



A.A. Sinclair '13 -

MICHIGAN STATE BOARD OF HEALTH

NO RESPECTOR OF PERSONS:

Michigan's Fight Against Tuberculosis

• by Leslie S. Edwards •

Don't spit. Wash your hands. Don't share drinking cups. Turn your head away when you cough. These recommendations were made by Michigan public health officials to alleviate the spread of pulmonary tuberculosis at the turn of the 20th century. Tuberculosis (TB) has plagued the world for thousands of years. Evidence of the disease was found in Egyptian mummies dating back 5,000 years, and historical texts and archeological evidence document cases from ancient Greece to East Africa and South America. But medical practitioners and scientists struggled to understand the origin of tuberculosis, at first considering it a hereditary disease. It was not until 1882 that German scientist

Robert Koch publicly announced his discovery of the bacteria tubercle bacillus, confirming that tuberculosis

was not hereditary, but an infectious, airborne bacterial disease that spread through the air by coughing, sneezing, spitting, talking and singing.

Peter Davidson, TB Program Manager at the Michigan Department of Health and Human Services contacted the archives in 2010 as the Michigan Chapter of the American Lung Association leadership moved their headquarters out of a former historic residence in Lansing, Michigan. He helped oversee the transfer of a significant collection of TB history to the archives, elements of which now reflect some of the current issues of the COVID-19 Pandemic.

In the 19th century, pulmonary tuberculosis, also known as consumption or the white plague (due to the pale complexion of its victims), was the second leading cause of death in the United States. Early treatment included bloodletting, inhalation of iodine, and drinking port wine or beef tea to stimulate the

**Illustration by A.A. Sinclair,
1913. Published in the State
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Public Health, July 1917.**

power of the heart. In 1900, there were only 34 tuberculosis sanatoriums in the entire country, and although Michigan public health officials fought for legislative support, Michigan did not have its own state TB sanatorium until 1907.

Dr. Henry Brooks Baker was Michigan's earliest advocate for TB control and prevention. A native of Vermont, Baker grew up in Michigan and attended lectures in medicine and chemistry at the University of Michigan. During the Civil War, Baker enlisted as a private in Company A, 20th Michigan Infantry working first as a hospital steward and then as an assistant surgeon. He ended his service as the medical officer in charge of the regiment. After the war, Baker graduated from Bellevue Medical College in New York and opened his own practice in Lansing. He knew from his war experience that an organized approach to sanitation could reduce deaths from disease and was convinced that Michigan could benefit from a public health service.

In 1870, Baker began advocating for a state board of health. The bill he helped introduce to the legislature was not favorably received. Baker spent the next two years garnering support from members of the Michigan State Medical Society. In July

1873, the legislature passed *Public Act 81* establishing Michigan's State Board of Health. Baker was elected secretary. He collected and analyzed information about diseases including TB and disseminated his research to local boards of health throughout the state. In 1877, Baker initiated a statewide survey of the prevalence of TB in Michigan. He distributed a form for local physicians and health officers to use to track disease statistics, and the results were published in the board's annual reports. In 1878, four years before Koch's lecture, many in Michigan acknowledged that "tuberculosis is now known to be a communicable disease." Yet, doubters persisted among the medical community.

Under Baker's guidance, the State Board of Health recognized the importance of community education in controlling the spread of disease. It held sanitary conventions across the state and published a leaflet outlining how tuberculosis spread and how to prevent it with good ventilation and sanitary measures, including disinfecting rooms with burning sulfur, boiling handkerchiefs and separately washing the clothing of patients. A resolution was passed requiring any

known infected student or teacher to be excluded from public schools and colleges to protect the health of others. In 1893, the board took a historic step and publicly declared tuberculosis a communicable disease, becoming the first state in the country to require the reporting of TB.

