From Contagion to Control: An Examination of the Oppressive but Effective Use of Tuberculosis Sanatoriums Prior to the Implementation of Antibiotics

Calley J. Jones

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Abstract:

This paper examines the treatment methods of the infectious disease Tuberculosis. It begins by giving a brief history of the disease and its extreme relevance to society today. The paper then discusses the major treatment methods used during the time span of 1880-1940, prior to the implementation of Germ Theory and before the use of antibiotics. During that time there were two mainstream treatment methods: homemade elixirs and sanatoriums, homemade elixirs contained highly random and often toxic ingredients. Individuals who would be considered charlatans in today's society sold them. The second and most effective technique for treating tuberculosis prior to antibiotics was sanatoriums. In their infancy they faced numerous tribulations that made them unappealing to the general population, and people in lower socioeconomic statuses. As public health concerns, governmental assistance, and medical knowledge increased, as did life in a sanatorium, Sanatoria would eventually prove to be the most effective and humane method to treating tuberculosis.

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Introduction

Tuberculosis was one of the most notorious killers in the adolescence of American history. Andrew Jackson, Henry David Thoreau, Eleanor Roosevelt and John Henry "Doc" Holliday all succumbed to this infamous, indiscriminate killer. Tuberculosis so permeated society and was so pervasive that it became a looming figure in Hollywood film productions. Tuberculosis has been the single-most infectious disease dating to the year 2000, "the World health Organization (WHO) estimates that perhaps a third of the world's population harbor the bacterium, and are infected with M. tuberculosis, and nearly 8 million develop the disease each year. Of the 8 million 3 die."[1] Studying tuberculosis is important to history, medicine, economics, politics and a variety of other subjects. It is remarkable that tuberculosis has almost been eradicated in a relatively short period of time.

My first introduction to tuberculosis was eight years ago when I began treatment for an autoimmune disease. At that time I was given a forty-page packet of information about increased susceptibility to lung infections, most notably tuberculosis. I was terrified, however, it fueled my desire to know all I could about tuberculosis. As I look back at those initial forty pages I see the genesis of my fascination with knowing more about this and countless other subjects. My research has given its relevance and me an appreciation of the impact tuberculosis had in today's society. During my research I made an interesting discovery. I found that my maternal and paternal grandfathers were afflicted with the disease and both received treatment at sanatoriums in Colorado during the 1950s.

In the second half of the 20th century there was a major boom of medical advancements. A great deal of capital and intellectual expenditure preceded these medical and technological

[1] Richard J. Coker, *From Chaos to Coercion: Detention and the Control of Tuberculosis* (New York, NY: St. Martin's Press, 2000) 150-151.

advances. The etiology or cause of the diseases had to first be discovered. In order to solve a problem we must understand the cause of it. The study of tuberculosis in the first half of the 20th century is important. The foundation of this study is applicable to many, if not all, diseases and can provide for greater solutions. Too many historians focus solely on the cure and modern medical treatments dealing with the disease. The most deadly tuberculosis pandemic occurred between the American Civil War (1865) and World War I (1914) and an additional epidemic from the end of World War I until the introduction to antibiotics. Due to the excitement of the wars historians often overlook the study of the treatment of tuberculosis prior to antibiotics. Society would be better served and would benefit from more attention placed on the historical role of the use of sanatoria. Sanatoriums, although riddled with issues, were the most effective means of treatment to control the spread of tuberculosis prior to the widespread use of antibiotics.

Historiography

> Between 1890 and 1950 America was flooded with images of tuberculosis, and those images spilled out of the medical arena into social policy, business; Tuberculosis became part of town life, a fixture in education, at times even a national obsession
>
> -Mark Caldwell, *The Last Crusade: The War on Consumption*

Tuberculosis, also referred to as consumption, is a communicable disease that often affects the respiratory system[2]. In Pulmonary tuberculosis the most common symptoms include sever cough that lasts more than two weeks, productive cough that includes blood and mucus,

[2] Harvard University Library Open Collections Program, *Contagion historical views on diseases and epidemic*s and Tuberculosis in Europe and North America 1800-1922, Accessed on November 27, 2015. http://ocp.hul.harvard.edu/contagion/tuberculosis.html

pain in the chest, weakness and fatigue and unexplained weight loss[3]. The diagnosis today is done through blood tests and skins tests. Tuberculosis (TB) has been responsible for the deaths of millions of individuals throughout the history of people. "Tuberculosis has an ancient if not honorable history. Millions of years ago there was a disease of little fish, which left traces of tuberculosis in their fossil, remain. Skeletons and mummies of humans who lived there thousands or more years ago saw the same change."[4] In ancient Roman and Grecian clinical observations, there are numerous works that allude to patients suffering from acute tuberculosis.[5] The presence of tb has been observed in many ancient civilizations and numerous past histories, although they do not explicitly state tuberculosis the resemblances are uncanny "Byzantine, Arabic and medieval western manuscripts are full of interesting and often accurate snippets of clinical lore, suggesting that tuberculosis or a disease very similar to it remained common and widely distributed."[6]

