Where "Curiosity" and "Lawless Devices" Lead: United States Human Experimentation in Guatemala, 1946-1948

"It was to be decided, whether the result of my curiosity and lawless devices would cause the death of two of my fellow-beings."

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Introduction

On April 1, 2015, *The New York Times* announced that three law firms, on behalf of 774 plaintiffs, were suing three private institutions, John Hopkins University, the Rockefeller Foundation, and Bristol-Myers Squibb, for their involvement in the U.S.-led human experiments which took place from 1946 to 1948 in Guatemala.² The Guatemala experiments were authorized by the United States government to intentionally expose subjects to sexually transmitted diseases for the purposes of research. Paul Bekman, a lawyer on the case explained that the prosecutors are advocating for "accountability and responsibility" for these illegal and immoral experiments.³ Hopefully this lawsuit will bring justice to the victims and will allow this incident to claim space in the public discourse. As knowledge of the Guatemala experiments emerges and is integrated into the fabric of unethical human experimentations, this lawsuit has potential to greatly impact current understandings about unethical research. Human beings have been used as subjects in unacceptable and legally dubious experiments throughout the course of United States history. Intentions behind and reaction towards unethical human experiments serve to track the evolution of ethical standards of U.S. research teams and the American public.

The Guatemala experiments reveal how medical and ethical standards morphed into a new reality when U.S. scientists moved their research abroad. The Guatemala experiments are important to study because they elucidate how sound intentions can lead to terrible consequences when researchers are neither bound by defined ethical principles and protocols, nor monitored in

¹ Mary Shelley, Frankenstein (Oxford: Oxford University Press, 1998), 64.

² The Associated Press, "Maryland: Johns Hopkins Sued Over Disease Study," *The New York Times* (April 1, 2015), National Briefing.

³ Scott Dance, "Hopkins faces \$1B lawsuit over role in government study that gave subjects STDs," *The Baltimore Sun* (April 1, 2015); Ryan S. Perlin, "SCBMA Files Lawsuit for Victims of Human Syphilis Experiments in Guatemala," *Alsbury, Clements, Bekman, Marder & Adkins LLC* (April 1, 2015), accessed on April 20, 201http://www.mdinjurylawblog.com/2015/04/01/scbma-files-lawsuit-for-victims-of-human-syphilis-experiments-in-guatemala/.

how they abide by them. Additionally, the Guatemala studies demonstrate how, under extenuating conditions such as wartime, research can evolve in devastating ways when conducted on foreign, unregulated soil.

In 2003 Susan M. Reverby was sifting through the Tuskegee Syphilis Study archives at the University of Pittsburgh when she uncovered mysterious documents. The language of these documents struck Reverby, an expert on the Tuskegee Syphilis Experiments, since they were saturated with words such as "inoculation." A number of her academic papers were devoted to demystifying the popular notion that Tuskegee subjects were deliberately infected with syphilis. The letters she unearthed in 2003 challenged her scholarly work. After her shock subsided, Reverby pieced together this mysterious material. The intentional inoculations did not in fact occur in Tuskegee, Alabama, but rather in Guatemala from 1946 to 1948. In 2010, the newly discovered box of archives traveled to the Center for Disease Control and then to the federal government. The detection of the methods by which federal scientists conducted research abroad during the Guatemala experiments opened a new chapter in the history of the United States' conduct of unethical human experimentation.

The Guatemala experiments transpired in a time of unchecked medical research.

Scientific curiosity during the twentieth century was the driving force behind the Guatemala experiments. In 1941, President Franklin Delano Roosevelt established the Office of Scientific Research and Development (OSRD), which housed the Committee on Medical Research (CMR). The main goal of the CMR was to improve medical conditions for the armed forces. During World War II, soldiers suffered from sexually transmitted diseases. The soldiers used primitive

Guatemala from 1946-1948" (September, 2011), 12.

⁴ Susan M. Reverby, "History of the Health Sciences Lecture Series," *University of Virginia School of Medicine* (September 12, 2012), accessed on April 15, 2015, https://www.youtube.com/watch?v=X_kCaLSQn-A.
⁵ Presidential Commission for the Study of Bioethical Issues (PCSBI), ""Ethically Impossible" STD Research in

preventative measures based on minimal scientific research, such as prophylaxis kits made of calomel-sulpha-thiazole, against gonorrhea and syphilis. Doctors hoped to either discover a less painful treatment or prove that penicillin could help prevent the disease right after exposure.⁶

By 1943, Dr. John F. Mahoney, director of the Venereal Disease Research Laboratory (VDRL), and Dr. Richard C. Arnold, senior surgeon of U.S. Public Health Services (USPHS) and director of syphilis research at VDRL, had discovered that penicillin rapidly cured syphilis. Despite their knowledge of this effective treatment, Mahoney and Arnold approved of the PHS's request to send John Cutler, senior surgeon at USPHS, to Guatemala as the Director of the STD research. Additionally, Dr. Moore, an advisor to the Surgeon General of the U.S. army and chair of the National Research Council, sanctioned the Guatemala study because he felt a need to further prophylaxis study. The PHS supported the study because they wanted to find a post-exposure prophylaxis, called orvus-mapharsen, for syphilis. The prophylaxis would serve as a preventative measure against the disease and the soldiers would be able to apply the prophylaxis right on to their penises immediately after potential exposure. Doctors Arnold and Mahoney knew that the orvus-mapharsen prophylaxis treated rabbits but they needed to test the prophylaxis on a controlled group of humans before they could distribute the drugs to the armed forces. The researchers turned to Guatemala for a pool of human subjects.

⁶ Susan M. Reverby, "Normal Exposure' and Inoculation Syphilis: A PHS "Tuskegee" Doctor in Guatemala, 1946-1948," *Journal of Policy History* (2011), 12.

⁷ Katye Spector-Bagdady and Paul A. Lombardo, ""Something of an Adventure": Postwar NIH Research Ethos and the Guatemala STD Experiments," *The Journal of Law, Medicine & Ethics* Vol. 41 No. 3 (2013), 702. It is interesting to note that people were concerned that penicillin would lead to an increase in sexually promiscuity. John Parascandola, *Sex, Sin, and Science: A History of Syphilis in America* (Connecticut: Praeger Publishers, 2008), 130. Despite the social pressures surrounding the use of penicillin, Cutler still worked to develop an even more intensive treatment.

⁸ Reverby, "Normal Exposure," 9.

⁹PCSBI, 13.

¹⁰ Spector-Bagdady and Lombardo, "Something of an Adventure," 702.

¹¹ Reverby, "Normal Exposure," 10.

¹² PCSBI, 52; Spector-Bagdady and Lombardo, "Something of an Adventure," 702.

The desire to protect U.S. soldiers was the main motivation behind the atrocious acts of the Guatemala experiments. World War II was over and soldiers were coming home, but the medical community wanted to make sure that it would be prepared to provide the most up-to-date treatment for sexually transmitted diseases for American citizens. ¹³ Dr. John C. Cutler, arrived in Guatemala in August 1946. By the time he left Guatemala in December of 1948, a total of 1,308 people that included commercial sex workers, Guatemalan soldiers, prisoners, and psychiatric patients, had been exposed to syphilis, gonorrhea, or chancroid in an effort to develop a prophylaxis. ¹⁴

The initial mode of infection was to find sex workers with sexually transmitted diseases, or more commonly to give a sex worker a sexually transmitted disease, and then, using United States tax dollars, pay for the individual to have unprotected sex with a prisoner.¹⁵ Once Cutler realized that there was a low rate of transmission from the sex workers to the prisoners, the researchers decided to apply the bacteria to the prisoner's penises, faces or arms in an effort to increase the rate of infection.¹⁶ In the psychiatric hospitals, Cutler also injected serums directly in the CNS and applied gonorrheal pus to their urethras, rectums, and eyes.¹⁷ Of the 1,308 people exposed to a sexually transmitted disease, approximately 678 were treated.¹⁸

One of the most widely cited cases of Cutler's disturbing experiments is the story of Berta, a patient at the psychiatric hospital who was injected with syphilis, developed scabies, and was left untreated for three months. About six months after the initial syphilis injection Cutler noted that Berta looked as if she was going to die. On the same day as that recording, Cutler gave

¹³ Susan B. Reverby, "Ethical Failures and History Lessons: The U.S. Public Health Service Research Studies in Tuskegee and Guatemala," *Public Health Reviews* Vol. 34 No. 1 (2012), 8. ¹⁴PCSBI, 118.

¹⁵ PCSBL 6

¹⁶ Donald McNeil, "U.S. Apologizes for Syphilis Tests in Guatemala," The New York Times (October 1, 2010), 1.

¹⁷ Spector-Bagdady and Lombardo. "Something of an Adventure," 705.

¹⁸ PCSBI, 6.

her another injection of syphilis and poured gonorrheal pus from a male subject into Berta's eyes, urethra, and rectum. Berta died several days later. 19 Berta is an example of how human bodies were used as sites for dangerous research with no repercussions.

A wide variety of people were involved in diagnostic testing to various degrees: orphans, "Indian" and "Ladino" school children, persons with leprosy, and U.S. servicemen in Guatemala.²⁰ The researchers never infected these populations with a sexually transmitted disease, though. Rather, this population of subjects often served as a database for the researchers to compare false positive blood tests.²¹ False positives are test results that are incorrect due to the fact that they suggest a condition that is not actually present. The fact that Cutler never intentionally exposed Guatemalan orphans to a sexually transmitted disease stands in contrast to experiments conducted within the United States, such as the Willowbrook experiment of 1955.²² One possible explanation of why Guatemalan orphans were excluded from this experiment may be that exposing orphans to a sexually transmitted disease would not have benefited Cutler's experiments.

The Guatemala experiments ended for various reasons. By 1947, the United States was less interested in procuring a prophylaxis.²³ Additionally, researchers were concerned about the reputation of the experiments. In 1948, Cutler was told to depart from Guatemala and to leave

¹⁹ PCBSI, 52.

²⁰ PCSBI, 118.

²¹ Reverby, "Normal Exposure," 13.

²² The Willowbrook experiment started in 1955 and lasted approximately 15 years. Dr. Saul Krugman led the experiments, which took place in an institution that housed children with mental disabilities. The researchers infected the children with Hepatitis and justified their work by stating the children were bound to contract Hepatitis within a year at Willowbrook. In the consent form presented to the parents, the investigators did not state any potential negative consequences; they only said that the study could theoretically help the children. David Rothman. "Were Tuskegee & Willowbrook 'Studies in Nature," The Hastings Center Report Vol. 12 No. 2 (April 1982), 5-7: NIH Science Education, "Willowbrook Hepatitis Experiment," accessed on April 20, 2015, https://science.education.nih.gov/supplements/nih9/bioethics/guide/pdf/Master_5-4.pdf. It is important to note that newer sources are stating that children were intentionally infected. "Date Stamped Complaint," Alsbury, Clements, Bekman, Marder & Adkins LLC (April 1, 2015).

²³ Reverby, "Normal Exposure," 18.

behind the laboratory equipment that he established in Guatemala.²⁴ The U.S. government only publically apologized for the experiment in 2010 when President Obama called President Alvaro Colom of Guatemala.²⁵

While aspects of the Guatemala experiments are distinctive, U.S. history is haunted by unethical human experimentations. David Rothman argues that World War II served as a transitional moment in the nature of unethical human experiments in two major ways. First, prior to World War II, human experimentations were small-scale, privately run operations. As a result of the war, these studies turned into large-scale federally funded endeavors. Secondly, scientists felt such immense pressure to churn out research in order to contribute to the war effort that they often neglected to obtain consent from their subjects. As a result, post-war research often involved vulnerable populations, deception, and sexually transmitted diseases. ²⁶ The chaos and loss of the war shielded these experiments from the public sphere. In fact, The Committee on Medical Research developed a reputation as a research group that enhanced humanity. ²⁷ Additionally, the CMR contributed to the distribution of penicillin, the "miracle drug," thereby equating researchers with "miracle makers."

The CMR prioritized their research based on how prevalent the medical condition was in the army. Dysentery was one of the main infections the soldiers suffered from in the field. In order to mimic the unsanitary conditions that the soldiers experienced abroad, researches traveled to filthy orphanages and mental institutions. In 1943, at the Soldiers and Sailors

²⁴ Reverby, "Normal Exposure," 20. After Cutler left in December 1948, several researchers remained in Guatemala and continued Cutler's work. The PHS also encouraged two Guatemalan doctors, Dr. Funes and Dr. Salvado to continue the research that the PHS had started once Americans trickled out of Guatemala. The work continued until 1955. PCSBI, 81-83.

²⁵ PCBSI, 2.

²⁶ Reverby, "History of the Health Sciences Lecture Series."

²⁷ David J. Rothman, Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making (New York: Basic Books, 1991), 30-31.

²⁸ Rothman, Strangers at the Bedside, 40.