While the State Board of Health developed a public health campaign, formal legislation regarding TB lagged. In 1895, the legislature passed *Public Act 146*, an education bill that required public schools to teach children how tuberculosis spread and could be prevented. Three years later,



The first open-air school, Grand Rapids, 1911 (Courtesy Ralph H. Childs Grand Rapids Anti-Tuberculosis Society Records, Grand Rapids Public Library)

Modern Health Crusaders, Grand Rapids, 1921

the State Board of Health made recommendations to school boards on how to sanitize schools. This included wiping off desks and chairs with a clean, damp cloth, discontinuing the use of slates and shared books, sprinkling school room floors with water before sweeping to alleviate dust and airing out all school rooms before use. Spitting on the floor should be strictly prohibited, and the rooms should be thoroughly disinfected at least once a year. Finally, after nearly a decade, Michigan passed legislation to create a state sanitorium, which opened in Howell in 1907.

Local organizations also took up the fight against the “great white plague.” Grand Rapids developed a community-wide educational campaign in 1897. In 1905, it established Michigan’s first anti-tuberculosis association. The City of Detroit soon followed, and the Upper Peninsula Association for the Prevention and Cure of Infectious and Contagious Diseases organized in 1907 with representation from 10 counties. By 1917, Michigan had three TB hospitals, six county sanitoriums and 21 anti-tuberculosis associations. Three were located in the Upper Peninsula. The anti-tuberculosis associations worked as the volunteer action arm of the State Board of Health, implementing various educational campaigns. They sponsored lectures, mounted exhibits, distributed press releases and gave out circulars emphasizing the importance of awareness and proper hygiene. Children learned how to keep their face, hands and fingernails clean, cover their coughs and sneezes and play outdoors in the fresh air. Women abandoned long dresses and skirts that reached the ground, which were major carriers of TB bacteria found on floors, sidewalks and streets. Chewing tobacco was popular at the turn of the century, and spittoons could be found in hotels, saloons and other public buildings. In 1901, local health officials determined that in public buildings spittoons should contain disinfectant to help control contamination. Several cities put anti-spitting ordinances in place including



Kalamazoo (1904), Grand Rapids (1905), Detroit (1906), Holland (1908) and Saginaw (1910).

Tuberculosis prevention efforts also ramped up on a national level. Between 1900 and 1917, hundreds of state and local anti-TB associations emerged across the country. In 1904, the National Tuberculosis Association was formed. Michigan’s long-needed statewide TB association was established four years later. Originally named the Michigan State Association for the Prevention and Relief of Tuberculosis, it eventually became the Michigan Tuberculosis Association (MTA) and later the Michigan chapter of the American Lung Association. The MTA played a crucial role in Michigan’s fight against TB. It laid out an action plan to engage and educate the public through literature, lectures, publicity, a traveling exhibit, legislation and an annual conference or convention. The MTA began statewide “agitation” to compel observance of the education law of 1895. The campaign used the motto: “the weapon against tuberculosis is education.” Some teachers refused to teach the facts of prevention, saying “the more you think of the disease, the more there is of it.” The MTA also worked to pass and enforce legislation to abolish the common public drinking cup, which was used in

“THE GREAT WHITE PLAGUE” IN MICHIGAN



Published in the State Board of Health's journal *Public Health*, March 1909

new tenants could move in, and a placard was placed on the building notifying the public of such action.

Women's organizations also partnered in the fight

against TB, particularly after the formation of the MTA. The Michigan Federation of Women's Clubs cooperated with local physicians and medical officers from the State Board of Health in anti-tuberculosis work. They distributed literature, brought in experts to lecture on TB, promoted medical inspections in schools, helped abolish the common drinking cup and secured metal anti-spitting signs for public places. They promoted hot lunches with milk in schools and assisted with anti-tuberculosis clinics. Under the direction of the National TB Association and local anti-tuberculosis associations, women's clubs across the state participated in the national health movement called the "Modern Health Crusade." This program taught children the importance of good hygiene and awarded them with certificates, buttons and pins.

