Native American Student Healthcare: Health, Hygiene, and Mortality at U.S Off-Reservation Boarding Schools

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Abstract

The subject of student health at U.S off-reservation boarding schools is not often discussed in depth in historical research. As such, this study seeks to investigate this topic area and contribute towards bridging that gap. Oftentimes, official records indicated a wide array of efforts undertaken at boarding schools to maintain student health. However, these records conflict with accounts of the practical experience at these schools. Upon examination, the issues experienced at boarding schools stemmed from three interconnected problems: over enrollment, overcrowding, and inadequate funding. These facilities were designed to accommodate a specified student body size, which was exceeded when officials enrolled too many students. As a consequence, resources became stretched thin, and quality of life stagnated at a low point. This affected multiple areas of boarding schools including living arrangements, disease outbreaks, health curriculum, medical care, meal plans, and overall student mortality. Furthermore, these problems were exacerbated by school officials lack of honesty and transparency, with regard to the status of their institutions. When it came time to report to Congress, boarding school representatives frequently glossed over the reality of student health. As a result, it was difficult to get a full understanding of the scope of the problems faced within the boarding school system. Ultimately, school officials placed their institutions above the wellbeing of the students they promised to care for.

During the nineteenth and twentieth centuries, many Native American children were placed under the care of school officials at off-reservation boarding schools by the U.S government. The primary goal was to attempt to integrate Native Americans into mainstream society as 'capable' individuals through education. However, to do this "children had to be kept healthy and alive if they were to have the chance to succeed in their planned American experience." Over time, these schools developed a poor reputation for their management of student health care. Among Native American parents this was a well-known fact, but for the general public this was less obvious. For years, both the Bureau of Indian Affairs (B.I.A) and school superintendents presented boarding schools as safe from disease outbreaks, however official reports suggest otherwise. In several cases, officials recorded outbreaks of numerous diseases including tuberculosis, trachoma, influenza, measles, chicken pox, diphtheria, and typhoid fever. At the guidance of medical

physicians, preventative measures were to be implemented at boarding schools in order to curtail these issues. Despite making promises to improve student health care, the statements and actions of officials painted a contradictory picture. Their struggles were a result of three related problems influencing student life: over enrollment, overcrowding, and insufficient funding. When the time came for school officials to carry out their responsibilities, they ultimately placed their institutions above the wellbeing of the students they promised to care for.

The topic of student health at off-reservation boarding schools has mainly been covered at a fundamental level by several historians. Typically, studies in this area cover the breadth of the boarding school experience, with some emphasis on native voices in recent years. As a result, subjects such as student health are not investigated with a great level of depth. One prominent historian in this area is Brenda J. Child, whose work *Boarding School Seasons: American Indian Families*, 1900-1940 is cited frequently.² Child examines the experiences of Ojibwe students and their families at Haskell Institute, Flandreau Indian School, and Pipestone Indian School. Placing native voices at the forefront, Child seeks to build upon past discussions by exploring how Native American identity was resilient against efforts to diminish it. While Child provides an effective and emotional retelling of boarding school history, her work follows the familiar pattern of failing to provide a comprehensive discussion of certain specific topics such as health.

In contrast, there has been a growing interest in exploring the details of health care at boarding schools. A substantial piece of work regarding Native American student health is *Empty Beds: Indian Student Health at Sherman Institute, 1902-1922* by historian Jean Keller.³ Keller takes a particular interest in "student health, sickness, and death" at Sherman Institute and Perris Indian School during the twentieth century.⁴ According to Keller, historians have only explored the history of boarding school health at the surface level. She notes that this is most likely due to

"the complexity of the issue" as most historians wish to pursue "an overview" of boarding schools "rather than a comprehensive study of a single aspect of them." In addition, Keller argues that historians have not explored the history of Sherman itself. In response, using letters from the infamous steel vault at Sherman Indian Museum, Keller thoroughly examines the health history of Native American students. She argues that unlike other boarding schools, Sherman students maintained "a healthy living environment" which "faired very well" for them.

In a similar vein, "Chilocco: Health Conditions at a Native American Boarding School, 1884–1930," by scholar Wynona W. Murphy, compares the health conditions of Chilocco Indian Agricultural Boarding School with those of two other well-known institutions. Specifically, Murphy compares Chilocco to Hampton Institute and Carlisle Indian Industrial School. According to Murphy, Chilocco school officials took the correct steps to successfully slow down the decline of student health. Emphasizing Chilocco's "good hospital facilities, unique healthcare practices, [and]- political connections." This is in support to previous historians' understanding that the physical well-being of Native American students varied from place to place. In light of the results of similar schools, Murphy argues that Chilocco "was perhaps an exception to the rule."