Orphanage in Ohio, the CMR team injected different strains of bacterial suspensions into boys and girls in an effort to develop an effective vaccine. The researchers continued to manipulate the vaccines despite the severe reactions that the children experienced. The team never produced an effective vaccine. There is no evidence that the families of the children consented to this experiment.²⁹ Rather than advocating for the need to sanitize the orphanage, the CMR benefited from the unsanitary conditions since they simulated war conditions. This experiment demonstrates how the CMR abused vulnerable institutionalized Americans for the sake of the war effort. For the purpose of this thesis, this experiment demonstrates how the Guatemala experiment was situated in a time of unethical human experimentations.

Malaria also posed as a serious threat to U.S. soldiers. Scientists were stumped because malaria is not a common disease in America and thus there was no preexisting population of people with the disease to study. Therefore, the research team went to the Manteno State Hospital, in Illinois, where they infected persons with mental disabilities using blood transfusions. The same group also worked with prisoners and vindicated their work with the argument that the prisoners were contributing to the war effort.³⁰ The defense of the Guatemala experiments would later stand in contrast to the justifications for the experiments that occurred in the United States since the researchers could not argue that the Guatemalan subjects were contributing to the home front. Additionally, this experiment also provides insight into the broader context of human experimentation during World War II.

Perhaps the most famous unethical human experiment in U.S. history is the Tuskegee Syphilis Experiment, which occurred from 1932 to 1972 in Macon County, Alabama. In the 1930s, medical researchers were curious to see how late stages of the disease manifested. They

²⁹ Rothman, *Strangers at the Bedside*, 33-34. Rothman, *Strangers at the Bedside*, 36-37.

also wanted to study if there were differences in how syphilis presented in different races.³¹ In the name of medical progress, around 400 black men with syphilis were subjected to the scientific curiosity of medical researchers who decided to test their hypotheses by leaving their subjects untreated.³² The participants were told that they were receiving free treatment for their syphilis when, in reality, the researchers had no intention to provide treatment for the men. The PHS did not inform the men that they were participants in a research study.³³ They even tried to protect the subjects from the army draft since the researchers knew that their subjects would receive treatment if they were in the U.S. military.³⁴ The research team referred to their experiment as a "study in nature" as they figured that their population of subjects was unlikely to receive treatment anyway and therefore felt that the research did not hinder potential treatment opportunities.³⁵

The Tuskegee Syphilis Experiments left an indelible mark on United States history. The study has come to represent the perils of racism and the harmful potential of medical research.³⁶ Not only did the medical team deny medical treatment to their research participants and their families, but they also had access to sophisticated medical knowledge of syphilis at the time of the experiment. From 1925-1927, E. Bruusgaard conducted an experiment about untreated syphilis that showed that it was dangerous to leave syphilis untouched. Scientific textbooks instructed that latent phases of syphilis should be treated. Doctors justified their work because

³¹ Reverby, "Ethical Failures and History Lessons," 4.

³² Over the course of the study, a lot of the men left the southern fields and migrated to urban cities and the PHS lost track of some of their records. Some of these men procured treatment through various means so the PHS researchers were forced that to categorize the study as "undertreated" instead of "untreated." Reverby, "Ethical Failures and History Lessons," 6.

³³ Allan M, Brandt, "Racism and Research: The Case of the Tuskegee Syphilis Study," *The Hastings Center Report* (1978), 23-24.

³⁴ Reverby, "Ethical Failures and History Lessons," 5.

³⁵ Brandt, "Racism and Research," 22.

³⁶ Susan M. Reverby, "The Art of Medicine: Listening to Narratives from the Tuskegee Syphilis Study," *The Lancet* Vol. 377 (May 14, 2011), 1646.

they said that black people were more likely to contract a venereal disease since they were "barbaric" and from "unstable families" who were immoral and lustful.³⁷ Ultimately, the scientific results gleaned from the study were useless; however by the time the study ended, it brought ethical questions to the forefront.³⁸

The experiments at the Soldiers and Sailors Orphanage, Manteno State Hospital, and Tuskegee contextualize the reality of unethical human experimentation in twentieth century America and serve as a source of comparison for the Guatemala experiments. In order to further understand the Guatemala experiments, it is important to understand the pathology of sexually transmitted diseases. The information cited in this chapter regarding the pathology of syphilis, gonorrhea, and cancroid is gleaned from contemporary sources. While the Guatemala research team did not know as much about these diseases, they did know a sufficient amount. There is a value in applying current knowledge of the diseases when studying the Guatemala experiments in order to fully grasp the severity of the situation.

Otherwise known as "the great imitator," syphilis has several symptoms that often manifest similarly in other diseases. Syphilis is transmitted through vaginal, anal, or oral sex. There are four stages of syphilis: primary, secondary, latent, and late syphilis. The primary stage results in a painless sore at the site of the infection that self heals. Rashes emerge in the secondary stage. The secondary stage can also result in fever, hair loss, fatigue, muscle aches, headaches, and weight loss. Just like in the primary stage, the body naturally heals from the secondary stage. If treatment is denied, syphilis proceeds to latent and late stages. According to the CDC, there is a small chance of moving to these stages even if syphilis is left untreated.³⁹

These final stages of syphilis occur in ten to thirty years after the initial date of infection and may

³⁷ Brandt, "Racism and Research," 22-23.

³⁸ Reverby, "Ethical Failures and History Lessons," 6.

³⁹ It would be interesting to learn whether or not the CDC learned this fact from the Tuskegee experiments.

result in muscle deterioration, paralysis, numbness, blindness, dementia, and even death. People are most infectious in the early stages of the disease. Lastly, whenever drugs are given in the course of syphilis, drugs cannot repair damage that occurs from the disease's prior stages.⁴⁰

Gonorrhea leads to infections in the genitals, rectum, and throat. Early symptoms in men and women are rare. Men may experience a burning sensation during urination, green or yellow discharge, or swollen testicles. Women may experience a burning sensation during urination, increased vaginal discharge, or vaginal bleeding in between mensuration. If left untreated, gonorrhea can lead to pelvic inflammatory disease, ectopic pregnancy, infertility, and long-term abdominal pain. If left untreated in men, gonorrhea can cause pain in the tubes attached to the testicles.⁴¹

Chancroid is a bacterial infection that results in sores or bumps in the genitals. Often times the sores fill with pus and burst into the surrounding area. When left untreated the chanchroid bacteria can infect the lymph glands in the groin. Untreated chanchroid can also result in ulcers. Like syphilis and gonorrhea, chancroid is treatable with antibiotics.⁴²

In addition to understanding the pathology of syphilis, gonorrhea, and chancroid, there is a value in studying the social and cultural perception of these diseases during the twentieth century. The propensity to equate the supposed sinful tendencies of women and African Americans with the spread of sexually transmitted diseases reflects the stereotypes associated with these diseases. Even the language used to refer to syphilis echoes the social and cultural implications of the disease. In the 1940s, sexually transmitted diseases were categorized as

⁴⁰ Center for Disease Control and Prevention, "Syphilis - CDC Fact Sheet," (January 29, 2014), accessed on April 15, 2015, http://www.cdc.gov/std/syphilis/stdfact-syphilis.htm.; Ashish Sukthankar, "Syphilis," *Medicine* Vol. 42 (July 2014), 394-398.

⁽July 2014), 394-398.

1 Center for Disease Control and Prevention, "Gonorrhea - CDC Fact Sheet," (January 29, 2014), accessed on April 15, 2015, http://www.cdc.gov/std/gonorrhea/stdfact-gonorrhea.htm.

⁴² New York State Department of Health, "Chancroid," (Revised June 2004), accessed on April 15, 2015, https://www.health.ny.gov/diseases/communicable/chancroid/fact sheet.htm.

venereal diseases. Venereal stems from the Latin name Venus, who was the goddess of love. Since the disease is transmitted though sex, religious and moral opinions factored into the perceptions of disease. For example, during the Guatemala experiments, Cutler refers to "clean prostitutes" and "normal females." While the word "clean" denotes the sex worker's STD status, the label is associated with purity and therefore with judgmental notions of sexuality. The term "normal" signifies women who are not sex workers and therefore infers that sex workers are not normal women. The fact that syphilis is stigmatized because the disease is associated with sex demonstrates how social and religious influences impact views of disease just as much as the medical pathology of the disease does.

The medical community was not the only population fixated on sexually transmitted diseases. Social hygienists picked up momentum in the late nineteenth century and championed the belief that the public should be aware of the perils of venereal diseases. ⁴⁶ Once the group proved that American soldiers were affected by sexually transmitted diseases, they gained federal support. The formation of the Division of Venereal Diseases in the United States Public Health Service in 1918 provided substantial funds and power for the social hygienists. ⁴⁷ By the mid-twentieth century, syphilis was a feared disease. The PHS focused their energies towards a national crusade against syphilis, otherwise known as "the great killer." During World War II, the army built a campaign using fear tactics to urge the soldiers not to consort with prostitutes in order to avoid venereal diseases. ⁴⁹ The PHS even made a film titled *Know for Sure*, which

⁴³ John Parascandola, Sex, Sin, and Science: A History of Syphilis in America (Connecticut: Praeger Publishers, 2008), Introduction.

⁴⁴ John Cutler to J.F. Mahoney, (1947, September 18), Correspondence, CDC Record Group 442, Hollinger Box 1a; John Cutler to R.C. Arnolds, (1947, September 16), Correspondence, CDC 442.

⁴⁵ Parascandola, Sex, Sin, and Science, Introduction.

⁴⁶ James Jones, *Bad Blood: The Tuskegee Syphilis Experiment* (New York: the Free Press, 1993), 47.

⁴⁷ Jones, *Bad Blood*, 49.

⁴⁸ Jones, Bad Blood, 171.

⁴⁹ Parascandola, Sex, Sin, and Science, 103.

promoted the benefits of prophylaxis.⁵⁰ The formation of social groups, campaigns, and movies demonstrates how syphilis was a social construct just as much as it was a medical one.⁵¹

The subsequent chapters of this thesis will address the why, what, and how questions of the Guatemala experiments. Chapter one addresses the reasons why the researchers chose to conduct their investigation in Guatemala. Reasons include the Guatemalan government's compliance, the researchers' inherent racism, Guatemala's laws regarding sex workers, and the United States' preexisting relationship with Guatemala. Chapter two outlines how this experiment differed from other human experimentations in the twentieth century, mainly Tuskegee, in order to demonstrate how the location of the study impacted the nature of the study. The two major points of comparison are that in Guatemala the subjects were intentionally exposed to sexually transmitted diseases and that sex workers were used as a mode of transmission. Through these examples the chapter argues that Guatemala served as an erratic research environment. Chapter three investigates how the researchers justified their work to themselves. In order to try to understand, but not support, what their rationalization was for their atrocious experiments it is imperative to take their scientific pursuits seriously without immediately dismissing them as monstrous. The conclusion tackles the public and governmental response to the study and the importance of studying this moment in history.

A significant amount of the primary sources that are used are derived from John Cutler's database. Therefore, it is necessary to remember the inherent biases contained within the evidence. Additionally there are no primary sources from the Guatemalan government or

⁵⁰ Parascandola, Sex, Sin, and Science, 110; The Research Council of the Academy of Motion Picture Arts and Sciences, For the United States Public Health Services, "Know for Sure," (1941), accessed on April 15, 2015, https://www.youtube.com/watch?v=7EzBBM47fUI.

⁵¹ Parascandola, Sex, Sin, and Science, 154.

research participants included in this paper. Therefore the motivation for their participation in these studies and the level of consent is absent from this thesis.

The majority of the secondary literature used in this thesis is from the Presidential Commission for the Study of Bioethical Issues, ""Ethically Impossible" STD Research in Guatemala from 1946 to 1948," and from Susan Reverby's scholarly work. "Ethically Impossible," was commissioned by President Obama in order to establish the facts of the experiment.⁵² In Reverby's "Ethical Failures and History Lessons," she argues that it is crucial to understand the differences between the Tuskegee and Guatemala studies, to recognize the importance of historical lessons while also realizing that unethical experimentations occur today, and that it is critical to understand why these studies happened.⁵³ In "Enemy of the People/Enemy of the State," Reverby explores the stories of two doctors, John Cutler and Alan Berkman and argues for the importance of factual, honest, and moral judgments in order to understand why certain events occurs.⁵⁴ In "Normal Exposure," Reverby reviews the facts of the experiment and argues that in order to critically judge the United States' current day research policies abroad, historians must tell accurate accounts of these experiments.⁵⁵ Since the study was only publicly announced in 2010 the secondary sources are sparse for this historical moment.

While there is a limited amount of scholarship that is directly related to the Guatemala experiments, there is a vast amount of literature related to the history and ethics of human experimentation. David Rothman's book, Strangers at the Bedside, focuses on the evolution of human experimentation and the progression of the doctor patient relationship. Rothman argues

⁵² PCSBI, 1-208.

