save costs. In 1945, the military held a competition for artists to design posters that would deter soldiers from visiting brothels. *El Imparcial*, the most widely read national newspaper, published the poster that won the competition: it depicts a soldier walking during the night towards a female figure beckoning him in an illuminated doorway. The woman appears to be in a brothel located in the red light district. Above the man is the ominous outline of King Kong's claw; this image suggests the man's impending fate as a monstrous figure unfit for civilized society if he becomes susceptible to his animalistic temptations.⁵⁴²

This poster responded to a request from the military for representations of King Kong as a symbol of venereal disease.⁵⁴³ In the United States, Hollywood films have used the figure of King Kong to represent black male hypersexuality and a threat to white women. While in the United States King Kong was often shown grabbing white women, in Guatemala he menaced soldiers. This figure embodies concerns about interracial relations and the eugenic future of the nation. These ideas undoubtedly crossed borders and were taken up within Guatemalan society. In theses at the medical school, students also discussed people of African descent as particularly prone to syphilis. In Central America, African-descendent populations typically resided near the banana enclaves since they were the preferred workers of the United Fruit Company.⁵⁴⁴ In Guatemala, the general perception was that West Indian populations were rife with venereal disease and responsible for bringing syphilis and gonorrhea to the highland region.⁵⁴⁵ Using the image of King Kong implies the goals of the revolutionary state to promote white, European

⁵⁴² "Enrique de Leon Cabrera, Primer Premio en Carteles," *El Imparcial*, 27 de diciembre, 1945, 2.

⁵⁴³ "Abren concurso para cartelas antivenéreos," *El Imparcial*, 20 de septiembre de 1945, 1, 3.

⁵⁴⁴ Lara Putnam, *The Company They Kept*, 9.

⁵⁴⁵ Carlos Ruano R. Tesis presentada a la Junta Directiva de Medicina y Cirugía, "Consideraciones sobre nuestra higiene rural," (noviembre de 1926, Guatemala C.A.): 17, 32. AGCA 5606.

values and to shun what were understood to be the “uncivilized” cultural practices of non-white communities.

The belief that whiteness represented blood purity can also be seen in a pamphlet entitled “*La Sífilis*” (syphilis). It shows a black male figure as representative of the vector of the disease and a healthy white female figure. After these two individuals marry, they are presented as black, indicating that the woman’s body has been contaminated through sexual intercourse. Their children are also depicted as a mixture of black and white figures, showing how syphilis is transmitted hereditarily. Inside the pamphlet, the text explains that syphilis causes the “*inutilización*” (disablement) of a person. As the word *útil* was frequently invoked during the Revolution, it suggests how a person infected with syphilis represented the antithesis of the ideal for citizenship and manhood during this period.⁵⁴⁶ This pamphlet and the King Kong poster suggest notions linking European heritage to blood purity were deeply entrenched in the Guatemala belief system.⁵⁴⁷ The presentation of these figures indicates how blackness continued to be associated with pollution and disease.

The venereal disease campaign was only part of the military’s modernization efforts. At the beginning of the revolution, the government granted the military autonomy for the first time in history and initiated a reorganization. This included a revision of its training methods and investment in its medical services and military equipment. In military documents, the officers discussed methods to instill discipline, morality, honor, and loyalty in enlistees.⁵⁴⁸ Although the venereal disease campaign was a key part of these efforts, soldiers had to undergo widespread

⁵⁴⁶ “La Sífilis,” Propaganda del Departamento Médico Militar, Ejército de Guatemala, 1946, 8.

⁵⁴⁷ Nelson, *A Finger in the Wound*, 228. Marta Elena Casaús Arzú, *Guatemala: linaje y racismo*, F&G Editores, 2010, 5.

⁵⁴⁸ *Memorias de las Labores del Organismo Ejecutivo en el Ramo de la Defensa Nacional*, 4.

changes. The military would be the institution to impress habits on men who would serve as the bulwark for a new military and a new Guatemala.⁵⁴⁹

Yet, military officers and doctors had difficulty persuading soldiers of their vision. The head of the military sanitation department observed the “brusque” changes that *campesinos* underwent during military training.⁵⁵⁰ The head military doctor, Ignacio Alfaro Sánchez, described how the soldier had to adjust to living in army barracks apart from family and relatives, eating new types of food, and coping with a different climate than their home environments. These changes often caused depression and afflicted soldiers’ physical wellbeing. When the *campesinos* arrived for military duty, they were “shy” and “aloof.”⁵⁵¹ The author blamed this attitude on their ignorance and lack of educational training. The soldiers also may have been afraid of the military leaders or responding to the coercive conditions of their new living situation.

In spite of efforts to facilitate nation building through military enlistment, draft evasion continued throughout the revolution. Police arrest logs are replete with desertion cases.⁵⁵² In September 1945, in the municipality of Izabal which is located on Guatemala’s Atlantic coastline, police authorities found 36-year-old José Rivera Sánchez, otherwise known as “José Yuca,” asleep on the steps of the United Fruit Company’s administrative office at seven-thirty in the morning, having deserted military service and carrying a sack with a hammock, telephone cord, and wire. The sack apparently belonged to a UFCO laborer and the telephone cord came from the administrative office. When Rivera appeared before the justice of the peace, he

⁵⁴⁹ Enrique Ruiz García, “El Habito,” *Revista Militar*, (septiembre de 1951): 75-6.

⁵⁵⁰ Ignacio Alfaro Sánchez, “Ciclo de conferencias para la preparación de la oficialidad perteneciente al Batallón de Sanidad,” *Revista Militar* 9 (septiembre de 1945): 187.

⁵⁵¹ E. Molina, “El Ejército Nacional: Su Necesidad y Utilidad,” *Revista Militar*, núm. 14 (junio de 1945): 145-6

⁵⁵² Guardia Civil, Ordenes Generales Correspondientes de 1947, AHPN; Guardia Civil, Ordenes Generales de Guardia Civil de 1948, AHPN.

admitted to having been intoxicated and said that he did not remember taking these items. In 1940s Guatemala, drinking was associated with criminality. Although the crimes of stealing a hammock and a telephone cord were relatively minor, his inebriation and evasion of military service further marred his character. Rivera was sent to prison and his name later appears in the Cutler records as a subject of the experiments. As he had not reported for military duty, he now was forced to provide research labor on behalf of national development.⁵⁵³

Other enlisted men capitalized upon the military's anxieties over venereal disease to evade service. John C. Cutler, the USPHS director of the experiments, stated that a number of soldiers had been intentionally infecting themselves with gonorrhea in order to find reprieve from military duties. The men were allegedly inserting matches infected with gonorrhea into their urethras. Cutler saw this as a boon for his research: he planned to use these men in his experiments.⁵⁵⁴ Although the gonorrheal infection allowed them to avoid military service, it certainly did not protect them from other forms of exploitation. These men clearly had no interest in becoming soldiers. The fact that the men apparently went to extremes to infect themselves with gonorrhea highlights just how harmful they viewed the government's efforts to redeem them.

Jailed Men and the Prison

In November, 1945, the Guardia Civil arrested Ruben Ramos Díaz on the train to Puerto Barrios for stealing four "Victor" cigar packets.⁵⁵⁵ Witnesses described Ramos to police as a "malicious" man who had been inquiring about expensive "Arrow" brand shirts outside the

⁵⁵³ *Jefatura Política*, Izabal, Caja 1, 1945, AGCA.

⁵⁵⁴ Records of John C. Cutler, "Experimental Studies in Gonorrhea," NARA Southeast, 8.

⁵⁵⁵ *Jefatura Política*, Izabal, Caja 1, 1945, AGCA.

United Fruit Company offices. They further said that Ramos was a “negro,” *gazapo* (dishonest), short, with a pockmarked face. Twenty-six years old, Ramos testified that he stole the cigars because he was short on cash. Court records list his profession as a cobbler. This arrest was not the first time he had been picked up by police authorities and sent to jail. According to the report, police had a record on him for theft and robbery. After admitting to stealing the cigars, Ramos served three months in prison. While in jail, he encountered U.S. and Guatemalan physicians who used him in experiments; Ramos paid a high price for four packs of cigars.

During the revolution, the government upheld penal laws that enshrined economic, gendered, ethnic and racial hierarchies. The term “negro” which was used to describe Ramos could have indicated either that he was of African descent like many of the laborers who lived near the banana enclaves, or that he was of indigenous heritage. More generally, this description signified that he was non-white and as a result presumed as prone to criminal behavior. Like the sex workers, almost all of the male prisoners who became medical subjects were repeat offenders. They had been charged with a range of crimes that included theft, military desertion, vagrancy, swindling, inebriation, homicide, armed robbery, and *brujería* (witchcraft). As leaders aimed to regenerate Guatemalans during the revolution through enforcement of venereal disease laws and military training, civilian men were also the targets of police campaigns. To be non-white or poor in Guatemala meant one underwent constant harassment by police and frequent imprisonment.⁵⁵⁶

State efforts to clamp down on the production and sale of alcohol also resulted from policymakers’ fears that the revolution’s efforts to improve wages and better conditions for

⁵⁵⁶ This assessment is based upon my examination of twenty-six arrest cards of men subjected to experimentation. The AHPN, or the national police archives in Guatemala City, provided me with these arrest cards that they found based upon their own investigation into the experiments. For an excellent study on criminology in Latin America, see Pablo Piccato, *City of Suspects: Crime in Mexico City* (Durham and London: Duke University Press, 2001): 4.

workers would increase opportunities for alcoholic consumption. Policymakers often spoke of alcohol and prostitution as interconnected “vices” responsible for national degeneration. Dr. Juan Funes, the doctor in charge of the lock hospital who later participated in the experiments, claimed that alcohol and social misery bred prostitution.⁵⁵⁷ In 1945, the Guardia Civil reported that the consumption of *aguardiente* (moonshine) was on the rise.⁵⁵⁸ The leading national newspaper published an editorial stating that the free time of rural workers was of particular concern. Urban workers apparently had more options for entertainment at movie theaters, billiard halls, and lectures at the national university. The newspaper claimed that as a result urban populations were not “at risk” as opposed to their rural counterparts.⁵⁵⁹ The focus on rural communities suggests how alcohol was a euphemism to express anxieties about the government’s limited control over Mayan groups.

The presumption that indigenous communities were prone to alcoholism had a long history in the country. In Guatemala, alcohol has historically been an affliction associated with indigenous communities in popular and intellectual discourse.⁵⁶⁰ The coffee economy relied upon alcohol to secure indigenous labor for harvest. Plantation representatives ensured access to laborers by plying men with alcohol and demanding the repayment of huge debts after they sobered up from their drinking binges.⁵⁶¹ During the Ubico dictatorship, the Guatemalan state led a police campaign against the clandestine production and sale of *aguardiente*, *boj*, and *chica*, all forms of illegal homebrews important for religious ceremonies and local economies in indigenous communities. The state sought to root out clandestine production of alcohol because it relied upon licensing fees, regulations, and taxes from *aguardiente* production for state coffers.

⁵⁵⁷ Funes, “Proyecto de Nueva Legislación Antivenérea,” 6.

⁵⁵⁸ Memoria de los Trabajos Realizados por la Guardia Civil de Guatemala Durante el Año de 1945 (Guatemala, C.A. 1949): 79.

⁵⁵⁹ “Octavos y Cantinas,” *El Imparcial*, 28 de mayo, 1948.

⁵⁶⁰ “Weekend” y Alcoholismo,” *El Imparcial*, 28 de mayo de 1948.

⁵⁶¹ Carey, *I Ask for Justice*, 72.

Although large companies that produced alcohol could afford to pay these fees, moonshiners often did not have the funds and had no choice but to evade these costly fines.⁵⁶² The criminalization of moonshiners had the effect of reinforcing the identification between Mayan culture and criminality. During the revolution, the state government increased taxes on the production and sale of alcohol.⁵⁶³ It also continued to pursue arrests for the clandestine production of *aguardiente*.⁵⁶⁴

Nonetheless, the increase in taxes did little to dissuade the consumption of alcohol during the revolution.⁵⁶⁵ The *Guardia Civil* continued to avidly pursue the crime of “inebriation.” Police reports show that arrests for “inebriation” far exceeded those of other crimes. In 1945, the *Guardia Civil* made 5,636 arrests for inebriation (5,075 for men and 561 women).⁵⁶⁶ Although the number of arrests was less during the revolution than it had been during the Ubico era, the national police still made the repression of alcohol a primary goal.⁵⁶⁷

The government also kept up with its criminalization and efforts to regulate traditional healing practices. At least one of the prisoners in Cutler’s record was detained for practicing witchcraft. As mentioned in Chapter One, in the 1930s the state began its pursuit of midwives and traditional healers as part of its campaign to establish biomedicine as the nationwide healthcare system. During the revolution, the state expanded efforts to punish traditional healing systems.⁵⁶⁸ Dr. Juan Funes, the head of the venereal disease hospital who participated in the

⁵⁶² Virginia Garrard, “Indians are Drunks and Drunks are Indians,” *Bulletin of Latin American Research* 19, no. 3 (July 2000): 352. Carey, *I Ask for Justice*, 56-89.

⁵⁶³ “Decreto Numero 14,” La Junta Revolucionario de Gobierno, *Diario Centroamérica*, núm. 15, (1944): 89

⁵⁶⁴ Memoria de los Trabajos Realizados por la Guardia Civil de Guatemala Durante el Año de 1945 (Guatemala, C.A. 1949): 80-81.

⁵⁶⁵ “Generosa Campaña en Favor de la Represión del Alcoholismo,” *El Imparcial*, 12 de julio, 1945. Carey, *I Ask for Justice*, 57.

⁵⁶⁶ Memoria de los Trabajos Realizados por la Guardia Civil de Guatemala Durante el Año de 1945.

⁵⁶⁷ Ibid.

⁵⁶⁸ Carey, *Engendering Mayan History*, 45. In 1945, the government began to spray rural areas with DDT to eradicate lice and typhus. See, *Consentir al Daño: Experimentos Médicos de Estados Unidos en Guatemala*, Informe de la Comisión Presidencial para el Esclarecimiento de los Experimentos Practicados con Humanos en Guatemala, octubre de 2011.

experiments, repeatedly supported this initiative and advocated for the “drastic application” of laws that criminalized healers who did not practice with a license. He argued that these healers exploited their patients and impeded efforts to bring a biomedical system to rural areas.⁵⁶⁹ In the early fifties, the Ministry of Health mandated that all midwives undergo a training course with a nurse or doctor. Those who did not comply were subject to arrest. Still, it was not until the sixties that most midwives started to undergo training in biomedicine. Although doctors such as Funes sought to bring medical care to communities that had long been ignored by the state, this effort was also part of racist and sexist policies that denigrated indigenous cultural practices.

Many indigenous and poor Guatemalans preferred to see traditional healers rather than medical doctors. By attempting to suppress Mayan healing practices and to promote biomedicine, the state aimed to change people’s deeply held beliefs and bodily practices. In Mayan communities, girls born on certain days were assigned the role of midwifery. As they grew older, many midwives claimed to be in communication with supernatural spirits. Particularly indigenous women who thought it shameful to have a male doctor examine their sexual organs preferred visiting a midwife for reproductive care. Midwives served as both healthcare providers and as guidance counselors for women.⁵⁷⁰ The campaign against midwifery undercut women’s authority in their communities and also sought to reshape norms of intimacy. Despite the efforts by the state to impose a new medical system in rural areas, many from indigenous communities continued to uphold their own traditions.

Just as the campaign against alcohol and traditional healing practices targeted indigenous communities, so did the criminalization of vagrancy. The 1945 constitution defined labor as the “right of the individual and a social obligation.” Although the state abolished Ubico’s 1934

⁵⁶⁹ Juan M. Funes, “Plan general de acción de la lucha anti-venérea,” 14.

⁵⁷⁰ Carey, *Engendering Mayan History*, 31-43.

severe vagrancy law mandating that all men without “adequate profession” or land had to work on a coffee plantation between 100 to 150 days per year, vagrancy remained punishable and the national police aggressively pursued it.⁵⁷¹ Landowners strongly opposed changes to the vagrancy law because they believed it to be essential for maintaining adequate numbers of laborers and therefore the government did not repeal the law. In 1945, the Guardia Civil made 815 arrests for vagrancy.⁵⁷² This number was less than half of the arrests typically made in any year during the Ubico era.⁵⁷³ Yet, the vagrancy law still made it more likely that men from the laboring poor would have frequent encounters with police. As the criminal justice system had previously worked to ensure labor on plantations, during the revolution it worked to place men in the service of economic and national development.

Hospital Patients and the Asylum

In 1947, police requested that Erica Aguilar Romero who was serving a 20-year sentence for the murder of another woman be transferred to the *Asilo de Alienados*, the state-run psychiatric institution located in Guatemala City.⁵⁷⁴ Aguilar was registered with the state as a sex worker. Despite her denial of this crime, she was widely condemned by Guatemalan society. In what appears to have been a crime of passion, she had allegedly decapitated the woman. A prominent local newspaper advocated that Aguilar receive the death penalty for the gruesome murder.⁵⁷⁵ The fact that she was a sex worker did not help garner public sympathy. Following

⁵⁷¹ “Ley Contra la Vagancia,” *Diario de Centroamérica*,” (12 de mayo de 1934): 1. “Ley de Vagancia: Decreto 118,” *Diario de Centroamérica* (28 de mayo; 1945): 71; Greg Grandin, *The Last Colonial Massacre*, 26; Memoria de los Trabajos Realizados por la Guardia Civil de Guatemala Durante el Año de 1945, 1949; 5.

⁵⁷² Memoria de los Trabajos Realizados por la Guardia Civil de Guatemala Durante el Año de 1945, 101-102.

⁵⁷³ Memoria de los Trabajos Realizados por la Policía Nacional de Guatemala durante el año de 1943, (Guatemala, C.A., 1944): 119.

⁵⁷⁴ John C. Cutler Records, “Final Syphilis Report Part 1,” 18.

⁵⁷⁵ “Pena de Muerte a Beltrán Boteo,” *El Imparcial*, 9 de julio de 1946.

her sentence, Aguilar attempted suicide. As a result, the police determined that her case should be reviewed by the psychiatrists at the mental institution.⁵⁷⁶ It was during her time in the hospital that she encountered U.S. doctors and became a subject of the experiments.

The revolutionary government sought to change the reputation of the hospital from a ward for irredeemable members of society to a site of regeneration and scientific study.⁵⁷⁷ Nevertheless, throughout the forties the *Asilo* was stigmatized as overcrowded, filthy, and diseased.⁵⁷⁸ In his medical notes, Cutler described the asylum as “desperately and pathetically poor, both financially and in terms of the medical attention that patients received.”⁵⁷⁹ Located in a Spanish colonial-style building with a central courtyard area, patients mingled with one another during the daytime hours. Cutler added that the physicians and staff remained dedicated and that the conditions in the hospital were often better than what the patients had experienced previously.⁵⁸⁰ Many of the attendants in the psychiatric institution were from a Catholic religious order. Still, Cutler’s reflections may have been part of his efforts to justify using hospital patients for his experiments.

Not just the psychiatrists working in the *Asilo*, but family members, employers, town mayors, police officers, and neighbors observed and diagnosed individuals as mentally unfit.⁵⁸¹ A number of patients were first sent to the hospital by their relatives. Often they had few resources and little time to care for their family members. Since the hospital had a bad reputation, many families sent their relatives there only as a last resort.⁵⁸² Dr. Miguel Molina, the

⁵⁷⁶ Fondo de la Salud Pública, Los expedientes de los pacientes del asilo, AGCA, Legajo, 24127.

⁵⁷⁷ Other Latin American progressive movements such as in Brazil have made the psychiatric institutions central to regeneration efforts. See Meyer, *Reasoning Against Madness*, 39.

⁵⁷⁸ Interview with José García Noval, Guatemala City, November 25, 2015.

⁵⁷⁹ John C. Cutler Records, “Final Syphilis Report Part 1, 19.

⁵⁸⁰ Ibid.

⁵⁸¹ Ellen Dwyer, *Homes for the Mad: Inside Two Nineteenth-Century Asylums* (New Brunswick and London: Rutgers University Press, 1987): 6.

⁵⁸² Memoria del Asilo de Alienados. 31 de diciembre de 1935. Fondo de la Salud Pública, AGCA, Legajo 24280, Interview with José García Noval, Guatemala, City, November 15, 2015.

hospital's director during the revolution, received a plethora of letters from family members pleading with him to alleviate their burdens of caring for their family members. Some of the patients later used in the experiments had been sent by plantation owners and several were admitted at the request from the United Fruit Company's doctor, Neil MacPhail. Military officials sent a soldier to the asylum because he was an alcoholic and had not been able to demonstrate necessary discipline.⁵⁸³ A number of patients also entered the hospital through the criminal justice system. When police and the judicial courts suspected that a patient suffered from a mental illness, they would request a psychiatric examination from the forensic psychiatrist on staff at the hospital. The fact that criminals mixed with other patients had the effect of stigmatizing the population in the hospital as dangers to society.⁵⁸⁴

The lack of regulations governing the institutions meant that people often were committed to the hospital with little evidence that they suffered from a mental illness. A doctor wrote in a medical journal that the national police was largely responsible for classifying people as insane.⁵⁸⁵ Almost one third of the patients in the asylum were epileptics, which was much higher than in other countries including Cuba and the United States. The doctor said that the police took any person in public view who suffered a convulsive attack to the mental institution.⁵⁸⁶ The majority of people at the hospital used in the experiments were also epileptic. Other common mental illnesses in the institution included "*trastornos mentales*" (mental disorder), "*oligfrenia*" (mental incapacity), and *psicosis infecciosa* (infectious psychosis).

The author said the rates of these "diseases" were also higher in Guatemala than in other countries, indicating that people had been erroneously diagnosed with mental illness. He added

⁵⁸³ Fondo de la Salud Pública, Asilo de Alienados, expediente, 24115, AGCA.

⁵⁸⁴ Dwyer, *Homes for the Mad*, 95.

⁵⁸⁵ Dr. Ricardo Ponce Ramirez, "Enfermedades mentales en Guatemala durante el año 1949," *Revista de la federación médica*, No. 17, (abril, mayo y junio): 4-7.

⁵⁸⁶ *Ibid.*, 4-5.

that the high rates of mental illness may have been due to the inadequate efforts on the part of the sanitation department to eradicate infectious disease, including syphilis, which caused mental illness (such as syphilis) and the large indigenous population in the country. The doctor explained that the Mayan population did not know that factors such as pregnancy, malaria, intestinal parasites, alcoholism, and inadequate nutrition could harm genes.⁵⁸⁷ Although he blamed police for falsely diagnosing people with mental illnesses, he upheld racial understandings that the indigenous population was largely at fault for mental and physical degeneration in Guatemalan society.

Once the patients were accepted into the institution, psychiatrists diagnosed their conditions and determined their length of stay in the *Asilo*. The patients later used in the experiments were found to have a range of disorders. These included “enajenación mental,” or loss of mental faculties. Psychiatric examiners found others to be “idiots,” “demented,” “alcoholics,” “psychopaths,” “hysterics,” “epileptics” or as having “sexual psychosis.” One physician wrote in a hygiene publication that approximately a quarter of the people in the *Asilo* suffered from mental health problems that developed due to untreated syphilis.⁵⁸⁸ In the mind of this doctor, prostitutes or sexual relations outside of marriage were blameworthy for a significant portion of the mental “degeneration” in the country. The fact that medical doctors believed that syphilis was prevalent in a sizeable portion of the population may have served as a justification for including them in the experiments.⁵⁸⁹

⁵⁸⁷ Ibid, 6.

⁵⁸⁸ Julio Fuentes Novella, *Alfabetización Higiénica* (octubre de 1947): 7.

⁵⁸⁹ In other experiments with the mentally ill in the United States, doctors have claimed that they were performing “studies in nature” because they were not altering conditions that were endemic to the institution. Bioethicist David Rothman found that medical researchers infected disabled children in the Willowbrook School in Staten Island, New York with hepatitis, based upon the justification that the disease was endemic to the institution. 262-265. See David and Sheila Rothman, *The Willowbrook Wars*: (New York: Harper & Row Publishers, 1984): 262-265.

Dr. Miguel Molina first began working as a forensic examiner at the *Asilo* under the direction of Dr. Carlos Federico Mora, who had been formative in the revolutionary overthrow of Ubico. During the Revolution, Mora became president of the Guatemalan League of Mental Hygiene and wrote a manual on eugenics.⁵⁹⁰ His views greatly influenced Molina. As a forensic examiner, Molina held inordinate power over his patients' lives. He approached his work with a high sense of moral purpose. In his letters to other government institutions, he discussed the toll that his work took upon him daily and the "transcendent social responsibility" that he felt in his work. Molina was concerned that he did not have the resources to perform up to his standards.⁵⁹¹ Although he made requests for additional staffers to relieve his burden, it is unlikely that he received the support that he requested given limited funding for the asylum.

Oral histories have supported the view that Molina was a doctor with a strong sense of social responsibility. Dr. José García Noval, one of Molina's students in the medical school at the national university where he taught neuroanatomy, described him as highly generous, ethical, and just. He recalls that Molina had tremendous patience with his patients at the psychiatric hospital. In his private life, he also tried to live up to the values that he preached in his work, although he was not as rigid. He would invite students to his house where he would play his piano for them. One time a student showed up at his house with a jug of wine. Molina told him, "look I have told you that alcohol kills brain cells. But tonight we are going to kill some." He then took a large gulp. García said that he has struggled to understand why this medical doctor beloved by students would partake in the experiments. Yet like other medical professionals of

⁵⁹⁰ Carlos Federico Mora, *Manual de Medicina Forense*, (Guatemala, C.A., agosto de 1931).

⁵⁹¹ Fondo de la Salud Pública, Los expedientes de los pacientes del asilo, Legajo, 24369, AGCA.

this time, García believes that Molina's views were influenced by paternalism, race, and class prejudices.⁵⁹²

Molina's professional writings vividly illustrate how understandings of race informed his forensic assessments. In the early thirties, Molina gave a presentation at the national university about the degenerative physical and psychological effects of alcohol.⁵⁹³ He claimed that alcoholism threatened to create a "new race" with children prone to vagrancy, epilepsy, and prostitution.⁵⁹⁴ Given the association between alcohol and Mayans, this statement implicitly blamed indigenous groups for crime, madness, and degeneration in Guatemalan society.⁵⁹⁵ Molina also reflected national discourse in connecting alcohol with prostitution. His comments furthered associations of sex workers as propagating the country's poor and syphilitic. The "new race" that Molina envisioned stood in opposition to what liberals hoped to foster in a productive and healthy labor force.

Years later during the revolution, Molina published a paper that revealed that race continued to have a central role in his examinations.⁵⁹⁶ The article entitled, "Study of a Psychopathic Personality in Guatemala," described Molina's assessment of an indigenous man named José M. Bux who had allegedly conducted a rash of murders and sexually assaulted children with a ladino named Mariano M. Miculax. During Molina's assessment, he interviewed Bux and performed a physical examination. He concluded that Molina did not have the "creative intelligence" to perform these crimes on his own, and therefore determined Miculax to be the

⁵⁹² Interview with José García Noval, Guatemala City, November 2015.

⁵⁹³ Dr. Miguel F. Molina, "Degeneración del Origen Alcohólico," *Boletín Sanitario de Guatemala* Nums. 14, 15, 16 (octubre-diciembre 1930): 408; Records of John C. Cutler, "Final Syphilis Report Part 1," 18.

⁵⁹⁴ Molina, "Degeneración del Origen Alcohólico," 408.

⁵⁹⁵ Also in Brazil, psychiatry developed as a way to implement social control over non-white populations that had formerly been slaves. Meyer, *Reasoning Against Madness*, 11.

⁵⁹⁶ Miguel F. Molina, "Study of a Psychopathic Personality in Guatemala" *Psychiatry* 10, no. 1 (February 1947): 31-6.

author of the crimes.⁵⁹⁷ He added that Bux was a “wretched product of Indian origin with Asiatic features, lacking culture, ignorant to an extreme and only possessing an intelligence which gives the superficial impression of an astuteness of a wild animal.”⁵⁹⁸ Molina’s denigration of Bux’s intelligence and his invocation of animal imagery suggests longstanding racist views of Mayans as uncivilized and easily manipulated. In effect, Molina blamed the whole of Mayan culture for Bux’s crimes.

Hospital records show that Molina’s racial prejudices also informed his examination of patients who were later subjected to experimentation. In March 1946, police charged Manuel Ajpu’, a 45-year-old indigenous kaqchikel man and day laborer from Chimaltenango, with the murder of his brother, Celestino. Labeled by judicial authorities as *demente*, he was then transferred to the central penitentiary. As Ajpu’ did not speak Spanish, Molina had to rely upon interpreters throughout his assessment. The interpreters described him as “deaf and mute.” He denied the charge that he had killed his brother. In his testimony, he said that his brother returned home intoxicated and began to consume all of the family’s food. After the two brothers got into a physical altercation, Celestino ran away. The next day, Ajpu’ claimed that he found his brother and he had fallen on his knife. The story did not convince Molina of Ajpu’s innocence. Molina concluded that his “vulgar” crime was driven by his “primitive” instinct and lack of ethical, social, and legal inhibition. Like with Bux, Molina blamed Ajpu’s lack of culture and civilization for his crime.⁵⁹⁹

Molina’s pathologization of Ajpu’s character likely influenced the decision by the asylum staff to designate him as an experimental subject. In the *Asilo* records, Manuel Ajpu’s name was

⁵⁹⁷ Molina, “Study of a Psychopathic Personality in Guatemala,” 33-4.

⁵⁹⁸ Ibid.

⁵⁹⁹ Fondo de la Salud Pública, Los expedientes de los pacientes del asilo, Legajo, 24120, AGCA.

on a list of “*enfermos trasladadas por los doctores americanas*” (patients for the American doctors).⁶⁰⁰ The document contained the name of Dr. John C. Cutler on the top of the sheet and was stamped by the secretary of the Neuro-Psychiatric Hospital. As was the custom of the time, U.S. researchers did not seek consent from the individual patients but rather obtained it from the institutions. Molina’s medical examination may have led asylum authorities to conclude that Ajpu’ would serve as an ideal candidate for medical experimentation because he was assessed to be beyond the hope of rehabilitation.⁶⁰¹

Yet, not just indigenous patients but poor ladinos as well were subjected to experimentation. People placed on lists for the American doctors often had the slimmest patient files, as opposed to members of the middle class who also used the hospital and received more attention.⁶⁰² In the file of a woman with little means named Virginia Romero, whose name also appeared on Cutler’s list, the examiners just checked boxes.⁶⁰³ Doctors had diagnosed her with epilepsy. The examiners also checked on the chart that she was “agitated” would often “cry,” “scream, and “talk to herself.” Other boxes indicated that Romero was “disobedient,” “sad,” and sometimes insulted others. The back of the form contained the record for the electric shocks that she repeatedly received, which was a common treatment in the hospital. The records indicate that there was little inquiry from Romero or from others outside the institution regarding her status or demanding justification as to why she remained in the psychiatric institution for all those years. This silence is revealing of the limited abilities of psychiatric patients to protect themselves from doctors. In contrast, one former officer in the military was a patient in the hospital. His file was thick, demonstrating that he received better care.⁶⁰⁴ With too many patients and very few

⁶⁰⁰ Fondo de Salud Pública, Los Expedientes del Neuro-Psiquiátrico, Legajo 24367, AGCA.

⁶⁰¹ Records of John C. Cutler, “Final Syphilis Report,” 27.

⁶⁰² Ibid, 33.

⁶⁰³ Fondo de la Salud Pública, Los expedientes de los pacientes del asilo, 1947, Legajo 24127, AGCA.

⁶⁰⁴ Fondo de la Salud Pública, Los expedientes de los pacientes del Asilo, Legajo 24150, AGCA.

resources, the staff had to make decisions about which patients should receive their attention. Social hierarchies established in Guatemalan society informed the treatment that patients received in the hospital.

During the Revolution, policymakers tried to improve the asylum's reputation and sought to find better methods for rehabilitating patients. Molina wanted to fashion a new image of the institution as committed to science and as having the potential to cure patients so that they would become "useful" members of society, rather than as a place in which to indefinitely house the country's mentally ill. As part of these efforts, he renamed the asylum the Neuropsychiatric Hospital.⁶⁰⁵ He also spearheaded efforts to create a society for neuropsychiatry with the most preeminent physicians in the country and members of the university. The plan was that the society would help to perfect the study of mental illnesses and find ways to cure them.⁶⁰⁶ Leading doctors such as Luis Galich, the head of the department of sanitation who later participated in the experiments, was part of these efforts. Molina wanted to correct the impression in the general public that the hospital was a dirty and miserable place and a site of contagion for various diseases.⁶⁰⁷ The government also funded a literacy program in the asylum.⁶⁰⁸ The teacher, Luz Adela Muralles, wrote about the motivation of female patients to learn to read and write in Spanish. Especially since indigenous women had high rates of illiteracy, this program provided an important opportunity for women. These skills would allow them to write letters to government authorities to push for better care within the institution.

Yet these efforts at regeneration could lead to increased social control of patients. In 1945, Arévalo signed an order requesting that the police send alcoholics who they arrested for

⁶⁰⁵ Fondo de la Salud Pública, Hospital Neuro-Psiquiátrico Legajo 24367, AGCA.

⁶⁰⁶ Ibid. "Adelantos del Hospital Neuro-Psiquiátrico," *Diario de Centroamérica* (2 de agosto de 1947): 6

⁶⁰⁷ Fondo de la Salud Pública, Los expedientes de los pacientes del asilo, Legajo, 24369, AGCA.

⁶⁰⁸ Fondo de Salud Pública, Memoria de la Hospital Neuro-Psiquiátrico, Legajo 24280 AGCA.

treatment in the asylum. Although many alcoholics would be released after they had sobered up in the prison, the asylum would now conduct a psychological examination that could further pathologize patients.⁶⁰⁹ While the psychiatric institute treated many of the patients arrested for alcohol quickly, some remained in the institution to be treated for “chronic alcoholism.” For instance, Arturo Barrios Jimenez, whose name appears in the Cutler records, had been detained several times in the psychiatric institution for alcoholism. In his medical examination, physicians determined to keep him in the asylum for an indefinite period of time due to the “organic disorders” that had resulted from his “chronic alcoholism.”⁶¹⁰ As the “scientific” improvements in the hospital were intended to help cure patients, in some cases they committed them to more time needed to be served in the institution.

In their efforts to make the hospital more scientific in its approach to mental illness, Guatemalan medical doctors held a meeting to discuss the ethical implications of performing surgical operations on the mentally ill. They wanted to create a surgical center in order to cure the physical as well as the psychological causes of patients’ afflictions. During this meeting, one doctor advocated that medical professionals approach the treatment of mental illness in the same manner as attempting to cure dysentery. Molina mentioned that he had visited a mental institution in Havana and St. Elizabeth’s in Washington, D.C., which was the U.S. Public Health Service hospital. Molina looked to St. Elizabeth’s as an example of one of the best psychiatric institutions in the world. He said that operations were regularly performed at St. Elizabeth’s to treat mental health diseases.⁶¹¹ For the Guatemalan doctors, the U.S. mental health institution served as an example of scientific and modern medical care.

⁶⁰⁹ Fondo de Salud Pública, Hospital Neuro-Psiquiátrico: Legado 24365, AGCA.

⁶¹⁰ Ibid.

⁶¹¹ Fondo de Salud Pública, Hospital Neuro-Psiquiátrico, Legado 24369, AGCA.

The doctors' ideas about what types of surgeries should be performed were influenced by their understandings of sexuality. Several of the doctors mentioned that medical professionals around the world well understood that gynecological conditions caused mental illnesses in women. Guatemalan physicians including Galich, supported subjecting women to gynecological surgeries, but did not mention exactly what types of procedures would be performed. In the *Asilo*, psychiatrists used hysteria as a diagnosis for women with mental disorders. In other parts of the world when doctors found cases of hysteria to be extreme, they would perform hysterectomies. Although no evidence exists that the doctors did indeed carry out these surgeries with women in the mental institution, their discussion illustrates how attempts to cure what was perceived to be abnormal sexuality were closely associated with physicians' attempts to form new Guatemalan subjects. Both the hysteric and the prostitute have been used to demarcate what has deemed to be abnormal as opposed to normal female sexuality.⁶¹² While hysteria has thought to be caused by deviance from normal female reproductive function, the prostitute has been associated with masculine sexuality.⁶¹³

Although efforts intensified to cure Guatemalans of their afflictions, evidence indicates that some Guatemalans fought back against their designations as mentally unfit to participate in society. In the asylum records, Rodolf López Morales, whose name also appears in the Cutler records, has one of the thickest files.⁶¹⁴ Although patients such as López who came from humble backgrounds often did not receive much attention from staff members, he demanded that Molina examine his case. At the age of seventeen, López had initially been arrested for the crime of theft, but had been transferred to the asylum at the request of the police who required he receive

⁶¹²Jann Matlock, *Scenes of Seduction: Prostitution, Hysteria, and Reading Difference in Nineteenth-Century France*, (New York: Columbia University Press, 2004): 4.

⁶¹³ Ibid.

⁶¹⁴ Fondo de la Salud Pública, Expedientes de los pacientes del asilo, Legajo 24149, AGCA.

a medical examination. In this assessment, Molina had identified him as a “psychopath” and determined that he had difficulty adapting to his surrounding social environment.⁶¹⁵ He determined that López should remain in the hospital as he was perceived to be a threat to society.

López challenged this assessment. For several years, he pressed Molina to reexamine him. When Molina ignored this request, López wrote to the Ministry of Government to investigate his case. He complained that he was losing his youth and requested a transfer to the penitentiary so that he could carry out his sentence. He also said that he wanted to visit his family and find employment, appealing to the ideals of the revolution. He wrote to the Ministry of Government about his treatment in the asylum. This treatment could have included his role in the medical experiments; López was also listed in Cutler’s record. The records show that López left the institution in 1948, but it does not mention whether he went to the penitentiary, or was set free.⁶¹⁶

As will be demonstrated in the next chapter, some of the worst abuses during the experiments occurred in the asylum. This may have been because the Guatemalan government had less investment in these hospital patients as future citizens. The hospital was overcrowded and most patients got very little attention. Disabled mental health patients were also likely the least able to defend themselves.

Children and the Orphanage

When Marta Lidia Orellana was just five years old, her parents passed away. No one ever told her why her parents died. At the time, the family had been living in Guastatoya, a small city in the Department of El Progreso in the east-central part of Guatemala. Following the death of

⁶¹⁵ Ibid.

⁶¹⁶ Fondo de la Salud Pública, Expedientes de los Pacientes del asilo, Legajo 24147. AGCA.

her parents, she went to live with her older sister in the capital. She only stayed with her sister a short while because she could not afford to care for her. One day without explanation, Orellana's sister brought her to the national orphanage. Although she cried when her sister left her, the people who worked at the orphanage gave her a café with milk. She described her life in the orphanage as "*linda*" (lovely) for several years. She found other children to play with and enjoyed her time there.

Then when she was about nine years old, a medical doctor who she did not know summoned her to the clinic. The doctor was with several other medical professionals and nurses. They began calling her back for regular gynecological inspections and for injections of various substances. The doctors never explained to Orellana what types of substances they were injecting into her body. Orellana said those gynecological inspections, injections, and blood draws transformed her childhood and her entire life. When she was released years later from the orphanage, she tested positive for syphilis. She believes that during those medical examinations that the doctors gave her syphilis.⁶¹⁷

Forcing youth to perform *research labor* was not the first time that orphaned and poor Guatemalan children had been coerced into various types of work. Children who lost their parents were often *regalado*, or given as a gift to their relatives so that they could assist with household chores and bring in additional income.⁶¹⁸ Continuing into the present day, youth born to families with many children may be given to relatives without any offspring. Unlike in the United States, birth parents in Latin America have not always legally relinquished their rights to their offspring before sending them to relatives. The assistance children provide to household

⁶¹⁷ Interview with Marta Lidia Orellana, Guatemala City, December 11, 2015. Oscar Ismatul, "Las inyecciones cambiaron mi vida," *Prensa Libre*, 17 de octubre de 2010.