Tuberculosis has been the culprit of countless epidemics and the longevity of the disease is truly astounding, it is estimated that by the end of the 19th century urban areas say 70-90 perfect of people infected with TB bacillus and of that 80 percent of those people developed active tuberculosis.[7] By the early 1900s when the first reliable statistics were established tuberculosis in the United States was responsible for roughly eleven percent of totally deaths and

[3] Michelle, Badash, *Tuberculosis:TB* (September 2013) in Consumer Health Complete accessed November 27, 2015, http://web.b.ebscohost.com.proxy.uwec.edu/chc/detail?vid=2&sid=b4f0c451-c114-4771-90e9-55c9a7e54df7%40sessionmgr120&hid=107&bdata=JnNpdGU9Y2hjLWxpdmU%3d#AN=HL11522&db=cmh

[4] Harold Holland, *A Mirror for Cure-taking Experience: A Book About the Cure-taking Experience, by Wisconsin People Who Have Felt the Experience Deeply* (Menasha, WI: George Barita Publishing Co, 1946), 3.

[5] Thomas Dormandy, *The White Death: A History of Tuberculosis* (NY: New York University Press, 1999) 2-3.

[6] Ibid 2-3.

[7] Harvard Open Collections Program, *Tuberculosis in Europe and North America, 1800-1922.*

about 184.8 out of every 100,000 people per year.[8] Prior to the formation of Germ Theory by German physician and scientist Robert Koch, the treatment of tuberculosis was almost entirely ineffective and often times caused additional pain and suffering to the patients. Before the discovery of germs in the 1860's the treatment of tuberculosis was ineffective[9]. This was due to improper, in today's standards, patient handling with the contagious nature of the illness. Bloodletting was a prominent treatment of tuberculosis prior to germ theory and it consisted of cutting, using leeches and bleeding patients to rid them of their impure or sick blood.[10]

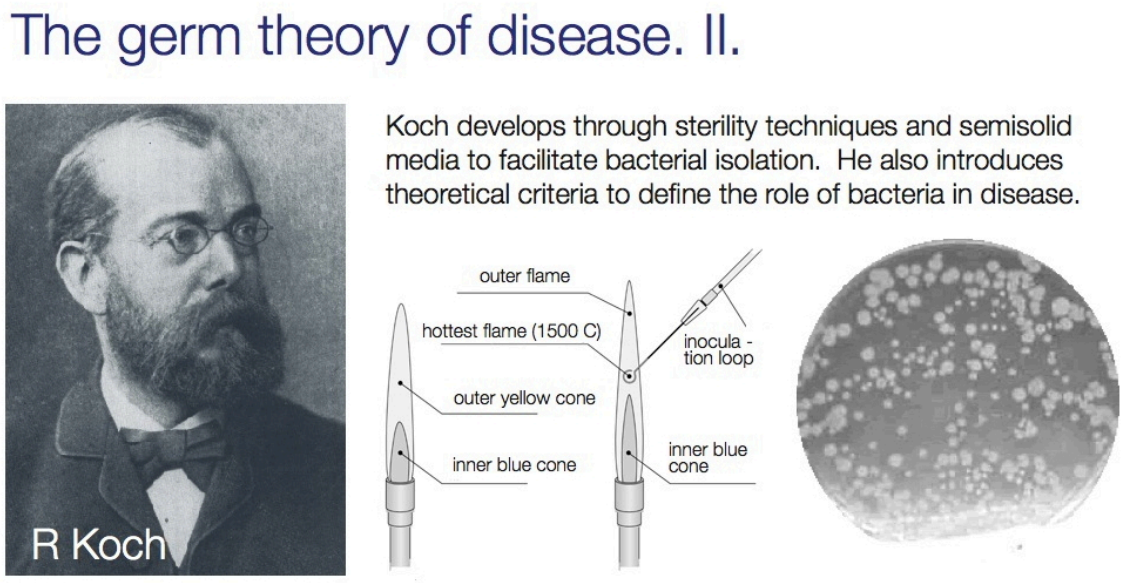

Figure 1. The Foundations of Immunology[11]

[8] Mark Caldwell, *The Last Crusade: The War on Consumption* (NY: Macmillan Publishing Company, 1988) 247.

[9] Henry Bauditch, Is consumption ever contagious, or communicated by one person to another in any manner?, Boston Society For Medical Observation, Boston 1864.

[10] Ibid.

