

Locations of Historical TB Sanatoriums in Colorado and Possible Relationships with the Current Distribution of Asthma Cases



**Colorado Department
of Public Health
and Environment**

CHEIS/GIS Unit

Colorado Department of Public Health and Environment

Draft report

September, 2004

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1.0 Introduction

The question that sparked this research was: Asthma cases in Colorado tend to cluster in a few specific areas, notably the Arkansas valley from Fremont County to the Kansas border and in several counties along the eastern margins of Colorado, including Sedgwick, Phillips, Kit Carson, Cheyenne, and Baca counties. Reasons for this patchy distribution are unknown and are not explained by any anything known about air quality or other possible factors. *Is there a possibility that this current asthma distribution might be related to historical locations of sanatoriums for treatment of respiratory disease, especially TB?* According to this theory, individuals and families may have come to Colorado sanatoriums for TB care and then settled permanently near the sanatoriums, creating local populations with increased (genetic?) risk for respiratory diseases and especially asthma.

In order to evaluate whether this might be the case, it is important to first, determine the locations, sizes and durations of TB sanatoriums in Colorado. The research described below is directed towards that goal. This is complicated by the difficulties in obtaining adequate historical information. Even when we know that some type of TB treatment facility existed, we may know little more than its name and not much about how long it lasted, where it was located, how many patients were treated there, or even how many of these patients were true TB cases. At that time, TB treatment was equivalent to getting plenty of fresh air, rest and good food. Many of the early sanatoriums housed patients in tents or small well-ventilated cabins or on screened porches. Consequently, these TB facilities were fairly cheap to put up but evanescent, and they quickly disappeared without much trace or record.

Second, it is important to determine whether or not there is a *match* between historical sites of TB treatment centers and current locations of high rates of hospitalization for asthma. In part, this is a GIS issue. However, exploring this relationship is not necessarily easy because of the difficulties in identifying the locations of historical addresses (let alone geo-code them). Since, we can't guess how close to a TB treatment center an individual or family might have settled in *if* they chose to do so at all, it may be more logical to approximate locations of TB sanatoria, the size of each and when they functioned. Once this has been accomplished, it may be possible to determine whether these locations of TB treatment centers match with the approximate locations of unexpectedly high rates of current asthma hospitalizations.

Finally, in light of the relationships between locations of historic TB treatment facilities and current high asthma incidence, *does a causal relationship between the two seem plausible?* If not, what are some of the alternative possibilities that might fit the available data and be more convincing?

1.1 Historical Background

Before getting into the details of TB treatment centers, it is valuable to discuss some of the information acquired from conversations with people in health agencies and historical societies all over the state, as well as, from resources suggested or sent by these people. First, TB was the leading cause of death during most of the 19th century and common among people all over the country, indeed the world.

Secondly, Colorado was recognized very early as a healthy place to live, especially with regard to lung disease and respiratory health, and a number of railroad promoters, journalists, doctors, chambers of commerce and residents said so, in personal communications and through the media, on many occasions. A few examples include: “Here would seem to be the fountain of health, and among these hills and plains is surely to be many a summer resort for the invalid” - Samuel Bowles. Several of the advantages of Colorado had proved the state to be a “great and beneficial sanatorium” for sufferers from pulmonary disease. In addition, “there is a wealth of life stored up in the dry, sunny climate of this State more precious than the hidden treasures which the mountains contain” - Dr. Samuel Fisk. Governor Frank Pitkin once stated “we can almost bring a dead man to life.”

Guides such as Dr. Charles Denison’s Rocky Mountain Health Resort and Mrs. Simeon Dunbar’s Health Resorts of Colorado Springs and Manitou became available to those who could afford them. These public statements and guides aimed to attract settlers who would contribute to the local economy.

The high altitude and clean, dry air were credited as being helpful and even curative, especially for asthma and TB or consumption. It was known as ‘consumption’ because the course of the disease would almost literally ‘consume’ its victims. In the early days of American settlement in Colorado, some of the new arrivals had TB. These people were only able to receive care that was made available at home or in one of the many small hospitals that developed in population centers along the Front Range in order to meet local needs.