⁶¹⁸ Forster, *The Time of Freedom*, 104.

budgets or domestic labor has been highly valued particularly in poor families around the world.⁶¹⁹ Often when children grew up in these situations, their relatives would work them day and night. Sometimes the children were subjected to physical abuse.⁶²⁰ In addition to being gifted to other families, many children struggling with poverty labored as servants and sometimes as prostitutes.⁶²¹

The Labor Code established during the Revolution regulated the work conditions for children. It prohibited children from working in cantinas or other establishments that sold alcohol. The Labor Code also forbade children from working in situations that were dangerous or unsuitable for their age, although it did not describe what were these positions. But the Labor Code did allow children to contribute to the family business or to assist parents with income when they were extremely poor.⁶²² Child servants were also subject to the same rules as domestic workers, meaning that they had few state protections. Moreover, many aspects of the new labor regulations were never enforced. As a result, forced child labor continued through the revolutionary period.

At the same time that the government was lax in its oversight of child labor, state policies that focused on childhood development and on helping mothers brought about new forms of social control as well as opportunities for women to gain assistance. These policies were not so much directed towards helping women as they were informed by eugenic policies.⁶²³ Still, many women sought out these programs; they wanted to take advantage of opportunities to secure better healthcare services for their families and support for childrearing. State authorities

⁶¹⁹ Gordon, *Heroes of Their Own Lives*, 9.

⁶²⁰ Ibid.

⁶²¹ Forster, *The Time of Freedom*, 102-103.

⁶²² *Recopilación de las Leyes de la República de Guatemala*, 1946-1947, Guatemala, C.A., 865-866.

⁶²³ The revolution bears many similarities to the U.S. progressive era in that they both brought about new forms of social control, while their programs were at times embraced by the poor members of society who were the focus of the campaigns. See Linda Gordon, *Heroes of Their Own Lives*, 59-81.

established maternal health and childcare centers in poor neighborhoods, expanded the national orphanage facilities, built schools and trained teachers in rural areas who brought the principles of hygiene to their students. Since social reformers saw the development of patriotic and hardworking children as essential for the vision of the revolution, policymakers made the investment in mothers and children their priority.⁶²⁴ Still, there was a fine line between providing aid to poor children and expropriating their bodies for medical research.

Although many policies claimed to help women, social reformers were quick to blame mothers. The law dictated that the state should place children in the national orphanage located in the capital if a mother had more than five children, was extremely poor, or found to be mentally unfit.⁶²⁵ Perhaps social reformers presumed like many have that children from families with multiple siblings would be neglected. Sex workers who were labeled “unnatural mothers” were most vulnerable to having the state remove their children and place them in an orphanage. These stipulations gave the state broad power to intervene in women’s personal lives. Sexual and physical abuse remained commonplace during the revolution and resulted in women having unwanted pregnancies who did not have access to birth control.⁶²⁶ Although some documentary evidence from court cases and in anthropologist’s notes indicates that women gave themselves abortions through taking herbs or through visiting “empiricists,” little is known about the ways that women prevented unplanned pregnancies.⁶²⁷ What remains apparent is that social reformers labeled women incompetent mothers who did not have adequate means to control their reproductive health.

⁶²⁴ In other Latin American countries such as Brazil, maternalist programs have been at the center of eugenic efforts focused on national development and Otovo, *Progressive Mothers*, 11-12.

⁶²⁵ “Datos Referentes a la Organización del Hospicio Nacional,” *Salubridad y Asistencia Social* (Febrero 1950): 37.

⁶²⁶ Forster, “Violent and Violated Women,” 58.

⁶²⁷ Richard Adams Notebook, Magdalena Milpas Altas, May 20, 1953. *Jefatura Política*, Departamento de Izabal, 1945.

Since the domestic practices of urban poor and indigenous families differed from Ladino families with more financial resources, social reformers could find ample cause for intruding in their daily lives. Directly following the revolution, a British anthropologist did a study on urban poor families living in Guatemala City. She discovered that families did not reside in isolated family units but rather shared homes with neighbors. A number of couples preferred “impermanent unions” to marriage. These partnerships made women vulnerable to their male partners, neighbors, and family members who could easily paint them as prostitutes to authorities and made them susceptible to police harassment. Because the concubines of wealthy men were generally better equipped to avoid unwelcome encounters with police, poor women were much more likely to be charged with clandestine prostitution. As poor families often did not reside in single family homes and women worked, their children were more frequently on the street. If a woman was fortunate, her mother would take care of her children while she worked long hours as a domestic worker or in another job. Yet many times women had no option but to leave their children alone.

Moreover, women also came under scrutiny by social workers and doctors when they took their children to local healers. Women may have taken their children to traditional healers because they could not afford a physician. Many were following well established practices that had been passed down by women in their communities. Social reformers pathologized mothers for failing to address their children’s healthcare needs by refusing to take them to medical doctors.⁶²⁸ Like in other countries, the denigration of traditional healthcare practices formed part of efforts to promote biomedicine in the country.⁶²⁹

⁶²⁸ Judith Freedman, *The Social Factors in the Aetiology of Infantile Pluricarenal Syndrome (Kwashiorker) in Guatemala*, WHO Consultant December 1955, 40. Copy obtained at Richard N. Adams Personal Library, Panajachel, Guatemala.

⁶²⁹ Otovo, *Progressive Mothers*, 131.

As social reformers blamed mothers with limited financial resources for neglecting their children's needs, they sought to use the orphanage to fashion poor youth into able-bodied citizens. During the revolution, the state wanted to increase the capacity of the national orphanage in Guatemala City to serve more children throughout the country. At the time, the *Hospicio Nacional* (the national orphanage) was filled beyond its limits with children from regions throughout the country. The orphans ranged between infancy and eighteen years of age. Located in a two-story Spanish colonial style building in Guatemala City, the orphanage crammed upwards of five-hundred children into rows of beds located in long and narrow rooms. It had trouble meeting all the requests for entry. The state tried to use the institution to reform the habits of the laboring poor. Employees provided training to the children so that they would be able to be economically independent once they had to leave the institution. They offered vocational training programs in textile production, cobbling, baking, hairdressing, and painting. They also built nutritional programs and gave the children access to regular medical examinations. Particularly talented children could receive grants to attend more advanced schools. Yet most often once the orphans left the institution they would fill the ranks of jobs typically performed by the laboring poor.⁶³⁰

Along with expanding orphanage facilities to accommodate more children, the state also established maternal and child healthcare and daycare services for women in poor neighborhoods. This program sought to alleviate the social and economic conditions that made childrearing a burden for many poor women. Elisa Martinez de Arévalo, the president's wife, used her role as first lady to launch a daycare center and maternity ward for impoverished mothers in Guatemala City. Martinez was Argentinian and brought the idea of these daycare

⁶³⁰ "Datos Referentes a la Organización del Hospicio Nacional," 37-44.

facilities from her country where they had been established for the working classes.⁶³¹ Six months after Arévalo took office, the government opened its first day care center and maternity ward in El Palmita, one of the shantytown communities on the edge off the city. The establishment of this center was unprecedented in a neighborhood long neglected by the state.⁶³² The program offered maternity care, childcare services, and training for the new mothers. Following delivery, the physicians would administer vaccinations to the children and the center would ensure that they received adequate nutrition.

Dr. Juan José Hurtado, who worked in the center as a young medical student in pediatrics, said that the program gave medical doctors “complete control” over the development of children. The center provided impoverished children who likely would never have visited a doctor with access to medical care.⁶³³ Hurtado added that participation on the part of mothers was voluntary. The mothers did not have to pay anything for the program but were required to work one afternoon per week in the center. They also had to learn principles of hygiene, nutrition, and child rearing from the nurses at the center. Although this program appeared more focused on ensuring the healthy development of children than with the empowerment of women, the mothers who were part of the program eagerly sought out the services. At the same time that the program rendered women’s intimate lives and their children subject to greater control by the state, it also helped women left with no other options for childcare or medical services. This program shows the complicated nature of reform efforts that were both intrusive and at the same time a welcome intervention on the part of many women.⁶³⁴

⁶³¹ Argentina had a large and advanced medical community and a well-established eugenics society. See Stepan, *“The Hour of Eugenics,”* 58-60.

⁶³² Way, *The Mayan in the Mall*, 46.

⁶³³ “La Maternidad No. 1 de Guarderías Infantiles,” *Salubridad y Asistencia Social*, (septiembre de 1950): 43-48. Interview with Juan José Hurtado, Guatemala City, September 2015.

⁶³⁴ Ibid.

The state-led effort to monitor the development of children aligned with goals to reduce venereal disease in the population. Syphilis was a primary cause of infant mortality and birth defects, which policymakers aimed to address through programs such as the one started Arévalo. Dr. Funes advised doctors to perform blood tests in pregnant women to determine whether they were infected with venereal disease. He wanted advocates of “puericulture to join efforts to eradicate venereal disease in the population.”⁶³⁵ Puericulture was of particular interest to many Latin American eugenicists.⁶³⁶ Historian Nancy Stepan said that in Latin America, “children especially were thought of as biological-political resources of the nation, and the state was regarded as having an obligation to regulate their health.”⁶³⁷ Puericulture had the effect of placing mothers under suspicion while their children became the priority of state-led efforts to regenerate the populace. Reflecting the gender inequalities in the country, fathers were not subjected to the same intrusive state policies. The state placed burden of raising “healthy” citizens directly onto women.

While many of the reforms enshrined patriarchal values and placed the blame on poor mothers who lacked the resources to care for their children, some programs such as the maternal-child care center provided women with the support that they needed so that they could work and support their families. Still by rendering poor women in particular as unfit for motherhood, state workers justified intrusion into families’ intimate lives and the removal of children. The state’s presumption that it had authority over the children of marginalized members of society was what would later make children vulnerable to medical experiments. Orphans did not have an adult authority member who could protect them.

⁶³⁵ Funes, “Plan General de Acción de la Lucha Antivenérea,” 12.

⁶³⁶ Puericulture had been a topic of discussion at the Pan American Congresses in the 1930s and 1940s. See Otovo, *Progressive Mothers*, 171.

⁶³⁷ Stepan, *The Hour of Eugenics*, 78.

Conclusion

The government's efforts to regenerate women, indigenous, and marginalized groups during the revolution conversely led contributed to the making thousands of Guatemalans vulnerable to becoming medical subjects. Despite claiming to champion the rights of the poor, the state upheld laws and policies that enshrined Ladino and patriarchal cultural and social norms and economic inequality. The government also passed new policies that enabled greater control over marginalized groups. Women who were viewed as responsible for rearing the next generation were the focus of many campaigns led by medical doctors connected to the government. Yet, soldiers, civilian men, and hospital patients were also increasingly scrutinized by medical professionals and social reformers. By passing new laws and policies that undercut the authority of poor and indigenous parents and traditional healers, doctors further sought to gain control over the development of children. These efforts made these groups more likely to become the subjects of research.

Nevertheless, the process of making Guatemalans into medical subjects was never inevitable nor always successful. Many women, indigenous communities, and marginalized members of society did not support the new revolutionary state. Rather they saw it as continuation of past regimes that upheld stark racial and gender inequalities. Guatemalans found ways to avoid cooperating with the new government. They refused to register as sex workers and evaded reporting for military duty. U.S. doctors viewed Guatemala as a convenient experimental site where they could find docile bodies for experimentation. They saw Guatemalans institutionalized in the lock hospital, the prison, army barracks, asylum, orphanage, and schools as available and docile "clinical material" for their research. But as later chapters will show, U.S. and Guatemalan doctors would be proven wrong.

CHAPTER 4: THE DOCTORS' DEAL

In the midst of World War II, Dr. John Mahoney made the momentous discovery that penicillin cured syphilis.⁶³⁸ Head of the USPHS Venereal Disease Research Laboratory (VDRL) in Staten Island, New York, Mahoney first used penicillin on syphilitic rabbits and found that their lesions rapidly disappeared.⁶³⁹ Immediately following this discovery, Mahoney gave penicillin to four sailors with early syphilis hospitalized at the U.S. Marine Hospital in Staten Island, New York. He was reportedly “stunned” by the results.⁶⁴⁰ In 1943, Mahoney and his colleagues presented their findings to a “jam-packed session” of the American Public Health Association meeting in New York City.⁶⁴¹ The audience gave the researchers a roaring applause. The discovery of penicillin has been described as one of the most “earth-shattering” moments in the history of medicine.⁶⁴² Penicillin was widely hailed as a “miracle drug” that would revolutionize venereal disease control campaigns and help win the war.⁶⁴³

As the American public cheered a cure for syphilis, Mahoney and his colleagues worried that their studies on prophylaxis for venereal disease would cause controversy and even a potential lawsuit. Many social reformers in the United States regarded venereal disease as divine punishment for moral transgressions. They remained wary of prophylaxis and thought it would encourage couples to have sex outside of marriage. During the war, the military’s distribution of prophylactics to soldiers had caused an uproar in the United States. Military leaders adopted this policy because they had grown increasingly convinced of the futility of preaching “continence”

⁶³⁸ John F. Mahoney, “Some of the Early Phases of the Penicillin Therapy of Syphilis,” *AMA Archives of Dermatology*, 73 (1956): 486. Allan Brandt reported that Mahoney received his penicillin from researchers at the University of Oxford, Brandt, *No Magic Bullet*, 170-171.

⁶³⁹ *Ibid.*, 486.

⁶⁴⁰ Mahoney, “Some of the Early Phases of the Penicillin Therapy of Syphilis,” 486.

⁶⁴¹ “New Magic Bullet,” *Time Magazine*, October 25, 1943.

⁶⁴² Anonymous Phone Interview, August 31, 2016.

⁶⁴³ John F. Mahoney, et. al, “Penicillin Treatment of Early Syphilis,” *American Journal of Public Health*, 33 (December 1943): 1387-1391. Brandt, *No Magic Bullet*, 170.

to male soldiers. They faced opposition not just from soldiers but also military leaders. Although in 1941 Congress passed the May Act that criminalized sex work near military bases, privately many commanding officers scoffed at this law as impractical.⁶⁴⁴ Some military commanders even established brothels for the troops in foreign locations, in violation of federal law.⁶⁴⁵ Despite the likelihood of controversy, U.S. doctors with the support of military officials moved forward with their studies on prophylaxis that they deemed critical for national security.

While U.S. doctors battled to conquer syphilis during World War II and postwar, Guatemala was undergoing revolution and hosting U.S. wartime forces. A physician with Guatemala's sanitation department wrote in a local newspaper that venereal disease rates had skyrocketed during the war due to the U.S. troops' presence in the Central American region and the migration of "girls" to "vice" centers.⁶⁴⁶ After the war, the United States pulled out its troops and left Guatemala government to cope with the burden of disease. U.S. military officials did not see themselves as responsible for the spread of diseases in host countries. Instead they construed U.S. soldiers as victims of Central American women, laws, and weak government regulations.

Guatemalan doctors who ran the lock hospital and later participated in experiments saw the eradication of venereal disease as critical for building a democratic and sovereign nation. Venereal disease control was central to efforts during this period to control reproduction and quell the spread of "degenerative" diseases and deformities in the Guatemalan population.

⁶⁴⁴ Thomas B. Turner, *Part of Medicine, Part of Me: Musings of a Johns Hopkins Dean* (Baltimore: Waverly Press, 1981): 77. In fact, a number of commanders not only tolerated sex work but also established brothels. They justified this action as necessary to maintain soldier vigor, prevent the rape of local women and homosexuality in the barracks. Allan Bérubé, *Coming Out Under Fire: The History of Gay Men and Women in World War II* (Chapel Hill: University of North Carolina Press, 1990). Cynthia Enloe, *Maneuvers: The International Policing of Militarizing Women's Lives* (Berkeley and Los Angeles, 2000): 111. Roberts, *What Soldiers Do*, 137.

⁶⁴⁵ Roberts, *What Soldiers Do*, 159-160.

⁶⁴⁶ At the same time that Guatemalan officials blamed U.S. troops for the high rates of STIs, the U.S. military blamed Central American governments and women for transmitting the disease to soldiers. A surgeon proclaimed that in the tropical areas of the world, soldiers had to contend with "strange and foreign customs" that contrasted with the Anglo-Saxon and Puritan values of the United States. See Wesley Cox, "The Prevention of Disease in the United States Army During World War II," *The Prevention of Disease in the United States Army During World War II*, The Panama Canal Department, January 1, 1940 to October 1945, RG 112 Office of the Surgeon General of the U.S. Army, Box 1274, Declassification Review Project 795145.

Discourse on venereal disease reflected doctors and political elites' anxieties about their abilities to implement the goals of the Revolution in a poor and predominantly indigenous country. Eradicating venereal disease was also central to their broader goals to build a new medical and public health infrastructure intended to redeem and unify the national population. Still, they had neither the financial means nor the technical resources to realize their ambitious goals. The Guatemalan government remained deeply dependent on the United States for aid and technical assistance during this period.⁶⁴⁷

In this chapter, I show how a diplomatic alliance evolved between U.S. and Guatemalan doctors to conduct experiments on prophylaxis for venereal disease. Together, U.S. and Guatemalan doctors created a research space hidden from the laws and ethics of both countries. Guatemalan doctors offered U.S. researchers who had recently gained international renown Guatemalan bodies and a site for experimentation. By forming this relationship with USPHS officials, Guatemalan doctors sought to bring expertise and technological resources to their country that they deemed essential to fulfilling their revolutionary goals. U.S. doctors sought to capitalize upon Guatemala's system of legalized prostitution and to avoid potential lawsuits and controversy in the United States. As research on sexuality remained controversial, doctors pursued their research in the imperial periphery of Central America where they believed they could follow a different set of ethical guidelines than in the United States.

These physicians formed their agreement across borders; they had different interests in the research and their alliance was by no means made on equal ground. The role of Guatemalan doctors in these experiments indicates the compromises that doctors on the periphery of American empire have made to spur nation-building and gain membership in international and

⁶⁴⁷ During the Arévalo administration, government officials brought in a number of technical advisers not just from the United States but also from different areas of Latin America. See Adams, *Crucifixion of Power*, 185-186.

elite medical circles. During the Revolution, the Guatemalan government aimed to break the shackles of American imperialism. For the first time they sought to constrain the power of the United Fruit Company and regulate labor on coffee, sugar, and banana plantations. Yet, following years of dictatorship, the Guatemalan public health and medical systems fell far short of the doctors' lofty goals for reform. They relied upon external resources in order to realize their vision.

I also argue that what bonded the doctors across national boundaries was their paternalism which was prevalent in the medical communities in both the United States and Latin America during the mid-twentieth century. U.S. and Guatemalan doctors viewed themselves as societal leaders and as uniquely positioned to guard the welfare of the body politic.⁶⁴⁸ They presumed access to the sexuality and bodies of sex workers, soldiers, prisoners, disabled, gay, lesbian, indigenous Guatemalans, and poor children to make observations and draw conclusions about disease. The doctors justified this research as humanitarian. U.S. military commanders have a history of relying upon local male elites from allied and poor countries to facilitate access to women for the sexual and domestic labor they believed necessary to maintain military missions abroad. The deal made by U.S. and Guatemalan doctors reflects an international male bond, harnessed in this case for the purposes of medical experimentation.⁶⁴⁹

In sum, both U.S. and Guatemalan doctors believed that they were pioneering revolutions. The discovery of antibiotics promised unprecedented possibilities to eradicate disease that had plagued militaries since the fifteenth century.⁶⁵⁰ Guatemalan doctors saw

⁶⁴⁸ David and Sheila Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making*, (Basic Books, 1992).

⁶⁴⁹ Moon, *Sex Among Allies*, 134.

⁶⁵⁰ John Parascandola, *The Introduction of Antibiotics into Therapeutics*, "in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, eds. Judith Walzer Leavitt and Ronald L. Numbers (Madison: University of Wisconsin Press, 1997): 102-112.

themselves at the vanguard of efforts to redeem the country following years of dictatorial rule. They saw no contradiction in making a revolution by exploiting the bodies of poor and indigenous Guatemalans. The story of the Guatemalan experiments begins with the war effort and the U.S. military doctors' struggles to control venereal disease.

Sex and Disease

In January 1942, as the United States fought the Axis Powers abroad, a battle raged on the home front about prostitution. The controversy had arisen in response to the publication of Surgeon General Parran's book, *Plain Words Against Venereal Disease*, which lambasted military authorities for ignoring the May Act and allowing prostitution near military bases.⁶⁵¹ Amid the outcry, military officers put a new man in charge. Dr. Thomas B. Turner took control of the Army's Venereal Disease Control Section. Under siege by reformers who accused the armed forces of facilitating sexual perversion among soldiers and in the military barracks, military officers asked Turner to head the program. A well-regarded syphilis specialist at Johns Hopkins University and a distant cousin and acquaintance of Parran, Turner said military officials asked him to lead the program because they thought he might possibly succeed in "having the dogs called off."⁶⁵²

Yet, as director, he continued the same program. Turner found his daily life marked by duplicity. He preached continence as the military's official policy, but he taught soldiers how to use condoms and perform daily chemical prophylaxis. "We were repeatedly impaled on the horns of this dilemma," he later wrote in his memoir. "Some worthy folk urged a firm stand on a

⁶⁵¹ Brandt, *No Magic Bullet*, 162-163. Thomas Parran and R.A. Vonderlehr, *Plain Words About Venereal Disease* (Reynal and Hitchcock, 1941).

⁶⁵² Turner, *Part of Medicine, Part of Me*, 71.

high moral plane; others accused us of crass hypocrisy.” Both inside and outside the military, he said he faced the contention that “any man who won’t fuck, won’t fight.” Although Turner rejected “old beliefs” that men needed prostitutes, he grew to think it impractical that the military could control young soldiers who were at the “prime of their sexual life.”⁶⁵³ In one public meeting, Turner was driven to such exasperation that he “blurted out that sometimes I fancied the public thought the Army had invented sexual intercourse, which drew me a few moments of good-humored reprieve.”⁶⁵⁴

Unconvinced that sex education and disciplinary methods would protect soldiers’ health, Turner spearheaded efforts in the military to decriminalize the contraction of venereal disease. Since 1912, the Army had withheld pay from soldiers who acquired disease or injury “not in the line of duty.” In 1926, Congress passed a law mandating loss of pay specifically for soldiers who became infected with venereal disease.⁶⁵⁵ Commanding officers also could court-martial soldiers who concealed their infections.⁶⁵⁶ Nevertheless, since high rates of venereal disease served as a “black mark” on officers’ records, they instead often opted to implement their own disciplinary methods. Some commanders segregated soldiers by assigning toilets with a sign stating in bold letters, “FOR VENEREALS ONLY” and required men to wear tags on their uniforms if they had infections.⁶⁵⁷ Army physicians criticized these humiliation techniques as they increasingly impeded their efforts to cut venereal disease rates.

⁶⁵³ Thomas Turner, Lt. Col. Medical Corps, “Social Hygiene Problems in Wartime,” Delivered at Meeting of the National War Fund in New York City, May 28, 1943, RG 112, Office of the Surgeon General of the U.S. Army, Box 1280, Declassification Code: 795145.

⁶⁵⁴ Turner, *Part of Medicine, Part of Me*, 74-76.

⁶⁵⁵ Brandt, *No Magic Bullet*, 168-169. Parascandola, *Sex, Sin, and Science*, 108.

⁶⁵⁶ Turner, *Part of Medicine, Part of Me*, 75.

⁶⁵⁷ Letter from Joseph E. Moore to Colonel Hugh Morgan, August 10, 1942, RG 112, Office of the Surgeon General Records of the U.S. Army, Box 1265, Declassification Code: 795145.

Commanders targeted African Americans in particular. Military officials blamed socioeconomic factors for causing higher rates of disease in black populations, but in practice the commanders made examples of African Americans and reinforced the perception that they were biologically predisposed to sexually-transmitted disease.⁶⁵⁸ While military leaders painted white GIs as susceptible to the advances of “parasitic” women, they were quick to frame African Americans as sexual aggressors. Historian Mary Louise Roberts found in her research on France during World War II that the U.S. military racialized rape as a crime perpetrated by black soldiers during the war, just as it had been racialized at home. This depiction aligned with stereotypes dating to slavery of black men as prone to the sexual assault of white women. Military officials scapegoated African American soldiers in order to protect white servicemen from potential legal complications and verbal attacks from the French public.⁶⁵⁹

Although Turner never explicitly addressed racial factors affecting venereal disease, he argued that punitive policies kept soldiers from seeking treatment. These tactics, Turner said, had the adverse effect of raising rates of venereal disease in the Army.⁶⁶⁰ He argued for the adoption of uniform venereal disease policies regardless of race. Turner wrote, “stoppage of pay, prejudicial treatment from employers or superiors, restrictions on advancement, can only serve as powerful factors tempting the individual to conceal his infection and delay treatment until its effectiveness is reduced.”⁶⁶¹

⁶⁵⁸ Reverby, *Examining Tuskegee*, 26. Jones, *Bad Blood*, 25-29.

⁶⁵⁹ Roberts, *What Soldiers Do*, 201-213.

⁶⁶⁰ In the 1930s, Turner had conducted research in which he claimed to prove race and sex differences in syphilis. Reverby, *Examining Tuskegee*; 136.

⁶⁶¹ Colonel Thomas B. Turner, “Management of the Venereal Diseases in the Army,” *Journal of the American Medical Association*, Vol. 124, (January 1944); 133-137.

Dr. Joseph E. Moore, the Chairman of the Subcommittee on Venereal Disease at the National Research Council, joined Turner in his crusade against these “barbarous” laws.⁶⁶² Moore was a professor at Johns Hopkins University and world renowned syphilis researcher. He had also originally recommended Turner for the job as Head of the School of Social Hygiene and was also a close friend of Parran. Moore helped to establish Johns Hopkins as a training center for PHS officers. Moore joined Turner in his efforts to reform venereal disease policies in the military. They finally won an important battle in September 1944 when Congress repealed laws that punished soldiers for acquiring venereal disease. Contracting venereal disease was now defined as an injury sustained in the “line of duty” rather than misconduct. Implicitly, sex with female prostitutes was deemed part of war.⁶⁶³

Even as the military decriminalized venereal disease, it punished “sexual deviance.” Military police still aggressively pursued and arrested women accused of prostitution or “promiscuity.” On the home front, the USPHS, American Social Hygiene Association, (a private organization that had led the charge against prostitution and venereal disease since the first world war), and the Social Protection Division, (part of the Office of Community War Services), assisted in weeding out “vice” surrounding military establishments.⁶⁶⁴ While military doctrine grew more lenient towards male soldiers’ “immoral” heterosexual practices, they demanded continence of women.⁶⁶⁵ Female soldiers in the Women’s Army Corps did not receive condoms or access to birth control.

⁶⁶² Letter from Joseph E. Moore to Colonel Hugh Morgan, August 10, 1942, RG 112, Office of the Surgeon General Records of the U.S. Army, Box 1265, Declassification Code: 795145.

⁶⁶³ Norman T. Kirk, Major General, The Surgeon General, Mason Land, Director Legal Division to the War Department Special Staff, January 12, 1945. Office of the Surgeon General’s Records of the U.S. Army, Box 1265, Declassification Code: 795145.

⁶⁶⁴ Brandt, *No Magic Bullet*, 165-170.

⁶⁶⁵ Parascandola, *Sex, Sin, and Science*, 105; Roberts, *What Soldiers Do*, 165-166.

The military also expanded its measures to police same-sex relations among servicemen during the war. Although military psychiatrists developed screening methods to exclude men with “homosexual tendencies” from entering the service, the demands of war necessitated accepting gay men into the draft. In army barracks, many men found solace in each other from the demands and stresses associated with the war. Army psychiatrists attempted to humanize disciplinary tactics used against homosexuals; instead of sending them to jail, they issued “undesirable” discharges. Nonetheless, the Veteran’s Administration barred soldiers who received dishonorable discharges from receiving the entitlements of the 1944 GI Bill of Rights. A dishonorable discharge had the effect of stigmatizing the men so that they could not find employment following the war. Moreover, as with prostitution, military police aggressively policed homosexual relations in bars and similar establishments. Although psychiatrists sought to define homosexuality as a mental health problem rather than a criminal act, these policies continued to construct homosexuals as “deviant” members of society.⁶⁶⁶

Commanders also created new humiliating tactics for soldiers caught having same-sex relations. Historian Allan Bérubé found in his interviews with servicemen that in the South Pacific, commanders placed soldiers awaiting discharges for homosexuality in pens with signs that said “QUEER STOCKADE” or “QUEER BRIG.”⁶⁶⁷ In order to avoid penalization for homosexual behavior, soldiers had to demonstrate to psychiatrists and military commanders their preference for heterosexuality. Although not explicitly promoted, sexual relations with female prostitutes would alleviate suspicion of homosexuality. The heightened concerns about homosexuality among military leaders and tensions in the army barracks had the effect of promoting sexual relations with female prostitutes.

⁶⁶⁶ Bérubé, *Coming Out Under Fire*. Canaday, *The Straight State*, 137-173.

⁶⁶⁷ Ibid.

The U.S. Army's Surgeon General's Office opposed the punishment of same-sex relations. Just as Turner had challenged the criminalization of soldiers for contracting venereal disease, medical officers urged the military to address homosexuality as a public health concern. By the end of the war, Turner and other military medical doctors knew of Alfred Kinsey's wartime studies which had revealed high rates of homosexuality in the American population.⁶⁶⁸ They had some success: between 1945 and 1947 the military had a brief period in which it issued honorable discharges for homosexuals. Yet, as the United States entered the McCarthy era, the public and military increasingly linked "deviant" sexual behavior to communism. Servicemen again began to receive dishonorable discharges. As the military grew to accept that young men would visit brothels and have sex with local women, it remained intolerant of "abnormal" sexual practices challenging patriarchal and heterosexual norms.⁶⁶⁹

Despite these efforts, decriminalizing the contraction of venereal disease did not persuade many soldiers to seek out preventative methods or treatment. The military provided soldiers with free condoms, "pro-stations," and chemical prophylaxis kits. These methods proved neither popular nor completely effective in protecting soldiers from disease.⁶⁷⁰ Moore reported "carelessness" or "ignorance" among the soldiers when they used condoms.⁶⁷¹ The military did research on white soldiers' sexual behavior and use of prophylactics. They conducted a survey with white servicemen; soldiers reported fearing that condoms would cause sterility or that they violated their religious views. Many did not know how to use them.⁶⁷² As the survey on white

⁶⁶⁸ Letter from Thomas B. Turner to Col. Karl R. Lundeborg, Chief of Preventative Medicine Division, October 10, 1946, RG 112 Office of the Surgeon General of the U.S. Army, Box 1267, Declassification Code, 795145.

⁶⁶⁹ Bérubé, *Coming Out Under Fire*. Canada, *The Straight State*, 137-173.

⁶⁷⁰ The army gave each soldier six free condoms per month and two chemical prophylaxis kits per week. Thomas H. Sternberg, Chapter 10: Venereal Diseases, U.S. Army Medical Department, Office of Medical History, last accessed May 29, 2017: <https://www.med-dept.com/articles/venereal-disease-and-treatment-during-ww2/>

⁶⁷¹ Letter from Dr. Joseph E. Moore to A.N. Richards, February 1, 1943.

⁶⁷² VD Problems of White Enlisted Men in MTOUSA, Report 122 M-1, Prepared for Chief, Preventative Medical Branch, Restricted, September 10, 1945, RG 112 Office of the Surgeon General (Army) WWII Administrative Records 726.1 Box 1266 Declassification Code: 795145.

servicemen's use of prophylaxis and preventative measures reflects officers' concerns about the young men's sexual preferences and health, they appear to have not conducted a similar survey with black soldiers.

Soldiers also complained about chemical prophylaxis. The military mandated that soldiers visit "pro-stations" within three hours following sexual intercourse. The soldiers first had to urinate, wash their genitalia with soap and water, insert a proteinate solution into their urethra, and then apply calomel ointment.⁶⁷³ Soldiers protested that the "pro-stations" were time-consuming, painful, and embarrassing.⁶⁷⁴ Military physicians had problems persuading soldiers to report to the "pro-station" immediately after sexual intercourse to guarantee highest effectiveness. The military also distributed chemical do-it-yourself pro kits; they contained directions, a tube of ointment with calomel and sulfathiazole, and a wash cloth. Soldiers protested that these kits were "messy." In a survey the military collected from white GIs, some admitted that they could not use the "pro kit" when they were drunk.⁶⁷⁵ That the military apparently did not conduct a similar survey with black soldiers indicates their presumption that black soldiers did not know how or refused to use prophylaxis.

⁶⁷³ World War II U.S. Medical Research Centre contains a description of prophylaxis for soldiers: <https://www.med-dept.com/articles/venereal-disease-and-treatment-during-ww2>, last accessed May 29, 2017. Roberts, *What Soldiers Do*, 168.

⁶⁷⁴ Letter from Dr. Joseph E. Moore to A.N. Richards, February 1, 1943, NARA-11_0000176.

⁶⁷⁵ VD Problems of White Enlisted Men in MTOUSA, Report 122 M-1, Prepared for Chief, Preventative Medical Branch, Restricted, September 10, 1945, RG 112 Office of the Surgeon General (Army) WWII Administrative Records 726.1 Box 1266 Declassification Code: 795145.

Key Players in Wartime VD Research

The militarization of the medical sciences during the war informed the types of research the U.S. government funded and researchers' ethical understandings. The war brought a vast expansion of human subject research in the United States. As mentioned in Chapter Two, in 1941 President Franklin D. Roosevelt established the Office of Scientific Research and Development which oversaw research on humans and animals. Many Americans began to view participation in medical experiments as heroic and patriotic. In 1945, *Life Magazine* celebrated a group of male prisoners in Joliet, Illinois who volunteered for malaria experiments.⁶⁷⁶ As the photo series suggests, prisoners were stoic and brave as they endured bites from malaria-carrying mosquitos and high fevers.

Convinced that only condoms and chemicals after sex could prevent venereal disease during the war, the American military researched how to make these measures more appealing to soldiers. They first planned to do studies in the United States. Moore, who was mentioned Chapter One as a preeminent syphilis researcher who became known as the “godfather” of the study in Tuskegee, Alabama, took charge of these efforts as the National Research Council’s Chairman of the Subcommittee on Venereal Disease. As one of the foremost experts on syphilis in a field where many physicians knew each other and collaborated on research, Moore oversaw many of the studies during the 1940s. Historian Harry Marks has described Moore as a rigorous researcher highly focused on sound methodology.⁶⁷⁷ Yet, his scientific concern did not include consideration for the welfare of African Americans he used in his research projects.

Still, Moore carefully planned studies on prophylaxis for venereal disease during the war in the United States. His caution shows his awareness that infecting healthy volunteers with STIs

⁶⁷⁶ “Prison malaria: Convicts expose themselves to disease so doctors can study it,” *Life Magazine*, June 4, 1945, 43-46.

⁶⁷⁷ Marks, *The Progress of Experiment*, 100-105.

would provoke criticism within the American public, even if they were prisoners and non-white. He had good reason to be scrupulous: previous research on venereal disease had proved controversial. In 1916, the American Medical Association (AMA) had come close to adopting a code of ethics in response to controversy over two studies: the first was at the Rockefeller Institute where a researcher injected an inactive solution of the bacteria that caused syphilis into children and hospital patients, and the second done at the University of Michigan where researcher who did “dental drill experiments” on neurosyphilis patients, which were mentioned in Chapter Two.⁶⁷⁸ The experiments on children had spurred particular outrage among antivivisectionists and social reformers. Children were presumed to be innocent and not sexually active. Yet, scientists remained aware that infecting any patient with a sexually-transmitted disease was a risk. Although the AMA did not adopt a code requiring that researchers obtain voluntary consent until after World War II, scientists like Moore who had been researching sex and disease for years remained aware that they had to take care when doing human-subject research on STIs.⁶⁷⁹

Along with syphilis, research on prophylaxis for gonorrhea was a high priority for wartime research. But gonorrhea presented a special set of research challenges. In the prophylaxis studies on gonorrhea, researchers had determined that using human subjects was necessary as they had not found an animal with which to experiment upon. The rabbits that scientists had used in syphilis experiments had not proved susceptible to gonorrheal infections. As a result, the majority of research on prophylaxis had focused on syphilis and little was known

⁶⁷⁸ In 1911, Hideyo Noguchi, a researcher at the Rockefeller Institute, tried to develop a skin test for syphilis by injecting an inactive solution of the *Treponema Pallidum*, the spirochete that causes syphilis into hospital patients and children. The studies provoked widespread controversy among antivivisectionists. Also in the early twentieth century, Udo Wile, a professor with the University of Michigan, conducted brain punctures on hospital patients with neurosyphilis to see if he could demonstrate the presence of active spirochetes on their brain tissues. See Lederer, *Subjected to Science*, 82-3, 95-6, 98.

⁶⁷⁹ Researchers did not pay much attention to the AMA code. See Lederer, *Subjected to Science*, 98, 140.

about gonorrhea.⁶⁸⁰ During World War II, gonorrhea ranked first and sometimes second as the leading cause of loss of manpower.⁶⁸¹ Although the military used both sulfonamide drugs and chemical prophylaxis as preventatives for gonorrhea, researchers had not proven in a controlled study that these methods were effective.⁶⁸²

Moore wholeheartedly supported a human-subject study on prophylaxis for gonorrhea. Still, as a cautionary measure he sought the opinions of high-ranking authorities. Because of the sensitivity surrounding intentional-infection studies with STIs, the gonorrhea studies received more oversight from U.S. officials than possibly any other biomedical research initiative undertaken during the war.⁶⁸³ Moore asked Dr. Alfred Newtown Richards, Chair of the Committee on Medical Research, about use of human subjects in gonorrhea research. Just a few days later, Richards responded that that “human experimentation is not only desirable, but necessary in the study of many of the problems of war medicine which confront us.”⁶⁸⁴

Surgeon General Parran agreed too but only if the researchers used “human volunteers.”⁶⁸⁵ The Surgeon General’s quest to promote syphilis awareness and research over the past ten years had made him sensitive to the potential explosiveness of research on this issue. Still, he gave no guidelines on how to find these volunteers or on the ethical standards for consent. He appeared less concerned that the researchers use volunteers than he was with the perception given to the American public that these studies were being done with people who freely gave consent.⁶⁸⁶

⁶⁸⁰ John F. Mahoney, C. J. Van Slyke, John C. Cutler, Henrik L. Blum, “Experimental Gonococcic Urethritis in Human Volunteers,” *American Journal of Syphilis, Gonorrhea, and Venereal Diseases* 30 (January 1946): 2.

⁶⁸¹ Letter from Joseph E. Moore to Thomas B. Turner, March 24, 1942, included in the Memorandum of a Conference on Chemical Prophylaxis of Venereal Diseases, NAS_0002246

⁶⁸² Letter from Joseph E. Moore to A.N. Richards, February 1, 1943, NARA-II_0000176.

⁶⁸³ Baader, et. al. “Pathways to Human Experimentation,” 227. Rothman, *Strangers at the Bedside*, 48.

⁶⁸⁴ Minutes of a Conference on Human Experimentation in Gonorrhea Held Under the Auspices of the Subcommittee on Venereal Diseases, December 29, 1942, NARA-II_0000150.

⁶⁸⁵ Dr. Thomas Parran to Dr. Lewis H. Weed, November 19, 1942, NARA-II_0000225.

⁶⁸⁶ Dr. Thomas Parran to Dr. Lewis H. Weed, November 19, 1942, NARA-II_0000225.