In "A Very Serious and Perplexing Epidemic of Grippe': The Influenza of 1918 at the Haskell Institute," historian Mikaëla M. Adams also provides some meaningful insight. ¹⁰ Unlike previous historians mentioned, Adam's research explicitly focuses on the outbreak of a "new strain of influenza" during the "spring of 1918" at Haskell Institute. ¹¹ According to Adams, historians have firmly established the significance of disease in Native American history through repeated discussion. However, she highlights that "medical history remains an underutilized lens through which to view the Native American past." Adams wishes to call attention to the ultimate failure of school officials' ability to care for students, as they instead prioritized their institutions. In

addition, Adams spotlights the active involvement of parent's attempts to maintain family connections in a time when it was made to be difficult.

Similarly, David H. DeJong's ""Unless They Are Kept Alive": Federal Indian Schools and Student Health, 1878-1918," explains how these schools failed their students. ¹³ DeJong argues that official studies on student health demonstrate how "federal policies had been a disaster and this failure was nowhere greater than in the field of education." This failure from DeJong's perspective was due to "underfunded and overtaxed Indian Service," coupled with a Congress unwilling to invest further. ¹⁵ DeJong asserts that historians have predominantly avoided the topic of student health. Specifically, they consider student health to be a minor piece of the boarding school experience, or simply invest little time into the topic. In the end, DeJong adds their conclusion to the growing narrative that boarding schools failed to protect the physical wellbeing of their students.

Finally, "A Blueprint for Death in U.S Off-Reservation Boarding Schools: Rethinking Institutional Mortalities at Carlisle Indian Industrial School, 1879-1918," historian Preston McBride examines an extreme instance of poor student health care. Like other historians before him, McBride had taken an interest in Carlisle Industrial School. However, unlike others before him, McBride explores the health conditions of students at Carlisle while placing an emphasis on mortality. This is due to the fact that Carlisle had one of the highest rates of student death in U.S boarding school history. So much in fact that historians are still unsure of the true number of students that died as a result of having had attended Carlisle. This includes sick students that left the school, only to die at their homes. As a result, McBride argues that Carlisle's impact on Native American student life "was far more lethal than previously known." Ultimately, McBride wishes to further expand upon the data of student mortality at off-reservation boarding schools.

Altogether, the use of these six studies is highly representative of current discussions surrounding student health care at off-reservation boarding schools.

From the start of boarding school history, it became clear that school officials' main priority, above everything else, was to maximize the number of Native American students they could integrate into mainstream society. As a consequence, student health became a secondary concern within the boarding school system. Issues such as student living arrangements did not receive the attention they needed from school wardens. The biggest contributor was the poorly thought out architecture of the school buildings. These structures were lacking key design features which would have improved the wellbeing of the students occupying them. For example, plumbing at early off-reservation boarding schools frequently did not exist or was inadequate. In other words, these building were not built with sanitation in mind and instead were built in an economic manner to house children efficiently. Students were housed in "large dormitory-style rooms" which functioned as communal spaces that had poor ventilation and lighting.¹⁸ In one case, Edwin Bracklin, a student at Carlisle, reported that windows in the girls' dormitory "were nailed down, leaving them with little to no fresh air." In addition, gender separation was implemented, and beds were typically lined up in rows within close proximity to other students. In some cases, "two children were in a single bed, not because they preferred- but because no room was left to place additional beds."²⁰ This layout proved to be problematic as school officials filled their dormitories well over their maximum capacity, causing overcrowding and the draining of resources. This was a direct result from over enrollment, which had retained its roots from Carlisle's founder, Richard H. Pratt. During the creation of Carlisle Indian Industrial School in 1879, "Pratt returned with twelve more [students] than authorized."21 The practice of over enrollment at boarding schools became a familiar pattern. With a large number of students enrolled, it was not uncommon for sick

children to be admitted and intermingle with healthy students. While it was true that schools performed physical exams on incoming students, this was often very superficial. School officials would mainly perform a visual check that made it easy for them to miss hidden internal diseases. The combination of these factors fostered an environment that was a petri dish for disease.

Ahead of these shortcomings, according to Keller, the B.I.A had long "acknowledged the importance of maintaining student health- [and] the need for improving school facilities" as early as 1891.²² Although they had recognized the responsibility they had to uphold student health, measures were not formally introduced until four years later in 1895 under Superintendent of Indian Schools, William Hailmann. Previously having observed the decline of boarding schools, Hailmann pushed B.I.A agents and school superintendents to make immediate reforms. This included multiple areas of boarding schools such as ventilation, lighting, building expansions, running water, flushable toilets, and personal items like towels, beds, combs, and toothbrushes. However, this "like many Indian Office directives, was disregarded in order to maximize enrollment and minimize cost."²³ This would only be the beginning of multiple figures pushing on different fronts to address either small or large scale issues within the boarding school system. Three years later, in 1897, William Jones, Commissioner of Indian Affairs, advised that bathtubs be replaced with showers to avoid the use of stagnate water, but was also ultimately ignored. Finally, this recommendation would come up once again in 1911 when Dr. John A. Murphy, "an expert of tuberculosis," recommended that Carlisle install showers.²⁴ Overall, Dr. Murphy was highly critical of the conditions at Carlisle. In contrast, a year later in 1912, Dr. Murphy would visit Chilocco and remark that the students there were the healthiest he had seen. Lastly, in 1916 Harvey B. Peairs, a seasoned veteran within the boarding school system, recommended that Carlisle install cabinets in washrooms so students may store their belongings. Essentially, Peairs

saw this as important due to the fact that students lacked a place to put away soiled clothes, shoes, and towels. However, Peairs, who was in charge of Haskell Institute, was not himself the best role model for the handling of student welfare. It wouldn't be until the turn of the twentieth century that the state of student health at boarding schools would hit an untenable low point. At a minimum something needed to be done to make it easier to isolate healthy students from the sick.