55 Reverby, "Normal Exposure," 6-28.

Reverby, "Ethical Failures and History Lessons," 1-18.
 Reverby, "Enemy of the People/Enemy of the State: Two Great(ly Infamous) Doctors, Passions, and the Judgement of History," The Fielding H. Garrison Lecture (Fall, 2014), 1-50.

that structural changes in the medical field led to a distance between doctors and patients and in turn this separation led to distrust. Strangers at the Bedside is cited in this thesis in the context of the history of human experimentation. 56 Additionally, Rothman's article "The Shame of Medical Research," discusses the prevalence of murky research experiments conducted abroad and argues that consent is difficult to achieve. 57 In his book, Bad Blood, James Jones writes a detailed description of the Tuskegee syphilis experiments. Jones argues that Tuskegee was a result of morally misguided people and racist tendencies.⁵⁸ In Sex Sin and Science, John Parascandola argues that social and cultural values shape medical perceptions of syphilis.⁵⁹ Rothman, Jones, and Parascandola's, analysis allows for a thorough understanding of the scientific pulse surrounding the Guatemala experiments. Through the examination of specific experiments and diseases these authors provide analytical lenses to approach the Guatemala studies.

56 Rothman, Strangers at the Bedside.

⁵⁷ David Rothman, "The Shame of Medical Research," The New York Review of Books (November 30, 2000).

⁵⁸ Jones, Bad Blood.

⁵⁹ Parascandola, Sex, Sin, and Science.

Chapter One

"We Couldn't do such an Experiment in this Country:" The Decision to Research in Guatemala

The location of the Guatemala experiments influenced the nature of the study. Unlike the Soldiers and Sailors Orphanage, Manteno State Hospital, and Tuskegee, the Guatemala experiments occurred on foreign soil. While researchers conducted immoral and illegal experiments in all of these studies, the Guatemala experiments developed in a uniquely sinister manner. Guatemala is many miles away from the United States and scientists felt entitled to design and implement a large-scale research project that impacted non-U.S. citizens. In order to contextualize the gruesome realities of the study, it is important to understand why this horrific study took place in Guatemala. The researchers' desire to further medical knowledge, the Guatemalan government's compliance, the researchers' inherent racism, and Guatemala's laws regarding sex workers, compounded by the United States' complicated relationship with Guatemala during the twentieth century all conspired to allow researchers to execute their sense of superiority over a less powerful country.

The desire to further medical knowledge and the quest for prophylaxis was the impetus for the study. Throughout the Guatemala experiments, researchers prioritized the advancement of science over the health of their subjects. In a letter to Cutler in 1948, Mahoney wrote, "I hope you will feel perfectly free to use any material which has accumulated in the course of the study which you are convinced is the most profitable for the work and for science as a whole." Mahoney gave Cutler the authority to allocate his resources in a manner that would benefit his

⁶⁰ Dr. Parran quoted in: Mike Stobbe, Surgeon General's Warning: How Politics Crippled the Nation's Doctor (University of California Press: Oakland, 2014), 76.

⁶¹ J. F. Mahoney to John Cutler, (1948, Feb 2), Correspondence, CDC 442.

study and science. The research team was granted the right by their superiors to secure the Guatemala study as a unique opportunity for the American scientific community.

The researchers' commitment to furthering medical knowledge is demonstrated in a correspondence between Drs. Arnold and Cutler in defense of their research. In a letter to Dr. Arnold, Dr. Cutler writes about the "opportunity offered here to study syphilis from the standpoint of pure science just as Chesney studied it in the rabbit." With this letter, Cutler equated human experimentation with scientific research in rabbits. "Pure science" was the end goal for the researchers. The quality of life of the subjects of their research was irrelevant as long as these subjects served as mediums for medical advances. For Cutler, the experiments represented a chance for American scientists to exercise authority over a foreign country for the benefit of medical knowledge for Americans.

While medical aspirations propelled the nature of the Guatemala experiments, the site location was not a coincidence. The researchers sought a country where they could conduct their experiments on humans instead of on rabbits and they pursued a government that would cooperate with that plan. The Guatemalan government agreed to the experiment for various reasons, such as for medical benefits they would receive in return. Guatemalan officials wanted Dr. Cutler to treat the Guatemalan soldiers in the army barracks, to evaluate the prevalence of disease in the lowlands, and to distribute medication as a reward for Guatemalans who participated in studies. Ultimately, Cutler's demands for large shipments of penicillin became a

⁶² John Cutler to R.C. Arnolds, (1947, September 16), Correspondence, CDC 442.

⁶³ It is interesting to note that Cutler wanted to extend his research to Mexico, Central America, and Panama but Dr. Mahoney denied his request due to limited funds and because he wanted Cutler to focus on Guatemala. Hugh S. Cumming to John Cutler, (1946, Dec. 12), Correspondence, CDC 442; J. F. Mahoney to Van Herpe, (1947, December 2), Correspondence, CDC 442.

⁶⁴ Again, it is important to remember that the knowledge of the Guatemalan government's intentions are derived from U.S. archives.

monetary burden and caused the PHS to closely monitor the progress of the research.⁶⁵

American researchers understood the power that they had over the Guatemalan government since they knew that their host country was benefiting from their research.

While there was an inherent imbalance of power between the U.S. researchers and the Guatemalan government, the Guatemalan government did, on some level, approve of the initial research plan. In fact, the Guatemalan government even respected Dr. Cutler. In 1947, the Guatemalan Public Health Service requested that Cutler serve on their committee for the Second Central Venerological Congress and the Guatemalan government even supported the serologic testing of orphans from 1947 to 1949.⁶⁶ Dr. Cutler advocated for the research on orphans by explaining that children could serve as a standard sample for false positive test results. False positive test results had been a major setback in Cutler's research at the prison. Children were a useful sample population for Cutler since most of them had not been sexually active and he would be able to differentiate between congenital versus sexually transmitted syphilis.⁶⁷ The Guatemalan government granted Cutler access to orphans, an extremely vulnerable population, because according to Cutler, the government wanted to provide hospitable research conditions. While U.S. doctors wielded disproportionate influence over the Guatemalan government, the Guatemalan government had agency and was complicit in this plan on some level.⁶⁸ The fact that the Guatemalan government exposed their orphans to Cutler demonstrates their involvement.

Dr. Cutler was very conscious to nurture a positive relationship with Guatemalan health officials.⁶⁹ Several of Cutler's letters to the United States concern supply requests in order to

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⁶⁵ Reverby, "Normal Exposure," 17.

⁶⁶ John Cutler to J.F. Mahoney, (1947, January 7), Correspondence, CDC 442.

⁶⁷PCSBI, 40.

⁶⁸ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

⁶⁹ This chapter does not address the relationship that the PHS had with Dr. Juan Funes, a Guatemalan physician who had researched with Drs. Cutler, Mahoney, and Arnold in Staten Island. Dr. Funes aided in the conception of the Guatemala research plan. PCSBI, 28.

"build good will."⁷⁰ The researchers also trained Guatemalans laboratory personnel.⁷¹ Cutler even decided to build treatment facilities in order to please the Guatemalan government.⁷² Based on the tone of Cutler's letters, his motivation to train health officials and to ship medication to Guatemala stems from his desire to maintain a peaceful relationship so that he could continue his research, not so that he could improve global health.

The researchers understood that they depended on the Guatemalan government's compliance. In a letter to Dr. Mahoney, Dr. Cutler wrote, "I hope that it will be possible for you to obtain the amino acids, as it will help in cementing our relations with those with whom we shall work here." The researchers knew that they needed to continuously appease the Guatemalan government in order to continue their research abroad. It is important to note that there is no concrete evidence about how far up the chain of command these decisions went in the Guatemalan government, so the precise level of cooperation with the American researchers remains murky. The searchers are the cooperation with the American researchers remains murky.

In addition to the Guatemalan government's compliance with the project and the researcher's ability to manipulate a weak medical infrastructure, the U.S. research team traveled to Guatemala in order to work with a non-white population. Many of the people who the researchers infected in Guatemala were Mayan or from other native ancestries. The researchers treated their patients as "others." Racist ideologies of the time were a reality of the experiment. There was an underlying assumption that Guatemalan blood was inherently different from

⁷⁰ John Cutler to J.F. Mahoney, (1946, November 30), Correspondence, CDC 442.

⁷¹ PCBSL 35

⁷² John Cutler to J.F. Mahoney, (1946, October 17), Correspondence, CDC 442.

⁷³ John Cutler to J.F. Mahoney, (1946, 5 Feb), Correspondence, CDC 442.

⁷⁴ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

⁷⁵ Reverby, "Ethical Failures and History Lessons," 9. 3.

American blood. The researchers even collected blood from U.S. Air Force personnel based in Guatemala as a standard control sample to compare against Guatemalan blood.⁷⁶

The notion that a person's race influenced their medical reaction to syphilis was a common misconception. The notion of propagated scientifically false information about medical conditions in order to bolster racist views. According to historian Allan Brandt, the Tuskegee Study ultimately underscored the foundations of racism more than the pathology of syphilis. The researcher's inherent racism is highlighted within their own logic. If scientists really thought syphilis infected races through different mechanisms, then their research on the black population would not have been able to benefit the white population. On some level, the researchers must have known that there was no true difference between how people of different races responded to syphilis because otherwise they would not have wasted their precious drug trials on a population of people whose medical responses to treatment were divergent from the population the researchers hoped to cure.

Therefore, the researches ran their experiments on non-white populations because they were not intimidated by the ethical implications and/or the repercussions of their contentious experiments.

Doctors held contradictory theories about the medical implications of race and they also promoted racist theories about sexuality. Dr. Curth, who wrote about syphilis in Guatemala, claimed that the Guatemalans were sexually promiscuous. While Curth believed that sexual promiscuity amongst Guatemalans led to spread of venereal disease, Cutler blamed the failure of his transmission experiments on the short duration of his subjects' sexual intercourse. Cutler and

⁷⁶ PCBSI, 37.

⁷⁷PCBSI, 21

⁷⁸ Brandt, "Racism and Research," 23.

⁷⁹ Brandt, "Racism and Research," 27.

Curth spread racial stereotypes of sexuality in order to back their theories and insert their superiority.⁸⁰

In addition to Cutler's racist comments about his subjects' sexuality, he also promoted offensive ideas with regards to their intelligence. In a letter to Dr. Arnold about working with the "Indians," Cutler wrote, "we may do our work with little or no explanation, as they are only confused by explanations and knowing what is happening." Cutler doubted the intellectual capacity of his subjects and openly stated that he was violating their human rights without their consent. Interestingly, Cutler required that "any replacement would have to learn Spanish in order to work satisfactorily." Cutler wanted his workers to be able to communicate with the subjects on some level. Additionally, a Spanish translation of the reports was commissioned in order to circulate the findings within the Guatemala medical community. While Cutler ignored the rights of his subjects because he believed that their race made them inferior, his political savvy motivated his inclusion of local researchers.

Cutler created a hierarchy between the local people and the medical professionals. As evidenced by a letter to Dr. Arnold, Cutler did not have high regard for the value of Guatemalan life. He wrote, "our payment for the males will be considerably less than we had originally planned," suggesting that he assigned a monetary value to his subjects.⁸⁴ He also thought that, "it is very difficult to do any medical work with the Indians as they are very suspicious of physicians." Cutler presumed that this distrust of healthcare professionals was synonymous with ignorance or boorishness. At the same time, Cutler spoke of the Guatemalan physicians

⁸⁰ PCSBI, "A Study Guide to "Ethically Impossible" STD Research in Guatemala from 1946-1948," (November 2012), 25.

⁸¹ John Cutler to R.C. Arnold, (1946, August 21), Correspondence, CDC 442.

⁸² John Cutler to J.F. Mahoney, (1947, April 10), Correspondence, CDC 442.

⁸³ John Cutler to J.F. Mahoney, (1946, November 18), Correspondence, CDC 442.

⁸⁴ John Cutler to R.C. Arnold, (1946, August 21), Correspondence, CDC 442.

⁸⁵ John Cutler to J.F. Mahoney, (1947, January 2), Correspondence, CDC 442.

with great esteem and said, "the native physicians are very helpful." Based on these different accounts it appears that Cutler refrained from making racist comments about his medical counterparts. Guatemala had a high percentage of native people and Cutler was able to execute his intrinsically racist perception towards his "Indian" subjects. 87

In addition to the vulnerable Mayan population, the legalization of sex work in Guatemalan prisons further enabled the American researchers to exploit Guatemalans. The manipulation of sex workers allowed for crude experiments. The researchers wanted to test the effectiveness of the prophylaxis during "normal exposure" to the disease. Researchers wanted to test the workers with sexually transmitted diseases was the most viable option to test drugs in a 'natural' setting. Additionally, Guatemalan sex workers were mandated to attend health checkups. These tests made it convenient for researchers to select which sex workers they wanted to use in their study based on the worker's sexually transmitted disease status. This opportunity allowed for an even more controlled experiment and enabled the researchers to assert their authority over a vulnerable population.

The legalization of prostitution in prison allowed the researchers to manage experimental variables. Prisoners were confined to their cells and sex workers were monitored by health clinics. This facilitated a, "rapid and unequivocal answer as the value of various prophylactic techniques" using "normal exposure." The tendency to classify research methods as ordinary procedures manifested in both the Tuskegee and Guatemala experiments. Tuskegee was referred to as a "natural experiment" and the use of sex workers in Guatemala was justified by categorizing this gruesome reality as "normal exposure." Perhaps applying the terminology of

⁸⁶ John Cutler to John Heller, (1946, October, 14), Correspondence, CDC 442.