[11] http://nfs.unipv.it/nfs/minf/dispense/immunology/lectures/files/images/koch.jpg Date accessed November 27, 2015

Germ theory, created a newfangled standard for treating the sick and those who utilized it in the mid to late 18th century helped pioneer modern medicine. The theory asserted the notion that very specific microscopic organisms are the cause of specific diseases, and Robert Koch was one of the most famous advocates and pioneers of germ theory.[12] Figure 1 displays Koch's fundamental basis for his Germ Theory and sterilization using heat, which killed the microorganism. This practice of burning a needle in times of an emergency stitches continues to be used today. It was an entirely new concept, the idea that microorganisms live on most surfaces and can cause sicknesses to humans. Germ Theory was not widely accepted or acknowledged until well into the 20th century. In A *Mirror for Cure-Takers*, a book done by the Wisconsin Anti-Tuberculosis Association, the lack of acceptance was noted in great detail:

> Read from one of the best textbooks on medicine published in 1903: 'Contagiousness of tb is slight, and although there appears to be no difficulty in transmitting the disease from one domestic animal to another, it is a rarity that a case of tuberculosis in a human being can be traced from another. In an experience of thirty-five years, including general hospital services, I can recall but a single instance of probable communication of the disease.' And today we know that every case comes from another![13]

The next section of the reading went into further detail concerning the effects of germ theory and what it contributed to medicine. Many physicians recalled the importance of Dr. Koch's findings and how contemporary treatment had been completely revolutionized in a relatively short period of time "Its 1900, and although tuberculosis had been know for thousands of years, it was but eighteen years ago that Dr. Robert Koch announced his discovery of the tubercle bacillus as the

[12] Harvard University Library Open Collections Program, Contagion historical views on diseases and epidemics.

[13] Harold Holland, *A Mirror for Cure-taking Experience: A Book About the Cure-taking Experience, by Wisconsin People Who Have Felt the Experience Deeply.*

cause of this 'killer of mankind.'"[14] With the introduction of Dr. Koch's findings, there came three prominent methods of treating tuberculosis.

Treatment Methods

The first set of treatment methods to come from germ theory and Dr. Koch's findings were the use of homemade remedies. These remedies frequently included toxic chemicals in the ingredients and absolutely no regulation "B&M External Remedy sold by Frank E. Rollins was around until 1932, it contained turpentine, ammonia and raw eggs."[15] Tubercleicide was also one of the most significant ingredients in the remedies and contained creosote carbonate and was regarded as highly effective in the treatment of tuberculosis.[16] Homemade and commercially sold remedies exploited the patients and were repeatedly considered dangerous and ineffective. People who sought the remedies did so for varying reasons. The most prominent being they could not afford expensive medical stays and they did not want their neighbors, friends or colleagues knowing that they were infected with tuberculosis.

Although doctors concocted some of the remedies, many were not. A significant remedy used in Britain was made from a gentleman in the military who referred to himself as "Major Stevens," and Thomas Dormandy notes in his book about the history of tuberculosis that each country had numerous "Major Stevens" who sought to disperse their miracle cures, some for exploitative purposes and some genuinely believed they were cures. "Major Stevens" types with insidious intentions caravanned the country selling the remedies and deemed themselves

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[14] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 206.
[15] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 206.

[16] Harold Holland, *A Mirror for Cure-taking Experience: A Book About the Cure-taking Experience, by Wisconsin People Who Have Felt the Experience Deeply.*

"medical messiahs" and manipulated the sick and weary, many times exploited every penny from the sick and their families.[17] The distributors of the remedies made small fortunes preying on the weak and weary in rural American. Their desperation and the lack of education made them easier to exploit and less likely to seek legal prosecution. Some physicians were also responsible for taking advantage of patients by using their "success" stories to sell their unique blend of treatments.

Figure 2. Dr. Schoop's Cough Cure[18]

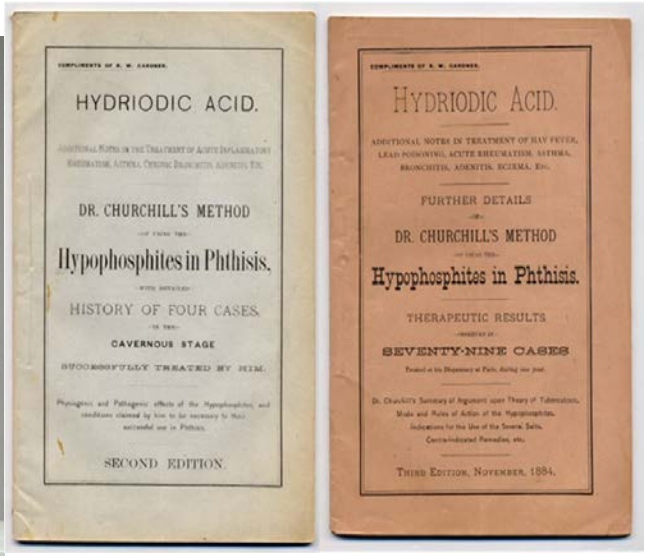

Figure 3. Hydriodic Acid[19]

The second method of treating tuberculosis was sanatoria. Sanatoria were, arguably, the most useful and effective form of treatment until the introduction of streptomycin antibiotics. They were originally introduced in the eve of the 20th century. At that time only wealthy persons afflicted with tuberculosis could afford treatment at these facilities. The purpose of a sanatorium

[17] Ibid.