The study's planners also took care in their selection of a subject population in order to avoid potential lawsuits and a public relations controversy.⁶⁸⁷ The researchers wanted to do research on groups isolated from the opposite sex and under their supervision for a minimum of six months. They apparently did not consider the possibility of same-sex transmission. The process of choosing subjects was starkly different than in the Guatemalan experiments. Moore explicitly emphasized that researchers should not use psychiatric patients because they could not provide "meaningful consent."⁶⁸⁸ Although Moore initially explored the possibility of using soldiers, the military rejected this option because the men would not be sexually isolated and would lose valuable time from training or combat. The demands of the U.S. military precluded the possibility of using soldiers as research subjects.

The NRC Subcommittee on Venereal Diseases settled on using prisoners. During the planning of the experiments, some discussions ensued as to whether prisoners could provide voluntary consent because they could claim that they granted their consent under duress. In planning the prophylaxis studies, the researchers showed more concern about obtaining informed consent from prisoners than they had with the malaria experiments.⁶⁸⁹ The fact that they decided to use prisoners in these particular experiments suggests their confidence that research on prison populations was indeed ethical.⁶⁹⁰ Nazi doctors later challenged this view. In 1946, the same year that the Guatemalan experiments began, Nazi defendants in the Nuremberg Trials argued that U.S. researchers violated ethical protocol through their widespread use of prisoners in medical

⁶⁸⁷ Over 1300 prisoners also participated in malaria research that was overseen by the University of Chicago, the federal government, and the prison system. These experiments were high profile and were featured in a photo spread in *Life* magazine and with live radio broadcasts from the prison. The prisoners were treated as wartime heroes for their efforts. The images from *Life* were used in the testimony about how the United States was funding life-threatening experiments on malaria in prisons and the voluntary nature of prison experimentation was challenged throughout the course of the Nuremberg Trial. See Gerhard Baader Schwerin, "Pathways to Experimentation, 1933-1945: Germany, Japan, and the United States," *Osiris* 20 (2005): 227.

⁶⁸⁸ Letter from Joseph Moore to A.N. Richards, February 1, 1943, NARA-11_0000176.

⁶⁸⁹ Rothman, *Strangers at the Bedside*, 48.

⁶⁹⁰ Baader, "Pathways to Human Experimentation," 228. See George J. Annas and Michal A. Grodin, *The Nazi Doctors and the Nuremberg Code*, New York and Oxford: Oxford University Press, 1992.

research. Andrew Ivy, the American Medical Association representative at the Nuremberg Doctors' Trial, defended the U.S.-funded prisoner research as ethical because the researchers obtained informed consent from the human subjects, had conducted previous animal experimentations, and were qualified to conduct the research.⁶⁹¹ Moreover, Nazi doctors' self-serving ethical claims were dismissed without consideration because they had no standing due to the crimes against humanity they had committed during the war.

Although the study group thought that prisoners represented the least controversial population on which to conduct research, they still worried about potential lawsuits. The researchers eventually moved away from their original plan to conduct the experiments in a New York State prison due to fears that if a researcher harmed a volunteer it would violate the state statute against "maiming."⁶⁹² To avoid state statutes and potential complications, the subcommittee opted to conduct the experiments in federal as opposed to state prisons.⁶⁹³ They eventually settled on the penitentiary in Terre Haute, Indiana because it had the best medical facilities of all the federal prisons they considered.⁶⁹⁴ Terre Haute, Indiana was also a town famous for prostitution. It was near a coal mining center and the miners would come to the town for recreation.⁶⁹⁵ The researchers planned to gather strains of gonorrhea from local prostitutes to infect the prisoners.

⁶⁹¹ Baader, "Pathways to Human Experimentation," 228.

⁶⁹² J.B. Donovan, "Human Experimentation in Gonorrhea," OSRD, Inter-Office Memorandum, NARA-0000150.

⁶⁹³ Although plans were originally underway to conduct the experiments in New York State prisons, the researchers decided against this plan due to a law that stated "no person shall do any act detrimental to the health of any human being." Inter-Office JB Donovan, January 22, 1943, NARA-0000150. J.B. Donovan, "Human Experimentation in Gonorrhea," OSRD, Inter-Office Memorandum, NARA-0000150.

⁶⁹⁴ Unsigned conversation of March 5, 1943, with Joseph E. Moore (March 6, 1943), Correspondence, PCSBI HSPI Archives, NARA-II_0000146.

⁶⁹⁵ Dr. Henrik Blum, a junior PHS officer, stated in an oral history in 1997 that his job in the study was to "examine prostitutes to find gonorrhea bugs to bring fresh bugs in because it was part of the experiment." Oral History with Henrik Blum, "Equity for Public Health: Contra Costa County Health Officer," 1999, Regional Oral History Office, UC Berkeley Library.

Next, they ensured that they could prove that they had consent from the prisoners. The subcommittee constructed a waiver form that used medical as well as “street” language, describing gonorrhea as the “clap” or the “strain.”⁶⁹⁶ The waiver mentioned the contribution that prison volunteers would make to the war effort through their participation in the experiments and stressed that they would be given treatment.⁶⁹⁷ The prisoners would earn \$100 for their participation, a considerable sum for experimentation during World War II, and they would receive a letter of commendation to the parole board and a certificate of merit.⁶⁹⁸ Still, these efforts to avoid legal and public relations controversy did not assuage the concerns of James Paullin, President of the AMA and member of the NRC Committee on Medicine. He cautioned that the project could “fall into the hands of a very unscrupulous lawyer” and voted to reject the proposal.⁶⁹⁹ Despite criticism from some medical authorities, the OSRD approved the experiments, emphasizing the research as critical to the war effort.⁷⁰⁰

Mahoney, fresh off of his discovery that penicillin was an effective cure for syphilis, served as the principal investigator on the experiments which the researchers conducted at the federal penitentiary in Terre Haute, Indiana.⁷⁰¹ Mahoney’s discovery of penicillin as a treatment for syphilis was the culmination of his more than twenty-year career at the PHS. After serving in the Immigration Station on Ellis Island and in various parts of Europe, Parran appointed Mahoney head of the VDRL. During his time leading the VDRL, Mahoney gained the reputation

⁶⁹⁶ “Statement of Explanation of the Experiment and its Risks to Tentative Volunteers,” included in the Minutes of a Conference on Human Experimentation in Gonorrhea Held Under the Auspices of the Subcommittee on Venereal Diseases, December 29, 1942, NARA-II_0000150.

⁶⁹⁷ By World War II, researchers had discovered that sulfonamide compounds were effective in treating gonorrhea. Dr. Carpenter’s Statement on The Evaluation of Prophylactic Agents and Procedures in the Prevention of Gonorrhea, NARA-II_0000150.

⁶⁹⁸ Mahoney, “Experimental Gonococcal Urethritis in Human Volunteers,” 1-39.

⁶⁹⁹ Letter from James E. Paullin to Dr. O.H. Perry Pepper, January 13, 1943, NARA-II_0000346.

⁷⁰⁰ Letter from Joseph Moore to A.N. Richards, February 1, 1943, NARA-II_0000176.

⁷⁰¹ The researchers selected the Indiana location because it had the best medical facilities in comparison to other prisons under consideration. See Dr. Carpenter’s Statement on the Evaluation of Prophylactic Agents and Procedures in the Prevention of Gonorrhea, Minutes of a Conference on Human Experimentation in Gonorrhea Held under the Auspices of the Subcommittee on Venereal Disease, December 29, 1942.

as a superlative researcher extremely focused on methods for improving treatment and diagnostic tests for syphilis and gonorrhea.⁷⁰² Mahoney's colleagues also regarded him as a supportive colleague and mentor, who embodied the meaning of his middle name, "Friend."⁷⁰³ He continued to give credit for the discovery of penicillin to his "boys," or the scientists who worked under him.⁷⁰⁴

John C. Cutler, a novice PHS researcher, worked under the Mahoney's direction at the prison. He joined the PHS directly after he graduated from medical school at Western Reserve in Cleveland, Ohio. He had also collaborated with Mahoney on the penicillin research.⁷⁰⁵ During the gonorrhea prophylaxis experiments, Cutler was just 28 years old and worked in the penitentiary attempting to infect the prisoners with gonorrhea. As a young and ambitious researcher, Cutler approached his research with zeal. Born in Cleveland, Ohio in 1915, Cutler grew up in a working class family.⁷⁰⁶ He managed to support himself during medical school working as a "coal salesman." His brother Frank, an "ace" in the Air Force had been shot down over Germany.⁷⁰⁷ Cutler's other brother, Harold, was killed in a training accident at his base. As his family dealt with the loss of his brothers during the war, Cutler focused on his research which he viewed as vital to protecting the U.S. population from deadly disease.

⁷⁰² John F. Mahoney, "Some Significant Aspects of Venereal Disease Research: Work of the Venereal Disease Research Laboratory," *Journal of Venereal Disease Information*, 28 (7) (1947): 129-32.

⁷⁰³ Obituary for John Friend Mahoney, M.D., *British Journal of Venereal Disease* 33 (1957): 127.

⁷⁰⁴ Obituary for John Friend Mahoney, *British Journal of Venereal Disease* 33 (1957): 127.

⁷⁰⁵ Jan Ackerman, "John Charles Cutler/Pioneer in Preventing Sexual Diseases," *Pitt-Post Gazette*, February 12, 2013. John F. Mahoney, R.C. Arnold, and John C. Cutler, "Penicillin in the Treatment of Gonorrhea and Syphilis," *Venereal Disease Control*, November 1944, 58-63; Mahoney, et. al. "Experimental Gonococcal Urethritis in Human Volunteers," *American Journal of Syphilis, Gonorrhea, and Venereal Disease*, Vol 30 (January 1946): 1-39.

⁷⁰⁶ Susan M. Reverby, "The Fielding H. Garrison Lecture, Enemy of the People/Enemy of the State Two Great (ly Infamous) Doctors, Passions, and the Judgment of History," *Bulletin of the History of Medicine* 88 (2014): 403-430. "Elizabeth Inez Cutler Cobb," *Find a Grave Memorial*, <http://www.ndagrave.com/cgi-bin/fg.cgi?page=gr&GRid=37802587>, last accessed April 11, 2017. "Frank A. Cutler," *Military Times Hall of Valor*, <http://militarytimes.com/citations-medals-awards/recipient.php?recipientid=45156>, last accessed April 11, 2017.

⁷⁰⁷ Obituary for Elizabeth Inez Cobb, *Wenatchee World*, December 14, 2006, retrieved on April 11, 2017 at <https://www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=37802587>.

In September 1943, the experiments officially began. Prison staff selected 241 male prisoners, screened to make sure they would not pose behavioral problems, were between the ages of 21 and 45 years, never had a gonorrhea infection, fully understood the purposes of the study, and would be available for observation for the next six months.⁷⁰⁸ The researchers tried to infect prisoners by placing the bacterium directly onto the end of their penises.⁷⁰⁹ They took some of the bacteria strains from local prostitutes “picked up” by the Terre Haute police. The experiments only lasted ten months as researchers could not find a reliable method to infect the prisoners. Mahoney made the decision to terminate the experiments because the researchers could not follow through on the primary aim of the study to examine prophylaxis methods for gonorrhea.⁷¹⁰ Cutler wrote later that he experienced the decision to terminate the Terre Haute experiments as a major “blow.”⁷¹¹

As USPHS researchers dealt with the disappointment of the prison experiments on gonorrhea, they also worried that their discovery of penicillin could bring new problems for controlling sexuality and disease. Penicillin had raised hopes that a “magic bullet” had been discovered, but many researchers were concerned that it would threaten marriage and sexual monogamy.⁷¹² John Stokes, a leading researcher on syphilis at the University of Pennsylvania, wrote that it would take a decade or more of research before the medical community could know for sure the effects of penicillin on syphilis. Stokes and other researchers also worried that penicillin would further relax sexual mores in the United States once people knew that a cure was available, thus raising the rates of disease within the population. Stokes wrote that if extramarital sex was not punished with disease then only a “few intangibles of the spirit” would

⁷⁰⁸ Mahoney, “Experimental Gonococcic Urethritis in Human Volunteers,” 3.

⁷⁰⁹ *Ibid.*, 2.

⁷¹⁰ Letter from John F. Mahoney to A.N. Richards, March 7, 1944, NARA-II_0000555.

⁷¹¹ John Cutler to John F. Mahoney, Correspondence, September 20, 1947, Records of John C. Cutler.

⁷¹² Mahoney, “Penicillin in the Treatment of Gonorrhea and Syphilis,” 58.

protect monogamous marriage.⁷¹³ Many researchers who worked on STIs were not just concerned with protecting the military and national security, but also viewed venereal disease as a eugenic threat to the nation. They viewed monogamous marriage as a key institution for protecting families from the spread of disease.

Turner's views suggested the contradictory beliefs that medical doctors harbored about the discovery of penicillin in the 1940s. Although many years later Turner would reflect upon the discovery of penicillin and the rise of antibiotics as one of several technological "revolutions" that he underwent in his lifetime, he also had initial questions about how it would affect venereal disease control efforts. Following the war, the Army reported that the rate of venereal disease among troops stationed in Europe was the highest it had been since the beginning of the war.⁷¹⁴ Turner gave a talk at the ASHA meeting entitled, "Penicillin: Help or Hindrance?" in which he discussed the advantages that penicillin brought to venereal disease control as well as the new challenges that it presented. Like Stokes, he worried that penicillin would lead to amoral sexual practices in the United States.⁷¹⁵

As the war wound down, researchers looked for opportunities to continue research on prophylaxis and penicillin. They believed that they were ever closer to eradicating venereal disease but grew concerned that without the contingencies of war they would lose support for research from the American public.

⁷¹³ Parascandola, *Sex, Sin, and Science*, 134.

⁷¹⁴ *Ibid*, 135.

⁷¹⁵ Parascandola, *Sex, Sin, and Science*, 130. Obituary: Thomas Bourne Turner, *The Gazette Online*, The Newspaper of Johns Hopkins University <http://pages.jh.edu/~gazette/2002/30sep02/30turner.html>.

Dreaming of a New Guatemala

During the revolution, Dr. Luis Galich wrote about his vision for a new Guatemala. He believed there should be no limit to physicians' involvement in public life. As the director of the sanitation department, he argued that the physician should weigh into the military, industry, public health, and demography. To ensure the promises of the revolution, the country needed physicians who would attend to the "complete organism" of society.⁷¹⁶ Like other members of the revolutionary government, Galich promoted an interventionist state that would take responsibility for the welfare of every citizen.⁷¹⁷ The state would serve as the patriarch and doctors the vanguards in implementing a *regeneración* (regeneration) of Guatemalans and Guatemala.

Inspired by eugenic thought that circulated in Latin America during the 1940s, Galich's commitment to Guatemalan welfare was spurred by his conviction that nations that failed to address the problems of public health would fall behind other countries.⁷¹⁸ His brother, Manuel Galich, was a prominent revolutionary, playwright, and the education director under the Arévalo government. Following Luis Galich's 1937 graduation from the national university with a concentration in gynecology and obstetrics, he would continue throughout his medical career to focus on reproduction and sexuality.⁷¹⁹ He worked as the Director of the Hospital for Prophylaxis and Venereal Disease before becoming the Director of Sanitation.

⁷¹⁶ Dr. Luis F. Galich, "Coordinación de los servicios asistenciales y de sanidad pública," *Salubridad y Asistencia Social* (marzo de 1949): 28.

⁷¹⁷ Historian Greg Grandin has argued the Latin American left developed a particular form of democracy that was tied to social solidarity, as opposed to the United States that increasingly linked democracy with free enterprise during the Cold War. Grandin, *Last Colonial Massacre*, 6.

⁷¹⁸ Dr. Luis F. Galich, "Puntos básicos para programa de salud pública en la república," *Salubridad y Asistencia Social* (noviembre de 1950): 9-19. Stepan, *The Hour of Eugenics*, 17.

⁷¹⁹ Luis F. Galich, "Embarazo Ectópico," Tesis presentada a la Junta Directiva de la Facultad de Ciencias Médicas de la Universidad Nacional," octubre de 1937.

Following the Revolution, Galich served as mayor of Guatemala under the *Partido Revolucionario* (PR), the only anti-communist reform party allowed to operate following the overthrow of Jacobo Árbenz. Despite that PR continued to operate after the 1954 coup, paramilitary groups and members of the military teamed up to kill and disappear members of the PR leadership particularly in rural areas.⁷²⁰ Galich managed to escape the worst of the persecution. Later he would become Director of the *Asociación Pro-Bienestar de la Familia de Guatemala* (APROFAM), a private family planning organization accused of sterilizing indigenous women.⁷²¹ Throughout his career, he drew upon his skills as a physician to advocate for his vision for Guatemala.

During the Revolution, Galich drafted an ambitious proposal for public health. He wanted to build a new public health infrastructure within the span of ten years.⁷²² During the 1930s the Guatemalan government had sought to extend biomedical services in rural areas, but the public health infrastructure still remained concentrated in the capital.⁷²³ Although some departments had hospitals, large swaths of the country had no access to public health resources. The government could also not provide the health clinics located in rural areas with sufficient funding and as a result the people who visited them received poor care.⁷²⁴ Guatemala had significant problems with infant mortality, malnutrition, intestinal parasites, malaria, typhus, and tuberculosis, among other diseases⁷²⁵ Galich promoted government efforts to build health clinics and hospitals in rural municipalities with adequate supplies and he urged the government to

⁷²⁰ Grandin, *The Last Colonial Massacre*, 88-89.

⁷²¹ APROFAM was accused of conducting forced sterilizations of women and men during the civil war. See, René Augusto Flores, "La planificación familiar, un derecho humano," *La Revista*, 13 de agosto de 1985, 17.

⁷²² Luis F. Galich, "Puntos básicos para programa de Salud Pública en la República," Guatemala, C.A., (enero 1951): 4, AGCA.

⁷²³ David Carey Jr., *Engendering Mayan History: Kaqchikel Women as Agents and Conduits of the Past, 1875-1970*, New York: Routledge, 2006; 44-45. Galich, "Coordinación de los Servicios Asistenciales y de Sanidad Pública," 30. Adams, *Crucifixion By Power*, 185-186.

⁷²⁴ Galich, "Puntos básicos para programa de Salud Pública en la República," 7.

⁷²⁵ *Ibid.*, 3-12.

improve prenatal care. He sought to build a water and drainage system, establish a school nutrition program, and provide immunizations for various diseases.⁷²⁶ The Institute of Inter-American Affairs supported many of these efforts, but the Guatemalan government needed considerable financial resources to realize Galich's ambitious plan.

Doctors saw venereal disease control as crucial to their goals of regeneration. Although the country had many pressing health problems, Guatemalan physicians even before the Revolution had long seen venereal disease control as critical to their efforts to build an able-bodied population that would participate in economic development and democracy.⁷²⁷ Venereal disease also offered a way for physicians to address their concerns with class inequality and immorality, key concerns of revolutionary leaders.⁷²⁸ They finally focused on venereal disease because of the war. As mentioned in Chapter Two, a prominent Guatemalan doctor who worked for the sanitation department named Epaminondas Quintana, and who was closely connected to the new government, sardonically reported in a local newspaper that the "splendidness" of the "men in uniform" had brought a surge in prostitution and venereal disease.⁷²⁹ Quintana blamed the women, not taking into consideration how the lack of career opportunities and the displacement of the population in the war spurred the migration.

During the war, the U.S. military and Guatemalan government had instituted anti-venereal disease dispensaries, which Quintana pointed out were really for the U.S. soldiers.⁷³⁰ According to health workers at the dispensaries, the Guatemalan youth were "infested" with venereal disease.⁷³¹ Following the war, the U.S. Embassy reported that the program for venereal

⁷²⁶ Ibid.

⁷²⁷ McCreery, "'This Life of Misery and Shame,'" 333-53.

⁷²⁸ Gleijeses, *Shattered Hope*, 36. Arévalo, *Informes al Congreso*, 7.

⁷²⁹ Dr. Epaminondas Quintana, "Situación actual del problema venérea en la República," 25 de abril de 1947, 3.

⁷³⁰ Ibid. U.S. Embassy in Guatemala to the Department of State, September 11, 1953. RG 59, Decimal File 1950-54, Box 4510, 1950-1954.

⁷³¹ Quintana, "Situación actual del problema venérea en la República," 3.

disease control “reverted to an ineffectual level.” Embassy reports added that the health facilities for venereal disease were “woefully inadequate” and at best the Guatemalan government only treated fifteen percent of the cases each year.⁷³² The war had left the Guatemalan people ravaged with sexually-transmitted disease that the government remained unable to address.

Quintana spearheaded efforts to teach sex education in schools to the youth as part of efforts to lower rates of infectious disease and protect the nation’s future. He wrote in a journal on hygiene education that young men often have a tendency to “despise marriage, preferring adventure or cohabitation with women. Have the young men prepared for sex? Yes, but this exists in the frequenting of the brothel overrun with the alcoholic or the venereal, the great danger of acquiring abnormal or perverse habits that can spoil the happiness of marriage.” Quintana viewed prostitution as having the potential to destroy the fundamental revolutionary goal of redemption. He believed that teaching sex education in primary school was critical in order to inform the youth about the dangers of syphilis venereal disease before the “turbulent” years of puberty.⁷³³ Quintana and other doctors zealously sought to change the sex habits of young boys so that they would not contract venereal disease and ruin their futures as productive workers and heads of stable households.⁷³⁴ Although “normal” women were thought to prefer marital union, men without proper guidance were believed to be prone to sexual excess. Quintana also wanted teachers to instruct young men how to sexually satisfy their future wives.⁷³⁵ Although this comment was perhaps viewed as radical for the time in that it openly

⁷³² U.S. Embassy in Guatemala to the Department of State, September 11, 1953. RG 59, Decimal File 1950-54, Box 4510, 1950-1954.

⁷³³ Galich, “Educación de los actuales y futuros padres,” *Alfabetización Higiénica*, (abril de 1947), 10. Dr. Julio Fuentes Novella, “Enfermedades venéreas y escuela, *Alfabetización Higiénica*, (octubre de 1947), 7-10.

⁷³⁴ Dr. Epaminondas Quintana, “Guía para un cursillo de educación sexual para jóvenes y púberes,” *Alfabetización Higiénica* (diciembre 1946), 3-8. Dr. Luis Galich, “Educación de los actuales y futuros padres,” *Alfabetización Higiénica* (abril de 1947): 9-10.

⁷³⁵ Galich, “Educación de los actuales y futuros padres,” 10.

discussed both male and female sexuality, the doctors also wanted to promote stable marital unions and deter men from visiting brothels. Doctors promoted sexuality but within the confines of marriage.

In addition to programs in schools, Guatemalan doctors sought to quell rates of venereal disease by reinstituting efforts that the United States had established or promoted during the war. The sanitation department, under Galich's direction, spearheaded an aggressive legislative and public health campaign to lower rates of syphilis and gonorrhea. Galich worked with Juan M. Funes, a young venereologist in the Department of Sanitation and Alvaro Ydígoras Fuentes, a judge in the *Juzgado de Sanidad* which was charged with registering and prosecuting clandestine prostitution.⁷³⁶ These men reestablished rapid treatment programs in the venereal disease hospital, even though the government did not have access to penicillin. They also strove to abolish the regulation system and make prostitution illegal, a position supported by the United States as the best method for mitigating the spread of syphilis and gonorrhea.

Guatemalan doctors' support for the abolishment of prostitution grew out of revolutionary values. Galich and Funes denounced the regulation system as immoral and complicit with the pimps, madams, clients, and police officers who exploited these women.⁷³⁷ Galich believed sex work reflected entrenched class inequality and the state's failure to serve the needs of proletariat women. Prostitution, he argued, "results from publicly exposing, surrendering, and abandoning women to public dishonor."⁷³⁸ The state had historically done little to intervene in the abuse of women in the private arena. Revolutionary physicians such as Funes and Galich wanted the state to protect working class women in this one area.

⁷³⁶ A Ydígoras Fuentes, "Tráfico de personas y prevención de la prostitución," *Salubridad y Asistencia Social* (octubre de 1950): 48.

⁷³⁷ Juan M. Funes, "Plan General de Acción de la Lucha Anti-venerea," *Salubridad y Asistencia Social*, Num. 1 (octubre de 1950): 16-18.

⁷³⁸ Luis F. Galich, "Prostitución y enfermedades venéreas," *Salubridad y Asistencia Social*, Num. 1 (octubre de 1948): 4.

Even as revolutionary leaders criticized the regulation system, they extended it to more women. As mentioned in Chapter Three, the government passed a law requiring that women who worked as waitresses, barmaids, and in dance halls had to report for regular medical inspections in the venereal disease hospital. The Guatemalan government had passed this law during World War II at the request of the U.S. Army, but the law had been retracted following the war due to widespread protest. The government reinstated this law in response to the advocacy from Funes, Galich, and the lawyer Ydígoras Fuentes.⁷³⁹ They disregarded the previous outcry of the population and believed that as technical experts they knew what was best for the country. The doctors proved to have considerable influence on the passage of new public health laws during the revolution, when social reformers increasingly viewed science as a solution to longstanding problems in the country.

As a young and idealistic physician, Funes committed his career to addressing inequality and fighting for the working class. In 1938, he had graduated from medical school at the national university.⁷⁴⁰ In medical school, he wrote his thesis on pelvic organ prolapse, an extremely painful condition that typically occurs in women following childbirth when the womb becomes dislocated and protrudes through the vaginal opening.⁷⁴¹ His research highlighted the deplorable labor conditions of working class women who had to return to their jobs directly after giving birth and as a result became susceptible to this condition.⁷⁴² During World War II, however, he served as a military doctor in Alta Verapaz and found that the high rates of venereal disease in the population posed a more pressing problem than prolapse. It was immediately following the

⁷³⁹ Alvaro Ydígoras Fuentes, “Tráfico de personas y prevención de la prostitución,” *Salubridad y Asistencia Social*, Num. 10 (octubre de 1950): 47-48.

⁷⁴⁰ Carolina López, “Las mujeres, un instrumento para inocular. Las secuelas que trascienden fronteras,” http://www.afehc-historia-centroamericana.org/index.php?action=fi_aff&id=3773, last accessed May 16, 2017.

⁷⁴¹ Leavitt, *Brought to Bed*, 29-30.

⁷⁴² Dr. Juan M. Funes, “Algunas consideraciones sobre la etiopatogenia y el tratamiento quirúrgico del prolapso genital,” *La Facultad de Ciencias Médicas de la Universidad Nacional* (junio de 1938): 7-8.

war that Funes received a scholarship from the IIAA to study at the VDRL in Staten Island, New York. When he returned, Funes headed the venereal disease hospital where he examined prostitutes and issued health cards verifying that they did not have infections.

Funes felt the weight of responsibility as the medical doctor charged with protecting the Guatemalan population from venereal disease. Approximately eighty patients were interned at the hospital on any given day.⁷⁴³ He explained the uncertainty that came with detecting syphilitic lesions particularly in women's vaginal tracts where he was unable to see them. Funes believed that the regulation system placed undue burden on medical doctors to protect the population from venereal disease. He did not mention the burden it had on the women who were forced to submit to these examinations.⁷⁴⁴

In an effort to address the problem of venereal disease in the country, Funes joined with Galich in seeking to refurbish the hospital. They wanted to change its reputation as a place of punishment for "*mujeres de mal vivir*" (women who live evil lives). Since the nineteenth century, the hospital had been an annex to the women's prison which led Guatemalans to believe that it served only prostitutes. In 1938, the government sought to improve venereal disease control and established the *Sección de Profilaxis Sexual y Enfermedades Venéreas* in an independent building located near the sanitation department. Still, it had a punitive regimen and continued to be associated with prostitution.⁷⁴⁵ The medical services that the women received remained minimal and the conditions dismal. It was the only hospital in Guatemala where some patients slept on the floor. The food was terrible and delivered from a nearby prison.⁷⁴⁶ Although

⁷⁴³ "Indispensable sección para hombres en el departamento," *El Imparcial*, 29 de marzo de 1946, 2.

⁷⁴⁴ Funes, "Plan general de acción de la lucha antivenérea," 9.

⁷⁴⁵ Galich, "Breve reseña del Hospital de Profilaxis Sexual y Enfermedades Venéreas de la Ciudad de Guatemala y proyecto para un hospital especializado," Ministerio de Salud Pública y Asistencia Social. Guatemala, C.A. 1947, 5.

⁷⁴⁶ "Indispensable sección para hombres en el departamento," *El Imparcial*, 29 de marzo de 1946, 2.

doctors touted *regeneración*, the conditions in the hospital reinforced its association with a prison.

Despite the extensive needs of the hospital, Galich pushed forward with plans for reform. The hospital had established an obligatory literacy program for the women patients. He intended to extend the literacy program and offer training on domestic trades such as laundering sewing, and cooking. Instead of persecuting sex workers, Galich advocated for the scientific study of the women so that physicians could learn how to prevent women from entering the sex trade.⁷⁴⁷ In the face of what Galich referred to as a harmful discourse of free love in the movies, literature, and gossip (much of which came from the United States), he wanted to understand when and how the state could intervene to provide a proper sexual education for young women. The doctors wanted the hospital to serve as a central site of regeneration of Guatemalans rather than a place of punishment.⁷⁴⁸

Although the control of women's sexuality had long been the primary concern of syphilis prevention efforts in Guatemala, Funes and Galich broke with this tradition by focusing on venereal disease in men. They began with the construction of a hospital in which to treat men for venereal disease. Funes said that the fact that public health campaigns on syphilis and gonorrhea had centered just on women was "as inefficient as it was absurd."⁷⁴⁹ Challenging previous policies in Guatemala and around the world that had long presented the female sex worker as the primary vector of these diseases, Galich described men as akin to "vehicles disseminating disease."⁷⁵⁰ Their interest in extending the campaign to men stemmed from their desire to

⁷⁴⁷ Galich, "Prostitución y enfermedades venéreas," 6.

⁷⁴⁸ Galich, "Breve reseña el hospital de profilaxis sexual y enfermedades venéreas de la Ciudad de Guatemala y proyecto para un hospital especializado," 3-15; Galich, "Breve reseña del Hospital de profilaxis sexual y enfermedades venéreas de la Ciudad de Guatemala y proyecto para un hospital especializado," 3-15.

⁷⁴⁹ "Indispensable sección para hombres en el departamento," *El Imparcial*, 2.

⁷⁵⁰ Galich, "Breve reseña del hospital de profilaxis sexual y enfermedades venéreas de la Ciudad de Guatemala y proyecto para un hospital especializado," 6.

implement a more effective program of venereal disease control as well as their interest in gaining greater control over the social orchestration of a new Guatemala. The regulation system had primarily protected the male elite. Now the doctors argued that the sexuality of all Guatemalans had to be controlled in order to build a new nation.⁷⁵¹

Along with extending the program to men, Galich and Funes pushed for these efforts to extend to rural areas where the majority of the indigenous population lived. Funes railed against the fact that the law did not require the indigenous population to undergo a prenuptial exam for venereal disease. In 1935, the government had passed a law stipulating that only ladino men had to undergo a prenuptial examination for venereal disease.⁷⁵² Funes wanted both men and women from indigenous populations to be subject to medical examinations before marriage. Still, the doctors' push for indigenous populations to undergo prenuptial exams required the functioning of a largely non-existent public health infrastructure. The physicians hoped to coordinate efforts with local municipalities and build health centers in rural areas that would combine maternal-infant care with venereal disease control.⁷⁵³

The exemption of indigenous population from prenuptial examinations no doubt resulted from racial perceptions held by some doctors who believed that Mayan populations were immune to syphilis as well as from insufficient infrastructure in the countryside. Dr. Erwin Jacobsthal, head of the serological laboratory for the sanitation department in the 1930s and early 1940s, had found that syphilis was different in the European, Russian, Central African, and Central American populations.⁷⁵⁴ Jacobsthal had discovered no signs of neurological syphilis in

⁷⁵¹ Ibid.

⁷⁵² The government excluded women based on the presumption that the examination would serve as an affront to women's honor. Meanwhile, the government showed little concern for the honor of poor women for whom it mandated medical inspections. Funes, "Plan general de acción de la lucha antivenérea," 10.

⁷⁵³ Galich, "Puntos básicos para programa de salud pública en la República," 6-8.

⁷⁵⁴ Dr. Erwin Jacobsthal, "Sobre el problema del tratamiento de la sífilis en Centro América," *Boletín Sanitario de Guatemala*, No. 59 (enero-diciembre de 1942): 125.

Central America. In contrast, medical doctors had found it prevalent among white populations in the United States and Europe. The longstanding myth that American indigenous groups gave syphilis to the Spanish conquistadores influenced Guatemalan doctors' thinking. Many medical professionals and eugenicists believed that Mayans had developed immunity towards syphilis. Although controversial within the medical community, this idea no doubt influenced the legal exemption of indigenous groups from prenuptial examinations.⁷⁵⁵

In opposition to this general tendency, Funes and other doctors closely tied to the Revolution challenged the scientific premise that indigenous groups were immune to syphilis. The government actually did not have the statistics to determine the prevalence of venereal disease since *indígenas* did not regularly go to doctors who could provide health reports to the central government. Funes deplored the indigenous communities did not want to visit licensed medical doctors but instead preferred to go to *curanderos*, midwives, and “charlatans” for treatments. He argued for the government to intensify efforts to criminalize healers who worked in indigenous communities. These healers, he claimed, greatly impeded the state's efforts to clamp down on the spread of syphilis and gonorrhea. Funes added that venereal disease control in Guatemala was different than in other countries due to the numerous different languages and indigenous communities. The posters, radio programs, and propaganda used by the government to disseminate information to the general population about venereal disease could not reach indigenous communities. He argued that it was necessary to find people of the same “race” and “culture” as the targeted groups in order to communicate the message. In calling for criminalization of traditional healers, Funes denigrated indigenous culture as pathological.⁷⁵⁶ He

⁷⁵⁵ Jacobsthal, “Sobre el problema del tratamiento de la sífilis en Centro América,” Dr. Erwin Jacobsthal, “Experiencias e ideas sobre sífilis en Guatemala,” *Boletín Sanitario de Guatemala*, No. 47 enero-diciembre de 1949.

⁷⁵⁶ Funes, “Plan General de acción de la lucha antivenérea,” 11.

also suggested that the state accommodate the various languages of Mayan groups in public health programs. Funes' proposal was more likely a practical measure rather than a measure stemming from concern for protecting the right for *indígenas* to speak their language.

Yet, the doctors' vision faced obstacles. As Funes and Galich pursued their ambitious goals, an editorialist in a prominent national newspaper depicted the "young doctors" as "dreamers."⁷⁵⁷ Guatemala's economy could not support the vast expansion of the public health system that the doctors desired. Although the price of international coffee had almost doubled at the start of the revolution, the 1945 and 1946 budgets were the highest they had ever been in the country's history. The government continued to rely upon foreign aid from the United States to realize its goals.⁷⁵⁸ The doctors' vision appeared a fantasy to many within the government and Guatemalan society.

In fact, during the Revolution, Guatemala was struggling to complete one of the most important projects necessary to improve medical infrastructure, the construction of the new Roosevelt Hospital. As mentioned in Chapter Two, in 1944, when Ubico was still president, the Guatemalan government, in coordination with the Institute for Inter-American Affairs, embarked on an ambitious project to build Roosevelt Hospital. The construction of the hospital was essential to building Guatemala's public health infrastructure. It was to be the primary public hospital in the country and located in Guatemala City. Yet, political leaders including Galich, who served on the Technical Committee for the construction of the hospital, did not believe that the project sufficiently ambitious. At the start of the Revolution, the new government had requested a vast expansion in the number of beds from 300 to one-thousand.⁷⁵⁹ Although the

⁷⁵⁷ "Indispensable sección para hombres en el departamento," *El Imparcial*, 2.

⁷⁵⁸ Gleijeses, *Shattered Hope*, 30.

⁷⁵⁹ U.S. Embassy to the Department of State, February 6, 1945. Records of the U.S. Department of State, RG 59, 1945-1949.

Institute of Inter-American Affairs agreed to the plan, a few years into the project the Guatemalan government struggled to follow through on its portion of the funding.⁷⁶⁰

Despite the setbacks on the Roosevelt Hospital project, Guatemalan physicians also wanted to build a network of hospitals throughout the country. This infrastructure was necessary in order to bring biomedical services to indigenous populations and to grant the government more information and control over their health. In 1946, Guatemala held the first medical hospital congress in Quetzaltenago, a city located in the highland region where the majority of the indigenous population lived. Doctors at the congress acknowledged that they were “woefully behind” on building a medical infrastructure that reached across the national territory as a result of the years of dictatorship.⁷⁶¹ Yet, as the construction of Roosevelt Hospital fell behind, the plans for a new hospital system seemed more far-fetched.

The limited infrastructure for medicine and public health had also stymied Guatemala’s efforts to build a eugenics movement like those that had arisen in wealthier Latin American countries such as Mexico, Argentina, and Brazil. Dr. Carlos Federico Mora was a prominent Guatemalan medical doctor, revolutionary, and the former director of the *Asilo de Alienados* who had studied abroad at Johns Hopkins University and in various places in Europe. He had been pushing for the country to establish a mental hygiene league for years, but his plans had not materialized. As a result, he complained that the “eugenic conscience” in the country had not been cultivated with the intensity and commitment that he thought necessary.⁷⁶² Only in 1952,

⁷⁶⁰ Galich, “Puntos básicos para programa de salud pública en la república,” 9-19. Institute of Inter-American Affairs, Health and Sanitation Division Monthly Reports Relating to Guatemala, 1944-1954, Monthly Reports to Washington 1/47-12/48.

⁷⁶¹ Primer Congreso Médico Hospitalario, Celebrado en la Ciudad de Quetzaltenago, 16 de febrero de 1946, Guatemala C.A., 1950, 5.

⁷⁶² Dr. Carlos Federico Mora, “Problemas de la higiene mental en Guatemala,” *Revista de la Federación Médica en Guatemala*, Año 1, Número 1 (marzo de 1947): 6.

toward the end of the revolutionary period, did he gain the support with which to establish a *Liga de Higiene Mental* (Mental Hygiene League).

Guatemala also had limited technical and educational resources with which to implement eugenic programs. Dr. Manuel A. Giron was the head of the newly formed Medical Federation which sought to promote science and investigation to support the redemption of the populace. The new Medical Federation published a journal which helped to facilitate discourse on public health and medicine during the Revolution. Giron wanted to adopt biotypology as a specialty in the national university. Yet, he said that the government did not have the financial resources to purchase the photographic equipment necessary to practice this science.⁷⁶³ First devised by Nicola Pende during the period of fascist Italy, biotypology categorized people by different “biotypes,” or hereditary constitutions that were thought to determine their propensities towards crime, illness, and psychic pathologies.⁷⁶⁴ “Latin eugenicists” began to favor biotypology in the late 1930s in response to the increased efforts to discredit neo-Lamarckian principles. Although biotypologists ascribed to some of the Mendelian hereditary theories, they also continued to see the environment as influencing the expression of different constitutions.⁷⁶⁵

Biotypologists eschewed biological determinism, but they continued to uphold racial hierarchies in the country. Despite biotypology’s rejection of theories of Aryan or white superiority, Mexican biotypologists categorized indigenous tribes as abnormal types.⁷⁶⁶ Before the Revolution, Giron had done his medical thesis on biotypology in the psychiatric institution

⁷⁶³ Manuel A. Giron, “Introducción al estudio de biotipo Guatemalteco,” *Médico del Servicio de Higiene Escolar de la Dirección General de Sanidad Pública*, Guatemala, C.A., 1945, 10-34.

⁷⁶⁴ Stern, *Eugenic Nation*, 153-156.

⁷⁶⁵ Alexandra Minna Stern, “From Mestizophilia to Biotypology: Racialization and Science in Mexico, 1920-1960,” in *Race and Nation in Latin America*, eds. Anne S. Macpherson and Karin A. Roseblatt (Chapel Hill and London: University of North Carolina Press, 2003): 195-197.