⁸⁷ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

⁸⁸ Spector-Bagdady and Lombardo, "Something of an Adventure," 705.

⁸⁹ PCSBI, 28.

⁹⁰ PCSBI, 29.

routine procedures to their experiments allowed scientists to ignore the immoral and illegal aspects of their research.

In addition to the vulnerable medical infrastructure and the legalization of sex workers in prison, the United States chose Guatemala for this research because the U.S. knew how to manipulate the country's economic and political instability. The U.S. has a history of discrimination in Guatemala. The United Fruit Company and America's involvement in Guatemala during World War II are two examples of how the United States had previously infiltrated Guatemala.

The United Fruit Company, founded in 1899, was a U.S. business that traded bananas in Central America. The United Fruit Company consumed Guatemala's economic infrastructure more so than in other Latin American countries. ⁹² The U.S. government knew that civil liberties were being denied in Guatemala but they proceeded to benefit from the banana market for economic reasons. In fact, the U.S. profited from the lack of democracy and from the rule of two dictators, Manuel Estrada Cabrera and Jorge Ubico, in an arguable demonstration of political hypocrisy. ⁹³

In addition to the economic turmoil that stemmed from the United Fruit Company,
Guatemala underwent internal stresses during World War II. Guatemala's trade routes to Europe
were shut down during the Second World War. As a result, Guatemala was financially dependent
on the United States. Rather than lifting the nation out of this economic depression, Ubico made
Guatemala even more economically dependent on the United Fruit Company. Additionally,

⁹¹ Michael Rodriguez and Robert Garcia, "First, Do No Harm: The US Sexually Transmitted Disease Experiments in Guatemala," *American Journal of Public Health* Vol. 103 No. 23 (2013), 2124.

⁹² Paul Dosal, Doing Business with the Dictators: A Political History of United Fruit in Guatemala, 1899-1944 (Oxford: SR Book, 2005), 8.

⁹³ Dosal, Doing Business with the Dictator, 2,12.

⁹⁴ Susanne Jonas, Battle for Guatemala: Rebels, Death Squads, And U.S. Power (Colorado: Westview Press, 1991), 21-22.

during World War II, the U.S. positioned troops in Guatemala to guard the Panama Canal and to ensure that Ubico remained loyal to the Allies. ⁹⁵ In 1944, there was a democratic revolution that toppled Jorge Ubico's 13-year dictatorship, ushering in a period of civil instability and unrest. ⁹⁶ The investment in the United Fruit Company and involvement in Guatemalan politics demonstrates how the United States felt a sense of ownership over Guatemala that led to human experimentation in addition to financial and political gains.

Throughout Cutler's letters to Mahoney, he illustrates the fragile infrastructure of Guatemala. In one letter Cutler explains, "It is impossible here for Americans to live as middle class Americans at home, for there are neither middle class nor middle class facilities here equivalent to those at which we are accustomed." Here, Cutler demonstrates that he was aware of the economic disparities between the United States and Guatemala. In one instance, Cutler offered cutlery in exchange for space for research facilities. This trade clearly demonstrates the unequal economic standing between the U.S. and Guatemala. The research team internalized their clout over Guatemala and this attitude enabled them to manipulate research that they would not conduct in the United States.

The urge to improve medical care set the precedent for the Guatemala study. Guatemala had a weak medical infrastructure, a large population of native people, legal sex workers, and the United States was familiar with the inner workings of the country. These conditions enabled the U.S. research team to assert their supposed superiority and execute their pursuits. The fact that

95 Jonas, Battle for Guatemala, 22.

⁹⁶ Fried, Gettleman, Levenson, Peckenahm, Guatemala in Rebellion: Unfinished History (Grove Press, 1983), 48; It is important to note that in 1954 the U.S. Department of State and the CIA overthrew Arbenz the democratically elected leader. It is unclear if they did this because of communist distress or because of economic interests in the United Fruit Company. Greg Gardin, Blood of Guatemala: A History of Race and Nation (Duke University Press, 2000), 202.

⁹⁷ John Cutler to J.F. Mahoney, (1947, September 20), Correspondence, CDC 442.

⁹⁸ John Cutler to William J. McAnally Jr., (1948, October 26), Correspondence, CDC 442.

⁹⁹ Reverby, "History of the Health Sciences Lecture Series."; Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

the experiments were conducted in Guatemala distinguishes this study from other unethical human experimentations. The location serves as a variable to isolate in to order analyze its bearing on the nature of the study. The following chapter will explain how the course of the experiment was impacted by the fact that this experiment occurred outside of the United States.

Chapter Two

"To Serve and not to Dominate:" Merciless Research and the Power of U.S. Blood

After securing his research location, Cutler invaded Guatemala in pursuit of medical knowledge. The fact that the study occurred outside of the United States contributed to some of the heinous experimental conditions. The U.S. research team designed an experiment for the benefit of Americans but used a pool of Guatemalans to test their hypothesis. In President Truman's address before Congress in 1945, he declared, "the responsibility of the great states is to serve and not to dominate the world." Truman's distinction between American service versus domination was blurred during the Guatemala studies. The experiments in Guatemala differed from the Tuskegee study in two important ways. First, the research subjects in Tuskegee were never actively infected with syphilis. 101 Rather, Tuskegee was considered a "natural experiment" where the subject's syphilis was left untreated. ¹⁰² In the Guatemala experiment, the researchers intentionally exposed prisoners, soldiers, and persons with mental disabilities to sexually transmitted diseases. 103 Second, sex workers were used as vectors for transmission in Guatemala, a method that researchers did not tolerate in the United States. The American research team did not apply the same code of research standards when they performed experiments abroad. The Guatemala experiments served as a less regulated environment where American researchers could pursue scientific curiosity without restriction or regard for adequate protection of Guatemalans' dignity or medical safety.

Harry S. Truman, "President Truman's Address Before a Joint Session of the Congress," (1945, April 16).
 Susan M. Reverby, "Normal Exposure," 7.

Reverby, "Normal Exposure," 12. In "Normal Exposure," Reverby stresses that spreading the myth that the Tuskegee subjects were intentionally infected with syphilis is dangerous because that assumes that what actually happened is not sufficiently shocking or horrible. Reverby, "Normal Exposure," 7.

103 PCSBI. 52.

The evolution of the Guatemala experiments demonstrates the perils of openended research designs and unrestrained attitudes on the part of researchers. The Guatemala study was first introduced to the Syphilis Study Section in February 1946. The committee approved the plan for "the experimental transmission of syphilis to human volunteers and improved methods of prophylaxis." While the research proposal stated plans for deliberately infecting subjects, "the original purpose of the program was primarily to study the clinical effectiveness of the orvus-mapharsen prophylaxis." Orvus-mapharsen was anticipated to serve as a more convenient form of prophylaxis for U.S. soldiers. As a result of poor experimental planning, such as initiation of new projects before prior projects reached conclusions, the research veered away from the original research plan. Additionally, limited laboratory skills impeded researchers' abilities to diagnosis syphilis, transmit syphilis, and obtain a steady research population. Consequently, these challenges became the focus of the Guatemala experiments. 106 As Cutler explains in his "Final Syphilis Report," "because of the low rate of infection by this method...it became necessary to develop a different mode of attack on the problem."107 The "method" that Cutler is referring to is the use of sex works. The lack of a clear research plan demonstrates the haphazard approach of the Guatemala experiments. Cutler and his team did not respect the life of Guatemalans enough to establish well-regulated and calculated research procedures. While research methods in the 1940s were sloppy in general, the scale of this experiment should have elicited extra precaution rather than the constantly changing research designs that characterized the project.

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¹⁰⁴ PCSBI, 30.

¹⁰⁵ John Cutler, "Final Syphilis Report: Studies in Prophylaxis," Folder 5.1.

¹⁰⁶ PCSBL 42

¹⁰⁷ John Cutler, "Final Syphilis Report: Studies in Prophylaxis," Folder 5.4.

As the research continued to shift away from the original goal of testing prophylaxis, a primary goal became how to successfully infect humans with sexually transmitted diseases.¹⁰⁸ The initial plan was to transmit the disease through "normal exposure" but once that proved to yield low transmission rates, the researchers gave prisoners intracutaneous injections of syphilis into their foreskin and forearm.¹⁰⁹ The means of transmission were often times acts of torture. For example, the researchers scraped men's penises and women's cervixes in order to thoroughly expose them to the disease.¹¹⁰ Not only did the researchers deviate away from the proposed experiment, they also incorporated brutal practices in order to accommodate their defective research. Guatemala quickly became a safe zone for Cutler to perform experiments that transgressed the physical health and dignity of his subjects.

In addition to invasive procedures, researchers did not conduct their experiments in sterile conditions. This provides further demonstration of the extent of their disregard for any limitations of transgression of research standards. ¹¹¹ In fact, the researchers chose to use unsterile conditions in order to increase the chance of infection. For example, the same needles were used for multiple subjects. ¹¹² The researchers designed the experiment so that it would be conducive to spreading disease. Orvus-mapharsen was no longer the focus of the experiment and the researchers controlled for factors that would cater to their new research goals. The researchers dishonored the standard experiment protocol of sterile conditions and thereby violated the safety of their subjects in the service of their experiment.

¹⁰⁸PCBSI, 56; Contrary to popular belief the men in the Tuskegee experiment were never intentionally infected. Reverby, "Normal Exposure," 7.

¹⁰⁹PCBSI, 56.

¹¹⁰ Reverby, "Ethical Failures and History Lessons," 3.

¹¹¹ Rodriguez and Garcia, "First, Do No Harm," 2122.

¹¹² PCBSI, 56.

As part of his casual attitude towards his research, Cutler did not always consult with authorities before proceeding with new experiments. In fact, Cutler often informed Dr. Mahoney of an experimental change only after he had begun a study. On September 18, 1947, Cutler informed Mahoney that, "a study is already under way to determine the efficiency when the prophylactic is self administered." Cutler continues to explain that he can procure pus from patients in a hospital in order to inoculate his subjects. Based on his language, that the study was "already under way," Cutler was not too concerned about receiving permission or the possible ramifications of taking jurisdiction over the study. While Cutler did ask for approval, either for some changes in his experiments or when he needed research grants, Cutler's actions indicate a sense of entitlement regarding his research in Guatemala. Rather than the research being directed towards prophylaxis or protecting the health or dignity of Guatemalans, Cutler defined new purposes according to his whim.

The language employed by the researchers to define their experiments is symbolic of the poorly measured research strategies in Guatemala. In a letter to Cutler, Mahoney refers to the experiments as Cutler's "show." The word "show" detracts from the gravity of the experiment and passes the experiment off as a spectacle rather than as a professional scientific pursuit. The use of the word "show" suggests that perhaps the researchers either did not view their experiments as a serious endeavor or that they wanted to conceal the gravity of the situation from their conscious.

Dr. Cutler operated and defined the terms of his experiment with deliberate distortion.

Throughout his experiments, Cutler called his subjects "patients," thereby masking the fact that he was the one actively making them ill. For example, in a letter to Dr. Arnold, Cutler explains a

¹¹³ John Cutler to J.F. Mahoney, (1947, September 18), Correspondence, CDC 442.

¹¹⁴ John F. Mahoney to John Cutler, (1946, October 15), Correspondence, CDC 442.

new inoculation plan "using normal females for some of the contacts and then inoculating them afterwards so as to pile up a sizeable group of treated and control patients." Additionally, in a letter to Mahoney, Cutler requests office supplies so that he can "keep record of the syphilitic patients." The phrase patient implies that these people were sick and seeking treatment from a physician. The use of this term suggests that Cutler wanted to cover the fact that he was the agent infecting these people. He might have been nervous about the legal consequences of his research or, similar to the Tuskegee research team, he might have actually viewed his research subjects as his patients. However, while the Tuskegee researchers violated the health rights and dignity of their subjects, those subjects were technically syphilis patients when they arrived at the research site. By calling the Guatemalans patients, Cutler used his identity as a physician to violate the autonomy and integrity of prisoners, soldiers, and persons with mental disabilities.

Cutler exploited a power differential with Guatemalans by calling them patients and further stripped them of their rights by using them as experiment subjects without their consent. Upon gaining entry to the prison, psychiatric institutions and soldiers' barracks, researchers operated without proper consent. In a letter to Dr. Mahoney, Cutler writes, "we are meeting with whole-hearted cooperation in the prison. Based on Cutler's language, it is not entirely clear if the cooperation is from the prisoners or from the prison administration. In a letter from 1947, Cutler explains to Mahoney that, "he found a very ready acceptance" from the prison officials and the prisoners because of the treatment facilities that he built. The researchers gathered consent from the institutions that housed the subjects and not from the subjects

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¹¹⁵ John Cutler to J.F. Mahoney, (1946, October 31), Correspondence, CDC 442.

¹¹⁶ James H. Jones, Bad Blood: The Tuskegee Syphilis Experiment (New York: The Free Press, 1981), 123.

¹¹⁷ Reverby, "Ethical Failures and History Lessons," 2.

¹¹⁸ John Cutler to J.F. Mahoney, (1946, November 12), Correspondence, CDC 442.