[18] http://smithsonianscience.si.edu/wordpress/wp-content/uploads/2015/01/NMAH-AHB2006q11482.jpeg Date accessed November 27, 2015.

[19] https://brianaltonenmph.files.wordpress.com/2010/12/churchillsmethod-1883.jpg Date accessed November 27, 2015

was to isolate those who had tuberculosis from the general population and to provide them with the proper medical care. This proper care did vary somewhat from sanatorium to sanatorium, however, the primary goal was to have patients remain as inactive as possible. It was thought that this would eventually suffocate the bacteria "…if the lungs were made as inactive as possible the walls of the tubercles, gradually thickening and strengthening, might seal the bacilli off, protecting the surrounding tissue from infection… until the discovery of antibiotics, it dominated the treatment of tuberculosis, at least in orthodox medical circles."[20] Sanatoriums were often located in open, rural places where patients could receive fresh and clean air supply. They were also considered to be the bedrock of the treatment of tuberculosis "sanatoria in the modern sense did not take off till the second half of the nineteen century; but once launched sanatorium care (as perceived both by the public and the medical profession) became the bedrock of the treatment of tuberculosis."[21] Figure 4 displays what the inside of the early

[20] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 11.

[21] Thomas Dormandy, *The White Death: A History of Tuberculosis,"* p148.

Figure 4. Massachusetts Sanatorium[22]

Figure 4 displays patients sitting outside, in what appears to be a cold day. Exposure to crisp, clean air was thought to be effective in cleansing the lungs and body. This was a stark contrast to cities where most of the patients lived, which were full of what doctors called "bad air."[23] Figure 5 displays the openness of sanatoria and the use of fresh, clean air. Many components of

[22] Social Museum Collection, http://www.harvardartmuseums.org/collections/object/59363 Date accessed November 27, 2015.

[23] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954*, 33.

the routines in sanatoria used outside air as important approach to tuberculosis.

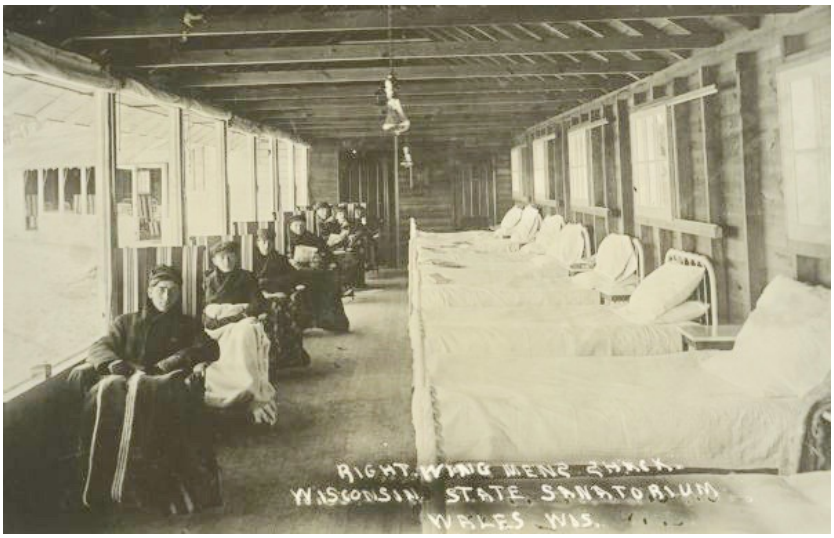

Figure 5. Wisconsin State Sanatorium[24]

This was later found to be effective because it removed the sick from crowded areas where the communication of tuberculosis was especially easy. It was easy for numerous reasons. The most prominent reason was crowded living arrangements such as tenement housing. Crowded housing arrangements with large families were ideal locations for transmission of TB, because transmission was primarily person-to-person. Richard J. Coker wrote in *From Chaos to Coercion* "Although our understanding of the transmission dynamics of tuberculosis is far from complete, what is clear is that tuberculosis is an airborne pathogen and that environmental changes can hinder its spread."[25]

The third method of treating tuberculosis, which is used today, is the use of antibiotics with medical isolation. In 1944 the antibiotic streptomycin was implemented into the treatment

[24] Wisconsin Historical Society, *Patients at Wisconsin State Tuberculosis Sanatorium (*Wales, Wisconsin, 1908) http://www.wisconsinhistory.org/Content.aspx?dsNav=N:4294963828-4294955414&dsRecordDetails=R:IM40118 Date accessed November 27, 2015.