In response, the B.I.A proposed the construction of sanatoriums in close proximity to offreservation boarding schools in 1905 under its new Commissioner of Indian Affairs, Francis Leupp. This was a long time coming as sanatoriums had been previously recommended by medical physicians while advising school superintendents. This was done to provide a "suitable environment for the care of tubercular children," as well as other sick students.²⁵ One such example of a sanatorium was "east of the Phoenix Indian School."26 Sick students were sometimes housed at these sanatoriums in order to reduce the spread of disease at boarding schools. At the East Farm Sanatorium, sick students were placed in "bungalow type" rooms with "screened openings."²⁷ Additionally, room entrances utilized "canvas flaps or curtains" to circulate fresh air into rooms. ²⁸ A further reason this was done was to stop ordinary flies, which could carry diseases like cholera, from entering rooms. Boys and girls were once again separated, with the girls either being placed in entirely different buildings or moved to a different floor. At East Farm, female students were situated on the second floor of the main building which contained "a large screened porch." This was done to optimize the airflow throughout the building, and so students "could be retained at the schools while reaping the benefits of an open-air environment conducive to recovery."³⁰ Screen porches, also known as sleeping porches, were adopted as a cheap way to "alleviate some of the worst conditions of overcrowding," without needing to construct new buildings.³¹ While this was a quick and easy solution, it did not come without repercussions, as proved by Pipestone Indian School. The addition of a new porch in the boy's dormitory helped

house more students, but in the process three windows were lost "which left one window for thirty-five closely arranged beds." Despite school officials attempts to create a healthier environment for sick students, they failed to account for climate and weather patterns that varied from school to school. Since most students at sanatoriums were usually dealing with some type of pulmonary disease, exposure to cold air often delayed recovery.

In addition, off-reservation boarding schools began to move away from large dormitory style rooms "to small dormitories and individual rooms." Wanting to avoid the failures of its predecessors, newer boarding schools like Sherman Institute focused on redesigning student housing. Furthermore, to prevent outbreaks of disease from manifesting on school grounds, school officials like Harwood Hall, the superintendent of Sherman, sought to minimize mass student gatherings. He argued that changes were necessary in order to limit the spread of disease, as well as provide students with their own space and sense of privacy. As a result, Sherman students were placed in new "two bed dormitory" rooms.³⁴ Notably, similar actions were not taken at other schools until the 1920s. The size of dormitories was not the only issue that needed to be addressed. Most boarding school buildings that were constructed in the late nineteenth century were worn down. It was of no surprise that school officials failed to properly maintain their facilities over an extended amount of time. Often, it fell to the students to repair the buildings or construct new ones themselves. For example, in 1910, "Haskell boys constructed a two-story building addition that housed a swimming pool, twenty-eight showers, and several new dressing rooms."³⁵ While this limited short term costs, students were naturally not experts and, in some cases, lacked the strength for significant work to be done. This was not to say that the work could not be done, rather students were not always efficient or an effective way to construct newly equipped buildings. In light of this, boarding schools continued to face problems as a consequence of an inability to make long term improvements.

The off-reservation boarding school system frequently found itself struggling with the outbreak of disease. Airborne diseases like tuberculosis, influenza, and measles proved to be the most difficult to remedy over the course of boarding school history. As mentioned previously, overcrowding had exacerbated the issue of widespread disease on school grounds, to the point of deadly consequence. Tuberculosis in particular was continually noted as the biggest threat to student health by medical physicians, school officials, and B.I.A agents. For those unaware, tuberculosis, also known as consumption, is an airborne disease that primarily attacks the lungs and is transmissible via inhalation of a bacteria called *mycobacterium tuberculosis*. Typically, people infected with this disease leave behind the bacteria which "may float in the air for several hours, greatly increasing the chance of spread."36 Early in the course of the disease, symptoms are unlikely, and if any do manifest, they will appear similar to the start of a cold or flu. Coughing is the biggest indicator of having contracted tuberculosis, especially after it has persisted for three weeks or longer. Over time, more symptoms appear such as "low fever, weight loss, chronic fatigue, and heavy sweating, particularly at night."³⁷ Finally, once the disease has reached its most advanced stages, infected people experience severe chest pain and begin coughing up blood. It should be noted that this process is further accelerated in those who are immunocompromised. As a result, tuberculosis has associated itself strongly with unsanitary conditions. The mixture of overcrowding, poor hygiene, poor nutrition, a filthy environment, and an unfamiliar lifestyle made it possible for tuberculosis to manifest in the boarding school system. Therefore, it follows naturally that this disease spread at an increased rate, affecting the lives of hundreds of Native American students. In a study done in 1908 by the researchers Hrdlička and Johnson, it was found

that tuberculosis was "on the mouthpieces of wind instruments examined at Phoenix Indian School."³⁸ The discovery was crystal clear, "wind instruments posed a clear danger to students health by transmitting tuberculosis."³⁹ In response, the B.I.A had to quickly scramble to inform school superintendents regarding the high risk of exposure to the disease now posed to students. While this was only one instance of an extreme case of student contact with tuberculosis, this would not be the last of its kind. In the long term, tuberculosis became one of the main causes of death, and one of the most active diseases in boarding school history.