¹¹⁹ John Cutler to J.F. Mahoney, (1947, January 20), Correspondence, CDC 442.

themselves. 120 The decision not to obtain individual consent allowed the research team to conduct painful experiments where they deliberately infected their subjects. Cutler himself admitted that aspects of the experiment were rough, "injection of the material in the urethra is uncomfortable, and even painful for some." The researchers knew that Guatemalan prisoners were vulnerable and realized that if they offered treatment resources they would gain cooperation despite the cruel conditions. 122

Cutler controlled the title, consent, and health status of the Guatemalans whom he encountered thereby robbing them of their dignity. Cutler's interactions with Guatemalan children further illustrate how he viewed the Guatemalans as dependent invalids whom he could exploit. For example, since the children in the Port of San Jose had malaria Dr. Cutler told Dr. Mahoney, "it is to our advantage to give them some medicine." 123 Cutler decided to treat the orphans because he was "going to bleed the children" and he wanted to sustain their health and eliminate health variables, such as malaria, from his serologic tests. 124 The Guatemala experiments were not conceived of as an opportunity to improve global health but rather to enhance the health of American citizens. Cutler knew that people had to make sacrifices in order to secure prophylaxis, however, for the purposes of his experiment, foreigners and not Americans would make those sacrifices. The researchers only took care of their subjects when they had an incentive to preserve their health. The fact that the study was designed to benefit the curiosity of the researchers without set parameters is what led to gruesome intentional exposure.

The comfort with which Cutler describes grim aspects of his research demonstrates that he was not concerned about the medical safety of his subjects. When Cutler heard that the U.S.

¹²⁰Reverby, "Normal Exposure," 14.

¹²¹ John Cutler, "Final Syphilis Report Folder 5," CDC 442. 2.

¹²² Correspondence to Cutler, (1948, April 19), Correspondence, CDC 442.

John Cutler to J. F. Mahoney, (1947, June 6), Correspondence, CDC 442.

John Cutler to J. F. Mahoney, (1947, June 6), Correspondence, CDC 442; PCBI, 39.

government cut funds for his research he wrote to Mahoney, "this was an exciting experiment; all of the women inoculated...showed no evidence of infection in contrast to controls." Cutler openly stated that he, "inoculated," introduced a disease, into these women. Even more so, Cutler admitted that he denied a group of women treatment so that he could have a controlled study. Just like in Tuskegee, the doctors left certain research subjects untreated as a means of deriving scientific data. Cutler's frank and unapologetic descriptions about the nature of his work demonstrate that intentional inoculation was not a procedure that disturbed him.

Cutler's cavalier approach to his research design was mirrored in his selection process for the Guatemalans he chose to research. Cutler felt entitled to experiment on every population in Guatemala. Prisoners, orphans, lepers, and psychiatric patients were viewed as available subjects to study. Interestingly, all of these people were part of institutionalized groups. Cutler defended his use of researching on all of these populations because he wanted to figure out why prisoners were having false positive tests. The researchers also casually experimented with different methods of inoculation once they had access to new populations. The experiments gravitated away from the original research goal, that is, to determine the strength of orvus-mapharsen.

Instead, it morphed into an opportunity for researchers to explore their scientific curiosity in unfounded ways. Since Cutler believed that Guatemalans citizens were "uneducated and superstitious" he treated them like disposable research subjects.

The majority of the intentional exposure experiments were conducted on Guatemalan soldiers. The tests on soldiers focused on gonorrhea and chancroid. Considering that human experimentation was often defended as a means to protect American soldiers, it is ironic that this

¹²⁵ John Cutler to J.F. Mahoney, (1947, September 20), Correspondence, CDC 442.

¹²⁶ PCSBI, 66.

¹²⁷ PCSBI, 68.

¹²⁸ John Cutler, "Final Syphilis Report," (1955, February 24), CDC Archive Box 442.

¹²⁹ PCSBI, 42

research was conducted on Guatemalan soldiers, Foreign soldiers, who were military allies, were not considered worthy of being spared harsh conditions of research experiments that were intended to benefit U.S. soldiers. American researchers went to great lengths to treat the medical needs of American soldiers but, when it came to Guatemalan soldiers, the same principles did not apply. Notably, most of the soldiers that the American research team had access to were Mayan. 130 The soldier's ethnicity alludes to internal racism given that the Guatemalan government allowed the U.S. research team to study this population.¹³¹ Evidently the American research team did not value Guatemalan soldiers the same amount as they valued American soldiers.

The use of sex workers in the Guatemala study shows how drastically moral standards shifted when the PHS worked abroad. American prostitutes and so-called promiscuous women were targeted as the main carriers of venereal diseases in the United States. 132 Since transmission was viewed as a one-direction process, from female to male, the PHS quarantined American women with sexually transmitted diseases. The PHS wanted to protect the soldiers and the home front from prostitutes and so-called promiscuous women so they built Rapid Treatment Centers to house and treat such women. 133 This physical separation that occurred in the United States stands in stark contrast to the Guatemala experiments where the researchers chose to work in a space where they could bring women and men together. While the PHS detained American women in facilities in order to reform them, they did not involve them in their studies. Dr. Parran even announced that he did not think that the PHS should have a role in how to regulate prostitution because that "would seem to be an official toleration of the commercialized

¹³⁰ John Cutler to R.C. Arnolds, (1947, September 16), Correspondence, CDC 442.

Reverby, "History of the Health Sciences Lecture Series." Parascandola, Sex, Sin, and Science, 116.

¹³³ Parascandola, Sex. Sin. and Science, 119.

prostitution."¹³⁴ The drastically different interactions with and perceptions of women in America and Guatemala demonstrate how standards loosened in Guatemala.

The incorporation of sex workers in the Guatemala experiments further emphasizes how researchers had different guidelines for their international experiments. The research team thought that it would be too contentious to perform studies using sex workers as research tools in in the United States. These concerns did not prevent them from using sex workers for their research in Guatemala. In 1938, a U.S. syphilologist, Joseph Moore, described a study in the U.S. that used sex workers. Moore said that the experiment made him "shutter in horror," however, he approved of the very same method in Guatemala. Health professionals did not believe that they were obligated to the same ethical standards of research when experimenting abroad and therefore disregarded the dignity of the women and men whom they confronted.

The fact that sex work was legal in Guatemalan prisons was a major reason why

Americans chose to conduct their research there. Not only was sex work legal, the Guatemalan government's strict regulations could be of benefit to the study. In Guatemala the commercial sex workers had to be at least 18 years old and they had to be registered with the Sexual Prophylaxis and Venereal Disease Section. The sex workers also needed to report to the Venereal Disease Control Clinic twice a week for a checkup appointment. Women with syphilis, gonorrhea, or chancroid were not allowed to work but had access to free treatment. This degree of regulation allowed for Cutler and his team a great degree of control, just as with the institutionalized populations. The research team selected the infected sex workers for their research. It is unclear if the women consented to participating in these experiments or if they

¹³⁴ Parascandola, Sex, Sin, and Science, 118.

¹³⁵ Reverby, "Ethical Failures and History Lessons," 9.

were even told that they were infected with an STD.¹³⁶ Since Guatemala legalized the use of sex workers in prison, the U.S. research team did not hesitate benefiting from this practice even though it was against American standards.

Dr. Cutler took advantage of sex workers and abused the system that the Guatemalan Center for Venereal Disease Control had in place. For example, Cutler ended up selecting healthy women and infecting them with gonorrhea. There are no clear records if these women were treated or compensated for participating in this intentional exposure to gonorrhea. Before the beginning of some of the experiments Cutler served some of the women alcohol. There are no documented reasons for why Cutler intoxicated these women. The research team often referred to the sex workers as "the girls," further demonstrating that they did not respect their age, profession, or dignity. Utler did not anticipate that the sex workers would not want to participate in his study. In his report on his gonorrhea experimental studies he wrote, "contrary to what might be expected, it proved extremely difficult to obtain prostitutes willing to serve under experimental conditions." Cutler viewed these women as expendable research tools and did not register that they would have hesitations, or even an understanding, of what he wanted them to perform.

The sex workers were managed in the same manner as other research instruments.

Cutler's supervisors wanted him to schedule the soldier's sessions with the sex workers several hours apart in order to maximize transmission rates. The supervisors did not consider the health or rights of these women nor did they choose this time interval for ethical reasons, but

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¹³⁶ PCSBI, 45.

¹³⁷ PCSBI, 46.

¹³⁸ PCSBL 45

¹³⁹ Correspondence from Stapleton NY to John Cutler, (1947, April 10), Correspondence, CDC 442.

¹⁴⁰ John Cutler, "Experimental Studies in Gonorrhea," (1952, October 29), Correspondence, CDC 442.

¹⁴¹ R.C. Arnold to John Cutler, (1947, April 11), Correspondence, CDC 442.

purely in order to procure accurate scientific results. The American research team felt entitled to control these women and their services. Cutler did not listen to his supervisors and instead he had the sex workers have intercourse with different men less then one minute apart from each other. When Cutler "used the girls" the men "had as many contacts as he wanted" in order to ensure exposure. Cutler's reluctance to follow his overseer's guidelines, which were rooted in scientific and not ethical logic, demonstrates that he abused the rights of these women as a way to exert his authority.

Statistical analysis of the studies involving the sex workers and prisoners reveals that this study had inadequate plans. Of the 138 exposures involving 93 soldiers and 12 sex workers with gonorrhea only five men contracted gonorrhea.¹⁴⁴ Dr. Mahoney began to doubt the efficiency of this research technique.¹⁴⁵ In 1947, after eight trials with the sex workers Dr. Cutler announced that the rate of transmission was low.¹⁴⁶ In total, 219 prisoners were exposed to syphilis through sex workers and/or through artificial inoculation.¹⁴⁷ The concerns about this method were not rooted in moral debates but rather in pressure to produce scientific data. The low yield results of these studies points to the fact that these experiments may have had poor planning and execution.¹⁴⁸

In contrast to the Guatemala studies, women were excluded from the Tuskegee experiments. Dr. Moore did not want women in the Tuskegee study because collecting reliable

¹⁴² PCSBI, 48.

¹⁴³ John Cutler to J.F. Mahoney, (1947, June 22), Correspondence, CDC 442.

¹⁴⁴ PCSBI, 48.

¹⁴⁵ PCSBI, 50.

¹⁴⁶ PCSBI, 49.

¹⁴⁷ PCSBI, 53.

¹⁴⁸ Ilana Lowy, "The Best Possible Intentions: Testing Prophylactic Approaches on Humans in Developing Countries," *American Journal of Public Health* Vol. 103 No. 2 (February 2013), 227; Beckman, et al., "Date Stamped Complaint," *Alsbury, Clements, Bekman, Marder & Adkins LLC* (April 1, 2015), Court Case Note 55.

syphilis data from women is difficult since their genitalia is internal. ¹⁴⁹ Women were inconvenient research subjects and therefore the researchers did not want to waste their time monitoring their syphilis. In fact, the PHS did not even check if the wives of the Tuskegee subjects were receiving treatment. ¹⁵⁰ When the wives of male participants asked if they could receive treatment, Nurse Rivers, the head nurse in Tuskegee, was instructed to tell the women that they could not participate in the study because then they would have to undress in front of male doctors. ¹⁵¹ Another reason that the research team excluded women from the study was because they did not want pregnant women to give their fetuses congenital syphilis. ¹⁵² While the researchers did not include women in the Tuskegee experiments, they were not trying to protect the women, rather, the researchers acted in a way that was most suitable for their own needs. However, unlike in Guatemala, in Tuskegee the research team expressed concern over transmitting the disease to the next generation of Americans.

Terre Haute Prison Experiments

The Terre Haute prison experiment, which occurred in a prison in Indiana and lasted from 1943 to 1944, serves as a bridge between the Tuskegee and Guatemala experiments. Just like Tuskegee, Terre Haute took place on American soil. However, the Terre Haute experiment mirrors Guatemala in that the researchers intentionally exposed the prisoners. The Terre Haute experiment complicates the picture because while researchers deliberately infected those prisoners, they obtained consent. The researchers selected 241 prisoners for their study. The goal

¹⁴⁹ James H. Jones, *Bad Blood: The Tuskegee Syphilis Experiment – a Tragedy of Race and Medicine* (New York: The Free Press, 1981), 104.

¹⁵⁰Susan Reverby, Examining Tuskegee: The Infamous Syphilis Study and Its Legacy (Chapel Hill: The University of North Carolina Press, 2009), 223.

¹⁵¹ Jones, Bad Blood, 165.

¹⁵² Reverby, Examining Tuskegee, 53.

of the study was to produce gonorrhea in prisoners through artificial exposure and to find a prophylaxis for sexually transmitted diseases. 153

There was overlap between the Terre Haute staff and the Guatemala staff, John Cutler, Richard Arnold, and Henrik Blum were three of the major researchers involved in this study. 154 The fact that the same set of people dropped basic standards of ethical research from one site to the next suggests that the location, rather than the composition of the research team, was the reason for the shift. The team might have wanted to go further with their experiments in Terre Haute if they had not been concerned about reactions to such work with American research subjects.