[25] Richard J. Coker, *From Chaos to Coercion: Detention and the Control of Tuberculosis* (New York, NY: St. Martin's Press, 2000) 150-151.

of tuberculosis. It has had a profound influence on tuberculosis and other bacterial diseases. Medical isolation is essentially using a sanatorium within a larger medical complex or isolation ward. The term sanatorium for the treatment of tuberculosis was dropped around the middle of the 20th century because it grew to have a negative stigma. This stigma came from psychiatric wards and other benevolent institutions being called sanatoriums[26]. Antibiotics are the most effective way to treat and cure a person with tuberculosis because they perform two major tasks. The first task that antibiotics accomplish is eradicating the bacteria. Then with strict adherence to dosage instructions, the disease can be cured. The introduction of antibiotics revolutionized medicine and quality of life for those with access to them.

The Influence of Sanatoriums

Sanatoriums were the most prominent method of treating tuberculosis prior to the implementation of antibiotics. Throughout the United States there were thousands of institutions which treated and cared for patients with TB. Most of these establishments were well outside of cites, generally in the countryside. Tuberculosis and the tuberculosis bacteria thrived in crowded, ill-ventilated quarters. Prior to antibiotics, medical intervention was not entirely effective, but accompanied by a sanatorium it had more potential to advance the health of those infected with tuberculosis. Mary Ellen Stolder, a former University of Wisconsin-Eau Claire graduate, wrote about a particular sanatorium in the state of Wisconsin. She examined the influence of Mount Washington Sanatorium and stressed the importance of the routine of the sanatorium. Stolder argued that some prominent historians believe the influence of sanatoriums to be greatly inflated,

[26] Department of Commerce Bureau of the Census, *Benevolent Institutions 1910*, Washington Government Printing Office 1910, 11.

especially in the case of Mount Washington Sanatorium in Wisconsin.[27] Stolder then claims "Mount Washington Sanatorium was regarded by local citizens as both beneficial—if not curative—to patients and a good way to protect the public from exposure to the disease,"[28] this position continues to be argued by historians. The most beneficial aspect about sanatoriums was their containing nature. They were safe places for the sick to go and they also provided areas for recuperation and health building. Figure 6 displays Mt Washington Sanatorium, it closely resembles a hospital facilities.

Figure 6: Mt Washington Sanatorium[29]

Prior to the implementation and invention of antibiotics sanatoriums played a large role in the treatment and approach to the tuberculosis problem. This was due to two principles suggested by John Bunyan's *The Life and Death of Mr. Badman,* which was quoted by

[27] Mary Ellen Stolder, "Full Measure of Devotion: The Community Crusade against Tuberculosis in Eau Claire County, 1903-1939", (master's thesis, University of Wisconsin Eau Claire, 1995), vi.

[28] Ibid.

[29] Wisconsin Historical Society, *Mt. Washington Sanatorium,* http://www.wisconsinhistory.org/Content.aspx?dsNav=N:4294963828-4294955414&dsRecordDetails=R:IM30717 accessed December 10, 2015.

Dormandy in *White Death: A History of Tuberculosis.* The first principle was that they ensured that the working power was not impeded of the patients' natural resistance and recuperative power. The second principle suggested by Bunyan in Dormandy's book was that the benefits of resting and exercise were best while under the supervision of medical professionals.[30] It was most common in poorer residential areas including tenement housing or other crowed facilities. One physician noted the horrendous conditions of tenant housing "Poole, a member of the Charity Organization Society of the City of New York's antituberculosis committee, was shocked by the desperation of the sufferer, but even more shocked by the squalor by his surroundings and the knowledge that they were endlessly duplicated in neighboring blocks."[31] Although steps were taken to improve living situations in the cities, they were easily ignored due to political corruption and landlord creativity. In the end of the nineteenth century public heath standards for buildings had seen little improvement, "in the 1890s the situation had come to be felt desperate, and the knowledge that the White Plague spreading throughout these blighted neighborhoods added to the urgency."[32]

"Living in squalor" was also observed in areas outside of the city. Small houses with large families were particularly dangerous if exposed to tuberculosis. Immigrant families in Wisconsin had strikingly high numbers of tuberculosis, due to crowed homes and places of work. This led to tuberculosis affecting a significant number of low-income families and individuals. It was generally perceived as a disease of the lower socioeconomic status due to their higher incidence rate. Although anyone exposed to TB was potentially imperiled.

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[30] Thomas Dormandy, *The White Death: A history of Tuberculosis*, p149-150.

[31] Richard J. Coker, *From Chaos to Coersion: Detention and the Control of Tuberculosis, 179.*

[32] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954*, 183.

In the turn of the last century the rich were the only people who could afford treatment in sanatoriums. They had the financial means to discontinue work and or the capital to fund the expensive stays in the treatment facilities. This rapidly shifted when small-scale epidemics of tuberculosis began in America's larger cities. The disease was no longer confined to the shanties and notoriously slum-like neighborhoods as Mulberry Bend in New York City, it had spread to middle-class families.[33] The middle-class families demanded reform of public policies, which began a fairly large public health and policy reformation. As the public health industry gained momentum, sanatoriums grew in their numbers of patients and facilities. Although some of the patients were there unwillingly. The newly established public health standards allowed the forceful isolation of people infected with tuberculosis.