The persistence of tuberculosis was due in part to the fact that officials believed, with little evidence, that Native Americans were genetically susceptible to the disease, and thus action was of limited use. One such believer of this idea was Commissioner of Indian Affairs, William Jones, who "maintained a firm belief that tuberculosis was hereditary, and that Indians were simply predisposed to succumb to the disease."40 As a result of his indecisive action and poor enforcement, Jones received criticism from the public, medical physicians, and other B.I.A officials for the prevalence of the disease. This led Jones to order B.I.A physicians to "conduct a health survey of the Indian population" in July of 1903, with a heavy focus on student health at off-reservation boarding schools. 41 The survey would be completed the following year in March of 1904, and it would be "the first comprehensive study of Indian morbidity in the United States." When it came to the pervasiveness of tuberculosis, it was surmised that it was a failure of unsanitary conditions, inadequate meals, lack of medical care, abuse of alcohol, overcrowding, interracial marriages with white people, and intermarriage with people within their communities. According to Keller, this underscored two things: B.I.A physicians were conflicted on the science behind the spread of tuberculosis, and their racist mentality influenced their judgement. Simply put, physicians could not come to a consensus on how the disease spread, therefore they could not agree on an effective

treatment. As a result, it was difficult for boarding schools to execute a consistent approach to combating tuberculosis. While different schools tried various methods, there was little to no communication of how effective their methods were. Additionally, many officials attributed the spread of tuberculosis to the perceived inherent 'primitive' state of Native Americans. Throughout the years of boarding school history, racism was continually used by officials to place blame for why Native American students continued to fall ill. In their eyes, Native Americans were genetically inferior to white people. Furthermore, officials credited their lifestyle of "filthy habits, loose morals, and alcoholism" as evidence for their ignorant beliefs. ⁴³ These ideas were not limited to the B.I.A and were mirrored by the general public in order to use science as confirmation and justification for their racist beliefs.

The release of the health survey forced not only the B.I.A but Jones to begin enacting policy aimed at combating tuberculosis in boarding schools. Under Jones, medical physicians were to play a more critical role during physical exams, particularly for the purpose of watching for new students showing signs of tuberculosis. Students who showed no symptoms were to be reevaluated on a regular basis. On the other hand, if the student did not pass, they were put under an observation period until it could be determined if they truly did carry the disease. During this time, "significant weight loss- was considered to be one of the first signs of tuberculosis." Similarly, it was widely believed that the halting of the menstrual cycle for female students was also an early sign of the disease, however there is no evidence to support this. If a student showed any potential signs of carrying the disease, physicians were ordered to send the student back home. However, this proved too difficult of a task for some school officials, as it delayed their efforts to 'civilize' Native American children. From their perspective, students could be lost either due to death from the disease, or the temptation to stay home. A worthwhile compromise for many school officials was

the creation of sanatoriums in order to allow them to care for sick students, while continuing their education. Although, this was not the case at all boarding schools, as there were some sanatoriums in which physicians encouraged students to focus solely on their recovery. At the East Farm sanatorium, Dr. Jacob Breid emphasized the importance of limiting sick students from all school activities, including time spent in the classroom. As far as he was concerned, "there [was] no excuse for any patient not having the prescribed amount of rest." There was no clear agreement on how to continue education alongside recovery, with debate surrounding "determining the relative amount of school-room work a patient can do and at the same time recover from an active tuberculosis." As a result, there was no standard approach to allowing students to recover without falling behind.

Discussion surrounding tuberculosis continued well into the later part of boarding school history as the field of medicine progressed. With it, came the ever evolving efforts from the B.I.A to focus on health policy aimed at "the eradication of tuberculosis," starting in 1908.⁴⁷ Policies included undertakings such as the construction of sanatoriums, on site hospitals, sleeping porches, more recreational activities, less enforcement of strict routines, on site medical staff, building upgrades, health curriculum, and improved lavatories. However, these actions were not enough to completely eradicate tuberculosis from boarding schools. The biggest hurdle in eliminating tuberculosis was the fact that school superintendents frequently disregarded directives from the B.I.A. Jones had hoped that his push for more policy targeting tuberculosis would garner support from school superintendents. However, when Jones began informing them about these newfound measures to eliminate the disease, the majority of them did not bother to read his letters. This was on account that although Jones was in charge of the B.I.A, he was ultimately ineffective because there was no enforcement being done on his end. His attempts were half-hearted at best and would

carry on even after his departure all the way from the top-down. As a result, it left the boarding school system without a leg to stand on as it continued its fight against tuberculosis.