Publicity surrounding Colorado’s health benefits became very vocal, and may have persuaded people to come to Colorado seeking a cure for TB despite the many geographical challenges such as crossing the Great Plains by wagon. It was advised that individuals with TB travel slowly and spend a week or two at various points in western Kansas to acclimatize. At this time, TB was thought to be a genetic or constitutional problem, not a contagious disease. The primary goal was to find health in fresh air, sunshine, rest and good food. Since there was little actual medical care involved, it was

likely that it would take a long time to be cured. As a consequence, people with consumption generally lived in rented rooms or hotels.

With the arrival of Railroads in Colorado and the powerful voices of 'boosterism' for Colorado's healthful climate, the floodgates opened and many people came to Colorado seeking cures. In fact, a 1925 publication, The Health Committee of the City Club of Denver, stated that approximately 60% of Colorado's population had originally migrated to the state to either directly or indirectly receive treatment for TB (Abrams). As time passed, more and more consumptives arrived and the influx caused some severe problems. Thomas Galbraith, a young easterner who came to Colorado at the turn of the century to cure his TB, wrote in 1907 "Colorado is most glad to welcome the contents of the purse the invalid brings with him, but she would greatly prefer that the invalid not accompany the purse."

There were certainly some good facilities for those who could afford to pay. However, a number of eastern city councils would send TB patients west, armed with a basket of fruit and a one-way ticket. For those who felt their last chance of survival was a trip to Colorado, arrived penniless, without sufficient clothing or friends, and found few resources to help them.

Even worse, people began to recognize that the disease was communicable. Consumptives began to be refused space in private homes or boarding houses for fear of contagion. There was no State or Federal funding for TB care or any kind of TB facilities in Colorado. In the late 19th century, beds for individuals with TB were so scarce in state, county and city hospitals that the poor were usually left to die in the street. Many who came to seek the cure did not find it. This situation certainly contributed to Colorado's high death rates for TB throughout the later 19th century and into the 20th.

Except in rare situations, such as the sanatoriums in the Colorado Springs area that were targeted at the wealthy ill, TB care was not likely to be a profit-making activity. Yet, the need for care was very great and finally some public-spirited people began to work to find solutions. According to Jo Ruth* of Colorado Springs, most of the early successful TB hospitals and sanatoriums were supported by 'Faith, Fraternal or Industrial' funding.

*(719-599-4056)

1.2 Where Were Sanatoriums Built?

What constituted a good site for a sanatorium? Large population centers indicated that there was a need for TB treatment, particularly since a large proportion of the population had TB. Local peoples' needs and demand created by the influx of immigrants seeking 'the cure' accounted for the existence of many sanatoriums in the Denver area. However,

this fact alone does not explain why some areas had so many successful TB sanatoriums and others had none, especially since the need was almost universal.

Many knowledgeable individuals reminiscing about the early years of Colorado commented on the modes of travel. Those who needed to travel went by train because train travel was comparatively rapid, cheap and comfortable compared to traveling by buckboard or wagon. Travel by train must have been even more important for people who were weak and ill. Consequently, a TB sanatorium or any other institution had to have good rail connections in order to thrive. This relationship is evident when comparing historic TB sanatoriums and rail routes. Several old addresses reflect this fact in their names. For example, the US Naval VA Hospital at Fort Lyon TB facility was described as being located “5 miles east of Las Animas on the Atchison, Topeka and Santa Fe Railroad line.” Sanatoriums were only found in towns that had rail service. In fact, the railroads themselves sometimes initiated the establishment of hospitals and TB treatment centers for their employees, such as the 1885 Denver and Rio Grande Railroad Hospital at Salida in Chaffee County, which later became the Heart of the Rockies Medical Center. However, not all towns with railroad connections became sites for TB care.

Several individuals have commented on the connection between the locations of springs (hot springs) with sanatoriums. This connection is certainly apparent when one examines the locations of many sanatoriums including Colorado Springs, Manitou Springs, Canon City, Clark Mineral Springs near Pueblo, Glenwood Springs, and other smaller sites that were in close proximity to hot springs. Yet, many other TB treatment centers did not develop around hot springs such as Pagosa Springs, Hot Sulphur Springs or Steamboat Springs, perhaps in part, because their rail connections were so poor.