As in the Guatemala study, the Terre Haute experiment was backed by the argument that the purpose of the study was to benefit U.S. soldiers. Dr. Ross T. McIntire explained the need to find a treatment for gonorrhea since the disease was affecting the troops. Dr. Parran, the surgeon general, expressed that this study was a priority since gonorrhea affected soldiers and the general population. 155 Once again, the sense of urgency to treat soldiers was an excuse used to justify human experimentation. The American government prioritized the health and dignity of American soldiers over American prisoners.

Just as in Tuskegee and Guatemala, American researchers targeted vulnerable populations for their studies. The Terre Haute research team chose prisoners as their research subjects for several reasons. The prisoners had no recent sexual contact with women and presumably wanted to help with the war effort. Many had already been infected with gonorrhea and thus might be less scared of getting syphilis. 156 The researchers did not want to use soldiers

 ¹⁵³ PCSBI, 21,13.
 ¹⁵⁴ Spector-Bagdady and Lombardo, "Something of an Adventure," 14.
 ¹⁵⁵ PCSBI, 14-15.

¹⁵⁶ PCSBI, 16-17.

because they did not want to distract them from the war effort or deny them sexual relationships. They also thought that it was not possible to get consent from soldiers. ¹⁵⁷ Just as the American researchers selected Guatemala for technical reasons, such as the legal status of sex workers, the Terre Haute team also used dubious rationale to justify their selection of prisoners as a research population. Both studies reveal how researchers target vulnerable populations since they are easy to manipulate and are marginalized and unprotected by much of general society.

Even though the research team manipulated the prisoners, Terre Haute scientists understood that they were crossing some ethical boundaries in their experiment. First, they wanted to get the experiment approved on scientific ground by OSRD and then they decided to get legal approval. In 1943, they sent a draft to OSRD emphasizing that this experiment was part of the war effort. They wrote that the current prophylaxis was "embarrassing, revelatory to fellow soldiers and sailors, mildly uncomfortable, time consuming, and messy." These words convey an awareness of their distinction between scientific and legal defenses.

While the researchers tried to sideline legal regulations, some of them valued the ethical standards of research. The CMR chair, Dr. A.N. Richards thought that human experimentation was necessary but also recognized the need for informed consent. James Bennet, Director of the Bureau of Prisons, instituted some limitations on the experiment. ¹⁵⁹ Unlike the Guatemala studies, the research team imposed some restrictions on their activities. Thus, even though researchers were willing to actively infect Americans with a disease they still held them to a higher status than Guatemalans.

The Terre Haute experiment was guided by several regulations that protected their research subjects. Prisoners had to be at least 21 years old to participate and they had to

¹⁵⁷ PCSBI, 17. ¹⁵⁸ PCSBI, 16.

¹⁵⁹ PCSBI, 14, 18,

understand the possible ramifications of the experiment.¹⁶⁰ Participation warranted \$100, could potentially count towards parole, but did not guarantee pardon.¹⁶¹ In order to participate the inmates had to waive their rights and the wardens had to give prior authorization before an inmate could even volunteer. The waiver explained the risks involved and the side effects of the different treatments.¹⁶² Even though the Terre Haute waiver is inadequate according to current research standards, in which ethicists argue that prisoners cannot truly give informed consent, the fact that the researchers cared enough to get consent at all demonstrates that they had different standards for their American research subjects than for their Guatemalan research subjects.¹⁶³

Conflict arose about whether or not the Terre Haute research was sustainable. Dr. Mahoney told the NRC committee that it was too difficult to produce infection and that the research was at a standstill. The NRC wanted Mahoney to continue the research since they had a unique volunteer base that was unlikely to present again "unless under the impetus of future war." Dr. Ross T. McIntire wanted to resume the research because, "the incidence of gonorrhea in the armed forces and the lost manpower resulting therefrom constitutes a problem of major military importance." Like the Guatemala experiments, the research did not progress in a useful way, and there was a debate if the research team had a right to continue their work. The study ended and by the end they had not confirmed whether the silver proteinate was an effective prophylaxis. The Terre Haute experiment led to the Guatemala experiments because

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¹⁶⁰ PCSBI, 20.

¹⁶¹ PCSBI, 18.

Minutes of a Conference on Human Experimentation in Gonorrhea Held Under the Auspices of the Subcommittee on Venereal Diseases and Exhibit B, (1942, December 29). PCSBI HSPI Archives, NARA-II 0000157-175.

¹⁶³ L.O Gostin, "Biomedical Research involving Prisoners: Ethical Values and Legal Regulation," (Reprinted) *Journal of the American Medical Association* Vol. 297 No. 7, (2007), 739.

¹⁶⁴ PCSBI, 21.

¹⁶⁵ PCSBI, 15.

¹⁶⁶ PCSBI, 22.

the researcher wanted to find a reliable mode of infection.¹⁶⁷ Americans traveled to Guatemala in order to continue their research because they were not able to compromise the health and dignity of Americans to the same extent.

The Terre Haute experiment bridges the Tuskegee syphilis experiment and the Guatemala experiments. Like Tuskegee, Terre Haute took place in the United States using American citizens as the research subjects. Terre Haute is similar to the Guatemala studies because the research team intentionally exposed both subject pools. Unlike Tuskegee or Guatemala, Terre Haute participants signed consent forms. While the ethics of prison consent forms are murky, the Terre Haute experiment demonstrates that even though researcher were willing to deliberately infect U.S. citizens, they felt obligated to obtain formal permission.

The U.S. research team created different standards of research when they worked in Guatemala. Cutler and Mahoney were aware that their research was contentious and made concerted efforts to shield the criminal and unjust realities of their experiments. Ultimately, they were able to protect their research because they were in a foreign country that was dominated by the United States. Cutler felt powerful in Guatemala and exerted his autonomy on his research subjects. Cutler's poor treatment of Guatemalan citizens was commensurate with the low value that he placed on their country. The Guatemala experiment is a paradigm of how notions of national supremacy extend to the medical world. America prided itself as a beacon of democracy yet applied this heightened sense of nationalism towards unethical and cruel research methodology. In his message to Congress in 1947, President Truman stated, "advances in

¹⁶⁷ PCSBI 23

¹⁶⁸ John Cutler to J.F. Mahoney, (1947, June 22), Correspondence, CDC 442.

science, in communication, in transportation, have compressed the world into a community."¹⁶⁹ While the President championed the outcomes of advanced medicine, the researchers used their ability to advance medicine at the expense of dignity and health of innocent people. Guatemala enabled Cutler and his crew to have open-ended, constantly changing research designs, where there were few limits to what they could conduct.

¹⁶⁹ Harry S. Truman, "Message to the Congress on the State of the Union and on the Budget for 1947," (1946, January 14).

Chapter Three

"But They Were Nazis:"170 How American Scientists Justified their Work

On November 26, 1945, The New York Times reported that the Nuremberg trials gave further proof to "the nature of the beast in" Nazi war criminals. ¹⁷¹ From 1946 to 1947, the Nuremberg trials condemned Nazi doctors for their barbaric treatment of prisoners and concentration camp victims. The Nuremberg trials demonstrated just how extreme the outcome of unregulated medical research and doctors could be. In reaction to the trials and to the notable absence of American research regulations in the 1940s, Andrew Ivy wrote a code of medical research ethics for American doctors, which became known as the Nuremberg Code. As evidenced by the Guatemala Study, the Nuremberg Code did not resonate with American researchers who failed to abide by its precepts. According to Jay Katz, an ethicist, the Nuremberg Code was viewed as "a code for barbarians and not for civilized physicianinvestigators." Americans did not believe that the Nuremberg Code applied to them or that they needed it to guide their research. When questioned by historian James H. Jones about the application of the Nuremberg Code during the Tuskegee experiments, Dr. John R. Heller, a Tuskegee doctor, remarked "But they were Nazis." This tendency to distinguish themselves from Nazi doctors gave U.S. researchers apparent moral justification to dismiss their atrocious acts in the name of scientific progress.

American doctors involved in the Guatemala experiment devoted more attention to their scientific goals than to their ethical obligations. While Dr. Ivy's draft was not officially

¹⁷⁰ Reverby, Examining Tuskegee, 66.

¹⁷¹ "The Nazi Beast," *New York Times* (Nov. 26, 1945), 20, accessed on April 15, 2015,

http://search.proquest.com/docview/107114094/A8187D2851DA4C2CPQ/7?accountid=10226.

¹⁷² Reverby, Examining Tuskegee, 66.

¹⁷³ Reverby, Examining Tuskegee, 66.

published until 1947, American physicians were aware of the contents of his work. That being said, even if the Guatemala team was totally unaware of Ivy's work, they were well acquainted with the Hippocratic oath and the concept of "do no harm." So, despite the fact that American doctors did not yet embrace the Nuremberg Codes, their actions in Guatemala cannot be defended by mere ignorance of ethical research standards because a well-known moral obligation applied to them as physicians. The question, therefore, is not why Americans violated tenets of the Nuremberg Code, but rather, how they justified their research within the realm of their own ethical guidelines. The answer lies in the intensity of their desire to improve the medical quality of life of the American people.

As a reminder, Cutler saw the Guatemala experiment as a unique opportunity to understand STDs and their possible treatments. 175 According to Reverby, Cutler believed that he was helping Americans by refining global health and scientific knowledge through these experiments in Central America. 176 This sentiment is elucidated in a letter from Cutler to Mahoney after he hears that funding for the research is tightening. Cutler expressed remorse over the end of this chapter of scientific innovation:

I feel tonight just as I felt when news came of the decision to discontinue the Terre Haute project... we have highly suggestive evidence to make us believe that we are on the right track with respect to prophylaxis...But it gives us all, along with our discouragement at the scientific loss we may suffer, a very empty feeling to realise that the U.S. government has no responsibility whatsoever with respect to any commitments made to its own personnel, or...with respect to commandments with foreign governments. 177

Cutler's disappointment was twofold. Firstly, he was distraught over the forfeiture of a unique research opportunity. Secondly, Cutler was embarrassed that the U.S. government reneged on its

¹⁷⁴ PCSBI, 98.

¹⁷⁵ Reverby, "Normal Exposure," 9.

176 Reverby, "Enemy of the People/Enemy of the State," 27.

¹⁷⁷ John Cutler to J.F. Mahoney, (1947, September 20), Correspondence, CDC 442.

commitment to him and the Guatemalan government. Cutler's reaction was based in his commitment to science and disappointment in his country. The retraction of funding revealed Cutler's commitment to securing an effective prophylaxis under the support of the U.S. government; in other words, Cutler's core impetus for the experiment was the improved health of United States citizenry at large, a noble-sounding purpose in name.

In response to Cutler's concerns, Mahoney's hesitations about Cutler's methods mirror Mahoney's perception of the Guatemala experiment as an opportunity to advance medicine. Mahoney implored Cutler to restrain his forceful methods of infections because it was "beyond the range of natural transmission and will not serve as a basis for the study of a locally applied prophylactic agent." This quote demonstrates the scientific framework that the U.S. research team maintained around the Guatemala experiments. Mahoney's reasons for wanting to restrain Cutler's research were not rooted in his desire to protect the research subjects, but rather in his commitment to insure sound research techniques, emphasizing practices over people. Again, American physicians displayed greater intent and motivation towards advancing medical knowledge than to the ethical treatment of disenfranchised persons who participated in this advancement.

R.C. Arnold also expressed concern over Cutler's technique. Like Mahoney, Arnold's apprehensions were grounded in technical details and not ethics. In a letter to Cutler, Arnold wrote:

I am a bit...leary of the experiment with the insane people. They can not give consent, do not know what is going on, and if some goody organization got wind of the work, they would raise a lot of smoke. I think the soldiers would be the best or the prisoners for they can give consent. Maybe I'm too conservative... In the report, I see no reason to say

¹⁷⁸ Spector-Bagdady and Lombardo, "Something of an Adventure," 705.

where they work was done and the type of volunteer. You know the set up best, but be sure that all angles have been covered. 179

Arnold's concern over the lack of consent manifests in his fear of repercussions. Like Cutler and Mahoney, Arnold does not express unease over the treatment of subjects or remorse for their wellbeing but instead focuses on the negative possible ramifications the experiment could have, presumably from a public relations perspective. Cutler, Mahoney, and Arnold's common fixation on scientific opportunity over obvious medical ethical norms demonstrates that their primary goal for the Guatemala study was the pursuit of medical knowledge. Their words convey an implicit tolerance for any collateral damage that might come along.

Interestingly, not only did Cutler emphasize the scientific benefits of the Guatemala study, he also supported the study on an ethical basis. In a letter to Mahoney, Cutler explains that he had not encountered too much trouble with consent and says, "thus we feel that our treatment program is worthwhile and fully justified." This quote suggests that Cutler believed that any semblance of consent vindicated the brutal steps of his experiments. While Cutler's definition of informed consent greatly differs from current International Review Board standards, he did voice support for at least obtaining some form of consent. ¹⁸¹ The above quote is troubling because it indicates that Cutler evaluated and approved the ethics of his work.

As much as the Guatemala team claimed that their horrendous experiments were in the name of science, and although Cutler is cited justifying the study, their staunch efforts to conceal the details of the experiment undeniably raise suspicion. On some level, the research team must

¹⁷⁹ Dr. R.C. Arnold to John Cutler, (1948, April 19), Correspondence, CDC 442.