Due to the highly contagious nature of TB and the high death rates associated with it, governmental intrusion peaked in the eve of the 20th century. This is directly observed in public policies enacted by Herman M. Biggs, the general medical director of New York City in the 1890s. Biggs was a massive proponent of more intense public health control of tuberculosis. Prior to Biggs "treatment of any sort was rare, and though registration of all cases was required in theory and laws were on the books requiring the forced segregation of recalcitrant consumptives, the sheer dimensions of problems made enforcement inconsistent at best."[34] Biggs saw this as a tremendous public health concern and spent the rest of his career reforming policies and attitudes regarding tuberculosis. His most significant and controversial recommendation was in 1893. He requested not only dissemination of information to the public and also the requirement that all public institutions be required to transmit to the health department the names

[33] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954*, 183.

[34] Richard J. Coker, *From Chaos to Coercion: Detention and the Control of Tuberculosis*.

and addresses of anyone they had encountered with tuberculosis.[35] His recommendation caused panic to people who could not afford treatment because they would be forced into sanatoriums and segregation, which terrified them.

The first place opened to the public was located on an island in New York and was frightening; "in 1902 the city opened a hospital for the 'consumptive poor' and 'moribund cases' on Blackwell's Island…it was joined in 1903 by a new facility, the Riverside Sanatorium for Pulmonary Disease on North Brother Island."[36] The beneficiaries of Riverside Sanatorium were astutely aware of the dreary atmosphere of the island and referred to it as "consumptives' prison and regarded it with dread."[37] The dreary and oppressive environments in sanatoriums for the poor were a chief reason as to why many of the infected chose to avoid them "The Blackwell's Island hospital opened, terrorizing the poor and powerless."[38] has a strong influence and plays an important part in the production of the ultimate recovery."[39] These original public institutions worked to contain the disease, rather than cure the people. They did provide care, nutrition and significantly cleaner and healthier air, but the patients were not treated, as one would expect. Due to the lack of resources in public facilities and high numbers of patients, care was methodical and extremely impersonal. They made an already melancholy situation, even more so. A recently immigrated woman would have rather died in her home in Mullberry Bend rather than enter Blackwell for treatment "She expected death and saw no point in prolonging the agony in strange surroundings: 'it's got to come anyway, an' we'd get homesick for the block, so I guess we'll

[35] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 183.

[36] Ibid

[37] Ibid, 191

[38] Ibid.

[39] Harold Holland, *A Mirror for Cure-taking Experience: A Book About the Cure-taking Experience, by Wisconsin People Who Have Felt the Experience Deeply, xiii.*

stay.'"[40] Middle-class philanthropists and infected could not comprehend why anyone would willingly stay in slums to die. This was a paramount difference and massive complication for the treatment of tuberculosis. In their philanthropic efforts, they had inadvertently created a sense of ethic inferiority among the infected poor and immigrants.

As previously mentioned, the socioeconomic status of patients influenced the way that they were treated both medically and socially. "By the turn of the century the old attitudes of hospitality and compassion were almost completely gone: they were replaced by a terrible fear of the vast encroaching contagion," this was no better displayed than in the treatment of the sick, who were predominantly poor.[41] People of lower socioeconomic status would get treated and seen by public doctors in public institutions. Because of Dr. Biggs' suggestions, public doctors had an obligation to inform the medical association and public health officials of their patient's names and addresses. Biggs referendums were also seen on new immigrants. Ellis Island is an example of increased public health concerns of infectious diseases. Ellis Island sought to quarantine new immigrants and to prohibit the spread of contagious diseases. New York City, due to its excessive population, was vulnerable and highly susceptible to epidemics of infectious diseases. Tenant housing was also a grave concern for public health. Tenant housing facilities were hotspots for immigrants and people belonging to lower socioeconomic statuses. The poor living in the tenant housing could only afford treatment from public doctors, and their infected position was well known and partially broadcasted. It was not broadcasted in a conventional sense but doctors made no secrets of the identity of patients, and their areas of residence. A striking majority of the sick treated by public doctors in New York City lived in what was

[40]Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 183.

[41] Thomas Dormandy, *The White Death: A History of Tuberculosis*, 121.

referred to as the "lung block." The "lung block" title came from Ernest Poole who was a member of the Charity Organization Society of the City of New York's Antituberculosis Committee and his astute observations of tenement housings "Hence the Lung Block. Poole estimated there were at least twenty thousand cases of tuberculosis in New Yorks, primarily in the slum districts… Cherry, Catherine, Hamilton and Market streets was infamous even allowing for its neighborhood."[42] The "lung block" had a huge tuberculosis issue that propagated from the atrocious living conditions and lack of building standards and codes. Outside of the "lung block" where standards of living were marginally better, people lived and were treated differently.