To some extent, the choice of site may also have been dependant upon esthetics, such as, sunshine, good weather, wide and beautiful vistas, fresh air, and peacefulness which were all considered to be part of the healing equation. Most of the early sanatoriums were built on the edge of town or even slightly outside of town for this reason. The names of several sanatoriums suggest that the esthetic aspect was an important selling point, especially in for profit TB facilities like Sunlight, Star Ranch in the Pines, and Sunny-rest Sanatoriums.

Another source of influence that aided in site selection was media attention. General Palmer, a prominent and wealthy Civil War veteran, visited the future site of Colorado Springs in 1869 and immediately decided to make his home there. His goal was to develop it into a health resort that could attract his wealthy European and East Coast friends. The city was founded in 1871, and General Palmer soon brought the D&RGW Railroad (of which he was founder and president) to Colorado Springs. Clearly, he understood the value of media attention in realizing his goal of creating a comfortable and genteel community and of creating a thriving railroad. He had written to his wife

after his first visit stating “my theory for this place is that it should be made the most attractive place in the west for homes, a place for schools, colleges, literature, science, first-class newspapers and everything the above imply.” He and others also spoke of the potential for Colorado itself and sought to make Colorado Springs a healthy resort community. In order to accomplish this vision, Colorado Springs was designed to have wide streets and only clean, smoke-free industries. The publicity for this site brought both tourists and people eager to find the cure for TB.

Similar goals appealed to others as well and the newspapers were one of the main venues in getting the message out. An editorial from the *Canon City Record* of June 25, 1914 read:

“Every man and woman in Canon City should enter the letter writing contest of the Chamber of Commerce and send a letter to their home paper telling of the advantages of living in Canon City. Not because there is a prize, but because it is a duty you owe to your city. In your old home city there are undoubtedly many who would be only too glad to hear from you in this manner. They have been looking around for a place to go for the health of one of the family...Your word would carry weight. They want the personal assurance of one ‘who has been there.’ Give them that assurance. You are conferring a favor on them and at the same time helping to build up your city and increase the value of your own property.”

Interestingly, many towns had a “County Poor Farm” and /or a “County Pest House.” These were often farms, where residents or inmates were able to cultivate the land and raise animals in order to provide for their own food. Oftentimes, these farms included some kind of hospital facility, which served the indigenous community, while others were typically cared for at home. It is likely that medical attention made available in these facilities probably included care for TB. Despite this fact, individuals suffering from destitution, TB, insanity or paralysis all received similar care and thus, it is doubtful that any disease was likely to be cured in such settings. Pest houses served to segregate people with “loathsome diseases” from the rest of society. Yet, many current hospitals are descended from historical county hospitals that were built on or related to such facilities.

With this background, it is now useful to consider the regional distribution of TB sanatoriums within Colorado.

2.0 TB Sanatoriums in Colorado

The **National Tuberculosis Association Directory of Sanatoriums (NTBADS)** is a directory that lists facilities around the country and provides information on many of the sanatoriums in Denver and Colorado Springs. The absence of a specific facility in the NTBADS does not mean that no facility existed in that area, it merely suggests the

likelihood that the facility was too small, not long lasting and provided a lower standard of care than the facilities that *are* listed.

2.1 Foothills

Most of the early sanatoriums were located in the foothills because many of the early immigrants who came in search of gold settled in the foothills environment since the area provided sheltered valleys with streams for water, sunshine, wide vistas and fresh air thought to be so vital for curing TB.

Larimer County

The first Larimer County hospital was established on the grounds of the County Poor Farm and Old Folks home in 1893. This property included 60 acres of prime agricultural land and residents grew fruits and vegetables, raised cows, chickens, sheep and hogs for food. The site was relocated when the Railroad came through town, but continued to be in service until 1925 when the new Larimer County Hospital was built nearby. The new hospital included “a tubercular ward with a roof garden space, which will be isolated from the rest of the hospital.” Evidently, TB care was only one part of the disease spectrum treated there.