⁷⁶⁶ Stern, “From Mestizophilia to Biotypology: Racialization and Science in Mexico, 1920-1960,” 202. Alexandra Minna Stern, “What Kind of Morph Are You? Biotypology in Transit, 1920s-1960s,” *REMEDIA*, February 10, 2016, <https://remedianetwork.net/2016/02/10/what-kind-of-a-morph-are-you-biotypology-in-transit-1920s-1960s/>

and in schools. He hypothesized that the majority of indigenous people in the highland region were also abnormal, but he said that more studies were necessary. Now as the director of the Medical Federation, he advocated for the establishment of a biotypology specialty in the national university, but acknowledged that it would be difficult for the government to purchase the equipment to determine the various types.⁷⁶⁷ His aspirations to study and reform indigenous groups was hampered by the lack of technological and economic resources in the country.

Still, venereal disease remained a more pressing concern for government leaders than starting a biotypology program. Although the Guatemalan military's intensified campaign of venereal disease control which began at the start of the Revolution significantly lowered rates of venereal disease among soldiers, Carlos Tejeda, the head of the military hospital and venereal disease program, reported that it still was a serious problem among enlisted men.⁷⁶⁸ Influenced by Alfred C. Kinsey's work and the U.S. military, Tejeda argued that a combination of chemical prophylaxis and the distribution of condoms was the best way to prevent venereal disease. Like the U.S. doctors, Guatemalan physicians were having doubts about their ability to control soldiers' sexuality.⁷⁶⁹ Despite increased efforts to provide educational training to the troops on venereal disease and safe sex practices, the rates of syphilis and gonorrhea remained high. Guatemalan physicians also began to view venereal disease control efforts as increasingly futile.

Guatemala further did not have near the infrastructure for medical research that existed in the United States or other Latin American countries. In their studies, Guatemalan doctors often learned about the types of treatment and prophylaxis offered in the United States and then tested these theories in their own research. They did not mention that they obtained the consent of the

⁷⁶⁷ Manuel A. Giron, "Introducción al estudio de biotipo Guatemalense," Médico del Servicio de Higiene Escolar de la Dirección General de Sanidad Pública, Guatemala, C.A., 1945, 10-34.

⁷⁶⁸ Carlos Tejeda, "Dos Observaciones Relacionadas con la Venereología," *Salubridad y Asistencia Social* Tomo II. Num. 8, Guatemala, C.A. (abril-julio 1949): 98-100.

⁷⁶⁹ Tejeda, "Dos Observaciones Relacionadas con la Venereología," 98-100.

“volunteers” in their studies, reflecting that their clinical practices were similar to the USPHS doctors who came to Guatemala, even though consent was recognized in both countries to be best practice. In 1947, several years after the United States had discovered that penicillin was an effective cure and had begun rapid treatment programs, a Guatemalan physician named Fernando A. Cordero who worked in the general hospital in San José, a small city on the Pacific Coast and near a military base, tried different combinations of arsenic treatments and penicillin on patients with primary syphilis who included pregnant women. Although he found that penicillin was the most effective and non-toxic treatment, the hospital had difficulty obtaining and paying for it. In fact, the hospital only gave patients penicillin when other treatments would endanger their lives. He concluded that he would continue with two arsenic treatments that were the most effective given Guatemala’s economic constraints.⁷⁷⁰

Galich also acknowledged that penicillin was not yet an option for Guatemala. In 1947 during another study, Galich reviewed all of the rapid treatment programs employed in the United States and England. He then selected the Pillsbury method, which was comprised of arsenic treatment over a 20-day period, to use on 132 sex workers at the venereal disease hospital. Like Cordero, he did not mention any efforts in his published report to obtain consent from the women that he used in these studies. The doctors took blood samples of all of the women before, during, and after the treatment. They also did spinal punctures to verify results in the blood tests. As with other arsenic treatments, some of the women experienced nausea and vomiting following the injections. One woman had a miscarriage fifteen days following her treatment. Galich considered it fortunate that no one died during the study. Nevertheless, Galich concluded that the method was beneficial for Guatemala because it was economical and the

⁷⁷⁰ Dr. Fernando A. Cordero, *Sífilis y Tratamientos Intensivos*, Reimpreso de la Revista de la Federación Médica de Guatemala, Febrero 1947, 1-16, AGCA 4819.

majority of women did not have lesions after their treatment.⁷⁷¹ Galich showed that he was willing to take extreme risks with Guatemalans' health and wellbeing in order to prove scientific theories.

Despite there being no discussion of research principles in these papers on medical research, oral histories and journal articles reveal that doctors frequently discussed ethics and clinical practice during the Revolution. These conversations were part of robust discourse during this period on reforming medical education. In a change from the previous dictatorships, the new government granted the national university autonomy. Doctors who taught at the university and were part of the administration passionately debated their ideas for the development of a new education program that would refurbish the “glorious” reputation that the school had during the colonial era.⁷⁷² Carlos Martínez Durán, an esteemed medical doctor who later became the rector of the university, said that students needed to first have a clear understanding of the moral responsibility that they would hold in their profession before proceeding with their clinical training and medical education.⁷⁷³ Dr. Manuel A. Girón, called upon doctors to assume their roles as “vanguards” of community progress.⁷⁷⁴ Influenced by social medicine, he said that doctors needed to democratize medicine by visiting rural areas and understanding the needs of the people.⁷⁷⁵

Dr. José Barnoya, a medical student at the national university during the revolution, said in an oral history interview that his teachers taught him strict standards of professional ethics,

⁷⁷¹ Luis F. Galich Tratamiento de la Sífilis Primaria Con Oxofenarisisina-Bismuto en Veinte Dias, Según el Método de Pillsbury, Guatemala, C.A. 1947, 1-8.

⁷⁷² Dr. Carlos Martínez Durán, “Meditaciones sobre nuestra Escuela Médica,” *La Juventud Médica en su Cinceuntenario* (1 de julio de 1944):182-4.

⁷⁷³ Ibid., 184.

⁷⁷⁴ Dr. Manal A. Girón, “Concepto de la Medicina Social Contemporánea,” *La Juventud Médica*, Año VI, Núm. 71 (enero y febrero de 1952): 9.

⁷⁷⁵ Ibid.

which he said had unfortunately been abandoned by the government in later years. His teachers taught him about patient confidentiality. At the university, Carlos Federico Mora gave a course on deontology which focused on professional ethics.⁷⁷⁶ In this class, Barnoya said that student learned about respecting patients, no matter what their social class, and not violating the rights of patients. Barnoya added that students also learned these tenets about their responsibility to patients in their training in the hospitals.⁷⁷⁷ The principles that medical professors taught students in their classes and in clinical training reflected a broader focus on ethics and human rights during the Revolution. The 1945 Constitution, passed at the beginning of the Revolution which was modeled on the Mexican Constitution passed during the country's Revolution, held that all inhabitants had access to "social justice" and "life, liberty, equality and security."⁷⁷⁸

Guatemalan doctors also implicitly criticized U.S. and European scientists for their clinical practice. In an address to the Guatemalan National Congress of Medicine, Dr. Carlos Martínez Durán warned about the "tyranny of technology." He said that medical communities in certain countries, most likely implying the United States, had become so focused on technological advances that they had grown distant from man, his conscience, and ethos.⁷⁷⁹ Durán called upon medical doctors to never lose touch with their humanity when pursuing medical practice.⁷⁸⁰ Aware of the potential political fallout that could come with promoting

⁷⁷⁶ The course was also mentioned in a history of the medical school, See Wellington Amaya Abad, *Facultad de Ciencias Médicas, 1895-1995, Historia y Recopilación*, Editorial Oscar de Leon Palacios, Guatemala, 1995, 68.

⁷⁷⁷ Interview with José Barnoya, Guatemala City, August 18, 2015.

⁷⁷⁸ The experiments directly violated articles in the 1945 Constitution: Artículo 1: Guatemala es una República libre soberana e independiente, organizada con el fin primordial de asegurar a sus habitantes el goce de la libertad, la cultura, el bienestar económico y la justicia social. Su sistema de gobierno es democrático-representativo. Artículo 23: El Estado protege de manera preferente la existencia humana. Las autoridades de la República están instituidas para mantener a los habitantes en el goce de sus derechos, que son primordialmente la vida, la libertad, la igualdad y la seguridad de la persona, de la honra y de los bienes. A ninguna persona puede impedirse lo que no prohíbe la ley. Constitución de la República de Guatemala, Decretada por la Asamblea Constituyente, en 11 de marzo de 1945, Tipografía Nacional, Guatemala, C.A., 1945.

⁷⁷⁹ Dr. Carlos Martínez Durán, "La Medicina, Dialogo y Nuevo Encuentro con Lo Humano," Guatemala, C.A. 1952, 6. Universidad de San Carlos de Guatemala, Archivo de la Facultad de Ciencias Médicas.

⁷⁸⁰ *Ibid.*, 5.

social medicine at the beginning of the Cold War, Durán nevertheless argued that it could help fight class inequality and build a society with less “pain and anguish.”⁷⁸¹

As doctors raised ethical concerns about an overly technical approach to medicine, the problems with access to treatments for venereal disease and infrastructure limitations posed significant impediments to achieving revolutionary goals. By this time with the destruction of Europe and Japan in the war, the United States had established its role as a leader in medicine around the globe. Guatemalan physicians looked to the USPHS and military as the vanguard of venereal disease control and treatment methods, even if some questioned their ethical approaches. Moreover, many Guatemalan doctors appeared to be similar to U.S. physicians in their cavalier approaches to performing research on marginalized populations. The opportunity to bring the very U.S. physicians who were on the precipice of eradicating venereal disease was exciting for Guatemalan officials seeking to build a new country.

The Deal

In 1945, Funes and Cutler met at the VDRL in Staten Island, New York. Funes had a one-year fellowship at the laboratory sponsored by the Institute of Inter-American Affairs. Penicillin research energized the laboratory. The two men worked under Mahoney and became acquaintances. Cutler shared with Funes his disappointment over the Terre Haute experiments. As the Revolution had just begun in Guatemala, Funes likely discussed his aspirations for the venereal disease control program. One day they started talking about the possibility of continuing the studies on prophylaxis for gonorrhea that were started in Terre Haute in Guatemala. The researchers discussed using registered sex workers to generate “natural infection” in prisoners.⁷⁸²

⁷⁸¹ Ibid., 20.

⁷⁸² John C. Cutler, “Final Syphilis Report 1,” Records of Dr. John C. Cutler, NARA Southeast.

As the “artificial” inoculation methods had failed in Terre Haute, now doctors saw an opportunity to both infect men with STIs and observe the sexual encounters that led to the transmission of disease.

According to his medical notes, Cutler recalls that the experiments were Funes’ idea. Cutler may have attributed the concept for the experiments to Funes in order to evade responsibility for the research. As a temporary fellow and a foreigner at the VDRL from a Central American country, Funes was an easy person to blame. The researchers also planned to use the PASB office in Guatemala to conduct the experiments. The PASB could only set up a technical assistance program if requested by officials in the country where it would be established. Funes’ role in requesting the assistance from USPHS/PASB was essential if the experiments were to occur in Guatemala.

As young and ambitious doctors who saw themselves part of revolutions in healthcare and nation-building, Cutler and Funes viewed the experiments as beneficial for both parties. For the VDRL, this plan would solve the problem researchers had encountered during the war with infecting human subjects with gonorrhea. In Guatemala, they would bypass the laws of the United States and protect themselves from a potential public relations controversy. Instead, they would work within the parameters of Guatemala’s venereal disease control laws. By serving as the go-between with U.S. and Guatemalan doctors, Funes might advance his stature in the international medical field and in his own country.

Yet, the doctors were not simply self-motivated; rather they justified their decision based on humanitarian principles. For Funes’ part, he likely saw an opportunity to bring U.S. medical researchers who had just found a cure for syphilis to Guatemala to assist with revolutionary goals. Without money and resources in Guatemala and overwhelmed by his responsibilities to

control venereal disease in his country, he welcomed the assistance from the United States.

Cutler too believed that the research was pertinent for global health. They saw this agreement as promoting the wellbeing of humanity and the Guatemalan nation.

Following his year at the VDRL, Funes returned to Guatemala in the midst of the Revolution and began to discuss the possibility of the experiments with doctors and members of the government.⁷⁸³ He received a favorable response from Guatemalan government officials; poor and marginalized Guatemalans would serve as currency to build Guatemala's future role in a modern international world order. By distancing himself from the humanity of vulnerable Guatemalans, Funes cemented his ties with U.S. medical professionals and brought what he believed would be critical public health resources and technical expertise to his country. The doctors established an international agreement for medical research that was bolstered by their solidarity as male physicians and presumptions about the access to marginalized members of Guatemalan society. Funes' role in the agreement also suggests the compromises that doctors on the U.S. imperial periphery have made in order to bring resources to their country.

Funes' offer of access to Guatemalan human subjects came at a propitious time for U.S. medical researchers. The opportunities to continue with research on prophylaxis appealed to leading syphilologists. By the war's end, Turner had grown convinced that prophylaxis was the only method for preventing the spread of venereal disease among soldiers. He sent a letter to Colonel Karl R. Lundberg, Chief of the Preventative Medicine Division in the Office of the Surgeon General of the U.S. Army, responding to the question about whether training methods should be restored following the war to ward against another increase in venereal disease. Turner wrote:

⁷⁸³ Ibid.

Quite pertinent to this whole problem are the extraordinary studies of Professor A.C. Kinsey of Indiana University on the sexual habits of the American people. It seems that the army is engaging in the worst kind of wishful thinking if it believes that it can change the habits of this group of people to such an extent that the potential exposure rate will be substantially reduced.⁷⁸⁴

Although physicians such as Turner had grown convinced about the futility of controlling male sexuality, following the war the U.S. military once again replaced condoms and prophylaxis with “character guidance.” Turner was still under attack from social reformers who criticized his program of prophylaxis. New military policy required medical personnel to spend no longer than ten minutes discussing prophylaxis in lectures. The military also resumed punishment tactics and recommended that venereal disease patients not be recommended for leave or promotion.⁷⁸⁵ At the same time that Kinsey’s studies continued to influence the thinking among military and medical officials, the growing concern about “sexual deviance” in the United States that was connected to political concerns about communism during the McCarthy era, made the possibilities to promote and continue with research on prophylaxis in the United States all the more difficult.

Prominent syphilis researchers with a vested interest in the experiments were embedded in the U.S. postwar research infrastructure at the NIH/USPHS. They greeted the idea for experiments in Guatemala enthusiastically. Many were the same researchers who at the time also knew about and even participated in the syphilis study in Alabama. To further their research,

⁷⁸⁴ Letter from Thomas B. Turner to Col. Karl R. Lundeberg, Chief of Preventative Medicine Division, October 10, 1946, RG 112 Office of the Surgeon General of the U.S. Army, Box 1267, Declassification Code, 795145.

⁷⁸⁵ Brandt, *No Magic Bullet*, 172. Anahad O’Connor, “Thomas Turner, 100, Hopkins Medical Dean,” *New York Times*, October 2, 2002.

they had little problem risking the lives of African Americans and Guatemalans marginalized in their own society. The VDRL began to move forward with the planning process for the experiments and even held a conference in order to discuss their feasibility.⁷⁸⁶ In 1945 following the war, approval and funding for research switched from the OSRD/CMR to the PHS/NIH, largely due to Surgeon General Parran's efforts to maintain the infrastructure for research that was developed during the war.⁷⁸⁷ The review of grants for venereal disease research proceeded through a similar protocol as it had during the war: first reviewed by the Syphilis Study Section, revised then by the National Advisory Health Council (NAHC), before approval from the Surgeon General. Yet, the new infrastructure gave greater control to Surgeon General Parran.⁷⁸⁸

The first committee to review the proposal, the Syphilis Study Section, included doctors who would directly participate or stand to benefit in their own research from the Guatemalan experiments. All of them knew each other well and had collaborated and trained each other in research. Following the war, Moore moved from chairman of the Subcommittee on Venereal Disease Research to head the Syphilis Study Section. Other members of the section included Turner who had returned to work as a professor at Hopkins, Harry Eagle also from Hopkins, Mahoney who still headed the VDRL, Stokes at the University of Pennsylvania, John R. Heller, chief of the Venereal Disease Division, and members of the U.S. Army, Navy, and Veterans Administration. Mahoney, who had submitted the proposal with the VDRL and would serve as a key adviser for the experiments, did not recuse himself from the grant review process. Turner, Eagle, and Stokes would use the experiments as an opportunity to check up on their own research.⁷⁸⁹

⁷⁸⁶ John C. Cutler, "Final Syphilis Report 1," Records of John C. Cutler.

⁷⁸⁷ On July 1, 1944, the Public Service Act established a PHS system for administering research and grants that would be under the purview of the U.S. Surgeon General and subject to review by the National Advisory Health Council (NAHC).

⁷⁸⁸ Cassius Van Slyke, "New Horizons in Medical Research," *Science* 104 (December 1946): 559-662.

⁷⁸⁹ *Ibid.*

Unlike the Terre Haute studies, the Guatemalan experiments appear to have generated little discussion from the researchers about potential lawsuits and controversy, unless the researchers kept these conversations secret. In February 1946, the proposal appeared before the Syphilis Study Section. Just one month later, the NAHC gave a considerable sum of money for research for that time period. It provided Research Grant No. 65 with \$110,450 of funding to the PASB to investigate venereal disease in Guatemala.⁷⁹⁰ No evidence exists that the study group worked on developing a consent form or carefully considered which populations they should use for research. The fact that these experiments would be conducted within a Central American country appeared to offer the opportunities for the researchers to bypass the “red tape” of the federal government and avoid having to respond to a moralizing public. They presumed that the Guatemalan government was not as captious and that it would not have to respond to the public in the same manner as was necessary in the United States.

PASB demonstrated enthusiastic support for the experiments. The organization had wanted to develop venereal disease control programs and facilities outside the United States.⁷⁹¹ During the late 1940s, the PASB office became the seat of the World Health Organization in Guatemala and was seeking to expand its operations in the country. As part of the plan for the experiments, U.S. researchers promised the construction of a venereal disease research laboratory at the PASB. U.S. researchers capitalized upon the infrastructure for international health that the PASB offered in the postwar era in order to locate bodies for medical research and to do experiments that violated U.S. law.

The plan for these experiments was also facilitated by the fact that research norms during this period placed the primary responsibility for experimental protocol under the purview of

⁷⁹⁰ National Advisory Health Council Meeting, USPHS, March 8 and 9, 1946, NARA_II_0000544.

⁷⁹¹ Cutler, “Final Syphilis Report 1,” 9.

scientists. The NIH postwar research infrastructure was designed to give individual researchers considerable leeway in their control over the experiments. Dr. Cassius Van Slyke, the Chair of the NIH Research Grants Division which was the administrative function of the NAHC, along with Parran, promoted the “integrity of independence of the research worker and his freedom from control, direction, regimentation, and outside interference.”⁷⁹² Van Slyke had also been the former Assistant Chief of the PHS Venereal Disease Division. This model followed accepted research guidelines prior to the war that gave researchers wide discretion in determining best research practices and treatment techniques for their patients. Following approval of the Guatemalan experiments, the Syphilis Study Section gave control over their design and progress to Mahoney, who would serve as the principal investigator, and John Cutler, who would become director of the study. The researchers had received the go ahead from the leading experts in the field to move forward with this research.

In Guatemala, the experiments also drew support from the highest members of government. The PASB signed agreements with ranking government officials in the Ministry of Public Health, the National Army of the Revolution, the National Mental Health Hospital, and the Ministry of Justice. These officials included Dr. Julio Bianchi, a prominent revolutionary critical in the overthrow of Ubico and the head of the Ministry of Public Health.⁷⁹³ While in Guatemala during “Ten Years of Spring,” Ernesto Ché Guevara had an interview with Julio Bianchi where the future revolutionary requested that he be allowed to work in Guatemala. Guevara Bianchi told Guevara that he would need to revalidate his medical license which would take years of study. Although Bianchi had been careful to validate the qualifications of a young

⁷⁹² Ibid., 559.

⁷⁹³ Hilda Gadea, *My Life With Che: The Making of a Revolutionary* (Front Line Books, 2008). Jon Lee Anderson, *Che Guevara: A Revolutionary Life* (Grove Press, 2010). Kirsten Weld, “More Bad Blood in Guatemala,” *NACLA*, September 4, 2011.

Argentinean doctor with sympathies for Guatemala's Revolution, he signed an agreement with U.S. researchers that gave them broad authority to work with institutions across the government and to experiment on Guatemalans.⁷⁹⁴ These decisions suggest that Bianchi was not as much driven by idealistic revolutionary goals as much as he sought to position Guatemala as a leader of public health in the Latin American region.

Guatemalan officials no doubt believed that U.S. doctors would bring important resources to the Revolution. The USPHS/PASB promised technical guidance and medical infrastructure development. The agreement said that the Guatemalan government would take control of the venereal disease research laboratory to be built for the experiments once the PASB had finished its training and research program. The laboratory would serve all of Central America, fulfilling the goals of many Guatemalan officials, including Julio Bianchi, for Guatemala to assume its role as a leader in the region. The USPHS/PASB also promised the training of local personnel to oversee the laboratory. The proposal furthermore presented the possibility of conducting surveys to determine the prevalence of the disease in the country, the establishment of prophylactic, diagnostic, and treatment facilities, and the development of an improved venereal disease control program.⁷⁹⁵ Guatemalan military doctors hoped that the U.S. doctors would help them to design a program of prophylaxis.⁷⁹⁶ As Guatemala struggled to recover from high rates of venereal disease that had been brought by U.S. troops during the war and sought to redeem the population following years of dictatorial rule, they welcomed the assistance of the United States.

⁷⁹⁴ Ibid., 32.

⁷⁹⁵ Cutler, "Final Syphilis Report 1," 17.

⁷⁹⁶ Tejeda, "Dos observaciones relacionadas con la venereología," 98-100.

In April 1946, venereal disease research in Guatemala began under the purview of the VDRL. As the experiments got underway, Mahoney reflected upon the benefits that Guatemala offered as a site for research on venereal disease, including the “highly cooperative attitude of the officials.” He wrote:

It has been considered impractical to work out, under postwar conditions in the United States, the solution of certain phases concerned with the prevention and treatment of prophylactic agent for both gonorrhea and syphilis and the prolonged observation of patients treated with penicillin for early syphilis. Because of the relatively fixed character of the population and because of the highly cooperative attitude of the officials, both civil and military, an experimental laboratory in Guatemala City has been established.⁷⁹⁷

The “fixed” character of the population implies the researchers’ opportunities to conduct research with institutionalized populations who could not easily leave the experiments nor inform the public about them. Mahoney’s statement indicates the possibilities for research that Guatemala offered U.S. researchers that were increasingly under threat in the United States. Following the war, research on prophylaxis had waning support from the U.S. public. Researchers could no longer justify human subjects research as beneficial to the war effort. The war had relaxed some policies in the military regarding the control of sexuality among soldiers, but now the military had returned to America’s more typical approach of insisting that sex does

⁷⁹⁷ John F. Mahoney, “Some Significant Aspects of Venereal Disease Research” *Journal of Venereal Disease Information* 28, Issue 7 (1947) 129-132

not happen. In private, many military officers acknowledged the importance of prophylaxis in lowering venereal disease rates, but it was too risky to say so publicly.

Guatemalan officials enthusiastically agreed to the experiments, but they were hardly equal partners to the U.S. military and medical communities. Guatemala remained highly dependent upon the United States to realize its goals to redeem the nation and provide public health services to the people. The experiments reveal the problems of nation-building in a Central American country under U.S. domination. Still, the Guatemalan doctors simultaneously were in a comparable position to U.S. doctors by virtue of their class and their relationship with indigenous and poor Guatemalan people. As medical doctors, they also had their own careers to make. At the moment that the Guatemalan physicians fought the country's role as a brothel for U.S. soldiers during the war, they reinforced that position by offering sex workers and bodies for medical experiments.⁷⁹⁸

⁷⁹⁸ Franz Fanon, *The Wretched of the Earth* (New York: Grove Press, 1963): 101.

CHAPTER 5: “PURE SCIENCE” IN GUATEMALA

In April 1946, when Dr. John Cutler of the U.S. Public Health Service arrived in Guatemala City, he was welcomed by fellow U.S. researcher Dr. John Spoto.⁷⁹⁹ Spoto, also a USPHS researcher and head of the Pan American Sanitary Bureau (PASB) office in Guatemala, offered important insider knowledge and connections in the region. He introduced Cutler to Guatemalan officials in public health, the military, and the central government and helped to finalize agreements with them.⁸⁰⁰ Spoto also offered a bit of know-how about running research programs in the country. In regards to the indigenous men in the Guatemala City prison, he advised Cutler to provide little or no explanation about the experiments. According to Spoto, this approach was necessary to avoid confusing his human subjects. Likewise, he recommended paying the prisoners less than the researchers had originally planned.⁸⁰¹

Spoto introduced Cutler to the norms of research for American scientists in Guatemala. His advice reveals researchers’ ethical understandings were shaped by Guatemala’s social hierarchy and research norms. Yet, these norms had not been developed in Guatemala alone. As the founder of the PASB Border Health Program in El Paso, Texas during World War II, Spoto had inspected Mexican farmworkers.⁸⁰² Views of race and disease informed PASB officers’ anatomization of the farmworkers’ bodies and their assessments of whether they posed biological threats to the United States. Spoto then went to Guatemala where he conducted studies on onchocerciasis, which was understood to be an indigenous disease.⁸⁰³ During this research, he

⁷⁹⁹ At the time, the PASB had three offices in Guatemala City, Lima, and El Paso. “Notes and Documents on Regionalization and Relations with the Pan American Sanitary Organization from the First Assembly of the World Health Organization,” June 24, 1948. Thomas Parran Papers, University of Pittsburgh.

⁸⁰⁰ John C. Cutler to John Mahoney, September 3, 1946, Correspondence, Records of Dr. John C. Cutler.

⁸⁰¹ John C. Cutler to Richard Arnold, August 21, 1946, Correspondence, Records of Dr. John C. Cutler.

⁸⁰² Ralph C. Williams, “The United States Public Health Service, 1798-1950” (Commissioned Officers Association of the United States Public Health Service, 1951): 449.

⁸⁰³ The PASB, Guatemalan physicians and *indigenistas* studied and conducted experiments on onchocerciasis using Mayan populations due to beliefs that it was an “indigenous disease.” Abigail E. Adams and Laura Giraudo, “An Inter-American

gained a sense of the liberties American scientists could take while conducting research on Mayan populations. He learned from his Ladino colleagues that views of indigenous populations as unintelligent, easily manipulated, and docile carried over to medical research.⁸⁰⁴

Senior USPHS scientists saw Spoto as an invaluable resource to Cutler and his team. It is important to highlight senior scientists' roles in setting up the experiments to avoid simply blaming what happened on Dr. John Cutler.⁸⁰⁵ In reading the gruesome and often shocking details of Cutler's medical notes, it can be tempting to paint him as an especially malignant and aberrant character. Although Cutler's personality certainly influenced the experiments, systemic factors played a greater role. USPHS and PASB senior scientists enabled Cutler and he operated within norms deemed acceptable by them in the imperial periphery. He also did not challenge Guatemalan standards of research. Yet, doctors' masculine identities and the conduct of their research were also shaped by these experiments. They grew increasingly drastic in their methods in response to the secrecy in which these experiments were conducted, their excitement about the "possibilities" for research on human subjects, and the fraternal bonds that U.S. and Guatemalan doctors formed with each other. In general, Guatemalan doctors occupied a subordinate role relative to the American scientists in these experiments. Yet, in this chapter, I show that U.S. and Guatemalan doctors built solidarity with each other through their denigration and assertion of

Problem": Race, National Security, Onchocerciasis and the "Secret" Syphilis Experiments of Guatemala's October Revolution," unpublished essay serves part of larger research project funded by RE-INTERINDI.

⁸⁰⁴ See Arturo Taracena, *Etnicidad, estado y nación en Guatemala, 1808-1944, Volumen 1*, (Centro de Investigaciones Regionales de Mesoamérica, 2002). Greg Grandin, *The Blood of Guatemala: A History of Race and Nation*, (Durham and London: Duke University Press, 2000). These ideas had also historically informed the labor practices of plantation owners who felt no obligation to obtain consent from agricultural workers and forced them into labor with the support of the state. Planter administrators had typically run labor contracts collectively. The *obligados*, or men whose names were listed on these contracts, were often not present to provide their consent. Greg Grandin, *The Last Colonial Massacre: Latin America and the Cold War*, (Chicago: University of Chicago Press, 2004), 26.

⁸⁰⁵ As Hannah Arendt found in her study of German SS officer, Otto Adolf Eichmann, it is often bureaucracy or people performing the day-to-day duties of their careers that led them to conduct human rights atrocities. See Hannah Arendt, *Eichmann in Jerusalem: A Report on the Banality of Evil* (New York: Penguin Books): 1963.

control over the Guatemalans on whom they experimented.⁸⁰⁶ These relationships forged across national borders enabled and condoned the violence that doctors enacted upon Guatemalans.

Although the archival record reveals little information about the people subjected to experimentation, oral histories nevertheless show the imprint that this history continues to have on Guatemalans. The few oral histories I have collected of survivors suggests their continued suffering and sense of sexual and bodily violation. I have not been able to verify using Cutler's records that the men and women I interviewed were part of the experiments. Yet, I argue these oral histories nonetheless provide an impression of Guatemalans' experiences of bodily harm and how the experiments continue to shape their present. By relying upon "official" records, we privilege the colonizers' construction of history and erase the stories of people subjected to violent policies.⁸⁰⁷ The oral histories raise questions about what serves as evidence and whose stories count when writing history. Moreover, although the historical record contains no evidence of Guatemalans uttering a word to the doctors, by reading medical documents against the grain and analyzing ethnographies, I argue that we gain hints of Guatemalans' claims to bodily sovereignty made within the context of their severe power imbalance with U.S. and Guatemalan researchers.⁸⁰⁸ Their resistance was informed by their different ethical understandings of healthcare, illness, and the body. Medical documents and ethnography show an understanding of rights from below as expressed by Guatemalans subjected to experimentation.

⁸⁰⁶ Anthropologist Peggy Reeves Sanday has shown in her study of fraternity culture in U.S. universities how men have solidified their bonds and overcome competition with each other through the objectification and subordination of women's bodies. See Peggy Reeves Sanday, *Fraternity Gang Rape: Sex, Brotherhood, and Privilege on Campus*, (New York: New York University Press, 2007).

⁸⁰⁷ Michelle Rolph-Trouillot, *Silencing the Past: Power and the Production of History* (Beacon Press, 1997): 27.

⁸⁰⁸ Ann Stoler, *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense* (Princeton: Princeton University Press, 2008). Gayatri Chakravorty Spivak, "Can the Subaltern Speak," in *Marxism and the Interpretation of Culture*, eds C. Nelson and L. Grossberg (Macmillan Education, 1988), 271-313. My understanding of bodily sovereignty has been informed by the work of Saidiya Hartman, *Scenes of Subjection: Terror, Slavery, and Self-Making in Nineteenth-Century America* (New York: Oxford University Press, 1997). Steve Hahn, *A Nation Under Our Feet: Black Political Struggles in the Rural South* (Cambridge and New York: Belknap Press, 2005). Nicole Guidotti Hernández, *Unspeakable Violence: Remapping U.S. and Mexican National Imaginaries* (Durham and London: Duke University Press, 2011).

Still, Guatemalans' protestations did not stop the experiments. After Cutler arrived in Guatemala City, researchers began their research in the men's prison located in Guatemala City. They then continued to the soldier barracks, the lock hospital, the psychiatric institution, and to children in schools and in the national orphanage. Physicians conducted these experiments in a haphazard and chaotic manner. Between February 1947 and October 1948, researchers carried out a total of 50 experiments (32 gonorrhea experiments, 17 syphilis experiments, and 1 chancroid experiment). Records show that they infected more than 1300 Guatemalans with venereal disease and that only 678 received some form of treatment. Many experiments began before others had ended and did not follow a logical progression.⁸⁰⁹ Physicians did experiments to determine the rates of infection after they began the prophylaxis studies and did not wait until the results from pilot studies were completed before they began new experiments.⁸¹⁰ Later the researchers continued their serological research in schools and the orphanage. Except for the schools which were located in rural areas, all of the other institutions that participated in the experiments were located within proximity to one another in Guatemala City.

In describing these experiments, I have included many disturbing details. Only by closely examining what occurred can we begin to understand how researchers managed to have so little empathy for Guatemalans and the institutional norms and cultural ideals that emboldened USPHS officers and Guatemalan military and medical doctors to conduct these experiments in the mid-twentieth century.

⁸⁰⁹ In the first half of the twentieth century, the progress of experiments was left to the discretion of the lead investigator. The research protocol was developed throughout the course of the experiment rather than established from the beginning. See Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1990* (Cambridge: Cambridge University Press, 1997): 12.

⁸¹⁰ Presidential Commission for the Study of Bioethical Issues, "Ethically Impossible: STD Research in Guatemala from 1946 to 1948," September 2011, 42

The Intentional-Exposure Experiments

In preparing for the experiments in the men's prison in Guatemala City, U.S. doctors schemed about how they could win the inmates' cooperation. Spoto urged Cutler to offer some treatment programs.⁸¹¹ Although the treatment offered would not interfere with the results of their research nor cure the men of syphilis, the doctors thought they might convince the prisoners and staffers who did not know about the experiments of their benevolent intentions. This idea reflected USPHS practices in Tuskegee, Alabama where doctors and nurses provided African American men "inadequate treatment" to convince them that they were receiving care for "bad blood."⁸¹² The doctors also considered other ideas such as giving the men a pack of cigarettes or a bar of soap for each blood draw.⁸¹³ Prison conditions were so dire that the doctors did not have to offer much to improve the inmates' circumstances. U.S. doctors had originally planned to pay the prisoners, but decided to forego giving them money following Spoto's recommendation. USPHS doctors wanted to avoid all expenses they deemed unnecessary, including fairly compensating the men for their participation in the research.⁸¹⁴ In contrast, USPHS researchers had provided compensation to prisoners in the study in Terre Haute, Indiana. U.S. scientists presumed that they would find cheaper research labor in Central America.

Sex too, scientists believed, could be used as a favor for the men. Throughout the experiments, the doctors presumed that they could profit from both men and women's sexuality. They assumed that prisoners, soldiers, and sex workers would be willing. As Cutler stated, "It was thought that the prostitutes serving the penitentiary could furnish a means of securing the desired infection."⁸¹⁵ In the prison, inmates could arrange visits from sex workers but they had to

⁸¹¹ John C. Cutler to John Mahoney, September 3, 1946, Correspondence, Records of John C. Cutler.

⁸¹² Susan M. Reverby, *Examining Tuskegee*, 58.

⁸¹³ John C. Cutler to John Mahoney, Correspondence, January 7, 1947, Records of John C. Cutler.

⁸¹⁴ John C. Cutler to John Mahoney, Correspondence, June 22, 1944, Records of John C. Cutler.

⁸¹⁵ John C. Cutler. "Final Syphilis Report Part 1," 16, Records of John C. Cutler.

pay them.⁸¹⁶ Evidence indicates that the doctors footed the charge for at least some of the men. Cutler further wanted to convince all of the prisoners that they would be receiving a prophylaxis method before the exposure experiments. In reality, many prisoners only received a placebo. Although Cutler's notes do not reveal exactly what he told prisoners, it appears that he did explain some aspects of the experiments to them, while lying about others.

Since Cutler and his team encountered protests from prisoners for their blood draws, they understood that they needed to gain rapport with the men if their experiments were to happen at all. Prisoners were not the docile subjects that the doctors had anticipated when they were planning the experiments. In his medical notes, Cutler expressed his frustration:

The inmates were, for the most part, uneducated and superstitious. Most of them believed that they were being weakened by the weekly and biweekly withdrawals of blood and complained that they were getting insufficient food to replenish it. The fear of what they saw was much more important to them than the potential damage which might be done by syphilis years later and could not be countered by promises or actual administration of penicillin and iron tablets to replace blood.⁸¹⁷

Cutler's comment is puzzling given he hid from Guatemalans his plans to infect them with syphilis. He belittled inmates for their superstition and fear, when in truth they had good reason to be suspicious. Guatemalans' responses also reveal their understandings of bodily harm according to their own conceptualizations of health and disease. Many Mayan and poor Guatemalans today still believe that the body contains a finite amount of blood that cannot be

⁸¹⁶ John C. Cutler. "Final Syphilis Report Part 1," 21, Records of John C. Cutler.

⁸¹⁷ John C. Cutler. "Final Syphilis Report Part 1," 16, Records of John C. Cutler.

regenerated. They feared that losing their blood would create an imbalance within their bodies and render them susceptible to a host of diseases. Guatemalans believed that a loss of blood could harm their physical, psychological, and spiritual wellbeing.⁸¹⁸ Among indigenous and poor communities, few people knew about microbiology during the 1940s.⁸¹⁹ Most people did not understand the etiology of disease according to the biomedical model. A medical doctor who worked in the Guatemalan highlands during the 1940s and 1950s said that he explained bacterial infections to his mainly indigenous patients as being an “*animalito*” (little animal).⁸²⁰ He found that this explanation helped his patients connect the biomedical conception of disease to their own understandings of the body and healing.

Deriding prisoners’ fears as ignorant, Cutler remained confident in his scientific and rational approach to medicine that upheld notions that socially constructed categories had biological significance. Yet, U.S. and Guatemalan medical doctors also clung to superstitions about blood. As Swedish Sociologist Gunnar Myrdal observed during World War II, the perception among white Americans of African American blood as unclean was akin to a “primitive” form of religion.⁸²¹ Medical researchers in Guatemala also thought that indigenous blood was different and that research on indigenous people could threaten the viability of their research. Cutler stated in his notes that almost all of the men in the prison were of “pure or predominant Indian blood,” disregarding many of the men’s self-identification as Ladinos.⁸²²

⁸¹⁸ Richard N. Adams, *Un análisis de las creencias y prácticas médicas de un pueblo indígena de Guatemala*. Guatemala: Editorial del Ministerio de Educación Pública, 1952; 16. Richard N. Adams, “Social Anthropology in INCAP,” *Food and Nutrition Bulletin*, Vol. 31, No. 1 (2010); 153.

⁸¹⁹ Interview with Juan José Hurtado, Guatemala City, September 14, 2015.

⁸²⁰ Ibid.

⁸²¹ In the United States, African Americans had been presumed to have “bad blood,” which served as a euphemism for syphilis. See Susan M. Reverby, *Examining Tuskegee: The Infamous Syphilis Study and its Legacy*, (Chapel Hill: University of North Carolina Press), 2009. James H. Jones, *Bad Blood: The Tuskegee Syphilis Study*, (The Free Press, 1993).

⁸²² Although Cutler presumed that all Guatemalans were indigenous, his idea that the prisoners were Mayan have come from racist beliefs in Guatemala that indigenous populations were particularly prone towards crime. Cutler, “Final Syphilis Report,” 38.

USPHS physicians were interested in comparing diagnostic tests between indigenous populations in Central America and Mexico, Native Americans in the United States, and African Americans in the southern United States (likely in Tuskegee, Alabama), but no evidence suggests that they completed this study.⁸²³ Some preliminary studies by USPHS scientists John Mahoney and R.C. Arnold had indicated that Native Americans tested positive for syphilis in blood tests when they had no other sign of the disease.⁸²⁴ During the syphilis study in Tuskegee, Alabama, USPHS researchers had also proposed comparing results from untreated syphilis with Native American populations.⁸²⁵ The idea that disease differs according to socially-constructed racial categories is false.⁸²⁶ But these beliefs nevertheless reveal clues about how racial thinking about venereal disease and science developed and were influential in doctors' research. Cutler would later defend his research by stating that venereal disease was no different in indigenous Guatemalans than in other populations, challenging the views of his superiors at the USPHS and prominent scientists researching syphilis in the United States.