As a preventative action, the B.I.A and school superintendents began to place great importance on educating students about practicing healthy habits. The objective was to educate students about health at the most fundamental level and slowly build up their understanding. At some boarding schools, these efforts were primarily aimed at sick students in the hope that they would take this information back to their homes on reservations. Officials believed that this was a necessary move to bridge student's intelligence gap and thus grasp basic health practices. In other words, officials believed student's ignorance was to blame for why disease continued to plague them. According to a newspaper article written by Dr. Breid at East Farm Sanatorium in 1914, the outbreak of disease among Native American students was "the results of [their own] negligence." Therefore, it was necessary to teach students more hygienic habits. As a result, boarding schools implemented health related activities such as lectures, posters, songs, cleaning, and newspaper publications. For example, at Chilocco students were taught to sing health songs that were designed to be easy to follow and remember by adapting them "to familiar tunes." 49 Song titles included "Our Health Campaign," "Health Soldiers," "Food," "Doctor Song," and "Wash! Wash!" with lyrics such as "don't miss the neck and ears and fingernails." 50 Students were also constantly reminded to refrain from touching dirty surfaces even those of a book by "never moisten[ing] fingers for turning pages- because this brought germs to the mouth." Additionally, at the start of the "general exercises period," a health inspector would examine the hygiene of students by checking their "hands, nails, hair, and clothing." ⁵² In the case of Sherman Institute, the school newspaper was utilized as a tool to strengthen health lessons. In order for these lessons to have a greater impact, they were "written from the perspective of fellow students" with the intention of lending credibility.⁵³ Lastly, this also included the introduction of chemical cleaners in 1908 that "became a common method of disinfection for personal items used by students."⁵⁴ While this method was adopted at multiple boarding schools, formaldehyde was the most regularly used cleaning product that proved "costly and potentially harmful" to student health as well.⁵⁵

Boarding schools did make further attempts to teach what they saw as a health conscious curriculum as an additional preventative measure. At some boarding schools, these were referred to as 'health campaigns' that comprised of checklists, posters, notebooks, plays, booklets, and pledges. As previously discussed, the intention behind these lessons was not only to teach students about health, but also to help spread that knowledge to their family. Thus, a major influence on class curriculum was educating students on pulmonary diseases as they were frequent occurrence at boarding schools. For example, school officials pushed for students to practice breathing exercises to help strengthen their lungs. The logic behind this was that, according to school officials, weak lungs made one more susceptible to airborne diseases. Coupled with this idea was teaching students, especially sick ones, the importance of using sputum cups to prevent the spread of disease. Essentially, this meant that sick students were to use these cups to spit out their phlegm, "which [were] burned, -[so as] not to expectorate on the ground or floor." ⁵⁶ In addition, school officials taught students how to properly record their age, weight, and height over the course of their stay. While this job was previously done by medical physicians, school officials wanted students to have the ability to keep track of their health in case of any significant changes, particularly after they left the school. Furthermore, record keeping helped teach students math as some schools required that "each pupil-find how many percent overweight or how many percent underweight," they were. ⁵⁷ In a 1925 newspaper published at Chilocco, students were also required to keep a personal health notebook containing a to-do list of tasks they should complete every day, ideally. The checklist included tasks like "I drank milk, I took a bath, I drank four glasses of water,

I covered each cough and sneeze, I kept all foreign objects out of my mouth, I washed my hands before each meal, [and] (for boys) I used no tobacco."⁵⁸ Notably, boys were specifically targeted to stop tobacco consumption, and in some cases were asked if they would be willing to take a pledge to abstain from tobacco. While avoiding tobacco was encouraged, it was not required, and some students even acknowledged they would make an honest attempt, but no promises would be made. This helped keep students on top of their day to day hygiene, while the school attempted to improve other areas such as their diet.

Both the B.I.A and school superintendents recognized to some degree the importance of a well-balanced meal to maintain good student health. The benefits of a healthy meal proved effective at strengthening one's immune system, therefore giving the body the ability to fight off diseases more easily. As such, during this period, dairy was highly believed to be beneficial for growing children, making it a meal standard at off-reservation boarding schools. However, this was not without consequence as many boarding schools adopted "a diet high in starch and meat,-[with] fresh vegetables and fruits- rarely served."59 This was in direct response to two factors, malnutrition and the fact that food produced at schools was sometimes sold rather than eaten. For one, boarding schools across the U.S were experiencing widespread instances of students losing weight over the course of their stay. For example, in May of 1925, Flandreau reported to have discovered a high number of underweight students, each weighing less than when they entered the school. In fact, this was so prevalent within the boarding school system that parents often expressed frustration over the wellbeing of their children. In one particular letter sent to Flandreau school officials, a parent "complained that her daughter had lost thirty-four pounds since" her arrival at the school.⁶⁰ This was likely due to the drastic change to their lifestyle including the introduction of a new diet and a new environment. In order to mitigate this problem, school officials considered