¹⁸⁰John Cutler to J.F. Mahoney, (1947, January 20), Correspondence, CDC 442.

¹⁸¹ See guidelines IRB Guidebook Chapter 3 for information of how to obtain informed consent, accessed on April 15, 2015, http://www.hhs.gov/ohrp/archive/irb/irb_chapter3.htm.

have known that their actions were reprehensible since they intentionally covered their tracks. In a letter to Mahoney Cutler wrote,

I am writing this letter personal and unofficially... it is imperative that the least possible be known and said about this project, for a few words to the wrong person here, or even at home, might wreck it or parts of it...The four of us in our project have carefully discussed the matter and all feel that we should do all possible to keep knowledge of our project restricted...In order to conform to the PASB requirement for monthly reports we can continue to send the barest summaries of our progress. ¹⁸²

Cutler continues to talk about the technicalities of sending discrete letters. Not only did Cutler want to hide certain details of the report, he also had a thorough plan of how to conceal the research. The extent to which the Guatemala team disguised and re-packaged their work, as a noble and pure effort to establish prophylaxis for the American people, demonstrates that they needed to justify their work for themselves and for their supervisors. They understood their scientific goals were propelled by ethically unsound methods.

The researchers' duplicitous attitude towards their experiments holds up poorly in their defense that their work was ethically justifiable. According to Reverby, Cutler and his team protected their work because they did not feel like the American people or government could handle the truth. Cutler even said that they wanted to keep the experiment "strictly in our hands," since "we are just a little bit concerned about the possibility of having anything said about our program that would adversely affect its continuation. The medical professionals thought the average person was too naïve to understand that scientific research often comes with sacrifice. Reverby emphasizes that this approach towards conducting research was normal for

¹⁸² John Cutler to J.F. Mahoney, (1947, June 22), Correspondence, CDC 442.

¹⁸³ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

¹⁸⁴ PCSBI, 28. A letter from Dr. Cutler to Dr. Arnold on September 16, 1947 also demonstrates Cutler's desire to protect his research from the public. Cutler writes, "the fear of too much talk is constantly with us, and ever so often we fear remarks from people, such as some of the American Army here, who should know nothing of it." Clearly, Cutler was monitoring the public's knowledge of his work. John Cutler to R.C. Arnold, (1947, September 16), Correspondence, CDC 442.

researchers.¹⁸⁵ Since the researchers never had to explain their work to the American public, they simply justified their intentions in scientific terms without entering the realm of ethical standards.

While haphazard research techniques may have been the standard approach during the 1940s, there is little doubt that the researchers understood that their investigation was contentious. In conversation about his plans to deliberately infect subjects, Cutler wrote, "in that way, we shall be able to avoid political repercussions which are even now in the air, as the papers are complaining about conditions in the prison now." Cutler wanted to divert attention away from his infection methods in order to camouflage his work. Additional facts that demonstrate the Guatemala team's understanding of the murkiness of their research are that the team never published their results. While some journals got a hold of the results of the serological experiments, the prophylaxis component of the research was not circulated. The suppression of information from the public orbit as well as from scholarship indicates that the research team was aware of the unethical aspects of their work.

It is interesting to study why the Guatemala research team continued their research since they had a tacit understanding of both its ethical shortcomings and their potential culpability. It makes sense to begin this analysis with a discussion of Cutler, who has been deemed an "evil doctor" by historians and is partially liable for the horrendous character of the Guatemala experiment. Throughout his research, Cutler contributed medical consultations but failed to offer critical didactic opinions.¹⁸⁸ As Reverby explains, Cutler's failure to look past the results of his actions and internalize the impact his research had on his subjects, led to his appalling acts in the

¹⁸⁵ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

¹⁸⁶John Cutler to J.F. Mahoney, (1947, January 7), Correspondence, CDC 442.

¹⁸⁷ PCSBI, 44, 46.

¹⁸⁸ Susan Reverby, *Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study* (Chapel Hill: University of North Carolina Press, 2000), 495-506.

name of science. ¹⁸⁹ A further condemnation of Cutler's moral compass as a researcher is his ardent defense of his work in Tuskegee. Cutler compared his research subjects to soldiers in a war against sexually transmitted diseases, and made the argument that if "we have no compunction about sending soldiers off to war," his use of research soldiers should not be scrutinized. ¹⁹⁰ Two of Cutler's brothers were killed in service and he assumed the personal sacrifices of war, and viewed himself as a solider against a bacterial foe. ¹⁹¹ Even though Cutler knew his work was unprincipled, he continued to rationalize it by compounding scientific progress with the war effort. In Cutler's mind, it may have been assumed that people would have to get hurt in order to bring about much-needed change —he did not have a problem with harming some for the benefit of many.

To complicate matters, Cutler was known as a "cheerleader for sexual health," with a commitment to supreme medical care and to the teaching of Global South physicians. His contemporaries remember him as someone who cared about women's reproductive health, culturally competent medicine, and kindness towards disadvantaged populations. In fact, much of his published work focuses on open-minded insights on culture, religious differences, partnerships with local medical authorities in the Global South, and the importance of wideranging public health programs. These approaches contrast sharply with the personal ideology that Cutler adopted towards his work in Guatemala. Cutler believed he was helping America by refining international health and scientific knowledge through the experiment. Despite Cutler's seemingly well-intentioned track record in the medical field, his actions in Tuskegee and

¹⁸⁹ Reverby, "Enemy of the People/Enemy of the State," 6.

¹⁹⁰ John Cutler quoted in: Reverby, "Enemy of the People/Enemy of the State," 7.

¹⁹¹ Reverby, "Enemy of the People/Enemy of the State," 8.

¹⁹² Reverby, "Enemy of the People/Enemy of the State," 12.

¹⁹³ Reverby, "Enemy of the People/Enemy of the State," 12-13.

¹⁹⁴ Reverby also agrees with this argument. Reverby, "Enemy of the People/Enemy of the State," 27.

Guatemala cast a giant shadow over his other work and leave him culpable for his cruel experiments. His previous endeavors illuminate his intentions to enhance medical treatment and suggest that he viewed Guatemala as a similar opportunity.

While most of the evidence about the Guatemala experiments is derived from Cutler's archives, Cutler is not the only person at fault for these atrocious acts. Even though Cutler came to embody a researcher with unfettered scientific passions that abrogated human rights interests, Cutler did not act alone. ¹⁹⁵ In fact, Cutler "believed in the chain of command" and followed in the footsteps of his superiors. ¹⁹⁶ Reverby stresses how the surrounding environment encouraged Cutler's actions in an effort to relieve some of the blame from Cutler. ¹⁹⁷ Proper attribution of blame is important in order to piece together all of the perspectives and justifications that backed this experiment.

The Surgeons General's involvement does not go unmentioned in Cutler's letters. Cutler knew that "the Surgeon General has become keenly interested in the Guatemala project." The support of higher ranking government health officials was important to Cutler since Cutler knew that many scientists would find his research unethical. Government investigators kept this work a secret from other government officials and there was no formal reporting incorporated into the grant structure. The low level of protection contributed to Cutler's trivialization of his research subjects. According to the Presidential Commission, John Mahoney, R.C. Arnold, and Thomas Parran all supervised Cutler and expressed concern about the cloudy ethics of the experiment. However, they defended the work because they felt like they were in a rush to get information,

¹⁹⁵ Reverby, "Enemy of the People/Enemy of the State," 5.

Reverby, "Enemy of the People/Enemy of the State," 28.

Reverby, "Enemy of the People/Enemy of the State," 13.

J.F. Mahoney to John C. Cutler, (1946, December 23), Correspondence, CDC 442.

¹⁹⁹ Spector-Bagdady and Lombardo, "Something of an Adventure," 706.

and they also thought that the research was valuable for the larger human good.²⁰⁰ Thus, in addition to scientific advancement at all costs, the structure of the Guatemala experiment can secondly be attributed to a sense of urgency perceived by the medical community at top government levels.

Kayte Spector-Bagdady and Paul Lombardo also account for the other blameworthy players in the Guatemala experiment. They point out that the research was supported by grants from the National Institute of Health and that The Syphilis Study Section and PHS officers approved of the Guatemala study. 201 Aside from financial backing, Spector-Bagdady and Lombardo explain that there was pressure for the U.S. government to oversee research while at the same time also allow for free scientific research. Ultimately, scientific liberties dictated government liability and research subjects were left to the discretion of their researchers and their colleagues. Spector-Bagdady and Lombardo emphasize that there is a limit to how much the government can regulate studies since instances inevitably occur when a participant must trust the ethical authority of a researcher. 202 While researchers are obligated to maintain ethical and legal boundaries, the government must assume accountability.

With the support of the scientific and governmental environments, Cutler became the main physician on the ground in Guatemala. 203 Accordingly, the blame should not be fully placed on Cutler, because doing so would ignore the inherent organizational flaws in the U.S. government that allowed for this experiment to occur. Cutler is responsible for his actions, but unlike Mary Shelley's "Dr. Frankenstein," Cutler was not a solo scientist pursuing his own scientific curiosity, and it would therefore be unfair and irresponsible for history to place all the

²⁰⁰ Reverby, "Ethical Failures and History Lessons," 10.

²⁰¹ Spector-Bagdady and Lombardo, "Something of an Adventure," 697, 701. ²⁰² Spector-Bagdady and Lombardo, "Something of an Adventure," 698.

blame for the Guatemala experiment on him. The debate of assigning responsibility is important to explore; however, parsing out the motivations behind the blameworthy people's actions is critical in understanding how the experiment went in such an abhorrent direction.

As the discoverer of the Guatemala studies, Reverby has internalized her role in securing Dr. Cutler's memory in history. Part of telling "responsible history" involves understanding the consequences of retroactively judging actions. According to Reverby, in order to properly conduct "responsible history," it is important to realize that there is a way to try to discern Cutler's actions and the sentiments that influenced them while not condoning them.²⁰⁴ While there is a strong value in situating analysis of the experiments in historical context, ultimately researchers are responsible for their actions. Despite the publication of the Nuremberg Code in 1947, and the Guatemala research team's awareness of the moral gaps in their research, they continued to pursue their misguided impulses.²⁰⁵ Even if the researcher's intentions were to do research that would benefit society, their professional passions cannot justify their actions.

Despite the fact that the Guatemala research team knew on some level that their work was unethical, there is historical importance to studying the scientific and governmental foundations and principles that Cutler used to endorse and propel his research. Additionally, as Reverby explains, "if Cutler is productively to haunt our ethical and historical imaginations, it should be not just for what he did that we cannot imagine doing, but also for what he did that we can imagine doing, even when it is horrific."206 Research is a complex process and often ambitions can lead scientists to blast through moral standards. Therefore, in order to understand Cutler as more than just an ill intentioned scientist, historians must contextualize him in the state and scientific zeitgeist of his time. While Cutler deserves to be framed within the historical and

²⁰⁴ Reverby, "Enemy of the People/Enemy of the State," 14.

²⁰⁶ Reverby, "Enemy of the People/Enemy of the State," 13.

²⁰⁵ PCSBI. 51; Reverby, "Enemy of the People/Enemy of the State," 14.

structural realities of his time, Cutler's actions are still not defendable. In order to analyze what their intentions and rationalizations were, it is important to investigate the personal and structural influences in the researcher's lives.²⁰⁷

With the support of a government medical team, Cutler's decisions and actions resulted in human rights violations. Cutler made autonomous decisions over the course of his two years in Guatemala, but his role was likely interchangeable with others. While Cutler is responsible for his individual actions, he lived in an era where unethical human experimentation was a reality for other U.S. doctors. If a different researcher had been sent to Guatemala, there would have been another story, but similar strands of research, and similar violations of rights, may still have occurred. The benefit of protocol governing research experiments is that researchers do not have an unchecked license to indulge in free-range explorations. In order to learn from these atrocious experiments, the medical community must internalize the historical truth that even American medical professionals are capable of committing immoral acts even when motivated by the intention to cure.²⁰⁸

Reverby emphasizes the importance of gleaning knowledge from Cutler's decisions. She stresses that while his actions were detestable, there is a tendency to focus on Cutler's gruesome experiments and to ignore the more mundane health violations that regularly occur in prisons and hospitals. While Cutler's studies must be distinguished from the more ordinary health violations, there is a value in understanding how the desire to contribute to scientific knowledge can give birth to a grotesque reality. One lesson gained from unearthing this study is that ill intentions are not what caused the pain and suffering of thousands of Guatemalans: it was the process of implementation that did.

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²⁰⁷Lowy, "The Best Possible Intentions," 227.

²⁰⁸ Alice Dreger, and Susan Reverby, "Testimony to HHS" (2013, August 28), 8.

²⁰⁹ Reverby, "Enemy of the People/Enemy of the State," 30.