There was also a “Pest House” for the care or isolation of other infectious diseases. * Suzanne Murrey at the Larimer County Health Dept** suggested that Eden Valley Sanatorium just outside of Loveland may have once provided TB care. However, Frances Martin, a secretary at the Eden Valley Assisted Living facility*** stated it was a sanatorium and a Seventh Day Adventist skilled nursing facility, but never provided TB care of any kind. No TB facilities are listed in Larimer County in the NTBADS.

*Source: Touching Lives, a History of Medicine in Fort Collins, by Stanley W. Henson, Jr., MD

** 970-498-6700

***970-667-1770

Boulder County

The **Boulder Colorado Sanatorium** was started in 1893 by a group of Seventh Day Adventists with connections to Dr. Kellogg and the Battle Creek Sanatorium. It eventually moved to the base of the foothills in 1895. * Initially, the Sanatorium resembled a health resort and was busy primarily in the summer. Due to the increase in TB patients seeking care, a separate facility or Sanatorium was built exclusively for TB patients in 1902 and it became well known for its TB care. In 1919, Mesa Vista Sanatorium was built and the majority of TB patients transferred from Boulder County to Mesa Vista for their care.

* The Mapleton Branch of Boulder Community Hospital now occupies these buildings.

Mesa Vista Sanatorium functioned as a TB treatment center from 1919 and into the 1950's. During its later years, TB patients were rare and tended to be Navajo kids from the reservation. The facility still exists, at 2121 Mesa Dr., but is now a nursing home called Terrace Heights. The administrator* there has historical background, and would be happy to talk about the facility's history. Mesa Vista was listed in the 1931 and 1934 in the NTBADS.

*303-442-4037

Dr. Peebles Sanatorium was expected to open in 1909, but never got off the ground. The University of Colorado at Boulder Campus School of Medicine was started in 1883. The population of Boulder was not large enough to provide a sufficient clinical base and there was much disagreement about whether the medical school should be in Boulder or Denver. This resulted in a tug of war between Boulder and Denver for the clinical years of school. Despite this conflict, the **University Hospital** did manage to exist in Boulder until 1911. After 1911, students carried out their clinical years in Denver and in 1925 the entire medical school moved to Denver. The size of the hospital in Boulder during 1883 and 1911 remains unknown, but the NTBADS lists a capacity of 12 TB cases for 1908.

Denver Metro Area

A few small sanatoriums came into existence soon after gold was discovered in Clear Creek. Ultimately, many TB sanatoriums existed in what is now the Denver Metro area than in any other part of the state. Some of these were small and lasted only for several years. Others were larger and provided a foundation on which many of the hospitals that exist today began to grow; a few were gradually transformed into nursing homes or other facilities.

Faith or Charitable Facilities

In Denver, the first of these was **National Jewish Hospital**, which opened in 1899. It was the first sanatorium in the state and perhaps in the country that was dedicated to treatment of indigent TB patients. Its motto was "None May Enter Who Can Pay – None Can Pay Who Enter." National Jewish primarily accepted "incipient" TB cases or those who were likely to recover.

The **Sanatorium of the Jewish Consumptive's Relief Society** was created to accommodate the many Jewish consumptives who did not seem likely to recover, but had nowhere else to go. This facility had 300 beds available for TB care. After the need for TB care diminished, the facility was transformed into a Cancer care facility. Soon, other ethnic and religious groups joined in the effort to provide needed care especially for members who shared an ethnicity and/or religion similar to their own. One of the most prominent of these facilities were the **Swedish National Sanatorium** and the **Evangelical Lutheran Sanatorium**, both of which have endured to the present, though

with name changes and less emphasis on the sectarian basis of care. All these institutions were listed in the NTBADS.

An excellent and very revealing booklet on these four institutions, and the historical situation in Denver when they were developed is **Blazing the Tuberculosis Trail** by Jeanne Abrams, listed in the references.

Other faith-based care facilities in Denver included the **Association Health Farm** in Edgewater, which was created in cooperation with the YMCA and had 42 “tent-cottages” for men with TB. **The Bethesda Sanatorium**, which was associated with the Christian Reformed Church of Holland, listed in the NTBADS, **Grace Sanatorium** located on east Colfax, the **Episcopal Church Home, the Junior League Preventorium** which served “underweight, anemic and malnourished children, especially those who have been exposed to TB,” and also listed in the NTBADS, **Saint Luke’s Hospital and Porter Sanatorium** were all facilities that generally charged for care. Some of these facilities have endured into the present in other forms, while others have simply disappeared. **Oakes’ Home** was an Episcopalian facility, which provided a boarding house facility for consumptives who were “worthy of a Christian home” and who could bring a letter of recommendation from their clergyman. Yet, despite the existence of the Oakes’ home, such care was expensive.