milk a good alternative for weight gain without needing to increase food portions. At Chilocco, school officials encouraged students "to get into the habit of drinking milk," while also mandating underweight students to drink milk twice a day. Students, separated by gender, were to report to the school nurse once at 9:30 AM and again at 2:30 PM. Once there, "one by one they [were] given a glass of fresh clean milk produced by Chilocco's Holstein cows- [and] given five minutes to drink it." After drinking the milk, students were to report back to the nurse, who would record who participated. According to the 1925 Chilocco school journal, this effort was effective at addressing weight loss concerns. Similar efforts would also be done at Flandreau and Pipestone that same year.

Although this may have been successful at some boarding schools, the same could not be said about other similar initiatives against malnutrition. Early on, the B.I.A anticipated the role of farms and plants to be of significant use to boarding schools in order "to supplement" students with fresh, nutritious food. However, depending on the school, some were unable to produce much of anything, like Rapid City Indian School which was only able to raise potatoes despite having "over 300 acres of land." Many boarding schools, including Haskell and Flandreau," operated dairy plants, "yet students often drank coffee rather than milk." According to school officials questioned by the team of specialists in charge of the Meriam Report, students were to blame for these inconsistencies. School officials claimed that Native American students had no interest in consuming fresh dairy and vegetables. However, Child notes that while it was true that dairy was not prominent in the cooking of Native Americans, the fact that many of them were farmers casts doubt on the idea that their children would be unwilling to consume it.

The reality was that school officials did not want to admit fault for neglecting to provide fresh milk and food due to their inability to properly ration out their supply. In many cases, the majority of food produced at boarding schools was sold to the public to make up for a lack of funding from the government. This was partially due to the fact that Congress believed giving Native Americans more money for food would make them lazy and unwilling to work. Had school officials found a happy medium between providing and selling food for the benefit of their students, malnutrition would have declined. In comparison, boarding schools like Sherman and Chilocco produced "an abundance of food" as their students appeared to be healthy and well-fed. At Sherman, in the year 1906, "students produced over one thousand gallons of tomatoes that they canned for winter use." Additionally, it was frequently recorded by students in letters to family that the school carried wagonloads of food such as milk, eggs, cheese, butter, berries, watermelons, oranges, squash, and potatoes. Similarly, Chilocco also recorded evidence of providing healthy foods for their students as "one observer of a 1902 meal described" them containing apples, cherries, cabbage, radishes, and different types of prepared meat. Finally, it was documented that both students and school employees hunted wild game to provide meat variation to their meals, which included duck, rabbit, squirrel, quail, geese, and possum.

Despite the efforts of school officials to grow a natural food supply for their students, boarding schools also struggled with preparing food for consumption. From the beginning, freshly cooked meals "were seldom given high priority" by school officials. This was due in part to the fact that during the early years of boarding schools, food was viewed only as a basic survival necessity, and not as something beneficial to one's own wellbeing. As a consequence, "cooks did not have to meet any particular requirements" to work in school kitchens. This led to school officials hiring under qualified kitchen staff that did not know how to properly "distribute, plan, and cook- food." Oftentimes, kitchen staff employed the help of students to ensure meals were done on time. However, gender separation was implemented in the kitchens, causing further delays

in food prep time. This was the least of the problems faced in the kitchens as many were found to have been poorly maintained and unequipped to handle large volumes of food. According to testimonies given to Congress in 1914, several students revealed the deplorable conditions in the kitchen and dining area. Students reported to have been served spoiled food, food that was over seasoned, food touching contaminated surfaces, and a shortage of utensils that likely led students to either share utensils or eat with unclean hands. In one particular testimony, a Sioux student at Carlisle by the name of Peter Eastman testified that when cooking meals, if meat fell to the floor, they would simply pick it back up, implying that it was likely still cooked and served. In 1904, it was theorized by Dr. Parker, a school physician at Sherman Institute, that the outbreak of typhoid fever on school grounds was caused by flies infesting food in the kitchen, therefore spreading the disease. While this was within the realm of possibility, Parker did not thoroughly investigate this outbreak. According to Keller, it would have taken an unrealistically large number of flies, in contact with infected human feces, to have spread the disease at such a large scale. In total, forty two students contracted typhoid, killing at least seven in the process. Superintendent Hall was heavily reprimanded for this outbreak by Commissioner Charles F. Larrabee. As a result, it forced Hall to expand the kitchen in order to accommodate "a very necessary ice and cold storage facility."71 Without a doubt, these neglectful actions contributed to the spread of disease and sickness among Native American students.