Part of digesting the potential for evil is accepting that some studies are ethically impossible to conduct.²¹⁰ To infect a human with a disease and not provide a cure is not in line with any ethical standards, past or present. Cutler did not sufficiently consider the ethics of his plan and only considered the possible medical benefits. This denial of the study's consequences paved the way for unethically conducted research then and continues to do so now.²¹¹

It is difficult to separate the research team's justification for their work from their actions. However, this distinction is crucial since their justifications are in many ways just as threatening as their actions. If historians dismiss the Guatemalan research team's thought processes, there is little to learn. While there is an urge to call Cutler a monster, Reverby argues that while he did commit inexcusable acts, the immediate response to label him a villain is dangerous. Just as Tuskegee doctors jumped to distinguish themselves from Nazi doctors, if contemporary doctors rush to distinguish themselves from Cutler, they will fail to realize that they too have the potential to do harm even when their intentions are good.²¹² Doctors must adhere to research procedures even when the technicalities feel tedious.

In order to prevent physicians from future unethical research, doctors and scientists must maintain humility and respect for the vulnerability and dignity of their subjects. They must be prepared to cease their research if ethics demands that they do so.²¹³ There is a value in understanding how parallel impulses for scientific knowledge can diverge into volatile realities with harmful consequences. After all, scientific passion is not what triggered the unraveling of

²¹⁰ Dreger and Reverby, "Testimony to HHS," 9.

²¹¹ The SUPPORT study (Surfactant, Positive Pressure, and Oxygenation Randomized Trial) is one example of a current day health violation. In a testimony against contemporary violations in medical research, Alice Dreger and Susan Reverby, argue that well-intentioned researchers who failed to obtain proper informed consent in the 2005 study, focused on the end and not the means of their experiment. The researchers in the SUPPORT study recruited parents with premature infants to enter their children in a study about oxygen saturation. The researchers did not fully explain the risks of the trials to the parents. Just like in Guatemala, the researchers in the 2005 study ignored the rights of their subjects and concentrated on the long-term effects. Dreger and Reverby, "Testimony to HHS," 10. ²¹² Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015.

²¹³ Dreger and Reverby, "Testimony to HHS," 10.

ethical standards and the human rights abuses. Rather, the research team's ability to conduct ethically and legally unsound experiments under the guise of medical research is what enabled them to justify their work in the name of American research.

Conclusion

"It Appears to be Advisable to get our Ducks in Line:"²¹⁴ Moral Versus Legal Apologies

President Barack Obama ordered a report from the Presidential Commission for the Study of Bioethical Issues on November 24, 2010, regarding the Guatemala experiments. In his request, President Obama asked the committee to review current international standards for human participation and to investigate the facts of the experiment. By September 2011, the commission published their findings. The report represents the United States' response to the experiments; to digest facts, learn lessons, and produce little action. While the U.S. issued both moral and legal apologies for the Tuskegee experiments, they only issued a moral apology for the Guatemala experiments. The United States' reaction towards the Guatemala experiments has been passive since the research occurred on foreign soil and was perpetrated on non-U.S. citizens.

While a lot of research went into the creation of the report, it recapitulates the inactive nature of the government's response. The chairs of the Presidential Commission set an exclusively moral, and not legal, tone for the apology. In their letter to President Obama, the chairs state that the experiments "involved gross violations of ethics" and were "egregious moral wrongs." While both of these statements are true, they are void of legal terms. The report does not fully state that the Guatemala experiments were a human rights or legal violation. ²¹⁷ Despite

²¹⁴ The following statement was said by Dr. Mahoney to Dr. Cutler once he realized that the experiment was in danger of receiving negative attention. This quote demonstrates that they only felt a need to repair the damages that they were responsible for once they received news of imminent consequences. J.F. Mahoney to John Cutler, (1948, February 19), Correspondence, CDC 442.

²¹⁵ Rodriguez and Garcia, "First, Do No Harm," 2122.

²¹⁶ PCSBI, v.

²¹⁷ Rodriguez and Garcia, "First, Do No Harm," 2122.

the technical jargon, the refusal to claim legal liability over the Guatemala experiments suggests that the United States' has not accepted full responsibility of the actions that federal workers committed abroad.

The 2012 lawsuit surrounding the experiment further shows the reluctance of the U.S. government to claim full responsibility of their past encroachments. The lawsuit occurred in June 2012, and was dismissed by district Judge Reggie Walton because of the Federal Torts Claim Act (FTCA). The FTCA states that the U.S. government cannot be liable for torts committed outside U.S. soil. Since the doctors in Guatemala were federally employed by the PHS and acting in their capacities as PHS employees while overseas in Guatemala, they were not personally liable for the torts committed during the experiments; instead, the PHS is the liable party, and they are not liable under the FTCA. Therefore the case was dismissed. ²¹⁸ Judge Walton even stated that the "court is powerless to provide any redress to the plaintiffs. Their pleas are more appropriately directed to the political branches of our government, who, if they choose, have the ability to grant some modicum of relief to those affected by the Guatemala Study." Judge Walton's quote suggests that it is up to the discretion of the U.S. government to determine whether or not the Guatemalans are worthy of reparation. Since the victims and their family members do not live in the United States and do not have the resources to push this case forward, the political branches of the government can continue to dismiss the case.

In contrast to Guatemala experiments, the American government has issued moral and legal apologies for the Tuskegee Syphilis Experiments. The United States provided treatment and compensation for Tuskegee subjects and their family. Even though the Guatemala

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²¹⁸ Rebecca Di Leonardo, "Federal judge dismisses lawsuit over US medical experiments in Guatemala," *Jurist* (June 14, 2012).

²¹⁹ Reggie B. Walton, "Manuel Gudiel Garcia v. Kathleen Sebelius, Civil Action No. 11-527 (RBW)," United States District Court for the District of Columbia (June 13, 2012), accessed on April 15, 2015, https://ecf.dcd.uscourts.gov/cgi-bin/show_public_doc?2011cv0527-28.

experiments were conducted outside of the United States, a similar compensation should be granted for the Guatemalan victims and their families, due to the extreme anguish they faced as a result of the American actions. Secretary of State Hillary Clinton and Health and Human Services Secretary Kathleen Sebelius extended an apology, stating that the experiment was "clearly unethical," however this apology does not also serve as a legal response. ²²⁰ Reparations for Tuskegee were not an immediate outcome of the Tuskegee experiments, however, many organizations fought for compensation. Such is not the case for the Guatemala experiments since their main advocates are abroad. ²²¹

Hopefully the current lawsuit will bring monetary, legal, physical, and psychological justice to the victims and their families. Salsbury, Clements, Bekman, Marder & Adkins of Baltimore, Maryland, Meridian 361 International Law Group, PLLC of Portland, Maine, and Escritorio Juridico Rodriguez Fajardo y Asociados of Caracas, Republica Bolivariana of Venezuela are all working towards compensation. The three firms are suing John Hopkins University, The Rockefeller Foundation, and Bristol-Meyer Squibb for the lasting physical and psychological damages inflicted on the Guatemalans. While this lawsuit is noble and creative in its attempt to sue private institutions, it reflects the U.S. governments immunity over the malicious and unlawful acts of its agents.

The lackluster nature of American response to the Guatemala experiments is also reflected in the media. The media did not pay that much attention to the Guatemala experiments

²²⁰ Robert Bazell, "U.S. Apologizes for Guatemala STD Experiments," NBC News (October 1, 2010).

²²¹ Rodriguez and Garcia, "First, Do No Harm," 2125.

²²² Paul D. Beckman, et al., "Date Stamped Complaint Against Johns Hopkins University, the Rockefeller Foundation and Bristol-Meyers Squibb, on behalf of the 750 Plaintiffs," *Alsbury, Clements, Bekman, Marder & Adkins LLC* (April 1, 2015), 27. Specifically, John Hopkins and the Rockefeller Foundation helped design, fund, and monitor the Guatemala experiments. Bristol-Meyers Squibb distributed penicillin to the researchers and knew about the failure to obtain consent. Paul D. Beckman, et al., "Date Stamped Complaint," 5-6.

when they first made headlines, or even today after the announcement of the new lawsuit.²²³ The lack of media attention indicates that this is not a subject matter that Americans are interested in or for which they want to take responsibility. Failure to digest this horrible chapter in U.S. history suggests that Americans do not see this experiment as relevant to their lives. In order to prevent future misguided impulses from turning into tragic realities, Americans need to register the history of unethical human experimentations. While media attention would shed light on the past, public awareness would also expose current medically unethical practices. Americans' refusal to integrate the Guatemala experiments into media coverage insinuates that this passive reaction is partly related to the fact that the research subjects live abroad and do not feel relevant to U.S. citizens.

While the research subjects and their families have not received a sufficient apology from the United States, it is important to note that this is a complicated case. Since there is not a decisive way of determining who all the subjects were, or the relatives of the victims, it is challenging to distribute reparations.²²⁴ Rather than compensating individual families, the U.S. government allocated \$1.8 million dollars to sexually transmitted disease prevention in Guatemala.²²⁵ In addition to the public apology and research funds, the U.S. government has shared John Cutler's archives on the Internet. While the subjects and their families should receive compensation, the availability of information allows people to think about the experiments in an honest and critical manner.

Despite the apologies, funding, and release of information, the reaction to the outbreak of the Guatemala experiment indicated that the U.S. holds non-U.S. citizens to different standards

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²²³ Rodriguez and Garcia, "First, Do No Harm," 2123.

²²⁵ Mariano Castillo, "U.S. Rejects Guatemalans' STD Lawsuit, Offers Aid," CNN (January 10, 2012).

²²⁴ Susan M. Reverby, Interview by Rachel S. Belfer, New York City, January 8, 2015. The current lawsuit has released the names of 750 plaintiffs who were either direct victims or relatives of victims. Paul D. Beckman, et al., "Date Stamped Complaint," 51-63.

when it comes to medical research. In fact, until the 1990s, the majority of U.S. medical research was conducted on Americans. 226 Today, the majority of drug trials are performed overseas in third world countries. Trials have moved abroad for several reasons. Firstly, people in developing counties do not have access to drugs and are eager to participate in research so as to get treatment. Secondly, subjects are unlikely to have been treated with other medications and therefore it is easier to isolate the effect of the trial drug. Lastly, research abroad is cheaper to conduct and faces less regulation. Overseas trials pose a series of ethical concerns. First, it is important to consider whether informed consent is obtained properly or if American doctors intimidate subjects. Second, if trial drugs are successful, pharmaceutical companies must decide if they will continue to distribute the drugs to their trial population.²²⁷ Despite these weighty ethical, political and financial concerns, human experimentation is necessary in order to test and develop drugs and medical procedures. Therefore, while the practice of human experimentation is likely to continue, the United States needs to establish a system in order to treat all human participants, regardless of their nationality or socioeconomic status, with the same ethical standards.

The heinous acts committed by U.S. officials from 1946 to 1948 in Guatemala

compounded by the recent response from the U.S. government has diminished trust of vulnerable

²²⁶ Rothman, "The Shame of Medical Research." Research involving students in Introduction to Psychology courses is an example of present day contentious human experimentation in the United States, Students in Introduction to Psychology are often required to participate in psychology research experiments at their respective universities, and until 2010, they lost credits if they did not attend their scheduled research appointments. In 2010, the Office for Human Research Protection intervened with this policy and stated that the current system violated the U.S. Department of Health and Human Services. Michael A. Carome to Justin R. Fidler, (2010, January 8), OHRP Correspondence, accessed on April 15, 2015,

http://www.hhs.gov/ohrp/policy/Correspondence/sonasystems20100108letter.html, While participation in psychology research may seem like an innocuous norm in college campuses, rigid participation standards can lead to grave consequences. Historically, unethical human experimentations often arise out of studies that have murky standards of consent. Any time that a human is the subject of an experiment, the ethics of the experiment must be taken seriously.

²²⁷ Talea Miller, "Explosive Growth in Foreign Drug Testing Raises Ethical Questions," PBS (August 23, 2011).

populations towards American doctors.²²⁸ Simply obtaining informed consent and spreading horror stories about the U.S. PHS is not enough to repair the reputation of an institution and to protect vulnerable individuals going forward. In order to repair this situation, historians must establish accurate facts about the studies and ensure safe research standards for the future.²²⁹ People must be willing to digest all aspects of this moment in U.S. history, accept the hypocrisy, and evaluate current health disparities.

The United States government's recent apology is upsetting, as it shirks legal accountability. In addition to U.S. officials keeping Guatemalans in the dark over the course of the experiments, they continue to avoid responsibility. However, even though there is a temptation to reconstruct a narrative of the PHS officials involved in the experiments as warped characters with immoral intentions, there is value in taking a step back. While the Guatemala experiments produced little medical or scientific knowledge, human subjects are often a necessary component in the advancement of both of these fields. In order to think productively about this complicated issue it cannot be immediately dismissed as an atrocious moment in American history.

In studying the history of the Guatemala experiments, and other examples of unethical human experimentation, it is essential to think critically about how to prevent future medical abuses. While the Guatemala experiments reveal how medical and ethical standards disintegrated when U.S. scientists carried their research abroad, they also serve to teach us how even well-intentioned research can run amok when it is propelled by goals and passions that lose sight of core principles of basic humanity.

Reverby, "Ethical Failures and History Lessons," 3.Reverby, "Ethical Failures and History Lessons," 3, 14.

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