Fraternal Facilities:

None are known in Denver; some small ones might have existed.

Occupation Based Facilities:

The Costello Home was a small facility with 14 beds that was supported by the International Union of Stereotypers and Electrotypes of North America. Fitzsimmons US Army hospital was listed in the 1923-1934 NTBADS as having 1832 beds and is described as having been maintained “mainly for the treatment of tuberculosis,” and functioned as a general hospital for military personnel. Interestingly, it is unclear how many of the 1832 beds were used for TB care.

Other, or Unknown:

The **Log Cabin Hospital** was established in Auraria in 1859. Other than its location, nothing much is known about the hospital’s size, number of patients treated, or even the kinds of injuries or maladies that might have been cared for, though gunshot and stab wounds were common at the time.

The **Agnes (Phipps) Memorial Sanatorium** was listed in the NTBADS and was a substantial institution containing 158 beds, located at 6th and Quebec from 1903 through 1932 and focused on TB care for those who could pay.

Denver General Hospital is now Denver Health. This facility began in 1860, first as a City Hospital at 16th and Wazee and later in 1866 as the 29-bed Arapahoe County Hospital at 9th and Champa in Denver. A new building was erected in 1880 at the current site of Denver Health and included separate cottages for people with contagious diseases such as typhoid and syphilis. The principal diseases treated there were TB, pneumonia, rheumatism, typhoid fever and insanity. The 1923 NTBADS lists a TB treatment capacity of 80 for all types of TB, as well as, facilities for Negroes and children.

Cedar Lodge of the Sands House Association listed in the NTBADS was a fairly small institution of 24 beds for destitute young women with tuberculosis.

The **Ex-Patients Tubercular Home** had 81 beds and apparently existed for people who had been treated at other facilities (many of which had a maximum length of stay of only 6 months) but who were still suffering from TB and in need of further care.

Craig Colony for Destitute Tuberculosis started in 1909 as a facility for destitute men with TB. Bill Daniels* from Craig Rehab Hospital said that the current hospital was directly descended from the old Craig Colony for Destitute Tuberculosis on West Colfax in Edgewater. He also said that a *large* complex, nearly 300 beds, of the **Jewish Consumptive Relief Society** was very close to the original Craig Colony and also on West Colfax, near Crown Hill Cemetery and Sloan's Lake. He had no other information, though he said he had a copy of an old map showing the property and thought he had seen some photos at the Denver Public Library Historical section.

*Home 303-795-7449

Other fairly small institutions, which did not function for very long, **include Mrs. Lare's Tent Sanatorium**, which had 33 beds and existed from about 1901 and well into the early 1910's, the **Molkery Sanatorium**, the **Sunlight Sanatorium** built in 1905 with 15 beds, the rather expensive **Fern Hill Sanatorium** established in 1903, 20 beds and the **Robinson Sanatorium** established in 1907 with 15 beds.

Colorado Springs and El Paso County:

Colorado Springs was the site of many TB Sanatoriums. Two people who know a great deal about the history of these "Sans," and older hospitals are Jo Ruth* and Lynn Morton.

** Jo Ruth, a retired RN, notes that virtually all early hospitals and 'Sans' had at least

some patients with TB because the disease was so common. Thus, it is important to ask about the range of patients, as well as, the degree to which TB treatment was a priority.

*719-599-4056

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Many hospitals, Sanatoriums, and “poor farms” had separate, isolated areas, which were often tents in the early days for TB patients. Many of the early hospitals or Sanatoriums were either faith based, funded by fraternal orders, were occupational or industrial. There was little money in such health care institutions until the “boom days” of the 1920’s. Consequently, funding had to come from outside the institution. There were many smaller places, such as the Soldier’s Home, Sailors Home and many individual rentals in homes or outbuildings for TB cases and their families to live. With regard to TB care in Colorado Springs, Jo noted that the town was initially something of a Mecca for TB treatment, and many large Sanatoriums were built around the outskirts of town.