After years of ill treatment of Native American students, the history of student health at U.S off-reservation boarding schools had become "synonymous with death and disease." For many Native American parents, boarding schools were seen as death factories for their children due to their high mortality rates. In retrospect, this view was largely justified as school officials minimized the severity of the issues with student health. School officials were responsible for these

children as their parents had signed a contract placing them under their care. In many cases, when a disease outbreak occurred at these boarding schools, school officials would claim that they were in recovery mode regardless of the true conditions. Additionally, when a student became sick, school officials often either chose to not inform parents or notified them their child was only moderately sick, and they need not worry. However, this was frequently dishonest as sick students were at many times dangerously close to death's door, with their condition worsening day by day. As a result, by the time parents knew of the severity of their child's sickness, it was often too late. Unfortunately, this lack of transparency with regard to the status of students became a pattern in the boarding school system, as school officials sought to keep parents away. At Flandreau, in the spring of 1906, a father received a letter informing him that his daughter Lizzie had passed away from tuberculosis. In the letter, the school superintendent indicated that Lizzie was sick for several days, and then passed away rapidly. In a similar vein, a Lakota father named Don't Know How, had both of his daughters return to him from Hampton with tuberculosis and pass away shortly after. In both these cases, the children contracted a disease at the school which led to their demise. Eventually, parents became so fearful of boarding schools that many refused to send their children to them, or otherwise regretted sending them there.

While school officials may have been able to hide student mortality rates from parents to some extent, this was not so easily done with government reports. However, despite the fact that mortality data was published in reports, this information was still misleading. Officials made it difficult to find complete numbers of student deaths on purpose, either by tweaking how statistics were calculated or downplaying issues. For instance, school officials did "poor record-keeping," which failed to account for the death of students after they left school grounds.⁷³ According to McBride, school records of student death don't align with reports "in the National Archives and

Records Administration building in Washington, D.C."74 Specifically, McBride investigated Carlisle's reports and found that they showed less death than what was indicated by the school's information. While this research only covered one boarding school, it seems likely that other institutions could have followed suit. These dishonest reports were "employed to curtail the backlash that would have emanated from reporting the true number of' student mortality.⁷⁵ Furthermore, limiting the spread of this information helped protect the reputation of these schools. The reality was that the death toll of Native American students at U.S off-reservation boarding schools went well over 500 students. At Carlisle alone, the death toll was actually closer to 300 student deaths, rather than the previous known number of 192 students that "were buried in the school's cemetery."⁷⁶ This new number accounts for sick students that left the school, only to return home and fall victim to their illnesses. At Forest Grove Indian School, a total of 43 student deaths, 13 male and 31 female, accumulated over a six year span, which was significantly less time than how long Carlisle was open. 77 Like other boarding schools, many of these students were from various Native American communities such as the Spokane, Nez Perce, Klamath, Puyallup, and many more. Similarly, Haskell "buried forty-nine students in the school cemetery during its first six years alone." Unsurprisingly, cemeteries were a common sight on the grounds of boarding schools. The biggest reason for this, of course, was the large student deaths at these institutions. However, another issue was the expense required to send a student's body back home, something many Native American families could not afford, and school officials were not willing to pay for. Occasionally, some institutions would actually pay funeral debts of the families of dead students. These debts were shouldered by parents who hired funeral directors to give their child a proper burial. However, most parents struggled with the payments incurred and accumulated debt. In some cases, these parents argued for the school to take responsibility for the fees, citing the contract they had signed yielding responsibility to the school. The fact that these schools capitulated to these demands indicates an admission of responsibility, as well as a desire to keep the situation under wraps. The number of students who passed away at these schools is upsetting, and a tragedy which could have been avoided.

In conclusion, while the U.S off-reservation boarding school system survived for many years, it was marred with student health issues. While school superintendents frequently boasted about their supposed improved health measures, the reality was less impressive. When pushed, school officials prioritized the reputation of their institutions over the wellbeing of the students they were entrusted to care for. This was a direct result of issues exacerbated by three overlapping problems affecting multiple aspects of student life: over enrollment, overcrowding, and insufficient funding. To start with, the facilities used by these schools were not physically design to handle the number of students enrolled. As a consequence, students had little room and sanitary conditions deteriorated. Furthermore, sick and healthy students were forced to share living space and amenities, propelling the spread of diseases. The most prominent disease present in boarding schools was tuberculosis, which plagued them for the entirety of their existence. The B.I.A was aware to some extent of issues with student health at boarding schools but lacked the ability to enforce sweeping change. Additionally, many saw significant action as futile due to racist beliefs regarding Native American's inherent susceptibility to disease. As a result, there was no unified vision for addressing health concerns at these institutions, leading to a variety of approaches depending on the school superintendent. Many schools attempted to implement their own health measures such as health curriculum, health campaigns, and improved meal plans. Notably, some of these measures were successful on their own, but overall were not enough to improve quality of life. Ultimately, the mortality rate at these schools did not improve much, and their reputations

as death factories persisted long after their closing. There is still many areas of student health at boarding schools that need to be investigated. These areas include accidents causing bodily harm, students with disabilities, unreported deaths when students were sent home, clandestine graves, and the impact of diseases beyond tuberculosis. The topic of student health at boarding school is an area ripe for discussion, and in need of more attention.