Women contributed in other ways. They donated money to build TB shacks, provided visiting nurses to schools and communities, and conducted stamp sales. In 1910, Michigan's first open-air school was established at the Grand Rapids Municipal Sanatorium by Laura Maud Hanks, a former kindergarten teacher and TB patient who died from the disease a year later. Hanks knew the importance of access to copious amounts of fresh air, especially for children. Open-air schools made it possible for infected children to continue their education and regain their health. Additional schools, largely supported and funded by women, followed in Detroit and Ypsilanti.

In 1905, Dr. Baker retired after 32 years of public health service. A decade later, Dr. William DeKleine of the State Board of Health built upon Baker's survey work with the "Health First" campaign. Under his direction, a team of more than 15 professionals conducted a two-year TB survey in 70 of

State Board of Health educational pamphlet, 1908

public schools until 1910. Much of the work of the MTA was funded by the sale of Easter and Christmas seal stamps, which had proven successful for the Red Cross.

The Michigan publication *Public Health* included the following admonition in 1917: "No respecter of persons. No country, no race, no sex, no color is immune to tuberculosis." Perhaps the most important role of the MTA was its advocacy for legislation. Known as the "tuberculosis law," *Public Act 27 of 1909* required all physicians to report every case of TB to their local public health officer within 24 hours. In turn, the public health officers reported cases quarterly to the State Board of Health. Families received informational circulars on hygiene and sanitation. More restrictive measures evolved to prevent the disease from spreading. For example, all premises vacated by a patient had to be disinfected before

Michigan's 83 counties. Three weeks were spent in each county. As part of the survey, visiting nurses spoke with health professionals, women's clubs, and anti-TB societies and arranged for home visits to people suspected of being infected. Concurrently, a publicity agent worked with local newspapers to spread the word and engage local community leaders in distributing educational materials. Visiting nurses and local doctors also provided a free TB clinic and educational lectures given at various venues throughout the county. The *Battle Creek Enquirer* reported that "the best thing the tuberculosis survey is doing is to awaken an interest in the prevention of the disease."

In the Archives of Michigan, Michigan Department of Public Health records, including State Board of Health annual reports, surveys, bulletins and publications available to scholars and interested researchers, document the fight Dr. Henry Baker and activist groups waged as they lobbied for state legislation and informed the general the public on how to combat the disease. Up against skeptical medical professionals and ardent disbelievers, they used scientific data collection, statistics and reports to improve the health of Michigan residents. "It is up to every patriotic man and

woman in Michigan to fight tuberculosis, the scourge of the human race, until it is no longer a scourge."

The Michigan Tuberculosis Association's Health Education Car, ca. 1926



Rendering of the Michigan Shack, published in the Fourth Annual Report of the Michigan Association for the Prevention and Relief of Tuberculosis, 1911



THE MICHIGAN SHACK.
DESIGNED AND RECOMMENDED
BY THE
MICHIGAN DEPARTMENT OF HEALTH
FOR USE IN CONNECTION WITH PRIVATE DWELLINGS

Rest, fresh air and good nutrition were key components for recovery from tuberculosis, and TB sanatoriums and hospitals often provided tents or "shacks" for fresh air rest. Open air camps were day camps where patients could receive nursing care and were taught how to avoid infecting family and friends.

In 1908, the Michigan State Board of Health prepared an exhibit for the Sixth International Congress on Tuberculosis to be held in Washington, D.C. It included charts and graphs on how to prevent the disease and highlighted sanitary measures including how to make a paper drinking cup to replace the common public drinking cup. They also displayed a model of the "Michigan Shack," which received Honorable Mention for Novel and Excellent Features. Its primary function was to provide plenty of fresh air and sunshine. One of the features was the windows. Although they look like ordinary windows, they can be opened like transoms for fresh air sleeping accommodations. The shack, which measured 10x15 feet, could be built for \$118 and the plans were freely distributed by the State Board of Health.

After the conference ended, the exhibit traveled to New York where it was on display for several months before returning to Michigan. There, it was set up in the State Capitol before traveling to Battle Creek, Saginaw, Houghton, Hastings and Ann Arbor.