Due to the problems that the researchers faced in the prison drawing blood, the first experiments they performed did not take place in the prison as originally planned; they took place in the military barracks and hospital in enlisted men. The support from Guatemalan military officials convinced U.S. doctors that they would find a more cooperative research population. The majority of the exposure experiments occurred with soldiers over a 60-day period in the Military Hospital and in the soldier barracks located in Guatemala City. Cutler reported that the Guatemalan military's medical department showed considerable interest in the

⁸²³ John Mahoney to John C. Cutler, Correspondence, September 8, 1947, The Records of John C. Cutler.

⁸²⁴ John C. Cutler. "Final Syphilis Report Part 1," 29, Records of John C. Cutler.

⁸²⁵ Susan L. Smith, *Sick and Tired of Being Sick and Tired: Black Women's Health Activism in America, 1890-1950* (Philadelphia: University of Philadelphia Press, 1995): 109.

⁸²⁶ Continuing into the present day, medical institutions falsely believe that disease differs according to socially constructed racial categories. See Susan M. Reverby, "'Special Treatment': BiDiI, Tuskegee, and the Logic of Race," *Journal of Law, Medicine, and Ethics* 36, no. 3 (August 2008): 478-484.

research and offered patients at the Military Hospital and various units for the experiments.⁸²⁷

Since soldiers would be some of the main beneficiaries of improved prophylaxis methods, Guatemalan military doctors saw a direct benefit from the experiments.

Several doctors from the Guatemalan military had key roles in the research. Dr. Carlos Tejeda, the Chief of the Guatemalan Army Medical Department, wholeheartedly cooperated with the U.S. doctors and made a concerted effort to ensure their success. Dr. Raul Maza of the Military Hospital worked on both the syphilis and gonorrhea experiments, and Colonel Juan Oliva of the *Guardia de Honor* (an army unit) participated in the syphilis experiments.⁸²⁸ They had a number of tasks that included helping to prepare the prophylaxis solution.⁸²⁹ Guatemalan military doctors also assisted the research by selecting soldiers for experimentation. In general, they assumed a secondary role to the U.S. researchers but were nonetheless necessary to complete the experiments.

In selecting which men to use for the experiments, Guatemalan military doctors presumed total control over the soldiers' bodies. Like the prisoners, the soldiers did not consent to the experiments, nor did they receive any type of compensation. The average age of the soldiers was 22 years old. As enlistees, they were of the lowest military rank. In a letter to a senior scientist, Cutler described the soldiers as "Mayans from the backwoods."⁸³⁰ Researchers assumed the men could be easily manipulated. As mentioned in Chapter Two, because soldiers did not have knowledge about venereal disease, some thought remaining in the hospital with syphilis or gonorrhea was preferable to performing regular military duties or undergoing training activities. It seems that they did not understand nor were informed about the dangers associated

⁸²⁷ John C. Cutler, "Experimental Studies in Gonorrhea," October 29, 1952, Records of John C. Cutler.

⁸²⁸ Records of John C. Cutler, "Experimental Studies in Gonorrhea," October 29, 1952, Records of John C. Cutler.

⁸²⁹ *Ibid.*, 7.

⁸³⁰ John C. Cutler to RC Arnold, "Correspondence," September 16, 1947, Records of John C. Cutler.

with venereal disease or viewed this disease differently according to their own beliefs about health and illness. Some men had even intentionally infected themselves with gonorrhea by inserting a matchstick coated with pus from other men's lesions as a way to gain reprieve from military service.⁸³¹ Cutler then used these men in the experiments. He may have viewed these men's actions as an open invitation to experiment upon them. Other soldiers were healthy at the start of the study.⁸³²

Although Guatemalan military officials showed little concern about spreading disease among soldiers, they also believed that they would receive treatment and a prophylaxis program created by the USPHS. Tejeda, for example, requested that the U.S. doctors draw up an emergency plan of prophylaxis for venereal disease.⁸³³ The Guatemalan military participated in the research because they saw a long-term benefit to working with the American doctors. USPHS scientists understood that the Guatemalan military assumed that they would receive technological assistance. Cutler responded to Tejeda's request. Guatemalan military doctors may have also expected that the United States would provide them with penicillin. Cutler inquired with Mahoney about providing a penicillin treatment program to the Army, but this request was denied. He may have wanted to treat the Guatemalans who were the subjects of his study, but he did not have the resources necessary to do so. The U.S. government only had limited supplies of penicillin at this time, and prioritized its use to treat venereal disease in U.S. citizens.⁸³⁴ Mahoney instead recommended that the doctors conserve their supply of penicillin and use it for demonstration programs and to "build good will."⁸³⁵ The doctors used penicillin to manipulate

⁸³¹ Ibid.

⁸³² Ibid.

⁸³³ Carlos Tejeda to John C. Cutler June 17, 1947, Correspondence, Records of John C. Cutler. Carlos Tejeda to John C. Cutler June 28, 1947, Correspondence, Records of John C. Cutler.

⁸³⁴ The United States also would not provide penicillin to the Allied Occupation in Japan. Kovner, *Occupying Japan*, 43.

⁸³⁵ John C. Cutler to John Mahoney, November 30, 1946, Correspondence, Records of John C. Cutler.

Guatemalan institutions into participating in the research. They knew that treating the men was not in their plans.

A senior USPHS official traveled to Guatemala to conduct the first “natural exposure” experiment in the Army. USPHS scientists may have wanted a more experienced researcher to do the first experiment since they had never used this “method” of infection. Dr. Richard (R.C.) Arnold of the USPHS Venereal Disease Research Laboratory (VDRL) arrived in Guatemala to conduct the research. In addition to developing a method for “natural” exposure, Arnold traveled to Guatemala for his own self-interest. He wanted to test a prophylaxis solution that he had developed for gonorrhea comprised of penicillin in a peanut oil and beeswax solution that he thought would bring about a measured release of the prophylaxis. He used commercial sex workers known to have gonorrhea to infect eight soldiers and seven other men as controls.⁸³⁶ The doctors administered the prophylaxis solution onto the infected men’s genitals ten minutes following contact with the women. They took blood tests of the men before and after the experiments and urine samples to examine their immune response to gonorrhea.⁸³⁷ The doctors did not take blood tests from the sex workers because they were “quite apprehensive.”⁸³⁸ Researchers failed to verify whether the women actually did have gonorrhea. They rather presumed that they would be infected with venereal disease. Despite being convinced of their scientific approach to the experiments, the doctors’ prejudices towards the women adversely influenced the credibility of their work.

During the experiments and in their later observations, the doctors talked among themselves about Guatemalans’ sexuality and bodies. The jocular manner they used to

⁸³⁶ John C. Cutler, “Gonorrheal Experiment #1,” Records of John C. Cutler.

⁸³⁷ Ibid.

⁸³⁸ John C. Cutler, “Gonorrheal Experiment #1,” Records of John C. Cutler.

communicate suggests how they strengthened their relations with each other and distanced themselves from the people they experimented upon through humiliating commentary. Cutler assisted Arnold and took notes on possible ways to improve the experiments. He timed the men having sexual intercourse. In a letter to Arnold, he wrote “perhaps it is that the men are like rabbits.”⁸³⁹ Throughout the experiments, Cutler spoke interchangeably about Guatemalans and the rabbits they had used in animal experimentation.⁸⁴⁰ This association reflects his continued dehumanization of the men and women as the experiments unfolded. Through making comments about what they perceived as their non-normative sexualities, the researchers further strengthened their perceptions that Guatemalans were laboratory animals useful for experimentation.

The Guatemalan military doctors reinforced U.S. researchers’ views of the indigenous men’s deviance. Both U.S. and Guatemalan doctors’ perceptions of the soldiers’ sexual practices were informed by their racial understandings. Although the doctors had different views of Mayans which were shaped by their national contexts and cultural views, their perceptions also overlapped. Guatemalan military doctors claimed that the short amount of time that indigenous soldiers spent with the sex workers was characteristic of their “culture group.”⁸⁴¹ Cutler further blamed the problems infecting soldiers with gonorrhea in part upon their sexual practices. He thought their exposure to the sex workers was too limited to induce infection. The doctors’ understandings of the men’s sexuality provided them justification for using the soldiers but also cast doubt upon the viability of the research population. These conflicting understandings reflect both the prejudices and the anxieties that researchers had throughout the experiments.

⁸³⁹ John C. Cutler to R.C. Arnold, Correspondence, June 5, 1947, Records of John C. Cutler.

⁸⁴⁰ John C. Cutler to Richard Arnold, June 5, 1947, Correspondence, John C. Cutler Records.

⁸⁴¹ John C. Cutler, “Experimental Studies in Gonorrhea,” October 29, 1952, 10. Records of John C. Cutler.

Cutler also boasted to his superiors about the liberties he could take experimenting on Guatemalans. He remarked to Mahoney about the opportunities for “pure science” in Guatemala. He said that researchers could “shoot living germs into human bodies” in the same manner that researchers had infected rabbits in laboratories in the United States.⁸⁴² Again, Cutler equated Guatemalans with laboratory animals. In letters, Cutler also told senior USPHS scientists including Mahoney and Arnold that he was not telling his “patients” that he was infecting them with syphilis. He wrote, “as you can imagine, we are holding our breaths, and we are explaining the patients and others concerned with but a few key exceptions, that the treatment is a new one utilizing serum followed by penicillin. This double talk keeps me hopping.”⁸⁴³ Cutler was excited by the secrecy of the experiments and the advances that he thought he was making in his research. The fact that he shared this news with his superiors reflects that he did not believe they would reprimand him for his actions. In fact, he seemed to believe that he would win accolades from senior scientists for his capability to detach himself from Guatemalans’ humanity.

While military personnel provided U.S. researchers with access to male soldiers for experimentation, Guatemalan doctors in the lock hospital, which regulated and treated registered sex workers in Guatemala City, established themselves as authorities in determining the women’s sexual value and benefit to the American researchers. Doctors in the lock hospital selected which sex workers they would use to infect the men. Dr. Juan Funes, in charge of the lock hospital, and Dr. Luis Galich, who directed the sanitation department, chose the women. According to Cutler, the Guatemalan doctors selected sex workers who were the “lowest on the social scale of prostitutes and most frequently infected with syphilis and gonorrhea.”⁸⁴⁴ Typically

⁸⁴² John C. Cutler to John Mahoney, September 18 1947, Correspondence, John C. Cutler Records.

⁸⁴³ John C. Cutler to Richard Arnold, Correspondence, June 27, 1947, Records of John C. Cutler.

⁸⁴⁴ Cutler, “Final Syphilis Report,” 8.

in Guatemala, prostitutes on the “lowest scale” were indigenous women who were not viewed as desirable to elite and middle class men.⁸⁴⁵ The women also may have been on a lower scale based on the fact that they were frequently infected with venereal disease. Regardless of how the doctors assessed the sex workers, they both pimped and infected them.

Nevertheless, the women showed they could not be controlled as easily as the doctors hoped and presumed. Cutler reported that “contrary to what might be expected, it proved extremely difficult to obtain prostitutes willing to serve under experimental conditions.”⁸⁴⁶ Although the doctors believed that the women’s bodies would be fodder for sex and research, the women maintained control over their business choices. Some notes indicate that the women received payment for participation in the experiments.⁸⁴⁷ Yet, even the money did not persuade the women to work for the doctors. They likely understood that they had venereal disease and may have wished to avoid infecting the men. The sex workers showed more scruples than the doctors. Another researcher expressed surprise that some of the sex workers had left the experiments to marry.⁸⁴⁸ The researchers apparently saw the sex workers’ occupations as permanent, when typically sex work has been a temporary profession. In contrast to other groups in these experiments, the women appeared to hold a greater degree of choice in their decisions to participate in these experiments.

During the course of the experiments, Cutler received visits from other senior researchers who criticized his methods, but not his treatment of Guatemalans. A few months after the intentional-exposure experiments began in the Army, senior U.S. government medical officers visited Guatemala. They included John Mahoney, John R. Heller, Chief of the Venereal Disease

⁸⁴⁵ David McCreery, “‘This Life of Misery and Shame’: Female Prostitution in Guatemala City, 1880-1920,” *Journal of Latin American Studies*, 18 (November 1986): 339.

⁸⁴⁶ Ibid.

⁸⁴⁷ John C. Cutler, “Gonorrheal Experiment #2,” Records of John C. Cutler, NARA Southeast.

⁸⁴⁸ Elliot L. Harlow to John M. Mahoney, June 30, 1947, Records of John C. Cutler, NARA Southeast.

Division, and Cassius Van Slyke, the Chief of Research Grants at the National Institutes of Health (NIH). Despite his efforts, Cutler failed to impress these high-ranking officials. Cutler had the visiting doctors watch Guatemalans have sexual intercourse during the “natural” exposure experiments in the Army. Although Cutler perhaps thought that this ability to observe the transmission of venereal disease would impress the scientists, Van Slyke upbraided him for failing to verify whether or not the sex workers were infected with gonorrhea before introducing them to the soldiers. As in earlier experiments, Cutler appears to have presumed that the sex workers would have venereal disease just by virtue of their profession. Senior scientists were also disturbed by the frequency with which the women had sex with the soldiers. Some saw several different men just a few minutes apart and one woman had contact with eight soldiers in less than 70 minutes. Scientists’ concern seemed based more upon the lack of control that Cutler had over the experiment and that the results of the research would be tainted, than they were concerned with Guatemalans’ welfare.

In response to these critiques, Arnold gave Cutler advice on gaining approval from his superiors. He said that Cutler should “not put on any more shows unless you are sure of everything” and added that perhaps Cutler should do a little “blanket stretching” beforehand.⁸⁴⁹ Cutler had revealed his shoddy research practices in his zeal to impress his superiors. By recommending “blanket stretching,” Arnold may have been using a common expression used in the United States that means stretching the truth, or fixing the results of studies so that Cutler had something to present to senior scientists. The mention of “shows” suggests the jesting manner in which the doctors communicated. Arnold maintained a friendly approach by making light of what he viewed as the pornographic nature of the experiments, as if Guatemalans were putting

⁸⁴⁹ R.C. Arnold to John C. Cutler, April 10, 1946, Correspondence, Records of John C. Cutler.

on a show for scientists' enjoyment. In spite of senior researchers' sharp critiques and the problems with "natural exposure," they gave Cutler the go-ahead to continue with the prophylaxis experiments. Cutler's missteps did not lead them to reassign him or put another researcher in charge.

Following the departure of Cutler's stateside supervisors, U.S. and Guatemalan doctors conducted numerous experiments for more than a year. Cutler's notes provide examples of the physicians' daily work. In one experiment with the Army, physicians wanted to test the orvus-mapharsen prophylaxis method. Arnold and Mahoney had previously used this method on rabbits but never with humans. They wanted to compare its effectiveness to the Army "Pro Kit" which had been used by the military during World War II and had received many complaints from U.S. soldiers. The researchers thought that the orvus-mapharsen solution would be more comfortable for the soldiers than the Army "Pro Kit" and have an "aesthetic appeal" due to its deodorizing qualities.⁸⁵⁰

Seeking to appease American soldiers, the doctors planned to experiment upon Guatemalans. The doctors first infected twelve sex workers five to fourteen days before their sexual contact with male soldiers by inserting a cotton swab with the infective agent of gonorrhea into their cervixes. They used a total of 105 male "patients," 68 of whom received the orvus-mapharsen prophylaxis and 37 who used the Army "Pro Kit."⁸⁵¹ One week prior to exposure and two weeks afterwards, the doctors restricted the male soldiers to the military base and Military Hospital so that they would not have any other contact with women. Physicians may have brought the women to the Military Hospital and the army barracks to infect the men, although Cutler did not describe where and how the sexual contact occurred. Following

⁸⁵⁰ John C. Cutler, "Experimental Studies in Gonorrhea," 2, Records of John C. Cutler.

⁸⁵¹ *Ibid.*, 15.

exposure, the physicians administered the two types of prophylaxis by rubbing them on the men's genitals for as long as two minutes. They then attempted to insert some of the substance into their urethras. Soldiers may have experienced this as more akin to sexual assault or humiliation rather than as part of an experiment. For the next two weeks, the doctors examined the soldiers every day at six in the morning and inspected their urine for signs of an immune response to gonorrhea. Researchers found no significant difference in the effectiveness of the orvus-mapharsen solution and the Army "Pro Kit," providing evidence that soldiers could choose a prophylaxis solution depending upon their preferences.⁸⁵² To prove this point, they had infected over 100 Guatemalans with a deadly disease.

Although the Guatemalan doctors primarily assisted U.S. researchers and selected subjects for experimentation, Dr. Juan Funes conducted his own research in the lock hospital. Claiming his commitment to the Revolution's cause and to his patients, Funes wrote that he pursued the experiment because prophylaxis had not received the same attention in women as in men. He further stated that prophylaxis for women was important in countries like Guatemala that had legalized prostitution. Physicians in countries that had regulation systems, Funes said, regularly interacted with sex workers and could teach them about preventative measures.⁸⁵³ His paper was the only one published on the experiments. Perhaps because he saw his experiment as therapeutic, the doctors were less concerned that his research would provoke controversy. The doctors could have also decided to publish his paper as opposed to other articles on these experiments in order to reduce suspicion about the other research they were conducting.

⁸⁵² Ibid., 7-1.

⁸⁵³ Dr. Juan Funes M. Funes and Srta. Casta Luz Aguilar, "La Solución de Mafarside-Orvus en la Profilaxis de la Blenorragia en la Mujer," *Boletín de la Oficina Sanitaria Panamericana* (agosto 1952): 121-126. This paper was also located in Cutler's records and, mentioned as having been received by him on February 1952.

Funes professed concern for the women, but he also revealed his belittling views of them. In the study, Funes also tried using an orvus-mapharsen prophylaxis solution with the women in the hospital. Explaining this decision, he wrote that anyone who understands the mentality of the “common prostitute” and the conditions in which she lives would realize that a prophylaxis solution would only be effective if it was “simple,” could be applied in “primitive conditions,” and offered a “cosmetic advantage.”⁸⁵⁴ The doctors chose six sex workers who were “subjected” to “legal supervision” by having to participate in the regulation system. No evidence indicates that he obtained consent from the women. Rather the doctors “selected” these “volunteers” who they had observed over a period of time.⁸⁵⁵ The fact that the women were legally obligated to have medical inspections two times per week by these same medical professionals would make it difficult for them to refuse to cooperate. Yet, the women may have also been interested in trying the prophylaxis solution in order to improve their work conditions and protect themselves from disease. Between June 15 and December 15, 1948, Funes gave all the women the equipment to prepare the solution and a vaginal douche. Funes concluded that the solution was effective in lowering the rates of gonorrhea. Although the women experienced some discomfort, they were “satisfied” with it as a sanitation and deodorizing solution.⁸⁵⁶

As Funes completed his experiment on prophylaxis with sex workers, ongoing prophylaxis experiments by Cutler and his team continued to be stymied by the lack of reliable ways to infect Guatemalans with the diseases under study. As in the Terre Haute study, giving subjects gonorrhea proved particularly difficult. The doctors worried that they would have to shut down the project as a result of these problems. The “natural” method had not been the

⁸⁵⁴ Funes and Aguilar, “La Solución de Mafarside-Orvus en la Profilaxis de la Blenorragia en la Mujer,” 122.

⁸⁵⁵ Ibid., 123-4.

⁸⁵⁶ Ibid, 124.

solution that the doctors anticipated. In a letter to Mahoney, Cutler wrote in ironic exasperation, “It seems that clandestine affairs, with respect to gonorrhea, are far safer than ever before imagined.”⁸⁵⁷ The researchers tried everything they could imagine to raise the rates of infection. Cutler had the men spend more time with the women, hoping to increase the amount of sexual contact. He had the men have sex repeatedly with the women. Cutler became desperate in his efforts to induce infection. Disregarding the advice of senior researchers who preached a more careful approach to infection, Cutler had some women have sex with the men less than one minute apart. Physicians also plied the men with alcohol. They hypothesized that the liquor would more likely raise the likelihood of an infection.⁸⁵⁸ In these experiments too, alcohol and sex work remained linked in doctors’ minds. Still, the transmission rates were low and Cutler increasingly struggled to convince Mahoney that these experiments should continue.

Cutler grew increasingly desperate to infect Guatemalans. As a result of the problems transmitting gonorrhea through “natural exposure,” he began trying “artificial inoculation” in the Army. The researchers used swabs for “superficial” inoculation. Yet for the “deep” inoculation methods, the researchers used toothpicks and inserted the infectious material into the urethra.⁸⁵⁹ This approach would have been excruciatingly painful and dangerous for the soldiers. Disregarding concern for the study participants, the researchers were pleased that the “deep” inoculation method was successful almost one-hundred percent of the time. In contrast, the superficial method worked only fifty percent of the time.⁸⁶⁰ In another experiment on the military base, researchers tried using these different infection methods to test another Mapharsen prophylaxis solution. They appeared more concerned with proving that the prophylaxis solution

⁸⁵⁷ John C. Cutler to John Mahoney, June 22, 1947, Records of John C. Cutler.

⁸⁵⁸ Guatemala Journal Studies with the Military, 1947-1948, Records of John C. Cutler.

⁸⁵⁹ John Mahoney to John C. Cutler, September 8, 1947, Correspondence, Records of John C. Cutler.

⁸⁶⁰ John C. Cutler, “Experimental Studies in Gonorrhea,” October 29, 1952, Records of John C. Cutler.

was effective than they were in running a controlled experiment. Physicians employed superficial inoculation methods to infect soldiers in the experimental group, and deep inoculation with the control group.⁸⁶¹ By using different inoculation methods across the groups, the researchers introduced a confounding variable and compromised the integrity of the experiment. The researchers apparently wanted to fix the results given that they knew that “deep inoculation” led to more contagion. Cutler appears to have taken Arnold’s advice to do some “blanket stretching.”

At the same time that experiments were underway with the Army, Cutler also sought permission from his superiors to use patients in the psychiatric hospital.⁸⁶² In his notes, Cutler wrote that Dr. Carlos Salvado, the medical chief of the psychiatric institution, invited him to do work there on serology. He offered potentially more “cooperative” subjects than Cutler had found in the prison.⁸⁶³ Yet, U.S. doctors planned to do more than blood draw. Increasingly zealous in his efforts to infect Guatemalans, Cutler planned to use the patients to try “artificial” exposure and prophylaxis experiments on venereal disease. It was not possible to bring sex workers to the psychiatric hospital, and this method had shown to not be as successful as Cutler had hoped. The psychiatric institution provided access to people who had arguably the least amount of power to push back against his increasingly drastic efforts to infect them. Although he acknowledged that the psychiatric institution lacked adequate medical reports on its patients, Cutler was undaunted.⁸⁶⁴ The researchers did not know whether any of the patients had conditions that could affect their results, but went forward with the experiments anyway.

⁸⁶¹ Guatemala Journal Studies with the Military GC, “Experiment 31,” Records of John C. Cutler.

⁸⁶² Although Cutler said that he moved on from the prison due to the lack of cooperate from the inmates, he continued with exposure experiments in the prison. See, John C. Cutler, “Final Syphilis Report, 17, Records of John C. Cutler.

⁸⁶³ Cutler, “Final Syphilis Report,” 25.

⁸⁶⁴ Cutler, “Final Syphilis Report,” 30.

Senior researchers expressed concern about the prospect of using the hospital patients, if only because of the potential controversy that it could cause. Arnold said that he was a “bit, in fact more than a bit, leery of the experiment with the insane people.” “If some goody organization got wind of the work,” he continued, “they would raise a lot of smoke.”⁸⁶⁵ He explained that the hospital patients could not give consent, nor could they be expected to understand the experiments. Since researchers were not obtaining consent from other people in the experiments, it appears that Arnold was more concerned that the doctors would not be able to hide their methods from potential critics should they find out about the experiments. For the researchers, obtaining consent was more about protecting themselves than protecting Guatemalans. Arnold appeared to believe that soldiers or prisoners would make better research subjects primarily because of the perception that they could give consent, not because they had in fact voluntarily agreed to join these experiments.

Despite senior scientists’ concerns, Cutler moved forward with his research in the hospital. In fact, he grew increasingly reckless in his methods. Cloistered within the psychiatric hospital, Cutler tried infecting the men and women in their rectums, urethras, and eyes.⁸⁶⁶ The doctors also abraded the genitals of the men in an effort to improve infection rate. Although senior researchers such as Mahoney opposed the abrasion methods and called them “drastic,” Cutler continued to employ them, justifying his activities as unique “opportunities” for research.⁸⁶⁷ In addition to the exposure experiments, the researchers performed blood studies with the hospital patients and sought to verify their results with spinal taps which were likely terrifying to the patients, especially since they did not know what the doctors were doing to

⁸⁶⁵ R.C. Arnold to John C. Cutler, April 19, 1947, Correspondence, Records of John C. Cutler.

⁸⁶⁶ Ibid.

⁸⁶⁷ John Mahoney to John C. Cutler, Correspondence, September 8, 1947, Records of John C. Cutler.

them. Even though Mahoney expressed concern about Cutler's methods, he did not demand that he stop the experiments.

Although the researchers also lacked an effective diagnosis for syphilis and thus could not conclusively assess the effectiveness of prophylaxis, they performed a number of studies on syphilis in the psychiatric institution and the prison. In one, Cutler and his team tested whether they could use syphilis strains found in rabbits to infect humans. Other researchers had reportedly been infected with rabbit strains of syphilis due to laboratory accidents, but the method of using the bacteria taken from animals to infect humans had never been formally tested.⁸⁶⁸ The doctors wanted to use the rabbit strains because the syphilis-causing bacteria could be produced in large quantities if cultured in live rabbits.⁸⁶⁹ This experiment was yet another way in which the researchers reinforced their associations between Guatemalans and rabbits during the course of research.

Using the rabbit strains in the experiments proved to be a logistical feat. VDRL researchers first infected rabbits in New York and then air-lifted them to Guatemala where they were held in cages in a local laboratory.⁸⁷⁰ In the experiment, the doctors obtained the bacterial agent of syphilis from rabbit penises and then used it to inoculate the prisoners intracutaneously. Physicians took blood tests before and after the injection to see if the rabbit strains had infected the men. The doctors found evidence that the intracutaneous injection was successful in infecting the prisoners.⁸⁷¹ Despite all their efforts to fly the rabbits to Guatemala, the doctors decided to abandon this experiment because they could not determine definitively whether the prisoners had different responses to the human or rabbit strains of syphilis.⁸⁷²

⁸⁶⁸ Cutler, "Final Syphilis Report 2," 4.

⁸⁶⁹ *Ibid.*, 5.

⁸⁷⁰ *Ibid.*, 5.

⁸⁷¹ *Ibid.*, 12.

⁸⁷² Cutler, "Final Syphilis Report 3," 35. Records of John C. Cutler.

The hospital patients were wary of the researchers and occasionally resisted them. In response to highly painful abrasion methods, one patient fled the room and went missing for two hours.⁸⁷³ Although the doctors tried to keep the patients sexually isolated from each other, the doctors reported that many Guatemalans in the institution were homosexuals and they could not control them.⁸⁷⁴ By this point, the U.S. medical community knew that venereal disease could be transmitted through homosexual contact, but Cutler did not acknowledge this fact in his medical notes.⁸⁷⁵ Cutler and his team also encountered problems in their examination of the women. Cutler said that the women did not want their bodies to be inspected by male doctors “as a result of local prejudices against male viewing of the body, even by physicians.”⁸⁷⁶ He added that there was “no good reason which could be offered [to the women] to explain the necessity of complete examinations.”⁸⁷⁷ The women felt uncomfortable being examined by male doctors. Many Guatemalans viewed gynecological examinations as punishment for sexual transgressions or as violation. In Mayan and many poor communities, only midwives attended to the health needs of women and had medical access to their sexual organs.⁸⁷⁸

Yet, Cutler showed little concern for Guatemalans’ emotional responses. One case in particular demonstrates Cutler’s disturbing disregard towards the hospital patients. In February 1948, Cutler infected a patient named Berta with syphilis in her left arm.⁸⁷⁹ One month later, Cutler reported that she had scabies, a skin disease caused by a mite. She had also developed red bumps in the same area where he had injected her with syphilis and her skin had begun to

⁸⁷³ Ibid, 24.

⁸⁷⁴ Ibid, 28-9.

⁸⁷⁵ Suzanne Poirier, *Chicago’s War on Syphilis, 1937-1940* (Urbana: University of Illinois Press, 1995).

⁸⁷⁶ Ibid, 25.

⁸⁷⁷ Ibid, 25.

⁸⁷⁸ David Carey, *Engendering Mayan History: Kaqchikel Women as Agents and Conduits of their Past, 1875-1970* (New York: Routledge, 2006): 36.

⁸⁷⁹ I have used Berta’s first name because it has already been published in the report by the Presidential Commission for the Study of Bioethical Issues.

deteriorate. Cutler did not treat Berta until several months after he infected her with syphilis. Then in August 1948, Cutler said Berta appeared about to die, but he did not say why. Rather than leaving Berta in peace to die, Cutler decided to use her for further experiments. On that same day, he put gonorrheal pus into both of her eyes, her urethra, and rectum. He then re-infected her with syphilis. Just a few days later, Berta did die.⁸⁸⁰ Based upon Cutler's notes, it is unclear whether the syphilis inoculation injection caused her death. It appears that Cutler at the very least hastened her death. The record does not indicate exactly what Cutler gained from this so-called experiment with Berta, or why he did it. He never appeared to think that he had to justify himself. In his determination to infect Guatemalans, Cutler adopted increasingly brutal methods. Exalting "pure science," Cutler showed no empathy for the Guatemalans upon whom he experimented.

Although mental hospital patients had few means to escape, the doctors still had to try to find strategies to appease them and gain their cooperation. Cutler's wife Eliese assisted the doctors in recruiting patients for the research. She "got to know the patients and helped keep things straight," while also photographing them.⁸⁸¹ Eliese and the scientists understood that they could convince the hospital patients to comply with the experiments just because they were "starved for attention and recognition as individuals," as Cutler wrote.⁸⁸² Eliese came to be an essential member of the research team through performing gendered affective work. By photographing the hospital patients and talking to them, she made them feel more important and appeared less threatening than the male researchers. Other scientists' wives served as secretaries. As in other colonial contexts, white women participated in sustaining researchers' power by

⁸⁸⁰ Cutler, "Insane Asylum and Prison Patient Records" (Various dates) Records of John C. Cutler. Presidential Commission for the Study of Bioethical Issues, "Ethically Impossible," September 2011, 52.

⁸⁸¹ Final Syphilis Report, Part III," Records of John C. Cutler.

⁸⁸² Ibid.

helping to soften their presence and gain rapport with the subjects of their programs. The doctors also gave the patients cigarettes, which Cutler said were “indispensable” to the entire program.⁸⁸³ They used addiction to get access to experimental subjects. The doctors capitalized upon the desperation of the patients and the poor conditions under which they lived in order to carry out the experiments.

U.S. doctors also had to generate goodwill with hospital staff to ensure they could proceed with minimal interference. They sought consent from the institution and not from individual patients, as was the custom during the mid-twentieth century in scientific research. Since the psychiatric hospital was very poor, U.S. doctors were able to gain the favor of the staff with small investments. In return for access to the facilities and to patients, U.S. doctors purchased the hospital a large refrigerator to maintain perishable drugs and laboratory materials, a motion picture projector to offer recreation for the inmates and metal cups, plates, and forks.⁸⁸⁴ The physicians also provided drugs for the epileptic patients, since the hospital could not afford to purchase them. Researchers provided this last “gift” mainly to protect themselves in the event of seizure by one of the patients.⁸⁸⁵

The doctors in charge of the asylum were certainly aware that the U.S. researchers were working in the hospital, although it is not clear the extent to which they understood the details of the experiments. Dr. Carlos Salvado, a medical chief in the asylum, endorsed and participated in the research. Like other Guatemalan researchers, he selected the patients for the medical doctors to use. As mentioned in the Chapter Two, the psychiatric staff often chose the most vulnerable patients who were indigenous and could not speak Spanish, or who had less ability to protest the

⁸⁸³ Cutler, “Final Syphilis Report 1,” 25, Records of John C. Cutler.

⁸⁸⁴ John C. Cutler, “Final Syphilis Report 1,” 25.

⁸⁸⁵ Ibid.

experiments. Dr. Miguel Molina, the director of the psychiatric institution, further appeared to have knowledge that the doctors were working in the hospital. There is no evidence that he directly collaborated in the experiments or knew the details of them. Yet, he signed a letter acknowledging that he had received the refrigerator, metal plates and glasses, and a projector from the PASB.⁸⁸⁶ Molina then wrote to the head of the PASB office in Guatemala City to thank him for the gift. In the letter, he said that Cutler, Levitan, and Mahoney had been “unforgettable friends” to the psychiatric institution.⁸⁸⁷ If he had known that the USPHS researchers were burdening the hospital with more disease, perhaps Molina would not have been as effusive in his praise. Molina also could have expected that the USPHS doctors would provide treatment to the hospital patients.

Staff members at the psychiatric hospital also knew about the research. Some of the nurses and medical students at the psychiatric hospital assisted the doctors, told the doctors about deaths, and helped with experiments on large numbers of people.⁸⁸⁸ The psychiatric hospital was a hierarchical system and staffers followed the orders of the institution’s leaders, even though privately medical students criticized the experiments.⁸⁸⁹ Nevertheless, there is evidence that not all staff members at the hospital were aware of all the details of the experiments because the researchers hid their activities. Cutler complained that the “constant” observation of their activities by hospital staff members impeded their abilities to fully inspect the patients. To avoid interference by staff, the physicians conducted their research on national holidays or on weekends when they were better able to avoid prying hospital attendants.⁸⁹⁰ Despite the limited

⁸⁸⁶ Hospital Neuro-Psiquiátrico, 1949. Legajo 24375, AGCA.

⁸⁸⁷ Dr. Miguel F. Molina to Dr. William J. McAnally, 8 de marzo de 1949, Legajo 24375, Expedientes del Neuro-Psiquiátrico, AGCA.

⁸⁸⁸ Cutler, “Final Syphilis Report,” 41.

⁸⁸⁹ Interview with Juan José Hurtado, Guatemala City, September 9, 2015.

⁸⁹⁰ Cutler, “Final Syphilis Report 1,” 29.

number of staff at the hospital, Cutler acknowledged that they were committed to their jobs and concerned about the needs of their patients. The researchers could not enter the hospital and do whatever they pleased with the patients. Rather they often worked in secret and had to alter their schedules so that they could carry out the experiments.

After several months of the experiments in the psychiatric institution, Mahoney grew increasingly wary and wrote to Cutler, “the use of volunteer groups rather than the type which is being employed would be more than satisfactory. Our budget will stand for almost any fee for volunteers which could consider to be advisable.”⁸⁹¹ Immersed in his research, Cutler disregarded his superior’s concerns and continued infecting hospital patients with the abrasion and scarification methods. Several months later, Mahoney had begun to sharply criticize the abrasion experiments. He wrote, “unless we can transmit the infection readily and without recourse to scarification or direct implantation, the possibilities of studying the subject are not bright.”⁸⁹² Although Cutler continued to argue that it was vital that the research move forward with their work in Guatemala, Mahoney remained adamant that the intentional-exposure experiments stop. Cutler wrote that he took the news hard. The night he heard from Mahoney that he would have to end the experiments, he wrote, “I feel tonight just as I felt when the news came of the decision to discontinue the Terre Haute project, although the blow is harder now than then, for we have so much more at stake and we have highly suggestive evidence to make us believe that we are on the right track with respect to prophylaxis.”⁸⁹³

Still, the experiments continued in the hospital and in the Army for more than a year. Mahoney was not apparently so concerned about the experiments that he demanded their

⁸⁹¹ John Mahoney to John C. Cutler, June 30, 1947, Correspondence, Records of John C. Cutler.

⁸⁹² John Mahoney to John C. Cutler, September 8, 1947, Correspondence, Records of John C. Cutler.

⁸⁹³ John C. Cutler to John Mahoney, September 20, 1947, Correspondence, Records of John C. Cutler.

immediate termination. In fact, not until February 1948 did Mahoney finally tell Cutler it was necessary to “get our ducks in line” as they had “lost a very good friend” in the Surgeon General’s Office. His comment reflects that senior scientists concerns about the psychiatric hospital were again largely due to their fears about their own reputations and professions. Around this time, President Truman chose not to reappoint Surgeon General Thomas Parran, who was a key supporter of the experiments and could protect USPHS scientists from criticism.⁸⁹⁴ Moreover, the effective use of penicillin as a treatment led to waning political support for prophylaxis studies. Mahoney added that he felt the “Guatemala project should be brought to the innocuous stage as rapidly as possible.”⁸⁹⁵ The researchers completed their last exposure experiments months later, in October 1948. Finally, in December 1948, the intentional-exposure experiments came to an end. Cutler flew back to the United States, leaving the majority of Guatemalans who he infected without treatment.

Blood Studies on Children

Following the end of the intentional-exposure experiments, U.S. researchers continued with their blood studies for several more years. When Cutler departed Guatemala, Dr. Sacha Levitan, Assistant Director of the USPHS/PASB Guatemala project, stayed on to oversee efforts to study diagnostic tests. Levitan had arrived in Guatemala not long after finishing his tour on a U.S. Navy destroyer during World War II. He, like Cutler, had further been part of the research team that had found penicillin cured syphilis. Energized by this discovery, Levitan brought his zeal for research to Guatemala.

⁸⁹⁴ Leonard Scheele took the place of Surgeon General. John Mahoney to John C. Cutler, February 19, 1948, Correspondence, Records of John C. Cutler.

⁸⁹⁵ John Mahoney to John C. Cutler, February 19, 1948, Correspondence, Records of John C. Cutler.

During his time in Guatemala, Levitan traveled around the country to collect blood samples for blood studies. Levitan carried with him his dark field microscope which he used to examine spirochetes, the corkscrew-shaped bacteria that cause syphilis. Levitan and his team of researchers did blood studies in the psychiatric hospital, the leprosy sanitarium located just outside of Guatemala City and with schoolchildren and orphans. U.S. and Guatemalan researchers first did blood studies with children in Port San José, a town near a military base on the Pacific Coast. Levitan also went to Antigua and Chichicastenango, towns located in Guatemala's western highland region where the majority of the Mayan populations lived. Although the construction of the Pan American Highway in the 1930s had provided greater access to these communities, it took several hours for Levitan to drive to these regions.⁸⁹⁶

The researchers wanted to use children as experimental subjects because they thought they would not be sexually active and acquire syphilis during the course of the study. They also claimed it was much easier to diagnose hereditary syphilis than it was to detect syphilis acquired through sexual contact.⁸⁹⁷ With the children, researchers believed that they could be more certain of their results and resolve questions about false positives in the Guatemalan population. In sum, they thought they had finally found the most docile subjects: poor and indigenous children.

Dr. Juan Funes and a U.S. serologist named Joseph Portnoy took the lead in the study in Port San José. They chose this region because of its tropical climate which they believed affected the accuracy of the diagnostic tests.⁸⁹⁸ While U.S. doctors wanted to find a reliable test to use for the military in tropical locations, Guatemalan doctors needed to obtain accurate statistics in order to implement effective venereal disease control measures and fulfill their goals for national

⁸⁹⁶ Anonymous Phone Interview, August 31, 2016.

⁸⁹⁷ Cutler, Final Syphilis Report," 17.