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² Brenda J. Child, *Boarding School Seasons: American Indian Families, 1900-1940,* (Lincoln: University of Nebraska Press), 1998.

³ Jean A. Keller, *Empty Beds: Indian Student Health at Sherman Institute, 1902-1922*, (East Lansing, Mich: Michigan State University Press), 2002.

⁴ Ibid, xvi.

⁵ Ibid. xvii.

⁶ Ibid.

⁷ Wynona W. Murphy, "Chilocco Health Conditions at a Native American Boarding School, 1884-1930," ProQuest Dissertations Publishing. 2003.

⁸ Ibid, 3.

⁹ Ibid. 2.

¹⁰ Mikaëla M. Adams, "'A Very Serious and Perplexing Epidemic of Grippe': The Influenza of 1918 at the Haskell Institute," *American Indian Quarterly* 44, no. 1 (2020): 1-35.

¹¹ Ibid, 1.

¹² Ibid.

¹³ DeJong. "'Unless They Are Kept Alive.'"

¹⁴ Ibid, 258.

¹⁵ Ibid.

- ¹⁶ Preston McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools: Rethinking Institutional Mortalities at Carlisle Indian Industrial School, 1879-1918," ProQuest Dissertations Publishing, 2013.
 - ¹⁷ Ibid. ii.
 - ¹⁸ Keller, Empty Beds, 19.
 - ¹⁹ McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools," 86.
- ²⁰ Lewis Meriam, *The Problem of Indian Administration: Report of a Survey Made at the Request of Honorable Hubert Work, Secretary of the Interior, and Submitted to Him, February 21, 1928*, Baltimore MD: Johns Hopkins Press, 1928, 316.
 - ²¹ McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools," 76.
 - ²² Keller, Empty Beds, 12.
 - ²³ McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools," 82.
 - ²⁴ DeJong, "'Unless They Are Kept Alive,'" 268.
 - ²⁵ Ibid, 266.
 - ²⁶ Ibid.
 - ²⁷ Jacob Breid, "The East Farm Sanatorium School," The Red Man 6, no. 9 (1914): 362-367, 363-364.
 - ²⁸ Ibid, 364.
 - ²⁹ Ibid.
 - ³⁰ Keller, *Empty Beds*, 31.
 - ³¹ Child, Boarding School Seasons, 37.
 - 32 Ibid.
 - 33 Keller, Empty Beds, 19.
 - ³⁴ Ibid, 20.
 - ³⁵ Child, *Boarding School Seasons*, 36.
 - ³⁶ Keller, *Empty Beds*, 152.
 - ³⁷ Ibid.
 - ³⁸ Ibid, 69.
 - 39 Ibid.
 - ⁴⁰ Ibid. 155.
 - ⁴¹ Ibid. 156.
 - ⁴² Ibid.
 - ⁴³ Ibid, 157.
 - ⁴⁴ Ibid, 51.
 - ⁴⁵ Breid, "The East Farm Sanatorium School," 365.
 - ⁴⁶ Ibid. 366.
 - ⁴⁷ Keller, *Empty Beds*, 31.
 - ⁴⁸ Breid, "The East Farm Sanatorium School," 365.
 - ⁴⁹ Heagy, "Health Activities at Chilocco," 254.
 - ⁵⁰ Ibid, 254, 255.
 - ⁵¹ Murphy, "Chilocco," 66.
 - ⁵² Heagy, "Health Activities at Chilocco," 259.
 - 53 Keller, Empty Beds, 44.
 - ⁵⁴ Ibid, 70.
 - 55 Ibid.
 - ⁵⁶ Breid, "The East Farm Sanatorium School," 365.
 - ⁵⁷ Heagy, "Health Activities at Chilocco," 255.
 - ⁵⁸ Ibid, 259.
 - ⁵⁹ Child, *Boarding School Seasons*. 32.
 - ⁶⁰ DeJong, "'Unless They Are Kept Alive,'" 261.
 - ⁶¹ Heagy, "Health Activities at Chilocco," 257.
 - 62 Keller, Empty Beds, 53.

- ⁶³ Ibid. 56.
- ⁶⁴ Child, *Boarding School Seasons*, 32.
- ⁶⁵ Keller, *Empty Beds*, 56.
- 66 Ibid.
- ⁶⁷ Muphy, "Chilocco," 80.
- ⁶⁸ Child, *Boarding School Seasons*, 34.
- ⁶⁹ Ibid, 34.
- ⁷⁰ McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools," 56.
- ⁷¹ Keller, *Empty Beds*, 28.
- ⁷² DeJong, "'Unless They Are Kept Alive,'"261.
- ⁷³ McBride, "A Blueprint for Death in U.S Off-Reservation Boarding Schools," 112.
- ⁷⁴ Ibid, 113.
- ⁷⁵ Ibid.
- ⁷⁶ Ibid, 114.
- ⁷⁷ Collins, "The Broken Crucible of Assimilation," 472.
- ⁷⁸ Adams, "'A Very Serious and Perplexing Epidemic of Grippe,'" 3.