The people who could afford private doctors experienced a significantly different tuberculosis experience than those who were treated by public doctors. Private doctors were not originally subjected to the same reporting standards as the public workers. They had considerably more lenience on their reporting. Briggs and his new codes were only be taken as suggestions in the private field and had little authority "Hospitals were henceforward encourage to isolate tubercular patients; the Department of Charities and Correction was urged to establish a 'Consumptive Hospital': and all *private* physicians were 'requested' to notify the Health Department of all cases of tuberculosis."[43] Some private doctors were motivated by money, and did not comply with Biggs original requests and allowed their patients more leisure in their treatment choices. Many patients chose to enter countryside sanatoriums that were spacious and although isolated, not unpleasant.[44] Loomis Sanatorium in New York was one of the nicest institutions in the early 20th century and saw more success than publically operated sanatoriums.

[42] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 190.

[43] Ibid

[44] Ibid

One of the principal reasons for this was the happiness and psychological wellbeing of the patients.[45]

A vast majority of the literature and books on tuberculosis have noted the importance of mental health in the treatment of the illness. One letter by an anonymous source written to incoming patients describes their experience in the sanatorium and reflects on positive thinking while getting treatment; "I don't believe anyone could ever be anymore downhearted and blue than I was. But they told me at the sanatorium where I first went, that that wouldn't get me anywhere and that I must get over that and get down to business, getting well."[46] This expatient's letter gave advise to new patients and urged them to embrace the treatment methods, listen to the doctors and try to fully believe in their health. Many patients wrote to their loved ones, from the earliest sanatoria, how they longed for social interaction and to feel welcome in society again. Letters from patients also reflected on the dreary consequences of prolonged "rest." A patient from the 1920s recollects the difficulty and daunting task of resting "Back in the rear half of my brain, there was something that made me realize that I should get into that bed, yet it was the most difficult thing that I had tackled in my life."[47] The isolation involved in the treatment was and continues to be, a large obstacle patients face. The original public institutions, like Blackwell's Island, brought attention to the tremendous effects of mental health on the treatment of tuberculosis. Oppressive and dreadful institutions were detrimental to the happiness and mental health of the patients and eventually hindered their ability to get better. It was crucial for

[45] Harold Holland, *A Mirror for Cure-taking Experience: A Book About the Cure-taking Experience, by Wisconsin People Who Have Felt the Experience Deeply, xiii.*

[46] Ibid, 19.

[47] Ibid, 29.

the sick to remain relatively optimistic "the fight against tuberculosis, sometimes taking many years, the mental attitude of the patient, the ability to take reverses with a smile,

In the infancy of private sanatoriums, they offered the best possible care to the patients because they treated them as patients and not as infected. The reason they were able to ensure the health and happiness of their patients was because they were privately funded and operated. Some institutions were privately funded by large life insurance companies that were getting drained financially due to the extremely high rate of deaths from tuberculosis. The Metropolitan Life Insurance Company in New York gave massive amounts of money to the antituberculosis movement in 1915 and 1916, to fund an experiment that would help the tuberculosis crusade. The money went toward a facility that had the best doctors, space and state of the art care, whose goal was "to encourage periodic medical examinations for every member of the community; to supply proper medical care for the tubercular, in sanatoriums where necessary, and through a dispensary where that was impossible, enlist the cooperation of state and local officers, employers and unions."[48] This would then influence the treatment methods of other privately funded or operated facilities.

After public concerns from the extensive governmental intervention in all sanatoriums and private care, there came a shift in the approach to tuberculosis. Things shifted from intimidation tactics to gain participation in treatment to more sympathetic approaches. Thus the sanatoriums changed. First they changed in private care and then in the public institutions. They were not oppressive but clean, open and relaxing much to patients' surprise as one patient noted, "The word 'sanatorium' to me meant a dark, gloomy, gray building somewhere in 'no man's land.' The day we drove up the driveway that word had a far different meaning. To my surprise I

[48] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954*, 197.

found a large but cozy building located on grounds as beautiful as any park I had ever seen. Neither was the inside dull or lifeless."[49] Patients were also told to not only rest their physical bodies but take mental rest as well. Sanatorium staff at private institutions were less overworked and cared for significantly fewer patients than nurses in public sanatoriums and tuberculosis wards.[50] Fortunately, public policies grew in favor of the general population, and state operated sanatoriums with higher standards of operation opened. This was in part due to the increased health concerns for the general public, in New York two large cities began proactive and aggressive plans to compact tuberculosis as early as 1915 they "

When conditions of institutions like Blackwell's Island, located in New York City, gained publicity, the treatment methods and environment made a dramatic change. Bigg's policies, although meant for the greater public good, created notable personal liberty violations. The forced entrance into domineering island sanatoriums, did not go over well with the changing political scene America.[51] Physicians were the most vocal opponents of Bigg's sanctions:

> Of course the outrage here is at the doctor's loss of authority, not at the patient's loss of privacy, but in another editorial the *record* extended its concert to the victims of consumption: "it is… the extra missionary work assumed by the board which is the ominous and threatening quantity in the equation- the desire to assume official control of the cases after they have been reported"

Upon public concern, Biggs shifted his goals and later became the commissioner of the New York State Health Department in 1913. While commissioner he would set up sanatorium treatment mechanisms that proved to be both effective and humane "Its powers were growing as New York began to establish a statewide system of sanatoriums, all of which had to be

[49] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954,* 197.