⁸⁹⁸ Juan M. Funes, "Avances Venereológicos en la Sección Correspondiente de la Dirección General de Sanidad Pública de Guatemala," *Boletín de la Oficina Sanitaria Panamericana*, 28 (1949): 47-53.

eugenic improvement they set out at the beginning of the Guatemalan Revolution. They examined four diagnostic tests and found one to be more reliable than the others, although they still had concerns about false positive results. As with the exposure experiments and as was typical of the time, the doctors received permission for these studies from the Guatemalan sanitation department as opposed to from the children or their parents.⁸⁹⁹

The children in these studies were poor, and the doctors observed that many showed evidence of chronic malnutrition and had problems with their teeth and skin.⁹⁰⁰ Altogether the physicians used 151 girls and boys who were 14 years old or younger as test subjects. In order to foster goodwill, the researchers provided medicine to treat malaria in the students after they had drawn their blood.⁹⁰¹ They also believed that the presence of malaria could be one of the main causes of inaccurate diagnoses of syphilis in tropical areas of the world.⁹⁰² The doctors drew blood from the children one time per month and inspected their bodies to determine the effects of malaria on the test results. The doctors could not make any definitive conclusions about the reasons for false positives. It appeared that factors other than malaria were responsible for the inaccurate results.⁹⁰³

Along with the blood draws, the researchers inspected the children's bodies for signs of syphilis. Scientists appeared sensitive to the Guatemalans' wariness of vaginal examinations and views that these inspections were a form of punishment or a sexual violation. In Port San José, they only examined the boys. As mentioned in previous chapters, in Guatemala there was a

⁸⁹⁹ Funes, "Avances Venereológicos en la Sección Correspondiente de la Dirección General de Sanidad Pública de Guatemala," 47.

⁹⁰⁰ Ibid.

⁹⁰¹ John C. Cutler to John Mahoney, June 6, 1947, Correspondence, Records of John C. Cutler, NARA Southeast.

⁹⁰² Juan M. Funes, "Avances Venereológicos en la Sección Correspondiente de la Dirección General de Sanidad Pública de Guatemala," 47-53.

⁹⁰³ Dr. Juan M. Funes y Mr. Joseph Portnoy "Estudios clínicos y serológicos efectuados en un grupo de niños escolares del Puerto de San José, Guatemala, con referencia a la sífilis," 143-146 (paper located in a folder entitled "Guatemala" in the CDC Records in NARA Southeast).

societal belief that only women who had transgressed norms of gender and sexuality should be subjected to gynecological examinations.⁹⁰⁴ This social belief may have been the reason that researchers only examined the genitals of male students to determine whether or not they could find signs of syphilis.⁹⁰⁵ They may have worried that the inspections of girls would cause outrage within the school and community and hurt their studies. Or the school could have requested that they not conduct medical examinations of the female students. It is also possible that the researchers did in fact examine the girls but did not publish this fact to avoid potential controversy.

Researchers also used children in the national orphanage in Guatemala City in their studies. They collected blood samples and performed medical inspections. Here, physicians did perform vaginal exams upon the girls. They did not have to worry about protests from parents, and the staff at the orphanage cooperated. Researchers in fact commented that the orphanage was an ideal place for their research likely because of lack of oversight. They claimed that the 700 children at the orphanage were under strict supervision and had regular encounters with physicians.⁹⁰⁶ Levitan wrote that “it was possible to do complete physical examinations of 55 of this group.”⁹⁰⁷ It is not clear why the doctors chose these particular children for “complete examinations.” Ultimately the medical doctors looked at 438 children for signs of syphilis and

⁹⁰⁴ Forster, “Violent and Violated Women: Justice and Gender in Rural Guatemala,” 63.

⁹⁰⁵ Funes, “Avances Venereológicos en la Sección Correspondiente de la Dirección General de Sanidad Pública de Guatemala, 47-48.

⁹⁰⁶ Sacha Levitan, et. al. “Studies of Comparative Performance of the Kahn, Kolmer, Mazzini, and VDRL Slide Tests as Carried out in the National Orphanage,” *American Journal of Syphilis, Gonorrhea, and Venereal Disease*, Vol. 36 (July 1952); 397-87.

⁹⁰⁷ Levitan, Studies of Comparative Performance of the Kahn, Kolmer, Mazzini, and VDRL Slide Tests as Carried out in the National Orphanage,” 380. Hector Aragon, “Estudio de la sífilis y pruebas de la serología en el Hospicio Nacional de Guatemala,” *Salubridad y Asistencia Social*, 4-5-6-7- (abril-julio 1949, Guatemala, C.A): 187.

compared the results with four different diagnostic tests.⁹⁰⁸ Some of the children also had to endure spinal taps, which were both painful and frightening.⁹⁰⁹

The researchers continued collecting blood samples in the western highland region and throughout parts of Central America until the early 1950s. Directly before the exposure experiments ended, Genevieve Stout, a serologist who worked at the USPHS, arrived to head the Venereal Disease Laboratory and Training Center in Guatemala City, which had been established under the PASB umbrella as part of the deal that U.S. doctors made with Guatemalan officials. Senior USPHS researchers ordered her to continue with efforts to develop diagnostic tests that would be reliable with Central American populations and to train public health officials. Cutler and Levitan viewed her role as essential for controlling the venereal disease problem on the isthmus.⁹¹⁰

Stout's demeanor indicates her efforts to gain respect from her colleagues in a predominantly male research environment. She had a Master's degree and was trained as a serologist, but her lack of a medical doctorate also placed her at a disadvantage with many of her colleagues. Still, oral histories indicate that Stout managed to overcome opposition she faced as a woman and as a researcher. Her commanding presence made other doctors and her staff careful to pay her proper respect. PASB staffers recall that she cast an impressive and imposing character. Betty Adams, a field worker for the organization, described a "flurry of activity" before Stout arrived at the research sites. The staff knew that she needed to be taken seriously.⁹¹¹ Yet, although Stout managed to maintain her authority in a predominantly male research

⁹⁰⁸ They only found that one child had congenital syphilis. The doctors found large numbers of false positives in the orphanage, but no clear reasons for the cause of them.

⁹⁰⁹ Sacha Levitan, et. al., "Clinical and Serologic Studies with Reference to Syphilis in Guatemala, Central America," *American Journal of Syphilis, Gonorrhea, and Venereal Diseases* 36, no. 4 (July 1952): 380.

⁹¹⁰ John Murdock to William J. McAnally July 26, 1948, Correspondence, Records of John C. Cutler.

⁹¹¹ Interview with Betty Adams, Panajachel, Guatemala, August 13, 2015.

environment, serology work was a feminized profession. The majority of field workers who worked under Stout were Ladinas who were pursuing their undergraduate degrees at the national university concurrently.

Despite serology being a women's profession, it still required commanding control over indigenous bodies. Female serologists were not so different from the male doctors who presumed access to Guatemalans in the experiments. Under Stout's direction, PASB field workers collected blood samples in primarily indigenous, Kaqchikel-speaking communities. The towns had names such as Santa Maria Cauqué, Magdalena Milpas Altas, and Santo Domingo Xenocoj. All of these communities were small with approximately 2000 people. Before PASB researchers arrived in these towns, their residents had limited contact with Ladinos and North Americans. Many of the members of these communities treated outsiders from the Ladino-run government and from the United States with suspicion. They referred to the field workers as "*imperialistas*" (imperialists). The presence of the researchers also exacerbated tensions in the communities over policies during the Revolution. Many townspeople opposed to the Revolution derided the researchers as "*comunistas*" (communists) and believed they wanted to undercut local structures of authority.⁹¹² The distrust of the researchers was partially traceable to their association with the Guatemalan Ministry of Health. Other townspeople more supportive of the government accused local community members of being superstitious and opposed to scientific advancements.

By calling the researchers imperialists and communists, the townspeople showed that they viewed U.S. and Guatemalan researchers similarly. Fear of the new government had been exacerbated by the massacre of hundreds of indigenous Guatemalans in nearby Patzicía, Chimaltenango at the beginning of the Revolution. The new government had killed men, women,

⁹¹² Richard Adams Field Notes, Santa Maria Cauqué, May 3, 1956.

and children indiscriminately in response to fighting that had broken out in the community between Ladinos and Kaqchikels over rights to land. In the Mayan communities where PASB researchers did their work, community members associated this massacre with the *comunistas* who ran the government.⁹¹³ Many indigenous Guatemalans who lived near Chimaltenango viewed the new government as largely a continuation from past repressive regimes. They saw the state as working for the benefit of Ladinos and as violent and capricious.⁹¹⁴ Indigenous communities perceived both foreigners and state workers as threats. Moreover, some of the researchers and doctors who visited these towns had racial prejudices and treated community members in a disdainful manner. This attitude only intensified distrust of the field workers.

In the central highland region near Antigua where field workers collected most of the blood samples, many suspected that the researchers planned to steal and kill their children. As a field worker, Adams was responsible for collecting blood samples for Stout and giving the schoolchildren feeding supplements to mitigate the effects of malnutrition on test results.⁹¹⁵ Community members believed that the researchers wanted to take their children's blood and eat them. Adams explained:

⁹¹³ Raymond L. Scheele, "Dual Report on Field Work in Santo Domingo Xenocoj, Sacatepéquez, Guatemala, July 4, 1951, 20. Richard Adams Notebook, Informant: Adrian Martinez, Magdalena Milpas Altas, May 26, 1951.

⁹¹⁴ David Carey, Jr., "A Democracy Born in Violence: Maya Perceptions of the 1944 Patzicía Massacre," in *After the Coup: An Ethnographic Reframing of Guatemala, 1954*, eds. Timothy Smith, Jr. and Abigail E. Adams, (Urbana: University of Illinois Press, 2011): 77.

⁹¹⁵ Genevieve Stout, Miguel Guzmán, and Nevin S. Scrimshaw, "Presumptive False Positive Reactions for Syphilis in Central America," *American Journal of Syphilis, Gonorrhea, and Venereal Diseases*, Vol. 36 No. 1 (January 1952); 41-48. Genevieve Stout, Miguel Guzmán, and Nevin S. Scrimshaw, "Presumptive False Positive Serologic Reactions for Syphilis in Central America: Relation to Serum Absorbic Acid, Riboflavin, Alkaline Phosphatase, Carotene, and Vitamin A and E in Blood Serum," *American Journal of Syphilis, Gonorrhea, and Venereal Diseases* Vol. 36 No. 1 (January 1952); 49-54. Genevieve Stout, José Méndez, Miguel Guzmán, and Nevin Scrimshaw, "Presumptive False Positive Serologic Reactions for Syphilis in Central America: Relation to Serum Protein, Albumin, and Globulin" *American Journal of Syphilis, Gonorrhea, and Venereal Diseases* Vol. 36 (January 1952); 55-59. Genevieve Stout, Francisco Aguirre, and Nevin Scrimshaw, "Presumptive False Positive Serologic Reactions for Syphilis in Central America: Relation to Positive Reactions for Cephalin Cholesterol (Hanger) Flocculation Test," *American Journal of Syphilis, Gonorrhea, and Venereal Diseases* Vol. 36 (January 1952) 60-63

The blood samples were just a pinprick of the fingers. The kids really didn't mind. It wasn't like an injection or invasive at all. But some of the parents when they heard that we were taking blood from the children got very concerned. They thought we were fattening up the kids to export them for food to the United States. I remember one gentleman told me that blood would not regenerate and he had a hole in his hand that indicated that. He pointed to the hole and said that he had given blood once and that it never came back.⁹¹⁶

Adams dismissed the parents' concerns, just as Cutler had done with the indigenous prisoners. Yet, the parents and indigenous prisoners who had caused Cutler so much trouble shared the same ideas about the body and blood. As mentioned earlier in the chapter, Mayan healthcare understandings have held that the appropriate level of blood has to remain in place so that a person does not become ill nor cause illness in another person.⁹¹⁷

Children, Mayans believed, were particularly prone to illness because they had weak blood.⁹¹⁸ Indigenous healthcare practices included a concept of *sangre débil* (weak blood) or *sangre fuerte* (strong blood). They held that a person with strong blood could ward off disease as opposed to a person with weak blood.⁹¹⁹ For instance, Mayans thought that children would become unwell if another person with strong blood gave them *mala de ojo* (the evil eye). Women wanting a child or menstruating had strong blood and threatened children's wellbeing.⁹²⁰

⁹¹⁶ Ibid.

⁹¹⁷ These rumors about blood draws persist in Guatemala in mainly indigenous communities to the present day. Richard N. Adams, "Social Anthropology in INCAP," *Food and Nutrition Bulletin* 31 (2010): 152-153.

⁹¹⁸ Richard Adams Notebook, Informant, Hilario Mixtun, Magdalena Milpas Altas, July 31, 1953, Benson Latin American Collection, UT-Austin.

⁹¹⁹ Adams, *Un análisis de las los creencias y prácticas médicas en un pueblo indígena de Guatemala*, 16.

⁹²⁰ Richard Adams, *Un análisis de las los creencias y prácticas médicas en un pueblo indígena de Guatemala*, 32-33.

Children were also susceptible to a disease called *susto*, which means loss of the soul.⁹²¹ Since children were thought to have weak blood, parents viewed the blood draws as particularly alarming.

Emma Chirix, a Kaqchikel midwife and an anthropologist, explained further in an oral history interview that Mayan cosmologies perceive the body holistically and as interconnected on physical, mental, and spiritual levels.⁹²² Although Chirix says that the Spanish conquest and influences of the Catholic church led some to understand the physical body and the mind as separate, nonetheless the holistic vision of the human has persisted. She added that Mayan midwives and women especially have resisted colonization by maintaining their healthcare beliefs and bodily practices. In response to discrimination and poor treatment by foreign actors and the military, Chirix explains that indigenous women have used self-care practices as a way to build self-esteem and maintain their self-determination. These practices have often occurred in the *temascal*, a collective hot bath taken among women in families that has long existed in Mayan tradition.⁹²³ Mayan women have refused to ascribe to biomedical practices and racist beliefs that devalue their healthcare systems, their communities, and their individual selves.⁹²⁴

In Santo Domingo Xenocoj, parents claimed sovereignty over their community and children by wielding machetes and driving the researchers out of town. The people of Santo Domingo Xenocoj feared that the researchers were cannibals who were feeding upon their children's blood. Parents had begun withdrawing their children from the school where the researchers were carrying out studies. Just a few days after the field workers took blood samples from the children at the school, a group of men carrying machetes threatened the school nurse.

⁹²¹ These rumors about blood draws persist in Guatemala in mainly indigenous communities to the present day. Richard N. Adams, "Social Anthropology in INCAP," *Food and Nutrition Bulletin*, 31 (2010): 152-153.

⁹²² Interview with Emma Chirix, Guatemala City, September 23, 2015.

⁹²³ Emma Chirix, *Ru rayb'al ri qach'akul Los deseos de nuestro cuerpo* (Ediciones del Pensativo, 2010): 187.

⁹²⁴ *Ibid.*, 176.

They also evicted the Ladino teachers from their housing. In 1951, the mayor of the town told the researchers that they could no longer perform studies in the school.⁹²⁵

After the community members forced the researchers to leave, the PASB hired an anthropologist named Raymond Scheele to investigate reasons for the townspeople's fears. When Scheele arrived in the town, he said that the people called him a "*tronchador*," a word for cannibal. As he walked through the town, women seized their children and fled from him. They said he was the first gringo to ever take up residence in their community. The belief dating to the time of the Spanish conquest that all white foreigners were cannibals had never been disproven.⁹²⁶ In these communities, people told stories about the time of the Spanish conquest when "giant white people" took the smallest Indians and broke their backs over their knees. The Spanish then "devoured" the dead.⁹²⁷ This story indicates that the townspeople largely viewed conquistadores, U.S. researchers, and Guatemalan government workers as similarly menacing. They came to their towns in order to withdraw not just blood but bodies and livelihood as well.

The association between foreigners who fed upon human bodies and colonialism is not unique to Guatemala. Scholars have highlighted similar rumors throughout Africa and Latin America. Historian Luise White has written about rumors throughout different parts of Africa that colonial officers were vampires. These rumors were especially prevalent when researchers performed medical research in the communities. Many Africans believed that members of the colonial government and researchers took the blood of Africans in order to provide treatments to Europeans who had insufficient blood.⁹²⁸ Rather than dismiss these stories, White argues that

⁹²⁵ Ibid., 1-2.

⁹²⁶ Raymond L. Scheele, "Dual Report on Field Work in Santo Domingo Xenocoj, Sacatepéquez, Guatemala, July 4, 1951, 10-11.

⁹²⁷ Ibid.

⁹²⁸ Luise White, *Speaking with Vampires: Rumor and History in Colonial Africa*, (Berkeley: University of California Press, 2000), 4.

they illuminate Africans' experiences under European colonial rule.⁹²⁹ In both Africa and Guatemala, these rumors reflect an understanding of the extractive nature of medical research. They show that people who were the subjects of this research knew that the researchers did not want to provide treatment to them. Rather they wanted to use their bodies for their own purposes.

As the rumors suggest, indigenous Guatemalans' resistance to the blood draws also reflects an ethics by which community members governed their lives. Indigenous groups were concerned about not only maintaining balance within humans but also among animals and plants. In Anthropologist Richard Adams' notes, he observed that Kaqchikel Mayans would only castrate bulls when the moon was growing. They thought that the animal would lose the least amount of blood during this period.⁹³⁰ The practice of using animals or humans in medical experiments would have been thought to create an imbalance and threaten the health of the collective which was privileged in Kaqchikel cosmology.⁹³¹ Mayan cosmologies upheld every living creature as important to sustain human life and the environment. These views stood in sharp contrast to those of the researchers who wanted to find human bodies to exploit. U.S. and Guatemalan doctors saw indigenous bodies as research objects to benefit science and other people who they deemed to be more valuable, although they worried about keeping their experiments secret from human rights advocates in the United States and Guatemala who might bring unwanted lawsuits and controversy.

⁹²⁹ Ibid., 44.

⁹³⁰ Richard Adams Notebook, Informant, Ray Amir, Magdalena Milpas Altas, April 10, 1951.

⁹³¹ Emma Chirix, *Ru rayb'al ri qach'akul Los deseos de nuestro cuerpo*, 168.

The Doctors' Deception

As doctors were conducting their experiments and blood studies, they were also working hard to cover up their research. Even though USPHS doctors conducted many experiments and studies, they were denied some of the liberties that they thought they would have in Guatemala. In neither the United States nor in Guatemala could the doctors do whatever they wanted without risking potential controversy and legal troubles. Rather they had to ensure that the experiments remained a secret. This included guarding their words in the relationships with Guatemalans and in their own social circles.

When John Cutler was not working on his research, he and his wife, Eliese, socialized with other PASB researchers. Cutler was only 31 years old at the time that he served as the director of the experiments; most of the other researchers were also typically in their twenties or thirties. Cutler eventually grew wary of all the socializing between American researchers. He told Mahoney there had been “more talk than we like” about the experiments and that information about the research had turned up in “queer places.” Although the staff on the Guatemala project understood that the experiments should remain confidential, many still discussed them with their spouses. Cutler said that it was “quite a temptation to talk more than is wise” at the “frequent social gatherings.”⁹³² Several years after Cutler’s departure, the experiments continued to generate discussion among PASB staff members. Some of this talk was negative. American anthropologist Richard Adams recalled that he found the experiments disturbing when he heard about them in the 1950s. He added, “it was just taking from other people. This is what the United States does to other countries.”⁹³³

⁹³² John Cutler to John Mahoney, June 22, 1947, Correspondence, Records of John C. Cutler.

⁹³³ Interview with Richard Adams, Panajachel, Guatemala, August 13, 2015.

The experiments also became known among Guatemalan medical students who kept the silence. Dr. Juan José Hurtado, a medical student at the national university at the time, heard about the experiments from other medical students working in the psychiatric hospital.⁹³⁴ Even though the doctors tried to keep their research a secret from staffers there, many knew what the scientists were doing. Hurtado understood that the experiments were supposed to be a secret, and there was not much talk about them in general in the country. He too found the research deplorable. He called them a “*barbaridad*” (atrocities), adding that they happened because Guatemala is the “backyard” of the United States. The other students with whom he spoke about the experiments were also bothered by what they had heard.⁹³⁵ Yet, they still did not go public with their protests.

Cutler in part wanted to keep the experiments secret because of the political climate. During the Revolution, Guatemala was a site of heightened political activism. Trade unions were staging protests in the capital and there was fierce competition between political groups. The government was often under critique by opposing factions.⁹³⁶ Newspaper columns also directed greater attention towards the plight of the poor and Mayans. The prison did not escape their attention. Cutler mentioned that concerns about the poor conditions of the prison had been raised in local newspapers.⁹³⁷ He had in fact mentioned in his notes that the prison was in fairly good condition, describing it as “poor but clean.” His description may have been part of his efforts to justify doing experiments there. In this contentious political climate, the doctors worried that the experiments would be strongly critiqued if people in certain circles learned about them.

⁹³⁴ In the early 1980s, Hurtado gained international recognition when Dictator Ríos Montt “disappeared” him for one month, claiming that he was helping guerilla organizations. Hurtado denied the charges. Following an international outcry, Montt released Hurtado.

⁹³⁵ Interview with Juan José Hurtado, Guatemala City, Guatemala, September 23, 2015.

⁹³⁶ Gleijeses, *Shattered Hope*, 39-42.

⁹³⁷ John C. Cutler, “Final Syphilis Report, 12, Records of John C. Cutler.

Physicians apparently also shared incorrect information with local newspapers. One of the most widely-read newspapers in Guatemala mentioned the experiments by U.S. doctors in the venereal disease hospital. An article stated that a group of gravely ill patients who could not tolerate arsenic therapy had been given penicillin in order to test their reactions to this treatment.⁹³⁸ The article made no mention that the doctors were in fact infecting sex workers with venereal disease. The newspaper reported that Cutler had come to Guatemala to train personnel from throughout Central America at the Venereal Disease Research and Training Laboratory in Guatemala City.⁹³⁹ The doctors wanted to have an article describing the experiments as therapeutic in order to allay the suspicions of local populations. In a small country, the presence of the USPHS doctors would likely have been noted by many in the general public and they might have thought they needed to clarify the purposes of their work and counter the rumors.

The contentious political climate in the United States made it increasingly important that word of the experiments did not reach beyond USPHS circles. U.S. doctors' concerns stemmed partly from controversy associated with the Red Scare. The late 1940s were a particularly sensitive time for Surgeon General Thomas Parran and his colleagues at the USPHS. Parran had come under fire by the American Medical Association (AMA) for his support of President Harry Truman's proposal for the establishment of a national health insurance plan. In their spirited attack on the program, the AMA had likened Truman's program to "socialized medicine," capitalizing on early Cold War concerns that communism had infiltrated the federal government. Truman's decision not to appoint Parran as Surgeon General may have indeed resulted from this

⁹³⁸ "Ensayos para tratar la sífilis a base de la penicilina," *El Imparcial*, 3 de mayo de 1947.

⁹³⁹ "Adiestra personal para el combate de malas venéreas," *El Imparcial*.

controversy.⁹⁴⁰ Parran attempted to protect the USPHS from potential conflict by focusing on the creation of regionally organized health service infrastructure. The revelation of the experiments in Guatemala in which U.S. government doctors had illegally employed sex workers to transmit venereal disease would likely have brought more controversy onto Parran and the USPHS, especially since the Red Scare was also accompanied by conservative attitudes towards gender and sexuality.⁹⁴¹ Moreover, as concerns about communism in Guatemala increased in the United States during the Arévalo administration, the doctors may have worried that they would have encountered critiques for working with members of the Guatemalan government.⁹⁴²

USPHS doctors well understood just how damaging the experiments could be to their reputations. In 1947, at the very moment that U.S. researchers were running experiments in Guatemala, the *New York Times* published a “note on science” that asserted that an experiment in which humans were intentionally exposed to syphilis would be “ethically impossible.” The article described the work of Dr. Harry Eagle, a former Johns Hopkins University professor who later worked at the NIH. Notably, Eagle had been on the committee that approved the Guatemala experiments. In his research, he had found that giving rabbits small doses of penicillin a few days after their exposure to syphilis stopped the disease from developing. The *New York Times* stated, “to settle the human issue quickly it would be necessary to shoot living syphilis germs into the human bodies, just as Dr. Eagle shot them into rabbits. Since this is ethically impossible, it may take years to gather the information needed.”⁹⁴³ Cutler included this “note on science” in a letter to Mahoney. He confided to Mahoney:

⁹⁴⁰ Thomas Parran, Jr. (1936-1948) Surgeongeneral.gov, U.S. Department of Health and Human Services, <https://www.surgeongeneral.gov/about/previous/bioparran.html>

⁹⁴¹ Robert D. Dean, *Imperial Brotherhood: Gender and the Making of Cold War Foreign Policy* (Amherst: University of Massachusetts Press, 2001): 66.

⁹⁴² Gleijeses, *Shattered Hope*, 119-120.

⁹⁴³ Waldemar Kaempffert, “Notes on Science: Syphilis Preventative,” *New York Times*, April 27, 1947.

It is becoming just as clear to us as it appears to you that it would not be advisable to have too many people concerned with this work in order to keep down talk and premature writing. I hope that it would be possible to keep the work strictly in your hands without necessity for outside advisers or workers other than those who fit into your program and who can be trusted not to talk. We are just a little bit concerned about the possibility of having anything said about our program that would adversely affect its continuation.⁹⁴⁴

The research in Guatemala generated a great deal of interest from high ranking U.S. medical officials who had spent their careers researching venereal disease. A few months after Cutler and his team began their research, Surgeon General Thomas Parran asked another colleague who had been in Guatemala studying malaria to update him on the STI experiments. Later that researcher relayed to Cutler that Parran was “very much interested in the project” and “familiar with all the arrangements.” He added that Parran spoke with a “merry twinkle in his eye” that “we couldn’t do such an experiment in this country.”⁹⁴⁵ With backing from the highest ranking medical officer in the United States, Cutler and his colleagues surely felt secure in their support from senior researchers.

Nevertheless, Parran’s endorsement for this project also came with strings attached. USPHS doctors remained concerned about appeasing senior venereal disease researchers who knew about the experiments and wanted to take advantage of the opportunities in Guatemala for their own research. Mahoney said that Surgeon General Parran had specifically requested that Cutler and his team assist “interested persons” in following-up on their questions about syphilis

⁹⁴⁴ John C. Cutler to John Mahoney,” May 5, 1947, Correspondence, Records of John C. Cutler.

⁹⁴⁵ G. Robert Coatney to John C. Cutler, May 17, 1947, Correspondence, Records of Dr. John C. Cutler.

and gonorrhea. He explained that the researchers had access to “facilities” not available to researchers in the United States.⁹⁴⁶ Despite the pressure from Parran, Mahoney advised Cutler against trying too hard to please these senior researchers. “I am afraid that we will have to reject certain studies and risk the loss of some friends thereby,” he wrote.⁹⁴⁷

Still, saying no to these senior researchers proved difficult. Soon after Cutler sent his “note on science” to Mahoney, Van Slyke made a “hurried trip from Washington” to the Venereal Disease Research Laboratory on Staten Island, New York. He informed Mahoney that Dr. Eagle, the same doctor mentioned in the *New York Times* article, had threatened that he would complain to Surgeon General Parran that the Guatemala group had not allowed him to take advantage of the research opportunities there. As a member of the Syphilis Study Section, Eagle apparently believed that he would have the benefit of following-up on his own research in Guatemala. Mahoney wrote, “as you may know, he [Eagle] has done considerable animal work in prophylaxis in syphilis by use of penicillin and can only prove the thesis by a human experiment.” Eagle went to complain that the doctor in Guatemala would not allow him to perform the same experiment that the *New York Times* had just described as “ethically impossible.”⁹⁴⁸ By not appeasing senior researchers, the Guatemala team risked losing support for the experiments. Mahoney also expressed concern that there was significant “gossip” about the experiments in high places.⁹⁴⁹

⁹⁴⁶ Dr. Thomas Turner hoped that the researchers might check on the ability of spirochetes that he found in rabbits to infect human beings. A doctor from Duke University also wanted the researchers to follow up on his “verification procedures” for syphilis. John Mahoney to John C. Cutler, December 23, 1946, Correspondence, Records of John C. Cutler. John C. Cutler to John Mahoney, October 15, 1946, Correspondence, Records of John C. Cutler.

⁹⁴⁷ John Mahoney to John C. Cutler, December 23, 1946, Correspondence, Records of John C. Cutler.

⁹⁴⁸ John Mahoney to John C. Cutler, May 5, 1947, Records of John C. Cutler. Kaempffert, “Notes on Science: Syphilis Preventative,” *New York Times*, April 27, 1947.

⁹⁴⁹ John Mahoney to John Cutler, Correspondence, June 30, 1947.

USPHS researchers further worried about how much information they should share with Fred Soper, who became PASB director in the middle of the experiments and was known within the U.S. medical community for his strong opinions. Soper was formidable both in personality and in physical size. His colleagues remember him as “very cold” and “very formal.” He was best known for his work in malaria control for the Rockefeller Foundation. In that role, Soper developed his reputation for his authoritarian approach to mosquito eradication. Given Soper’s character, the USPHS doctors tried to limit the amount of information that he knew about their research.⁹⁵⁰ Cutler asked Mahoney if he could send his reports directly to the VDRL rather than through any person in Guatemala. He planned to send the PASB the “barest summaries of our progress.”⁹⁵¹ In response, Mahoney reminded Cutler that Soper was “entitled to complete confidence.” He advised Cutler to “be guided by your own impressions” as to how much he should share with Soper about the work.⁹⁵² In spite of these concerns, Soper did not cause any problems for the researchers. His utilitarian approach to medical research appears to have been shared by the USPHS doctors.⁹⁵³

Remembering the Experiments

In December 2015, I met Marta Lidia Orellana in a café located near Guatemala City’s central plaza. Reaching no higher than my shoulders, Ms. Orellana held both of my hands and commented upon the name we share. This small gesture established a degree of familiarity through national, linguistic, and generational barriers.⁹⁵⁴ Now in her eighties, Ms. Orellana was just nine years old when she first encountered physicians in the national orphanage in Guatemala

⁹⁵⁰ John C. Cutler to John Mahoney, Correspondence, June 22, 1947, Records of John C. Cutler.

⁹⁵¹ Ibid.

⁹⁵² John F. Mahoney to John C. Cutler, Correspondence, June 30, 1947, Records of John C. Cutler.

⁹⁵³ Gladwell, “The Mosquito Killer,” *The New Yorker*, July 2, 2001.

⁹⁵⁴ Oral History Interview with Marta Lidia Orellana, Guatemala City, December 11, 2015.

City. She has described this experience to journalists and in my interview with her as sexual assault. The experience has stayed with Ms. Orellana for her entire life. Her testimony highlights the imprint that these experiments continue to have on Guatemalans' everyday lives more than seventy years after they occurred.

Throughout the interview, Ms. Orellana crouched over my audio recorder and cried. Although she had told this story numerous times, it never became easier to describe her experience. In excruciating detail and through tears, Orellana recalled that a group of physicians and nurses called her into the examination room. They then forced her to remove her clothing so that they could inspect her entire body. The doctors touched and examined her genitals. When Orellana asked the doctors questions, they refused to answer her. She said that they hit her. As with the other orphans, the doctors likely looked for signs of syphilis. These vaginal inspections continued regularly until Orellana left the orphanage at age 16. Years later, Orellana still cries each time she talks about her experiences in the orphanage. The fact that she only recently found out what the doctors had been doing in the country adds to the feeling of violation.⁹⁵⁵

Orellana believes that the researchers infected her with syphilis. She remembers the doctors injecting her with yellow and white substances.⁹⁵⁶ Although the doctors' notes do not contain evidence that the researchers infected the children, the flagrant disregard they demonstrated for Guatemalans' wellbeing is consistent with the idea that they may have exposed children to syphilis. The doctors were also performing spinal taps to test for signs of syphilis, which may have given the impression (or provided an opportunity) that the doctors were infecting the orphans.⁹⁵⁷ When she left the orphanage at age 16 to work in a factory and as a

⁹⁵⁵ Interview with Marta Lidia Orellana, Guatemala City, December 11, 2015.

⁹⁵⁶ Ibid.

⁹⁵⁷ Levitan, "Clinical and Serologic Studies with Reference to Syphilis in Guatemala, Central America," 381.

domestic worker, Ms. Orellana's employers required that she undergo a health inspection. They told her that she had "bad blood." She then married and had five children. Since the revelation of the experiments in 2010, three of her children have tested positive for syphilis.⁹⁵⁸ Given the secrecy and deception with which the researchers conducted these studies, it remains possible that they hid their infection of the children.⁹⁵⁹

Ms. Orellana has been the most vocal survivor of the experiments. The spotlight that she has received in local and international media has made her vulnerable to people who have tried to capitalize upon her traumatic history. Following Ms. Orellana's appearance in a local newspaper where she spoke out against the experiments, she was extorted by her neighbors who believed that she had been compensated by foreign aid organizations. Ms. Orellana had to move several hours from the capital after these threats. She and her family also told me that they had been approached by lawyers who had sought to use her experiences for their own financial gain.

As Ms. Orellana and her family have persisted in their advocacy despite hardships, thousands more survivors and their family members have remained silent. Only a handful of people have come forward publicly claiming to have been subjected to experimentation in the forties and fifties. In comparison to other survivors, Ms. Orellana has children who are educated and may have had more capability to protest what happened to her in the orphanage. Since a number of survivors were indigenous and did not speak Spanish, they and their family members may still not know that they were infected with disease. Many survivors may have also passed

⁹⁵⁸ Interview with Marta Lidia Orellana, Guatemala City, December 11, 2015.

⁹⁵⁹ In the early 1900s, a Rockefeller Institute researcher named Hideyo Noguchi came under sharp attack by antivivisectionists because he was trying to develop a diagnostic test for syphilis using healthy children and hospital patients. Noguchi had given the children an inactive solution of *Treponema pallidum*, the causative agent of syphilis. Antivivisectionists protested that this "loathsome disease" was introduced to the children, even though it was inactive. As syphilis has been viewed as divine punishment for sin, the infection of innocent children was viewed as particularly egregious and may have led the doctors to hide their infection of the children. See Lederer, *Subjected to Science*, 82-82.

away. The Orellana family is Ladino and also lived in Guatemala City. They had greater access to institutions, the media, and foreign researchers than survivors who lived in rural areas.

The silence of the majority of people who were affected by the experiments speaks to their powerlessness. Given the long history of state-sanctioned violence against the indigenous and the poor in Guatemala which includes a genocide of Mayans in the early 1980s, it is not surprising that survivors would not want to make themselves known to the government. Moreover, given the high rates of violent crime in the country and the fact that Guatemala struggles to recover from a 36-year civil war that comprised of the disappearance and murder of citizens by the state, many people have other problems to focus on aside from these experiments. They also may fear making themselves known to the public.

In addition to Orellana, I interviewed Federico Ramos, a former soldier in the Guatemalan military during the 1940s, and his family members. Ramos did not know that he had syphilis until the story about the experiments broke several years ago. In *El Progreso*, the tiny mountain village where he lives that consists of only a few houses, Ramos' son explained to me that the researchers had "experimented in his [father's] blood."⁹⁶⁰ To the Ramos family, part of the harm of the experiments was that they were internal and unseen. The idea that the experiments were "in the blood" speaks to the deceit that Guatemalans have undergone for decades. Ramos believed that the doctors had been carrying out a routine health examination. When he returned to his village, he began suffering from "bad urine." His health problems then spread to his appendix and other organs.

It was not until more than sixty years later that Ramos encountered a lawyer who visited his village and told Ramos what the doctors had really done to his body. He immediately went to

⁹⁶⁰ Interview with Benjamin and Federico Ramos, San Agustín Acasaguastlán, Guatemala, April 2, 2016.

a private clinic where he paid for penicillin treatment. The clinic was located more than an hour from his house. After he took the penicillin, the pains went away. In a poor country that has been undergoing a healthcare crisis for decades, survivors like Ramos had little access to healthcare. He and others have been suffering from syphilis for years but never have been diagnosed and treated by a doctor. Since they learned about the experiments, they have found it too onerous to travel to the capital to advocate for reparations. Many survivors may be in similar situations where they do not have access to healthcare or the resources to protest what happened to them.

Although many survivors have remained publicly silent, in private conversations Guatemalans spoke more candidly with me about the experiments. During conversations with acquaintances who I met during the course of my research, they shared with me their convictions that their relatives or friends were part of the experiments. One woman from Port San José, where the researchers took blood samples from schoolchildren in order to improve diagnostic tests for syphilis, said that approximately seventy families from the area claim to have been infected. In this port town on the Atlantic shoreline that is located near a military base, stories circulate about North American researchers arriving on boats looking for people upon whom to experiment. She offered very little other information about these boats. They may have brought Red Cross workers offering medical care, or they may have been related to the military base. The story about the boats resonates with many others that circulate in Guatemala about foreigners who steal body parts and children. In the early 1990s, the rumor that foreigners kidnapped Guatemalan children in order to cut out their organs and ship them to the United States for transplant led a group of Guatemalans to attack and kill a U.S. tourist.⁹⁶¹

⁹⁶¹ Abigail E. Adams, "Gringas, Ghouls and Guatemala: The 1994 Attacks on North American Women Accused of Body Organ Trafficking," *Journal of Latin American Anthropology* 4 (1999): 112-33. Raymond L. Scheele, "Dual Report on Field Work in Santo Domingo Xenacoj," INCAP, 1951.

Other conversations I have had with Guatemalans reflect a view of the experiments as untethered to a specific moment or place. One man said that he had been infected with syphilis as a soldier in the military during the 1960s, years after Cutler's records said that they occurred. I spoke about this topic with a young man who is of Quiché Maya descent named Eliseo Rivera Romero.⁹⁶² He lives with his family in Guatemala's Zone 18, one of the poorest and most dangerous neighborhoods in the capital. Human rights investigators have discovered that police officers have carried out "social cleansing" campaigns in this neighborhood in an attempt to root out activities by *las maras*, or local street gangs that first originated in Los Angeles before making their way back to Central America.⁹⁶³ In the absence of a strong state, some citizens have taken measures into their own hands and carried out public lynching or hired killers (*sicarios*) to go after suspected gang members. A view often shared in private within the Guatemalan middle class and among elites is that all residents of this neighborhood are part of the *maras*. It is true that most families within Zone 18 have to pay a tax to local gang members as a matter of life or death.

Rivera suspected that his uncle was infected with syphilis when he was in the military during the early 1980s in El Quiché, a region located in the western highlands that endured some of the worst violence during the war. His uncle was forced to take part in Civil Defense Patrols (PAC), local militias created by the government in an effort to sow discord and weaken indigenous communities. PACs participated in massacres against their own communities. During the war, Rivera's family fled to the capital like many other survivors of the genocide that took

⁹⁶² I have used a pseudonym to protect his identity.

⁹⁶³ Human Rights Watch, "World Report 2011: Guatemala," last accessed August 3, 2017: <https://www.hrw.org/world-report/2011/country-chapters/guatemala>; Daniel Berlin, "Between the Border and the Street: A Comparative Look at Gang Reduction Policies and Migration in the United States and Guatemala," Georgetown University Human Rights Action, last accessed August 3, 2017: <https://www.law.georgetown.edu/academics/centers-institutes/human-rights-institute/fact-finding/upload/Guatemala-report.pdf>; 4.

place in the western highlands in the early eighties. Rivera's perception that his uncle was infected with syphilis suggests his fears of a murderous and capricious state. I could not help but think that Rivera would be someone who could easily end up in experiments. Just by virtue of living in Zone 18, Rivera understood that many within the state and Guatemalan society view his life as expendable. Given that many of the survivors or their relatives likely had similar experiences as Rivera, it was not surprising that they have remained silent to avoid raising their profile with the state.

We will likely always know very little about Guatemalans' experiences and perceptions of these experiments. Ms. Orellana's presentation of herself as a rape survivor is a powerful lens into the physical and psychological harm caused by the experiments. Ramos' view that the experiments occurred "in the blood" speaks to their insidious nature. Both the silence and the rumors communicate Guatemalans' memories of state violence and foreign intervention that date back to years before these doctors arrived in the country. The stories shared in private conversations tell that the experiments have not been forgotten despite little public discussion of them.

The Aftermath

In sharp contrast to the Guatemalans like Marta Lidia Orellana whose unwilling participation in experimentation caused physical and psychological harm, U.S. and Guatemalan researchers who performed these experiments gained access to promotions and career advancement. The effects of the experiments on thousands of Guatemalans provoked little concern for public health and military institutions in the United States and in Guatemala. Following the end of the research, Mahoney said that he wanted to "do everything possible" to

“push Funes to the fore as the leading Central American syphilologist.”⁹⁶⁴ Cutler also arranged for Dr. Abel Paredes Luna, a Guatemalan physician who collaborated in the experiments, to receive a fellowship to study with Mahoney.⁹⁶⁵

Despite having criticized Cutler’s methods during the experiments, senior USPHS scientists also promoted his career. He went on to direct a program of venereal disease control in India for the World Health Organization (WHO). Following his work in Southeast Asia, Cutler further performed an inoculation study in 1953 in New York’s Sing-Sing prison. The study was to test the efficacy of a newly developed vaccine for syphilis. USPHS researchers carried out this research in coordination with the New York State Health Department and the New York Department of Correction.⁹⁶⁶

The Sing-Sing study highlights what the doctors understood to be ethical research and how they broke these standards in Guatemala. In their published work on this experiment, the researchers wrote that they would not have performed this study unless they had verified that penicillin was a safe and effective treatment, which they had not yet done when conducting experiments in Guatemala.⁹⁶⁷ They used 54 “human volunteers” with treated or untreated syphilis. Researchers infected the prisoners with a bacterial strain that they obtained from rabbits, despite their reservations about this mode of inoculation in Guatemala. They also used a control group that did not receive the vaccine. To verify whether the prisoners had syphilis, the researchers performed blood tests on the men and spinal taps. None of the men had their penises abraded, and they all received penicillin treatment at the end of the study. The researchers also did not seek to hide the experiment from the public, unlike Guatemala which was not mentioned

⁹⁶⁴ John Mahoney to John C. Cutler, July 26, 1948, Correspondence, Records of John C. Cutler.

⁹⁶⁵ John Cutler to John Mahoney, June 22, 1948. Correspondence, Records of John C. Cutler.

⁹⁶⁶ Harold J. Magnuson, Evan W. Thomas, Sidney Olansky, Bernard I. Kaplan, Lopo Mello, and John C. Cutler, “Inoculation Syphilis in Human Volunteers,” *Medicine*, Vol. 35 (February 1956): 33-82.

⁹⁶⁷ *Ibid.*

in the reports.⁹⁶⁸ Sacha Levitan also continued to have a career in global health after he left Guatemala. He went to work for the WHO in Haiti on a yaws treatment program. Yaws is an infectious disease affecting the skin, bone, and cartilage that can lead to permanent disability and disfigurement. It is caused by the same spirochete that leads to syphilis. As opposed to the experiments in Guatemala, Levitan and his team implemented an extensive treatment program.⁹⁶⁹

Knowing what the doctors saw as the long-term benefits of their research is difficult because neither Cutler nor Levitan ever published papers on the exposure experiments. Yet, Cutler thought the experiments were important enough to archive them in his personal records at the University of Pittsburgh. From Cutler's notes, he indicates that the doctors found that most of the measures that they used to prevent the spread of venereal disease were effective. He said, "thus choice of any agent must be based upon considerations such as acceptance of patient, ease of use, freedom from undesirable side effects, etc." They also found that penicillin could be used as a preventative method for venereal disease if it is given to patients directly after they are infected.⁹⁷⁰ The doctors did not find any definitive reason for the inaccurate blood tests in Central America. Yet, the experiments were conducted in such a haphazard manner that these results remain questionable.

The researchers appeared to view their participation in these experiments as government service and believed that they were building a better world. Although Government work was not a lucrative path for most doctors, it did bring a level of prestige. Following his career in the USPHS, Cutler became a professor at the School of Public Health at the University of Pittsburgh, where he became a "much beloved professor both at the graduate school of Public Health and the

⁹⁶⁸ Magnuson, et. al. "Inoculation Syphilis in Human Volunteers," *Medicine*, 33-82.

⁹⁶⁹ Sacha Levitan, et. al. "The Treatment of Infectious Yaws in One Injection of Penicillin," *Bulletin of the World Health Organization*, 8 (1953): 57-58.

⁹⁷⁰ John C. Cutler, "Final Syphilis Report, 22-23. Records of John C. Cutler, NARA Southeast.

Graduate School of International Affairs.”⁹⁷¹ He also became an Assistant Surgeon General in the USPHS and the deputy director of the PASB.

Guatemalan physicians also viewed their participation in the experiments as service. They hoped that their relationship with the U.S. doctors would benefit their country and help them to fulfill the Revolution’s goals. They also stood to gain personally and professionally from these relationships. In their quest to build Guatemala as an independent nation and a leader in the Central American region, they aimed to become vanguards of the Guatemalan medical community and participants in the international medical community. Without many resources to realize their vision, they made poor and indigenous Guatemalans their currency.

That the doctors who participated in this research all advanced in their careers shows that leading USPHS scientists and Guatemalan military and medical officials viewed the methods they used in Guatemala as acceptable. Oral histories reveal that the experiments became “lore” in the USPHS.⁹⁷² They recalled a romantic vision of “pure science” in Central America away from the “red tape” that hampered their research and scientific innovation in the United States. The secret story of Guatemala also reflects a masculine tale of conquest. In their work on these experiments and in the stories they shared with each other, USPSH researchers forged their identities as medical heroes and men, at the cost of Guatemalans’ health and lives.

⁹⁷¹ Jan Ackerman, “Obituary: John Charles Cutler/Pioneer in Preventing Sexual Diseases,” *Pittsburgh Post-Gazette*, February 12, 2004.

⁹⁷² Interview with Susan M. Reverby, Cambridge, Massachusetts, August 3, 2016.

EPILOGUE: “THIRD WORLD” LABORATORY

In the late 1940s, at the very moment that STI experimentation was underway in Guatemala, Surgeon General Parran was leading efforts to form the new World Health Organization (WHO). In 1946, Parran chaired the International Health Conference where the WHO draft constitution was adopted; delegates defined health as the “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”⁹⁷³ Soon after he approved experiments that would intentionally expose Guatemalans to STIs, and while inquiring into their progress from his perch as Surgeon General, Parran gave speeches declaring that health constituted a human right for all people, regardless of their economic status or national origin.⁹⁷⁴

Other doctors who oversaw and participated in the experiments also became key players in the post-World War II development of international health infrastructure and shared Parran’s duplicity. Dr. John F. Mahoney, the principal investigator for the venereal disease experiments, who had won fame due to his discovery that penicillin cured syphilis, chaired the WHO Expert Committee on Venereal Diseases at its first meeting in Geneva. As mentioned in Chapter Five, Drs. John C. Cutler and Sacha Levitan, the Director and Assistant Director of the experiments in Guatemala, went on to work for the WHO in South Asia and Haiti. Dr. Thomas B. Turner, professor at Johns Hopkins University who approved these experiments, further served as an adviser to the WHO. The same researchers who conducted “secret” experiments in Guatemala were integral in shaping international health in the post-World War II era.

These doctors’ leading roles in the creation of the WHO bring to stark light contradictions embedded in international health during the wake of the Cold War. The

⁹⁷³ Constitution of the World Health Organization,” New York: International Health Conference, June 19 to July 22, 1946.

⁹⁷⁴ Thomas Parran and Frank G. Boudreau, “The World Health Organization: Cornerstone of Peace” (Nov. 1946), 1267-1272.

militarism, paternalism, and racism that informed STI experimentation in the immediate post-World War II era also shaped international health policies and programs moving forward. U.S. policymakers approached health not as a human right, but rather as a matter of biological security that threatened the liberal world order. The bodies of certain people, mainly indigenous, poor, and non-white populations, both within the United States and in Latin America, Africa, and Asia, became key concerns of foreign and domestic policies.

Although U.S. foreign policy had long connected biological and national security, the United States government pursued international health with increased vigor during the Cold War. The rising commitment to international health during the Cold War adhered to President Truman's four-point plan to "make available to peace-loving peoples the benefits of our store of technical knowledge in order to help them realize their aspirations for a better life."⁹⁷⁵ Through technical expertise, the United States sought to promote capitalist development around the world. U.S. policymakers and medical professionals believed that disease, poverty, malnutrition, and overpopulation all threatened to spread communism in Latin America, Asia, and Africa. Treating humans as machines, U.S. policies aimed to reduce the threat of communism through know-how about the biological functioning of bodies. This view of human security justified a continuation of medical violence towards women, poor, and indigenous people in Guatemala and around the world. These individuals also served as a resource for medical experimentation by scientists who sought to tap these populations in order to conduct research on diseases and other health issues threatening U.S. foreign policy. Often interpreted as a matter of "soft power," the STI experiments show that international health could be just as violent in its application as military policies.

⁹⁷⁵ Truman's point-four speech quoted in David Ekbladh, *The Great American Mission: Modernization and the Construction of an American World Order* (Princeton and Oxford: Princeton University Press, 2010): 78.

Throughout the Cold War, Guatemala remained a key site for medical experimentation by U.S. and Latin American scientists. Medical policies that Guatemalan doctors had touted during the 1940s also were upheld following the Revolution. As the medical arena reveals continuations between earlier period of dictatorship under Jorge Ubico and the Revolution, many similar medical policies persisted during governments that promoted counterinsurgency against leftist and guerilla forces in the country. Revolutionary leaders' policies focused more on assimilation as opposed to the counterinsurgency during the civil war that aimed to segregate and control these groups.⁹⁷⁶ Yet, both revolutionary leaders and the Guatemalan right believed that indigenous, poor, and Afro-Caribbean Guatemalans were key impediments to national development and security. As Taracena Arriola has stated, they held paternalistic views towards these groups; racist and segregationist policies persisted throughout the twentieth century.⁹⁷⁷

In both the revolutionary and post-revolutionary periods, Guatemalan doctors and scientists continued to form alliances with U.S. policymakers and scientists in order to realize their visions of the nation and to maintain biological security. In fact, the revolutionary period developed the infrastructure that enabled the continuation of medical research by foreign and local actors on women, indigenous and marginalized Guatemalans. Although in the 1960s and 1970s, a populist movement in Guatemala sought to change this approach to medicine and promoted a more holistic view of healthcare, counterinsurgent and neoliberal policies have destroyed efforts at reform and the realization of an approach to healthcare based upon treating the whole human being.

⁹⁷⁶ Arturo Taracena Arriola, *Etnicidad, estado y nación en Guatemala, 1944-1985* (Antigua: CIRMA, 2004),

⁹⁷⁷ Ibid, 35.

A “Third World” Research Model

After the CIA-backed 1954 coup that unceremoniously ended “Ten Years of Spring” and ushered in 36-years of civil war (1960-1996), Doctors Juan Funes and Luis Galich continued to hold integral roles in the Guatemalan medical system. Beginning their careers as doctors heralding revolution, they promoted family planning programs during the civil war.⁹⁷⁸ Although doctors of leftist orientation, they found important roles within right-wing administrations. Ladino/a political and medical elites on both the right and the left viewed women’s sexuality and the reproduction of the indigenous, poor, and Afro-Caribbean as key concerns of national policy. Their preoccupations aligned with the U.S. government and right-wing Latin American governments which also held that overpopulation bred subversion and harmed national development within their countries.

In the 1970s, Galich became the director of APROFAM (*Asociación Pro-Bienestar de la Familia de Guatemala*), a private Guatemalan institution devoted to reproductive health that became a source of controversy in the country.⁹⁷⁹ APROFAM received funding from the United States Agency for International Development (USAID) which promoted the U.S. government policy to quell overpopulation in poor countries around the world as part of efforts to limit the spread of communism. Galich heralded APROFAM for its work addressing overpopulation, for its efforts to preserve natural resources, and to combat malnutrition in the country through limiting the size of families. He said that the organization was vital for poor and indigenous women who needed to take control of their bodies and secure their financial futures.⁹⁸⁰ Scholars have found that women in Central America, the Caribbean region, and the United States did

⁹⁷⁸ Juan M. Funes, “El binomio prostitución-morbo venéreo,” *Boletín Sanitario* 1, 2 (1961): 164-8. “Población y Familia,” *El Imparcial*, 5 de agosto de 1974.

⁹⁷⁸ Ibid.

⁹⁷⁹ “Población y Familia,” *El Imparcial*, 5 de agosto de 1974.

⁹⁸⁰ Ibid.

indeed seek out opportunities to control their reproduction.⁹⁸¹ Yet, like the STI experiments, population control programs were also informed by paternalism and eugenic understandings in medicine which held that primarily male doctors knew what was best for women and their bodies.

Guatemalans have charged that APROFAM personnel and other U.S. and European international organizations performed forced sterilizations of poor and indigenous women during the Cold War.⁹⁸² Dr. Carlos Gehlert Mata, former Minister of Health under President Vinicio Cerezo (1986-1991), members of the University of San Carlos Medical School, and the Guatemalan Catholic Bishop, Gerardo Flores, all accused APROFAM, U.S. and British agencies of performing a massive sterilization campaign of indigenous women without their consent during the 1970s and 1980s.⁹⁸³ In 1985, the Archbishop of Guatemala wrote a letter to U.S. President Ronald Reagan demanding an end to the sterilization of indigenous women by APROFAM and International Planned Parenthood.⁹⁸⁴ Flores called the sterilizations acts of genocide and “biological” and “cultural” genocide.⁹⁸⁵ He understood that the control of women’s reproduction was closely tied with U.S. international policy during this time period. Although these charges have never been definitively proven, Galich’s role in the experiments make them appear plausible. Moreover, the fact that forced sterilization was practiced in locations around the world before and during the Cold War also makes these charges seem possible. Sterilization

⁹⁸¹ Schoen, *Choice and Coercion*. Briggs, *Reproducing Empire*. Carranza, “The Therapeutic Exception: Abortion, Sterilization, and Medical Necessity in Costa Rica,” 55-63. María Carranza, “Sobre una relación ‘profílica’: el papel de ‘la salud’ en la propagación de la esterilización contraceptiva en Costa Rica,” *Dynamis* 24 (2004): 187-212.

⁹⁸² Interview with Emma Chirix, Guatemala City, September 23, 2015. Interview with Carlos Gehlert Mata, Guatemala City, March 15, 2016. Emma Chirix, *Los Deseos de nuestro cuerpo* = Ru rayb’al ri qach’akul, (Guatemala: Ediciones del Pensativo, 2010).

⁹⁸³ La salud y la niñez en Guatemala, Servicio Especial, CERIGUA, junio 1987. Colección: Robert H. Trodeau, CIRMA. “Colegio Médico Pide Investigar lo de Esterilización de indígenas” *El Imparcial*, 2 marzo de 1972. “Control natal es importado,” *El Gráfico*, 3 de octubre de 1984.

⁹⁸⁴ “Una Carta A Reagan: Arzobispo de Guatemala le Pide Intervenir para que Cesen los Programas de Esterilización de Indígenas guatemaltecas,” 17 de agosto de 1985, *Prensa Libre*, 25 de agosto de 1985, CIRMA.

⁹⁸⁵ Ibid.

abuse has been reported among poor and women of color in the United States, Puerto Rico, Mexico, India, Bangladesh, Brazil, and in Peru, among other countries.⁹⁸⁶ Doctors, often believing their intentions to be humanitarian, routinely performed these procedures without obtaining women's consent.

The 2010 revelation of the STI experiments brought renewed attention to the history of sterilization abuse in Guatemala. Reports of medical violence in STI research appeared reminiscent of sterilization reports in the country. In December 2011, the Guatemalan newspaper, *El Periódico*, published a report proclaiming that in 1974 the major general hospital in Guatemala City, San Juan de Dios, conducted experiments on the sterilization of indigenous women without their consent. The report said that the sterilization experiments received support from the Population Council, which was founded in 1952 by John D. Rockefeller.⁹⁸⁷ Once again, Rockefeller's name was tied to medical imperialism in the country. These charges were not new; reports of sterilization abuse in San Juan de Dios Hospital had been present in the country since the 1970s.⁹⁸⁸ During that time, the medical school at the University of San Carlos called for an investigation into the sterilization of indigenous women at San Juan de Dios, although the hospital denied that this had occurred.⁹⁸⁹ The recent article in *El Periódico* drew from the

⁹⁸⁶ In the United States, federal programs aligned with Lyndon B. Johnson's War on Poverty program supported the nonconsensual sterilization of working-class Mexican women at the Women's Hospital at the University of Southern California/Los Angeles County General Hospital. The women filed a class action lawsuit, *Madrigal v. Quilligan*, which has been held as representative of the numerous women sterilized without their consent in the 1960s to mid-1970s. African American, Native American, and Puerto Rican women also reported that they had been forcefully sterilized during this period by federally supported programs. The sterilizations performed in the 1960s and 1970s were typically able to take place because of state laws that had been put in place earlier in the twentieth century during the 1920s and 1930s. States stopped their sterilization programs by the late 1970s. See Stern, *Eugenic Nation*, 200-10. Sterilizations were also widespread during this time period in the U.S. south. See Schoen, *Choice and Coercion*, 75-138. African American women also reported widespread sterilization abuse particularly in the South. Roberts, *Killing the Black Body*, 93. For the history of sterilization abuse of Puerto Rican women, see Briggs, *Reproducing Empire*, 107, 147-150. Gordon, *Woman's Body, Woman's Right*, 397-446.

⁹⁸⁷ "Guatemaltecas fueron esterilizadas sin su consentimiento debido a políticas de EE.UU.," *El Periódico*, 4 de diciembre de 2011.

⁹⁸⁸ "Control natal es importado," *El Gráfico*, 3 de octubre de 1984. "Facultad Médica no Propicia Programa para Esterilización." *El Imparcial*. 30 de agosto de 1975. "Facultad Médica no Propicia Programa para Esterilización." *El Imparcial*. 30 de agosto de 1975.

⁹⁸⁹ "Colegio Médico Pide Investigar lo de Esterilización de indígenas" *El Imparcial*, 2 marzo de 1972.

research of a Spanish doctor who wrote a report claiming that the hospital used paraformaldehyde, which has historically been used to clean surgical instruments, to sterilize Guatemalan women. The chemical substance caused an inflammatory response in uteruses that apparently made women infertile.

Although the exact details of experiments with sterilization remain unknown in Guatemala, written and oral evidence shows that the country did indeed continue to serve as a key site of research on malnutrition conducted by U.S. and Latin American scientists during the Cold War. Indeed, the country became a “Third World Model” in which U.S. and Latin American researchers investigated malnutrition in poor and indigenous communities as part of their efforts to solve problems of underdevelopment and poverty around the globe. Like efforts to stem population, malnutrition research was also tied to the U.S. concerns with biological security as it related to foreign policy; through addressing problems with malnutrition, U.S. scientists and policymakers aimed to contain the spread of communism through addressing root causes and effects of poverty. Latin American officials also had a vested interest in quelling malnutrition in order to spur national development. In 1946 during the revolutionary period, U.S. and Central American public health officials together created the Nutrition Institute of Central America and Panama (INCAP) under the PASB umbrella and with financial support from the Kellogg Foundation.⁹⁹⁰ Key U.S. scientists participated in the creation of INCAP.⁹⁹¹ Yet, important leaders of the Guatemalan Revolution also had a role in INCAP’s creation and advocated that PASB locate the organization’s office in Guatemala City.

⁹⁹⁰ “El INCAP y su historia,” CIRMA.

⁹⁹¹ They included Dr. William Darby of Vanderbilt University, Dr. Robert Harris, of Massachusetts Institute of Technology, Dr. Fred Soper, Director of the PASB, Benjamin G. Horning from the Kellogg Foundation, and Dr. Leonard A. Maynard from Cornell University.

As during the STI experiments, revolutionary officials' focus on regenerating the population helped to build the networks and infrastructure that rendered the country a site of research continuing into the Cold War. Dr. Julio Bianchi, the Guatemala Minister of Health during the Guatemalan Spring who also was privy to the STI research, pushed for the INCAP office to be located in Guatemala City. The organization established its first office in Guatemala City's botanical garden near the Avenida Reforma, the main boulevard running through Guatemala City built to commemorate the liberal revolution of the late nineteenth century that had brought the coffee planting elite to power. Latin American medical professionals and scientists who supported the creation of INCAP wanted to build food and national sovereignty among Central American countries.⁹⁹² A prominent revolutionary leader, Dr. Epaminondas Quintana, said that malnutrition was evident in the recruitment of indigenous soldiers to the military.⁹⁹³ As doctors pushed for solutions to eradicate venereal disease, they also sought external expertise about malnutrition in order to fulfill their vision for the nation and strengthen the country's defense.

Yet, following the end of the revolution, INCAP's mission also aligned with the interests of right-wing authoritarian governments who also sought to combat underdevelopment and poverty in order to spur nation-building and quell subversive leftist groups in the country. Guatemalan right-wing military dictatorships upheld U.S. policies that sought to transform the bodies of the poor as part of efforts to suppress leftist influences and build the capitalist economy through increasing the vitality of workers. Despite INCAP's alignment with right-wing policy goals, many of the U.S. and Central American scientists who worked on malnutrition held left-

⁹⁹² Corinne A. Pernet, "Between Entanglements and Dependencies: Food, Nutrition, and National Development at the Central American Institute of Nutrition (INCAP), in *International Organizations and Development, 1945-1990*, eds. Marc Frey, Sonke Kunkel and Corinna R. Unger (Palgrave, 2014).

⁹⁹³ Epaminondas Quintana, "Trabajos de Guatemala, México, Honduras, Nicaragua y Paraguay," *El Imparcial*, 26 de septiembre de 1957.

leaning political views. They continued to believe in the relevance of their work for helping the poor and spurring national self-determination. Doctors also thought that their research provided the necessary evidence to advocate for governments to increase health and social services for poor communities.

Other INCAP researchers appeared more intent on promoting their own work and scientific discovery than addressing the welfare of the people they studied. In one longitudinal study by INCAP that occurred between 1964 and 1972, U.S. and Central American scientists observed children in a Mayan highland community called Santa Maria Cauqué, located about twenty-two miles from Guatemala City near the Inter-American Highway and in the foothills of the Sierra Madre mountains. The Pan American Sanitary Bureau, the U.S. National Institutes of Health, the U.S. Department of Health, Education, and Welfare, the WHO, U.S. Army Research and Development Command, the Guatemalan Ministry of Health, among other groups, provided the majority of funding for the study.

The researchers selected Santa Maria Cauqué because its location near the highway made it both accessible to researchers while it still remained a relatively isolated community. Mata wrote that the INCAP team viewed the village as representative of indigenous communities in Central America and in the “Third World.”⁹⁹⁴ The researchers saw the Mayan community as closed and timeless, reflective of dominant views of indigenous peoples by white North American researchers. Mata presumed, “the community must be three hundred years old probably dating from pre-Columbian times, is a reasonable assumption.”⁹⁹⁵ Moreover, after U.S. anthropologists and nutritionists conducted a survey of surrounding communities, he found that

⁹⁹⁴ Leonardo J. Mata, *The Children of Santa Maria Cauqué: A Prospective Field Study of Health and Growth* (Cambridge: MIT Press, 1978): xiv.

⁹⁹⁵ Ibid, 6.

Santa Maria Cauqué was more indigenous than surrounding communities.⁹⁹⁶ In his field notes, Anthropologist Richard Adams, who conducted a study of communities in the region and was a consultant for INCAP, said that the people in Santa Maria Cauqué were “much opener in their talk, and seem much more willing to be involved in conversation.”⁹⁹⁷

In justifying the ethical grounds of his research, Dr. Leonardo Mata Jiménez, the Costa Rican microbiologist who oversaw these studies, called his study “the natural history of the health and growth of children.”⁹⁹⁸ The researchers observed the interactions between malnutrition and infectious disease in pregnant women and children from birth to until five years of age. They conducted regular measurements of the children and studied their intestinal infections, tracking how malnutrition and disease caused “growth retardation.”⁹⁹⁹ In essence, the researchers studied how deprivation caused permanent damage to the children of Santa Maria Cauqué. They found that the Cauqué infants were born preterm and at low birth weights at rates comparable to those of “the most stressful environmental conditions, for example, those prevalent during the siege of Leningrad.”¹⁰⁰⁰ Despite acknowledging the harm that malnutrition and disease caused to children, INCAP researchers did not seek to better their circumstances, believing that any measures they took would intervene with the “naturalness” of the environment they studied and confound their results.

An oral history with a Guatemalan pediatrician named Dr. Carlos Beteta, who participated in the study said that the scientific protocol required that he keep Guatemalans in the study from receiving certain types of treatment that would interfere with research.¹⁰⁰¹ During

⁹⁹⁶ Marina Flores, “Santa Maria Cauqué,” September 1951. Report written for INCAP, Richard Adams Papers, University of Texas Libraries.

⁹⁹⁷ RNA Notebook, January 20, 1956. Santa Maria Cauqué, Guatemala. Richard Adams Papers. University of Texas Libraries.

⁹⁹⁸ Ibid, xii.

⁹⁹⁹ Ibid, 80, 304.

¹⁰⁰⁰ Ibid, 135.

¹⁰⁰¹ Interview with Dr. Carlos Beteta, Guatemala City, March 31, 2016.

Beteta's time working with the study, he felt discomfort as a medical doctor not able to make significant changes in the community to improve their care:

There was an important aspect of the study, which is that you weren't able to make radical changes in the living of the people because it would alter the entire project which was based upon studying a closed community without us changing it, because if we did that the results of the study would not have been genuine.¹⁰⁰²

According to Beteta, the people of Santa Maria Cauqué and of Guatemala did not receive much in return from their participation in the study. Instead, he sees the benefit of the research as for the "future" and for other people.

Scientists' justification that Santa Maria Cauqué was a "natural" study is false; the INCAP team did indeed make interventions in the community. Like the syphilis study in Tuskegee, Alabama, INCAP researchers provided some medical services. They gave people in the village antimicrobial drugs to treat infectious disease, and some smallpox and diphtheria-pertussis-tetanus vaccines.¹⁰⁰³ In fact, part of the way that researchers sought to gain rapport with villagers was by offering them medical treatment. INCAP researchers also held a Christmas celebration, gave gifts to the children, and had piñatas for the villager. These efforts again were intended to secure cooperation from the community. Yet, the INCAP team did not provide nutritional education or food distribution, although the field staff did give dietetic treatment to patients with severe malnutrition. As Mata highlighted in his 1978 book of the study, *The Children of Santa Maria Cauqué*, the purpose of the research was to conduct a "natural study"

¹⁰⁰² Ibid.

¹⁰⁰³ Mata, *The Children of Santa Maria Cauqué*, 52.

that “complied with national plans and government norms for rural regions.”¹⁰⁰⁴ This methodological approach meant that the field staff provided the people in Santa Maria Cauqué with little to no healthcare since “no programs of general health education, nutrition, use of latrines, mass treatment for intestinal parasites, treatment of water supplies or vaccination were prescribed or effected by the central government during most of the study.”¹⁰⁰⁵ The town had largely continued to rely upon curanderos, midwives, and other traditional medical providers. Researchers took advantage of poverty in the country and the neglect of the Guatemalan government.

As Mata and other INCAP researchers claimed that the study was natural, Mata also proclaimed the humanitarian intentions of himself and his staff; he said that “all staff members had the conviction that the Indian deserves the same treatment as the non-Indian. Indian dignity, pride, problems and way of life were respected and understood.”¹⁰⁰⁶ The study complied with the ethics of research in the United States; the NIH and U.S. Department of Health, Education, and Welfare (HEW) conducted an ethics review of the study to ensure that it adhered with HEW Policy on the Protection of Human Subjects.¹⁰⁰⁷ According to Mata, the ethics committee found that “no damage or injury was imposed upon the individuals concerned and the project.”¹⁰⁰⁸ Again, the justification was that the malnutrition represented a “natural study” of the community. Yet, scientists produced knowledge about indigenous people in Santa Maria Cauqué that could be used for potentially harmful purposes. Guatemalan newspapers published reports quoting INCAP scientists who claimed that malnutrition and disease both impeded development and

¹⁰⁰⁴ Ibid.

¹⁰⁰⁵ Ibid.

¹⁰⁰⁶ Ibid., 50.

¹⁰⁰⁷ Ibid.

¹⁰⁰⁸ Ibid., 54.

harmed the “genetic potential” of individuals.¹⁰⁰⁹ In a country with a long history of entrenched racism, this claim bolstered dehumanizing views of indigenous populations in the country.

Moreover, in 2016 when I visited Santa Maria Cauqué, it was evident that the researchers did not clearly explain the study to the community at large or people who were part of the longitudinal study, even though Mata stressed that the researchers explained the study to community *principales* (chiefs) and leaders in language that they could understand, since more than half of the people in the village did not read or write.¹⁰¹⁰ When I asked community members if they knew about the INCAP research, including one woman who was part of the study, they seemed confused. Perhaps INCAP employees had explained the research to people in the village in different terms. As in the syphilis study in Alabama, people may have simply known about the research in reference to “the nurse,” referring to Nurse Eunice Rivers who most frequently interacted with the men and gave them medications, or in the health clinic. Yet, I also interviewed the former mayor of the town who had been responsible for selecting the women and children to participate in the study.¹⁰¹¹ He praised Mata and INCAP for the medical care that he had brought to the community. Still, when I asked him about the longitudinal study that the INCAP team had conducted, the mayor seemed confused. As the mayor was in his eighties, he may have not remembered the study. It appears that Mata and other health workers did not clearly explain their research to community members, despite insisting to me that they had done so and claiming to have explained the study in their medical reports.

For years after the study ended, Mata continued to visit the community. He also seemed to believe that the study would provide information to promote better health for the people of

¹⁰⁰⁹ Saul David Oliva, “En el Año de la Niñez de Guatemala: 900,640,” *El Imparcial*, 31 de julio de 1977.

¹⁰¹⁰ Mata, *The Children of Santa Maria Cauqué*, 55.

¹⁰¹¹ Interview with Selodonio Chiroy, Santa Maria Cauqué, March 19, 2016.

Santa María Cauqué. Dedicating his book “to her, who deserves all, to the Indian woman of Santa María Cauqué,” he argued for both indigenous and ladino representatives to engage in a national plan to develop education, environmental sanitation, and integrated health services.¹⁰¹² Yet, these goals never came to fruition. INCAP defined itself as a scientific research institution and not as an organization that formed public policy. The people of Santa María Cauqué served as fodder for research, and continue to suffer from high rates of malnutrition and disease. When I visited the hospital responsible for providing medical care to the department of Sacatepéquez, where Santa Maria Cauqué is located, the doctor in charge was distressed by her limited ability to help her patients. Mentioning the public health crisis in the country, she pointed to a largely empty cabinet and said that they comprised the medical supplies she had for the entire department.

Squelched Efforts for Reform

Beginning in the 1960s, Guatemalan medical students and professors at the University of San Carlos sought to change medical practice in Guatemala so that it responded to grassroots concerns. They sought to approach human beings holistically in their social and economic environments, and pushed back against narrow technological or biological views of the human upheld by U.S. and Guatemalan medical institutions. Many left-leaning members of the medical school, Mayan health workers, and feminists began to sharply criticize organizations including INCAP, APROFAM and USAID. Accusations of forced sterilization and the longitudinal study in Santa Maria Cauqué became a focus of their concerns about unethical clinical practices in the country.¹⁰¹³ Even within INCAP there were critics of the study; some members, particularly the

¹⁰¹² Mata, *The Children of Santa María Cauqué*, 330.

¹⁰¹³ Interview with José García Noval, Guatemala City, November 25, 2015.

health professionals, viewed Mata as very scientific and not as concerned with the humanistic side of the work.¹⁰¹⁴ In fact, Mata eventually left the organization due to controversy surrounding his study.¹⁰¹⁵ Within the organization, individuals and groups sought to advocate for the economic and social structural changes necessary to address malnutrition in the country, while others remained committed to scientific discovery and research.

In 1969, the medical school made strides towards realizing this vision. At the urging of students and professors, USAC's medical school adopted the *Actas de Reformas* (Reform Acts).¹⁰¹⁶ Inspired by the Cuban Revolution, socialized medicine, and the global bioethics movement, students including José García Noval, who was a medical student at the time, led the charge to push the medical school to adopt these reforms.¹⁰¹⁷ Students called for the medical school to send more students and doctors to rural areas and to better address the healthcare needs of the poor in rural and urban areas. In his oral history interview, García said that the students were also influenced by medical professors at USAC who continued to uphold the values of the revolutionary period and doctors who had studied abroad and were interested in promoting social medicine in the country.¹⁰¹⁸ Through a program established at the medical school, students began working in rural areas during this time period. Some but not all of the students joined guerilla organizations such as the EGP (Guerilla Army of the Poor) or were part of the communist party. Yet, García claims the students were in general not radicals but idealistic and intent on bringing about social and economic change in the country.

¹⁰¹⁴ Ibid.

¹⁰¹⁵ Interview with Jorge Solares, Guatemala City, November 12, 2015.

¹⁰¹⁶ "Actas de Reformas Globales a la Facultad de Ciencias Médicas," Universidad de San Carlos de Guatemala, Facultad de Ciencias Médicas." Guatemala, enero de 1969.

¹⁰¹⁷ Interview with José García Noval, Guatemala City, March 9, 2016.

¹⁰¹⁸ Interview with José García Noval, Guatemala City, November 25, 2015.

U.S. doctors conducting humanitarian work in Guatemala also promoted social medicine during this period. In 1962, a U.S. doctor named Carroll Behrhorst founded a health clinic in Chimaltenango, located in the central Guatemalan highlands; he sought to address the social and economic factors that harmed his patients' health. He trained health promoters, or members of indigenous communities, in healthcare and facilitated campaigns in potable water, literacy, vaccination, and family planning. These health promoters went on to develop clinics that became important to people in rural areas.¹⁰¹⁹ Behrhorst promoted a different model of medicine that had been practiced by Guatemalan doctors connected to the government and U.S. organizations.

Behrhorst was not the only medical professional training *indígenas* to become health promoters. The 1960s and 1970s saw a rise in indigenous health promoters who joined efforts to develop healthcare resources and preventative medicine in the countryside. State licensing of health promoters came with the realization of medical professionals in the 1960s and 1970s that the government could not serve the needs of rural communities, or provide adequate services. Indigenous groups spoke 22 different indigenous languages in the countryside, and over a 100 different dialects of those languages.¹⁰²⁰ Churches and private agencies also began to open health clinics and train health promoters from indigenous communities. In 1976, a major earthquake in Guatemala exacerbated the problem of healthcare shortages in the countryside. U.S. and foreign medical professionals who came to alleviate problems with the earthquake further began to train health promoters to work in the countryside. As part of a popular movement in the 1970s that arose with the rise of labor unions in the capital and peasant organizing in the countryside, health

¹⁰¹⁹ Ulli Stelzer, *Health in the Guatemalan Highlands* (Seattle: University of Washington Press, 1984). David Carey, Jr., "The Politics and Culture of Medicine and Disease in Central America," forthcoming.

¹⁰²⁰ Interview with Curt Wands, Guatemalan Health Movement, Berkeley, California, December 1985. In *The Guatemala Health Rights Support Project, Guatemala: Health Care Targeted, Creating Alternatives in a Time of Conflict*, Washington, DC, 1st of May 1989. Princeton Collection, CIRMA.

promoters began to organize in their communities and give classes on nutrition, prenatal care, hygiene, and the prevention of parasites.

Yet, the ongoing civil war squelched these efforts to develop healthcare resources in the countryside. The Guatemalan government and the agricultural elite soon began to suspect health promoters, doctors, and medical students working in poor and rural areas of subversive activities. As health promoters began to implement preventative healthcare, their work at times ran counter to the business practices of local plantations. Health promoters realized that in order to improve the wellbeing of their communities, they needed to change the power structure in the country. For example, health promoters began to question *finqueros*' (plantation owners) spraying of pesticides on their plantations when agricultural workers were laboring in the fields.¹⁰²¹ By raising concerns about pesticide poisoning, plantation owners increasingly viewed health promoters as threats to their businesses. The Guatemalan military, supportive of the plantation owners, also suspected the health promoters of subversion. Moreover, as health promoters increasingly became concerned with issue of malnutrition, they began to question the fact that a small minority of people owned the vast majority of land and left *indígenas* and the poor without the resources to sustain themselves and their families. In their efforts to build healthcare programs in rural areas, health promoters' work inevitably led them to confront the economic and social inequality in the country that placed indigenous and poor Guatemalans' health and wellbeing at risk.

As the civil war entered *La Violencia* (the violence) in the late 1970s and early 1980s, the period in which the state conducted "scorched-earth" campaigns in the highlands where the indigenous population is concentrated, counterinsurgency campaigns targeted health promoters.

¹⁰²¹ Interview with Curt Wands, Berkeley, California, December 1985.

The government presumed that health promoters who were working to improve the health of their communities through installing potable water systems or implementing community health projects were aiding guerillas hiding within indigenous villages. Between 1980 and 1985, conservative estimates indicate that the military killed at least 500 health promoters.¹⁰²² Still, since the majority of health promoter were *indígenas* and poor, adequate statistics do not exist about their deaths and the repression that they endured.

The government's counterinsurgency campaign against health promoters extended to a general attack on healthcare in both urban and rural areas as a way to hamper guerillas' strength. The policies that the military implemented violated the Geneva Convention which holds it a human rights violation to deny individuals access to healthcare during war. As the military believed that guerillas were hiding in indigenous communities in rural areas, these groups endured some of the harshest suffering during the war. General Ríos Montt, who was president during the most violent period of the war and in 2013 was accused of genocide of Mayan people (this charge was later overturned), described his military policies as "draining the sea the fish swim in."¹⁰²³ The military's control of some regions of the countryside made people fearful of leaving their communities to attend health clinics and hospitals. Military personnel even went to the entrance of hospitals to check on who was entering to receive care. In the early 1980s, there were reports of the military kidnapping medical personnel and patients with "suspicious" wounds. One community worker relayed a story of a pregnant woman who had escaped from an

¹⁰²² The Guatemala Health Rights Support Project, *Guatemala: Health Care Targeted, Creating Alternatives in a Time of Conflict*, Washington, D.C., 1st of May 1989, Princeton University Collection, CIRMA.

¹⁰²³ Daniel Volpe, "Victims of Guatemala's Civil War Are Laid to Rest, 3 Decades Later," *The New York Times*, December 21, 2017, Last retrieved June 11, 2019: <https://www.nytimes.com/2017/12/21/world/americas/guatemala-civil-war-burials.html>. Stephen Kinzer, "Efraín Ríos Montt, Guatemalan Dictator Convicted of Genocide, Dies at 91," *New York Times*, April 1, 2018, last retrieved June 14, 2019: <https://www.nytimes.com/2018/04/01/obituaries/efrain-rios-montt-guatemala-dead.html>. Virginia Garrard-Burnett, *Terror in the Land of the Holy Spirit: Guatemala Under General Efraín Ríos Montt, 1982-1983*, (Oxford: Oxford University Press, 2010):

army raid of her village and went to a local hospital seeking care; when the military learned where she was from, they took her away. No one has seen or heard from her since.¹⁰²⁴

In addition to the repression towards health promoters and hospitals, left-leaning doctors, lawyers and intellectuals fled the country, were “disappeared” and killed. Dr. Juan José Hurtado, whose interview was included in this dissertation, ran a health clinic in a poor neighborhood in Guatemala City. Hurtado had also worked for INCAP on programs and was connected to the international medical community. He had been a medical student when the experiments occurred and knew of them. In the interview, Hurtado called the experiments a “barbaridad” (barbarity), although he never came forward publicly to denounce them. In June 1982, Hurtado was “disappeared” by Dictator Rios Montt who has also been charged with carrying out a genocide of Mayan people in the early 1980s.¹⁰²⁵ In one of his “Sunday sermons,” or his weekly broadcasted addresses to the nation, Montt admitted that he had taken the doctor as a prisoner and accused him of subversive activities against the government.