[50] Ibid, 190.

[51] Ibid.

supervised… yet under his aegis the state established an exemplary antituberculosis plan, and by the 1930s virtually every county operated its own sanatorium. Most of them far gentler in spirit than was the early Otisville."[52] As public health standards grew, the treatment of tuberculosis in sanatoriums shifted. The patients in public care facilities, the general population, started to get treated as patients and not as threats to society. Unfortunately there were still disenfranchised patients. While Biggs acted as an advocate for the humane treatment of all New Yorkers, he had a different approach to the millions of immigrants coming to New York's shores.

In the early 1900s immigration to the United States was extremely common. New York City welcomed millions of immigrants while also bringing in contagious diseases. This period of time was the beginning of widespread public health concerns and a quest to approach it effectively, "Indeed, the controversies regarding the isolation of patients in the nineteenth century and early twentieth century show, just like now, that disputes over matters of science and public healthy policy were rooted deep in ideological divisions."[53] The American people were divided by their demands for public health and their demands for increased civil liberties, in New York especially this divide was observed "Such associations, de Tocqueville observed, often initiated men of rank, exercised a power over social policy just short of official status, yet far more sweeping than one might at first expect."[54] As medical knowledge grew, however, politicians and doctors alike called for a reformation of public health. By the 1920s facilities for the treatment of tuberculosis were effective and contained significantly less discrimination. This was due to public knowledge of the disease and its highly contagious nature. The concern was to treat tuberculosis and get it out of the general population. Patients who could not afford treatment

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[52] Mark Caldwell, *The Last Crusade: The War on Consumption 1862-1954*, 197.
[53] Richard J. Coker, *From Chaos to Coercion: Detention and the Control of Tuberculosis* 34.
[54] Ibid.

were welcomed into facilities because they wanted to eradicate the disease, which did not discriminate.

In Wisconsin alone, populations in sanatoriums grew as they gained more governmental funding. From 1904 to 1910 the amount of sanatoriums increased in Wisconsin from twenty-four to 107.[55] Public concerns for the treatment of tuberculosis as well as the wellbeing of those infected were the primary reasons behind the dramatic increases in sanatoriums. The sick that needed treatment saw higher chances of checking into sanatoriums, regardless of their socioeconomic status. The states sought to ensure the proper and ethical treatment of the sick, for the good of the entire population. This utilitarian approach was present in the infancy of sanatoriums but it made a shift, as not just the health of people but the quality of life became important measures of success for the country. As time progressed, treatment in sanatoriums shifted from one of dread to one of understanding necessity. Unfortunately there was still for discrimination of the disenfranchised. This was due to the costs of the treatment facilitates and the amount of open rooms in the sanatoriums. The rooms first went to those who could afford them and then to those who received government assistance or scholarship. Prior to increased sanatoriums, many were not accepted into the facilities. One man's family sought reentry into the Mt. Washington Sanatorium in Eau Claire County, Wisconsin but was denied due to overcrowding.[56]

Conclusion

[55] Department of Commerce Bureau of the Census, *Benevolent Institutions 1910,* Washington Government Printing Office 1910, 11.

[56] Mary Ellen Stolder, "Full Measure of Devotion: The Community Crusade against Tuberculosis in Eau Claire County, 1903-1939."

Tuberculosis was one of the most notorious diseases throughout history and has been responsible for killing millions of people. Before the concept of contagion and infectious diseases treating TB was ineffective and extremely primitive. Between Germ Theory and the implantation of antibiotics there were two common treatment methods of TB. The first were homemade remedies that contained toxic and non-effective ingredients sold by charlatans in caravans. They exploited the sick and their families while making small fortunes on the phony elixirs. The second and most viable option for treatment of tuberculosis prior to the implementation of antibiotics was tubercular sanatoriums.

Sanatoriums were effective in containing the sick and allowing proper rest for treatment. They were also, in their infancy riddled with discrimination and oppressive conditions that gave them an ominous reputation. Medical officer Herman Biggs was the chief proponent of state sanctioned treatment facilities for TB and made numerous shifts throughout his career. He began with an iron fist and wanted to combat tuberculosis in an extremely militant and authoritarian manor. Eventually Biggs would adapt his policies and work toward an effective solution, which resulted in a sanatorium being a useful and not feared element of treatment.

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