Yet, due to widespread pressure in Guatemala and in the United States with doctors and social scientists who had worked with Hurtado at INCAP, Montt allowed for his release after one month in a detention center. Many other doctors were not as fortunate. The archives of the national police and human rights reports have documented countless records of doctors, medical students, and professors at the University of San Carlos who were “disappeared,” fled the country, or murdered.¹⁰²⁶ The repression was not just directed towards the medical profession but all intellectuals in the country and many middle class professionals suspected of or holding left-

¹⁰²⁴ The Guatemala Health Rights Support Project, Guatemala: Health Care Targeted, Creating Alternatives in a Time of Conflict, Washington, D.C., 1st of May 1989. The Princeton Collection, Collection.

¹⁰²⁵ Doctor Hurtado Vega Salió Hoy a EE.UU.; Ayer Dio Declaraciones a El Imparcial,” *El Imparcial*, 3 de agosto de 1972.

“Presidente Despejó la Incógnita del Doctor Juan José Hurtado Vega: en Mensaje Dominical,” *El Imparcial*, 5 de julio de 1982.

¹⁰²⁶ “En Pie de la Lucha: Organización y Represión en la Universidad de San Carlos, Guatemala, 1944 a 1996.” “Guatemala Memory of Silence,” Report of the Commission for Historical Clarification, 1999. “En Hospital del 2o. Cuerpo de la Policía,” *El Imparcial*, 13 de julio de 1982.

leaning sentiments. Following these murders, the military would display the bodies to terrorize the population and threaten them about the consequences of any actions against the government.¹⁰²⁷

As state terror squelched the popular movement to promote healthcare services in poor rural and urban areas, the government increasingly used health services as part of its counterinsurgent policies. Once again, the government aimed to more closely connect biological security with national security strategies. In the 1980s under Montt's regime, the state coupled terrorism with social reforms and incorporated health promoters into their infrastructure; this policy was called "guns and beans," (*fusiles y frijoles*). The government built "model villages" where they forcibly resettled Mayans in a grid pattern to "re-educate indigenous people."¹⁰²⁸ In order to win the cooperation of indigenous people, the government promised healthcare in these towns and other services. Yet, the Guatemalan Truth Commission found that the increase of military spending during the war directed funding away from social development in education and healthcare.¹⁰²⁹ In many of these "model villages," people suffered from a lack of healthcare, malnutrition, and repression. The military organized PACs, which comprised of the forceful recruitment of indigenous young men into patrols of their own communities.¹⁰³⁰ Health promoters were also forcibly recruited in these patrols. The intended goal of these groups was to weaken the fabric of indigenous communities. The PACs have also been held responsible for forced disappearances and killings of their own people.

Healthcare in the Central American region suffered further after the United States pushed through neoliberal reforms in the 1980s and 1990s. As a result, the Guatemalan government

¹⁰²⁷ "Permaneció secuestrado desde el martes pasado," 25 de mayo de 1981, CIRMA.

¹⁰²⁸ Report of the Commission for Historical Clarification, Guatemala: Memory of Silence pg. 31.

¹⁰²⁹ Ibid, 32.

¹⁰³⁰ Luisa Cabrera, *Memoria de los Promotores de Salud, Memoria Histórica de ASECSA*, Guatemala, 1994, CIRMA. s

increasingly came to rely upon multinational corporations and nonprofit groups to provide healthcare services to poor and indigenous communities.¹⁰³¹ In the present day, the government still fails to provide basic medical care to much of the country. Doctors have said that the rise of neoliberalism and lack of support from the government has led to a deterioration of morals in the post-civil war era.¹⁰³² The limited resources that medical doctors receive has fundamentally also harmed their medical practice. Garcia is convinced that the effects of the war and neoliberal policies have brought a crisis of ethics in the medical profession and in the country in the present day:

We are living in an era that is very critical from a psychosocial viewpoint, from an ethical point of view and in general from a sociological viewpoint, when you consider that I am becoming increasingly convinced that this has resulted from a larger force of anomie. I think that the repression of the 1980s had influences on distinct levels, but all of them were serious. One is the end of a thriving intellectual culture and within this a thriving medical culture. The war corrupted the centers of medical formation, including the faculty of medicine at the University of San Carlos, and the university in general. And when I am talking about the end of intellectual life in Guatemala, I am also obviously talking about also the deaths and the people who left Guatemala. This breaking down of institutions is a social tsunami. It is not only the center of academic formation but also has invaded the centers of medical attention.¹⁰³³

¹⁰³¹ Anita Chary and Peter Rohloff, *Privatization and the New Medical Pluralism: Shifting Healthcare Landscapes in Maya Guatemala*, Lexington Books, 2015.

¹⁰³² Interview with José Garcia Noval, Guatemala City, November 25, 2015. Interview with Carlos Chua, Guatemala City, September 14, 2015. Interview with José Barnoya, Guatemala City, March 9, 2016.

¹⁰³³ Interview with José Garcia Noval, Guatemala City, November 25, 2015.

Doctors, medical students, health promoters, and intellectuals' worked to change the practice of medicine in Guatemala, hoping to address the root causes of inequality, poverty, and poor health in the country. Their efforts were met with drastic force by the military. In the present day, the practice of medicine has been increasingly tied to the interests of the business and political elite and sullied by violence, poverty, and corruption.

Limitations Surrounding the U.S. Federal Apology

Following the 2010 revelation of the experiments, Guatemalan doctors, some of whom had begun to press for reforms in medical education and healthcare during the 1960s and 1970s, hoped that change would finally come to the medical system. These doctors included Garcia, who after leading efforts to implement the *Actas de Reformas* at the University of San Carlos during the 1960s, had later become a professor focusing on bioethics in the same medical school.¹⁰³⁴ Many Guatemalan doctors, especially those who had studied and worked abroad, knew about the important role that the syphilis study in Tuskegee, Alabama had in pushing for ethics reforms in medical research in the United States. Doctors believed that the STI experiments in Guatemala might energize a similar discussion within Guatemala concerning ethics and the practice of medicine in the country. They thought it was a chance to reform what they saw as widespread problems in the medical system that included corruption and a lack of government investment in resources. Doctors such as Garcia thought they might finally establish effective regulations and boards to oversee the medical research happening in the country.

The medical community's aspirations for change were coupled with general outrage in the country immediately following the revelation of these experiments. In 2010, newspapers

¹⁰³⁴ José García Noval, "Tema Pendiente: Experimentos Médicos en Guatemala 1946-1948," *Revista del Colegio Médico de Guatemala*, 151 (julio de 2014): 19-22.

published numerous articles about the experiments in the first month after the U.S. apology to the Guatemalan government. Many articles highlighted the experiments in relationship to the long history of U.S. imperialism in the country. “The backyard of beyond: this is Guatemala,” wrote one journalist in a national newspaper.¹⁰³⁵ They described Guatemala an “immense laboratory” for medical experimentation and said that U.S. doctors treated Guatemalans as lab rats.¹⁰³⁶ Journalists charged that the experiments represented another moment when the U.S. government had facilitated “limpieza social” (social cleansing) of Guatemalans; the other example mentioned was sterilization campaigns against indigenous women.¹⁰³⁷ They compared the experiments to the CIA’s orchestration of the 1954 coup of Jacobo ‘Arbenz Guzman, the creation of the School of Americas, the U.S. Army’s training facility which was attended by Latin American military personnel who later committed torture and massacres during the war, and President Ronald Reagan’s funding Rios Montt’s genocidal policies. Other articles focused the blame more specifically on individual doctors; one journalist referred to USPHS director, John Cutler, as a “medical assassin.”¹⁰³⁸ Newspapers held that Guatemalans should be fairly compensated for what happened to them, and that Guatemalan immigrants in the United States should be granted refuge and a path to citizenship.¹⁰³⁹ Journalists held that the U.S. apology was insufficient to address the wrongs that had occurred not just during these experiments but throughout the long history of U.S. imperialist policies towards the country and Central American region at large.¹⁰⁴⁰

¹⁰³⁵ Juan Luis Font, “Gloriosa desvergüenza,” *El Periódico*, 4 de octubre de 2010.

¹⁰³⁶ Edgar Gutiérrez, “Un inmenso laboratorio,” *El Periódico*, 7 de octubre de 2010. Dina Fernández, “¿Víctimas o culpables?” *El Periódico*, 6 de octubre de 2010.

¹⁰³⁷ “Crímenes ocultos,” *Prensa Libre*, 4 de octubre de 2010.

¹⁰³⁸ Edgar Gutiérrez, “Un inmenso laboratorio,” *El Periódico*, 7 de octubre de 2010.

¹⁰³⁹ Karen Marie Fischer Pivaral, “Demanda por Delitos de Lesa Humanidad Contra los Estados Unidos de América,” *Prensa Libre*, 8 de octubre de 2010.

¹⁰⁴⁰ Edgar Gutiérrez, “Un inmenso laboratorio,” *El Periódico*, 7 de octubre de 2010.

The fact that the experiments occurred during the revolutionary period was also a source of controversy in the country. To complement the U.S. Bioethics Commission's investigation of these experiments, President Alvaro Colom, a leftist and former guerilla during the civil war, created a commission to research the experiments and the participation of Guatemalan officials and institutions. The commission included the country's Vice President and a medical doctor, Rafael Espada, medical doctors, anthropologists, and archivists. Colom claimed that President Arévalo had not known about what had occurred.¹⁰⁴¹ The family of Arévalo also defended him and said that he had been unaware of the experiments.¹⁰⁴² As mentioned in Chapter Four, Arévalo noted in his presidential yearly report that U.S. researchers were in the country conducting research on STIs, although the extent of his knowledge about what they were doing remains unclear. Other newspapers called for a thorough investigation into the roles of Guatemalan officials in these experiments. Nevertheless, conducting an investigation into what occurred in Guatemala was difficult given the fact that many had been destroyed previously, including some of the archives of the *Asilo de Alienados* that had burned during a fire in the 1960s.

Since this initial attention to the experiments, there has been little public focus on them. Problems in the country that include the profound insecurity that has resulted following the war from drug trafficking, gang violence, and poverty, continue to take center stage in national policy and discourse. Nevertheless, as mentioned previously in this dissertation, openly there is little discussion about experimentation. As Linda Green found in her study of Mayan widows following the civil war, silence can be a strategy of survival.¹⁰⁴³ Yet, in private conversations

¹⁰⁴¹ "Experimentos de EE.UU. Legislación facilitó pruebas en el país," *El Periódico*, 2 de octubre de 2010.

¹⁰⁴² "Instituyen comisión para investigar experimentos en Guatemala," *Diario de Centro América*, 5 de octubre de 2010.

¹⁰⁴³ Linda Green, *Fear as a Way of Life: Mayan Widows in Rural Guatemala*, New York: Columbia University Press, 1999.

people tell tales of experimentation, body snatching, and organ harvesting by gringo/as and foreigners.¹⁰⁴⁴ Some researchers have attributed these stories to the war. During the height of the scare about international adoption during the 1990s, when a criminal network emerged in the country to steal and traffic children, a community lynched one American woman taking photographs of children because they suspected her of kidnapping.¹⁰⁴⁵ My research shows that these stories have a much longer legacy in the country. Even in the 1940s, communities told stories about cannibals who ate children and tried to steal their blood. Dating at least to the time that the Rockefeller Foundation and United Fruit operated in the country in the beginning of the twentieth century, Guatemalans have been routinely subjected to experimentation. The stories speak of the frequency by which Guatemalans have been subjects of medical violence, and their keen understanding about the extractive nature of the international medical research community.

Still, another reason why there has not been as much mobilization around the experiments likely also stemmed from the way that the United States orchestrated the 2010 federal apology to Guatemala. In other apologies that have occurred in the United States for sterilization abuse and Tuskegee, Alabama, advocates pressed the government for years to apologize.¹⁰⁴⁶ This pressure on the U.S. government facilitated mobilization and organizing of advocacy groups. Since the U.S. government knew about the experiments in Guatemala well before their revelation to the public, they were able to better manage the dissemination of information.

Professor Susan M. Reverby, who made the discovery of the experiments in Guatemala during her research on the USPHS “Tuskegee” syphilis study at the University of Pittsburgh, first went to the Centers for Disease Control (CDC) with her findings. Following years of

¹⁰⁴⁴ Daniel Rothenberg, “The Panic of Robaniños: Gringo Organ Stealers, Narratives of Mistrust, and the Guatemalan Political Imagination,” (PhD Dissertation: University of Chicago, 2018).

¹⁰⁴⁵ Abigail E. Adams, “Gringas, Ghouls, and Guatemala: The 1994 Attacks on North American Women Accused of Body Organ Trafficking,” *Journal of Latin American Anthropology*, 4, no. 1 (June 2008): 112-133.

¹⁰⁴⁶ Phone interview with Paul Lombardo, July 16, 2018.

research on Tuskegee, Alabama, Reverby had developed a friendship with Dr. David Sencer, who was at the time the CDC director. Reverby believes that President Barack Obama's administration readily agreed to apologize for these experiments as a gift to Sencer who had endured controversies during his time as administrative head due to the backlash surrounding Tuskegee, Alabama and later the immunization program for the swine flu.¹⁰⁴⁷ To curb another controversy at the end of his tenure, Reverby believes that the U.S. government immediately moved forward with the apology. By issuing an apology that coincided with the revelation of the experiments, the U.S. government was also better able to control the message of what occurred during this research, as opposed to what happened with the USPHS "Tuskegee" study which was revealed through a newspaper article published by the Associated Press.

The Guatemalan government also sought to stem controversy about the experiments. Attention to the experiments focused more on domestic political and foreign policy concerns of the government rather than the needs of people who had been subjected to experimentation. In October 2011, the Guatemalan government published "Consentir al Daño," (Consent to Harm) based upon a search of archival documents in the country.¹⁰⁴⁸ In his 2014 article, (Pending Issue: Medical Experiments, Guatemala, 1946-1948," (Tema Pendiente: Experimentos Médicos, Guatemala 1946-1948) Garcia discussed the limitations of the Guatemalan and U.S. reports. For starters, he questioned the reason that the front of the Guatemalan report does not depict the venereal disease experiments in Guatemala but rather has a photograph of African Americans in the Terre Haute, Indiana experiments during World War II (in actuality, the photograph is of African Americans subjected to experimentation in Holmesburg Prison in Philadelphia).¹⁰⁴⁹

¹⁰⁴⁷ Interview with Susan M. Reverby, Cambridge, Massachusetts, August 3, 2016.

¹⁰⁴⁸ Informe de la Comisión Presidencial para el Esclarecimiento de los Experimentos Practicados con Humanos en Guatemala, "Consentir el Daño: Experimentos Médicos de Estados Unidos en Guatemala, 1946-1948," octubre de 2011.

¹⁰⁴⁹ Noval, Tema Pendiente: Experimentos Médicos, Guatemala 1946-1948," 19.

During an oral history interview, an anthropologist named Jorge Solares who worked on the Guatemalan medical commission that investigated the experiments and was also unsatisfied with the final report, claimed that the Guatemalan government used this photograph to appeal to Obama.¹⁰⁵⁰ He believed that through this picture, Guatemalan politicians sought to build diplomatic channels with the U.S. government rather than to engage with the Guatemalan survivors of the experiments. The photograph may also have been an effort to connect the Guatemalan experiments to the syphilis study in Tuskegee, Alabama. Moreover, the Guatemala report argued that the experiments represented a violation of national sovereignty; the government likely wanted to call attention to the U.S. role in these experiments and downplay Guatemalan government institutions and officials' complicity.

Noval highlighted other issues with both the U.S. and the Guatemala report. In order to grasp what occurred in Guatemala, Noval said it was necessary to also understand what occurred in the USPHS research in Tuskegee, Alabama and in Terre Haute, Indiana, when researchers also infected prisoners with gonorrhea during World War II.¹⁰⁵¹ Noval also took issue with the title of the Guatemala report, "Consentir al Daño" (Consent to Harm); he said that the title placed culpability on Guatemalans who allegedly consented to be experimented upon, rather than the government officials who used manipulation and power to coerce people into experimentation.¹⁰⁵² He also further hoped that the Guatemalan government and intellectual community would host interdisciplinary workshops in which experts would discuss the experiments and their implications. Yet, none of this has yet to come to fruition.

¹⁰⁵⁰ Interview with Jorge Solares, Guatemala City, November 12, 2015.

¹⁰⁵¹ Noval, *Tema Pendiente: Experimentos Médicos, Guatemala 1946-1948*, 19.

¹⁰⁵² *Ibid.*

As opposed to this absence of national discussion surrounding the experiments, several lawsuits have cropped up demanding reparations for the wrongs committed more than seventy years ago. Some Guatemalans have dismissed the lawsuits. For one, Solares called the lawsuits “negocios” (business), suggesting they were more about money than addressing the ethical concerns associated with these experiments.¹⁰⁵³ The lawsuits have highlighted issues with seeking justice for wrongs committed in countries against foreign and imperialist powers. They show Guatemalans’ limited power to hold foreign and national organizations accountable for wrongs committed in the past. In 2012, the first case filed against sitting U.S. government employees by U.S. and Guatemalan lawyers on the part of plaintiffs who claim to have been subjected to experimentation was dismissed by the United States District Court for the District of Columbia on the grounds of “sovereign immunity,” meaning that the United States government cannot be prosecuted for acts that it conducted in foreign countries.¹⁰⁵⁴ This law denies the United States’ deeply intimate involvement with Guatemalan affairs over the course of the twentieth century. Although the lawsuit was also dismissed on the grounds that it sought to hold current U.S. government administrators accountable for wrongs committed years ago, it further highlighted the limitations of international law. The federal judge who dismissed the lawsuit encouraged victims of the experiments to appeal to politicians for compensation, noting the problems they would have gaining reparations through the courts.

Since the dismissal of this lawsuit, two other lawsuits are underway. In one, lawyers representing 774 Guatemalans who comprise of survivors, spouses, children, and grandchildren of people subjected to experimentation, have a \$1 billion dollar lawsuit against Johns Hopkins

¹⁰⁵³ Interview with Jorge Solares, Guatemala City, November 12, 2015.

¹⁰⁵⁴ In *United States v. Spelar*, the U.S. Supreme Court ruled to protect the United States from claims that would render the United States subject to the laws of another country. Kelly McCracken, “Away from Justice and Fairness: The Foreign Country Exception to the Federal Torts Claims Act,” *Loyola of Los Angeles Law Review* 22, no. 603 (1989): 604.

University, the Rockefeller Foundation, and the pharmaceutical company Bristol-Myers Squibb Company, and demanded reparations.¹⁰⁵⁵ In the complaint, the lawyers charge that Johns Hopkins and Rockefeller as institutions and through their employees, “created and designed the Guatemala Experiments; approved and recommended them for funding; oversaw, monitored, encouraged, directed, and aided and abetted them while they were ongoing; and helped conceal their unethical, immoral, and tortious nature.”¹⁰⁵⁶ In regards to the pharmaceutical company, the complaint says that the organization used the experiments to further their research on penicillin and also “helped to conceal the unethical, immoral, and tortious nature of the Experiments.”¹⁰⁵⁷ As *Mining Bodies* has shown, although U.S. government organizations ultimately were responsible for these experiments, the medical network that enabled these experiments to occur involved both the private and the public sector. Johns Hopkins and the Rockefeller Foundation were certainly integral parts of the culture of medical research community that emerged during the mid-twentieth century and that enabled these experiments to occur. The question remains, however, of whether a legal path to justice can account for the systemic nature of the medical system in these lawsuits, or just focus on the specific organizations that conducted this research.

The other lawsuit, filed by the Human Rights Office of the Archdiocese of Guatemala (ODHAG), has charged the U.S. and Guatemalan government for human rights abuses conducted during the experiments.¹⁰⁵⁸ OHDHAG, which provides legal assistance and community support to victims of human rights violations, filed the lawsuit in the Inter-American

¹⁰⁵⁵ In the United States District Court for the District of Maryland, Estate of Arturo Giron Alvarez, et. al. v. The Johns Hopkins University, et. al. Jonathan Stempel, “Johns Hopkins, Bristol Myers must face \$1 billion syphilis infections suit,” *Reuters*, January 4, 2019. “Hopkins faces \$1 B lawsuit over role in government study that gave subjects STDs,” *Baltimore Sun*, April 1, 2015.

¹⁰⁵⁶ In the United States District Court for the District of Maryland, Estate of Arturo Giron Alvarez, et. al. v. The Johns Hopkins University, et. al.

¹⁰⁵⁷ Ibid.

¹⁰⁵⁸ Petition on Behalf of Oficina de Derechos Humanos del Arzobispado de Guatemala v. Guatemala and the United States of America.

Commission of Human Rights. The organization has focused the majority of its efforts on seeking justice for human rights violations committed during the war. Most significantly, in 1998 the ODHAG published the Recovery of Historical Memory (REMHI) Project which documented human rights abuses during the civil war and found the military responsible for the majority of violations. Immediately following the publishing of the report, Bishop Juan Gerardi, head of the REMHI project, was murdered by members of the military outside of his home. His efforts to highlight the abuses of what occurred during the war resulted in losing his life. Medicine and healthcare represents a new focus for the OHDAG and has been promising to many Guatemalans seeking to change the healthcare system in the country and address the wrongs committed in the past through medical violence.

Continued Public Health Crisis and Medical Experimentation in Guatemala

Yet, unfortunately, recent events in the country have exacerbated the healthcare crisis in the country. President Jimmy Morales, with the support of politicians and businessman who support the entrenched power inequality in the country, are forcing out the International Commission Against Impunity in Guatemala (CICIG), an anti-corruption agency overseen by the United Nations and supported by the United States. Formed in 2006, CICIG has sought to overturn the repressive state-security agencies formed during the war and to address deeply seeded corruption in the country. Lucrecia Hernández Mack, daughter of indigenous-rights activist and anthropologist Myrna Mack, who was killed by the Guatemalan military in 1990, headed Guatemala's Ministry of Health during the Morales administration. Through CICIG and the Attorney General's Office, Mack sought to remake the healthcare system and to combat the public health crisis in the country. "Corruption is what prevents the state from forming and

implementing public, social, and economic policies that can improve the conditions of the population,” she said.¹⁰⁵⁹ Yet, Mack’s efforts made her the target of a smear campaign; she eventually resigned. Hospitals and health clinics in Guatemala continue to be short on medications and supplies. Moreover, preventable diseases are spreading throughout the country.

The continued public health crisis in Guatemala has rendered the country a useful site for medical experimentation by pharmaceutical companies in the present day.¹⁰⁶⁰ Some Guatemalan medical doctors have formed Contract Research Organizations (CROs) to help set up and profit from clinical trials conducted by multinational corporations. These pharmaceutical companies protect themselves by saying that their clinical trials undergo institutional review boards organized by CROs in conjunction with local governments in these countries. Yet, in Guatemala, the same doctors who have written ethical guidelines for medical research in their countries run the CROs. Having a bioethics board and ethical guidelines is strategic to pharmaceutical companies’ business model. CROs also market the “treatment naïve” populations in poor countries in Guatemala and other Latin American and African countries as beneficial to pharmaceutical companies who do not want the results of their studies to be confounded by other drugs. In Guatemala, people are “treatment naïve” because they do not have access to healthcare.

Guatemala is certainly not the only poor country used by multinational corporations for clinical trials and experimentation. During the 1990s, the NIH and CRC encountered criticism from the medical community and activists for research it funded in Africa, Thailand, and the Dominican Republic on AZT drugs which were known at the time to reduce pregnant women’s transmission of the AIDS virus to their children.¹⁰⁶¹ In these studies, researchers gave some

¹⁰⁵⁹ Jonathan Blitzer, “The Trump Administration’s Self-Defeating Policy Toward the Guatemalan Elections,” *The New Yorker*, May 30, 2019.

¹⁰⁶⁰ Lydia Crafts, “Experimenting on Guatemala,” NACLA, August 2016.

¹⁰⁶¹ Sheryl Gay Stolberg, “U.S. AIDS Research Abroad Sets Off Outcry Over Ethics,” *New York Times*, September 18, 1997. Last retrieved June 14, 2019: <https://www.nytimes.com/1997/09/18/us/us-aids-research-abroad-sets-off-outcry-over-ethics.html>.

women different levels of the drug than understood to be “standard of care” in the United States, and provided others with a placebo. The trial was intended to help poor countries find affordable and effective methods of preventing the spread of HIV to babies; since AZT drugs were so expensive yet understood to be “standard of care” in the United States and Europe, researchers sought a less expensive way to treat women and their children. In an editorial in the prestigious *New England Journal of Medicine*, Dr. Marcia Angell, then editor of the journal, likened the AZT research to the Tuskegee, Alabama study and stated “there appears to be a general retreat from the clear principles enunciated in the Nuremberg Code and the Declaration of Helsinki as applied to research in the Third World.”¹⁰⁶² Like the syphilis study in Tuskegee, Alabama, and the malnutrition studies in Guatemala, researchers defended the study based upon the premise that these women not have been able to obtain access to this care.¹⁰⁶³ Again, the premise that the research was a “natural study” was used as an ethical justification for this study.

While this research became controversial, other studies funded by the NIH now are largely conducted in private and non-academic medical centers that remain unregulated by ethics review boards.¹⁰⁶⁴ As shown in Guatemala, CROs in poor Latin American and African countries arrange for clinical trials to place according to the ethical norms in their countries, which differ from standards in the United States and in Europe. Doctors in poor countries seek to augment their salaries by competing for contracts with pharmaceutical companies. As Melinda Cooper and Catherine Walby observe, medical practitioners in poor Latin American and African countries play a dual role of health provider and contractor for pharmaceutical companies.¹⁰⁶⁵

¹⁰⁶² Dr. Marcia Angell, “The Ethics of Clinical Research in the Third World,” *New England Journal of Medicine*, September 18, 1997.

¹⁰⁶³ Ibid.

¹⁰⁶⁴ Melinda Cooper and Catherine Walby, *Clinical Labor: Tissue Donors and Research Subjects in the Global Bioeconomy*, (Durham and London: Duke University Press, 2014): 149.

¹⁰⁶⁵ Ibid, 151.

Medical subjects for clinical trials also include undocumented immigrants because they do not need to show residential status. Although medical research is different today than it was in the 1940s, American and European healthcare systems take advantage of social and economic inequality in other countries and the world system in order to locate bodies for medical research. Researchers should follow the same ethical guidelines in their own countries as in impoverished regions and countries of the world. Moreover, the experiments in Guatemala also highlight that historical memory and understanding of wrongdoing in experiments continue to be defined by same institutions and historical actors who have been responsible for research. The grassroots concerns and ethical understandings of the people who have been subjects of public health programs and experiments continue to be silenced in discourse on international law and medical ethics.

As poor countries and people continue to be rendered sites of experimentation, the people who foreign researchers and multinational corporations use as resources for their clinical studies also continue to be construed as biological and national security threats. As the United States government turns a blind eye to medical research in Latin America and Africa on the poor, minority groups, undocumented immigrants within the United States, U.S. policymakers represent people from Central America as “thugs,” “animals,” and disease carriers. Policymakers often refer to an “invasion” on the U.S.-Mexico border, as if speaking of the United States at war with immigrants or in relationship to the containment of the spread of diseases. Most recently, President Donald Trump has sought to build a wall to keep people from Central America from crossing the U.S. border because he claims that they represent a key national security threat. Once in the United States, these people are also denied medical attention in detention facilities.

At least five Guatemalan children have recently died in detention centers.¹⁰⁶⁶ The lack of provision of medical attention indicates the extent to which members of the U.S. government and institutions have dehumanized people from this region of the world, while the healthcare system capitalizes upon their labor in clinical trials.

Indeed, one of the most disturbing continuities between the period of the 1940s and today is the views that U.S. policymakers, doctors, and administrators have of people in Central America. The racism that enabled doctors to conduct medical experimentation in Guatemala is also evident in U.S. immigration policies that endangers the wellbeing Guatemalans, Hondurans, and Salvadorans. People from this region of the world continue to be depicted in U.S. discourse and national policy as biological and national security threats. Yet, in contrast to the paternalism of the Cold War, now U.S. policymakers blatantly disregard efforts to improve the economic and social circumstances of Central Americans. Rather as people seeking to cross the U.S. national border, these men, women, and children are viewed both as resources and as existential threats to the U.S. nation. The United States has sought both to eliminate the danger posed by Central American bodies by keeping them outside of the country and by funding efforts in the Central American military and the police to increase surveillance of them. This view of these people as threats to the nation means that the U.S. and Central American governments do little to contain multinational organizations from capitalizing upon their bodies for medical research.

¹⁰⁶⁶ Nomaan Merchant, “5th Migrant Child Dies After Detention by U.S. Border Agents,” *Associated Press*, May 20, 2019; Last accessed June 14, 2019: <https://www.apnews.com/5a49d65213b54043825acc282830b139>. Miriam Jordan, “8-Year-Old Migrant Child From Guatemala Dies in U.S. Custody,” *New York Times*, December 25, 2018, Last retrieved June 14, 2019: <https://www.nytimes.com/2018/12/25/us/guatemalan-boy-dies-border-patrol.html>. “Autopsy for 7-Year-Old Migrant who Died in U.S. Custody Shows She Died of Sepsis,” *NPR*, March 30, 2019, Last retrieved June 14, 2019: <https://www.npr.org/2019/03/30/708388844/autopsy-for-7-year-old-migrant-who-died-in-u-s-custody-shows-she-died-of-sepsis>. David Taylor, “Why Did a Little Guatemalan Girl Die After Crossing the U.S. Border,” *The Guardian*, December 17, 2018, last retrieved June 14, 2019: <https://www.theguardian.com/us-news/2018/dec/17/guatemalan-girl-jakelin-caal-maquin-death-crossing-us-border>.

Conclusion

The experiments on STIs resulted from systemic factors present in U.S. and Guatemalan histories. They arose as a result of imperial circuits of public health and medicine that the United States established in Central America and the Caribbean during the twentieth century. In America's backyard, a region defined by its intimate connections with a decidedly more powerful United States, medical institutions and professionals from both countries created a research network. In turn, a culture of medicine arose through border-crossing individuals contact with each other and institutions such as Johns Hopkins University, USPHS, PASB, the Rockefeller Foundation, United Fruit Company, and also through connections with Central American and Caribbean individuals and institutions.

Across national borders and histories, paternalism and racism bonded U.S. and Guatemalan doctors. Doctors from both countries, based upon their white male identities and their professional accomplishments, viewed themselves as uniquely positioned to determine which Guatemalans should be subjected to experimentation and the research protocols they should follow in a laboratory setting. This attitude was also informed by norms in medical research in the United States during the mid-twentieth century, a period when institutional guidelines gave individual researchers considerable freedom over their work in the laboratory, except in the realm of research on sexuality and reproduction. Still, U.S. doctors believed that their work in Guatemala enabled them to escape from these restrictions they faced in their own country. U.S. doctors' identities as white male medical professionals in a country at the height of its world power, and Guatemalan doctors' views of themselves as Ladino leaders of a country embarking upon a revolution, formed their views of themselves as above the ethics and laws.

Through their fraternal bonding, they justified and intensified their violence towards Guatemalan men, women, and children.

The experiments also grew out of a long history of state repression in Guatemala that extended to the fields of medicine and public health. Although scholars, journalists, and activists have heralded the Guatemalan Spring as a break from violent state policies towards women, indigenous, and marginalized Guatemalans, the experiments reveal an intensification of state efforts to mold bodies that fit a Ladino and patriarchal notion of nationhood. Although efforts to grow the state during this period have been viewed as humanitarian, in practice they brought more encroachment into the lives of sex workers, indigenous Guatemalans, prisoners, psychiatric patients, soldiers, gay and lesbian Guatemalans, orphans, and schoolchildren.

Guatemalan revolutionary leaders' stories further highlight the challenges of forging a revolution in a geopolitical order marked by sharp inequality. This challenge has been faced not only by Guatemala but also by countries throughout Latin America during the twentieth century, including Chile, Mexico, Nicaragua, El Salvador, and Cuba. In doctors' efforts to create Guatemalan bodies anew and to forge national development within the context of economic dependency on the United States, they established a deal with U.S. doctors that ran directly counter to those ambitions. As a result of the experiments, more Guatemalans became infected with disease and distrustful of biomedicine. Indeed, Guatemalan doctors compromised their stated values to protect the health of the Guatemalan populace in their efforts to secure the technical knowledge and resources needed to achieve this goal. Although a political revolution, it remained limited in the changes that it brought to social conditions in the country. Perhaps had the revolution been able to develop without the 1954 intervention from the United States it would have brought about more grassroots change and gone further to upend the entrenched

ethnic and class inequality in the country. Nevertheless, as these experiments reveal, the power structure held by Ladinos was so strong that ethnic and gender inequality likely would have persisted in the country.

In these experiments, U.S. and Guatemalan doctors also created new identities for the Guatemalans they experimented upon as medical subjects. These men, women, and children do not fit into a neatly categorized group; they were indigenous, Ladino/a, Afro-Caribbean, institutionalized populations, women, men, children, gays, and lesbians. They were the populations that Guatemalan doctors connected to the revolution sought to discipline and reform through public health policies, but who they were also willing to sell as medical subjects to reap technological resources, financial gains, and career advancement from foreign doctors and institutions in their quest to realize their revolutionary mission. Both through discipline and the harvesting of bodies, Guatemalan doctors embarked upon the elimination of their diverse identities so that they could realize their Ladino vision of the nation.

U.S. doctors had much less investment in these individuals; they were accessible populations who they could use for research away from laws and ethics in the United States. U.S. doctors selected the groups in this research on the basis of their location in the Central American and Caribbean region, rather than through their understandings of their racial identities. Yet, in their writings, U.S. doctors described these Guatemalans as indigenous, due to their views of all people in the country, but also perhaps because of their efforts to defend the relevance of their conclusions. As opposed to Tuskegee, Alabama, where USPHS officers conducted experiments specifically to study the manifestation of disease in African Americans, doctors viewed results collected from indigenous bodies as easier to justify having universal application. While USPHS officials viewed race as completely determinative for African Americans, U.S. doctors could

more easily erase the identities of the indigenous people they experimented upon in Guatemala. These views fit into a long history of U.S. imperial policies in which one drop of black blood was viewed as tainting the white race, whereas indigenous blood was seen as capable of being erased and incorporated into white identity.

Still, although we have an understanding of U.S. doctors' views of this history, there is much we do not know about the experiments due to the inaccuracies of Cutler's record and from the silences of many people in Guatemala. These experiments highlight the challenges of writing histories of medical violence towards marginalized peoples living in poor countries around the world. With few archival resources available, we often rely upon the records of medical professionals; in this case scholars and journalists have based their accounts of this history mainly from John C. Cutler's medical notes. Yet, Cutler was often careless in keeping these records and on multiple occasions evaded giving a frank depiction of what he did in the country. He often did not record all of the names of the people he subjected to experimentation, and left some people out of his notes altogether. By relying upon the records of doctors such as Cutler, we reinforce their vision of themselves as arbiters of ethics, law, and history.

Researching the history of these experiments highlights that in order to avoid privileging the viewpoints of perpetrators of violence and colonial administrators, we need to take seriously the claims of Guatemalans subjected to experimentation, even when we find no evidence of their accounts in written records. Marta Lidia Orellana's story and name cannot be verified in Cutler's papers, but she provides a powerful testimony of the bodily harm experienced by Guatemalans who encountered doctors during the 1940s. Although no evidence indicates that doctors infected people in San José with STIs, the stories that Guatemalans tell each other medical brigades arriving in boats to conduct medical research indicate the horror

experienced by people who have encountered foreign doctors, and their enduring trauma. The silences also communicate peoples' experiences of medical violence. They indicate the deceit of doctors who did not inform people about their experimentation, and they also suggest Guatemalans' fear and hopelessness in pursuing justice against the U.S. and Guatemalan governments.

Indeed, the challenge of writing a history of medical violence that occurred more than seventy years in Guatemala reflects the process by which U.S. empire becomes erased from historical memory. By not publishing a paper and concealing his notes, Cutler helped to keep the experiments within a closed community of USPHS, PASB, and Guatemalan doctors and researchers. These researchers continued to tout their work and the United States' involvement in the world as humanitarian, while concealing what they knew would be controversial aspects of their research and public health initiatives. Nevertheless, the fact that Cutler preserved these records on Guatemala points to his desire to reveal the secret of what occurred. He apparently believed in the importance of his research in Guatemala, or may have also maintained a perverse pride in the power that he exerted over people in the country. In both hiding and preserving his medical notes, he kept tabs on what many would view as the official record of this history, even as people in Guatemala told each other stories about medical abuse.

The U.S. social science researchers working in Guatemala likewise knew of the experiments but did not speak of them publicly. U.S. anthropologist Dr. Richard Adams, one of the giants of Guatemalan scholarship who lived many years of his life in the country with his wife, Betty, who descended from German coffee planters, knew not just about the STI research but also the studies on river blindness and on malnutrition. In all of his writings on Guatemalan history, Adams never thought it important to write about the history of medical experimentation

and research in the country. Perhaps because Adams was part of the PASB research community and a close friend of INCAP Director Nevin Scrimshaw, he decided that writing about the topic would compromise his own status in the country. The medical research network extended not just to medical doctors but also to anthropologists and other social scientists. During my interview with Adams, he dismissed the STI experiments as an uninteresting area of research. “This is just what the United States does to small countries like Guatemala,” he said. Similar to how USPHS doctors in Tuskegee, Alabama failed to see wrongdoing because they viewed their research as a “study in nature,” Adams appeared to also view it natural that the United States would treat Guatemalans in this manner and that such experiments would occur in the Central American and Caribbean region.

Likewise, among members of the Guatemalan medical establishment, the experiments were known but never denounced publicly. Dr. Juan José Hurtado, a champion of the poor who was disappeared by General Rios Montt during the early 1980s for suspected subversive activity, knew about what had occurred with the STI research but never denounced these experiments in his publications. Although he called these experiments a “barbaridad,” Hurtado explained what occurred as just what the United States does to people and countries in its “backyard.” Like Adams, he viewed the experiments as the natural order of hemispheric politics between the United States and the Central American and Caribbean region. Hurtado’s response, which focused on wrongdoing by the United States, may also reflect a hesitation to criticize the Guatemalan Revolution, which continues to be heralded by the Guatemalan left. Many Guatemalan leftists may want to hide the fact that Guatemalan government leaders during this time period also aligned with U.S. imperial networks and continued with repressive policies towards the poor and marginalized in Guatemala. This position remains understandable given the

history of violence perpetrated by right wing governments during the nineteenth and twentieth centuries. Nevertheless, through Guatemalans' refusal to recognize the imprint of U.S. imperialism on the revolutionary period and how it limited aspirations for change, they also participate in the erasure of this power dynamic from historical memory.

Although the experiments remain hidden just like U.S. empire appears invisible to many in the United States, they were known to the Guatemalans who were the subjects of this research. Orellana did not understand exactly what the doctors she encountered had done to her body, but her experience of assault has remained palpable. Ramos also did not erase from his memory his encounter with medical doctors, as he struggled with his health and his ability to work to support his family. In indigenous communities and poor urban neighborhoods, tales of organ trafficking and body snatching speak of the horrors of medical violence in the country. Although not necessarily known as experiments, because the doctors never explained their research to the Guatemalans they infected with disease, the memory of these experiments and others remain in the country. By calling these stories rumors, we mitigate people's experiences and the real history they communicate with each other medical violence in Central American and Caribbean communities.

As the experiments remained hidden from white, middle and upper class Guatemalans and Americans not directly involved in the medical research community, U.S. empire remains invisible to many within U.S. society. Nevertheless, the effects that U.S. power has had on the Central American and Caribbean region are starkly apparent to people who have been the subjects of experimentation and other violent imperialist policies. Their stories are the ones that remain so difficult for historians to uncover, and that are readily dismissed by academic researchers and journalists seeking to verify their reports with written archival documents of the

past. Yet, the harm inflicted upon Guatemalan bodies and their memories of the violence provide testimony to the legacy of United States' power in this region of the world.

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