A booklet by Dr. Edwin Solly called The Health Resorts of Colorado Springs and Manitou encouraged persons of the upper and middle classes to come to the area to find healing for a number of chronic ailments, specifically TB. He developed the **Cragmore Santorium** listed in the NTBADS in 1905. This facility was intended to serve wealthy “lungers,” and it included wide windows, sunroofs, good food and a pleasant physical and social environment to enhance recovery.

The Cragmore site eventually became the University of Colorado at Colorado Springs campus. Many small hotels or private homes rented rooms to less wealthy individuals, but by the early 1900’s it became more and more clear that TB was contagious and people became less enthusiastic about having TB cases nearby. As TB cases or “lungers” were perceived of as less as of a resource and more of a problem, sanatoriums designed for treatment and isolation of the ill became more common and the small hotels and boarding houses less frequent. Ill and indigent migrants caused serious problems for the city and created concerns about newcomers spreading disease. Tolerance also varied from place to place. For example, while Manitou Springs had several Sanatoriums such as Manitou Park, these facilities tended to be more like spas for the “healthy” or the wealthy ill and people who actually had TB were not welcome.

There is a historical connection between many of the Sanatoriums in Colorado Springs and current health institutions. For example, the **Eleanor Home** was not intended for primary TB care, rather it was built as a charitable institution for Protestants who were ill and had no resources. The **Bellvue Sanatorium** was built by the same people for indigent care and also included some TB care. Neither lasted very long, but the Bellvue eventually became the **Methodist Sanatorium** and then into the Deaconess Hospital during the 1920’s and finally into the **National Methodist Episcopal Sanatorium for**

TB. TB treatment focus changed in 1943, and the Sanatorium became **Bethel Hospital**, which in turn became the current **Memorial Hospital**.

Faith or Charity Facilities:

The **Glockner Sanatorium and Hospital** listed in the NTBADS, the **Eleanor Home** and **Bellvue Sanatorium** were established with the support of the Sisters of Charity.

Glockner Sanatorium was built in 1890 for TB treatment and had 175 beds; it was an expensive establishment. It eventually became Penrose Hospital, which continues to exist today. The Eleanor Home developed into the current St. Frances Hospital. The Deaconess Hospital, Methodist Sanatorium and later the Methodist Episcopal Sanatorium for Tuberculosis were all related and according to Diane Emmou of the current Memorial Hospital in Colorado Springs* it was built on the site of the Deaconess Hospital, which existed during the 1910's and 20's.

*719-365-5000

Fraternal Facilities:

“Woodmen of the World” was a fraternal organization that was very popular during the turn of the last century and into the 20.th. One of the benefits of membership to the order **Modern Woodmen of America Sanatorium for Tuberculosis** (NTBADS) in Colorado Springs was that members could receive free care for TB. The large 250-bed facility operated for several years, but was closed due to the development of antibiotic therapy and sold to the Sisters of Charity to be their “Mother House.”

Occupation Based Facilities:

The **Union Printer’s Home** (NTBADS, 125 beds) was free for Union members who were suffering either from TB or a variety of occupational illnesses related to the use of lead, toxic inks or inhaled dust from these sources. It was meant to be a rehabilitation facility so that Union members could be treated and return to work. The Union Printer’s Home building is now an extended care facility.

Other, or Unknown:

Colorado Springs had a number of private TB sanatoriums, notably **Nordrach Ranch Sanatorium**, and **Star Ranch in the Pines Sanatorium** (both listed in the NTBADS). Nordrach Ranch Sanatorium had a capacity of 60 beds and was developed near the property of the Otis Mansion, built by the heir of the Otis Elevator fortune on Austin Bluffs. Patients lived in tents year round and were forced-fed in order to gain weight and (it was hoped) resistance to TB. Patients here generally lived a rigorously controlled life intended to guide them to health. The ranch functioned for 5 or 6 years only and was quite expensive. The building now serves as a B&B.

Star Ranch in the Pines was located South of Colorado Springs, near the Broadmoor area. It had 60 beds and was quite expensive. It lasted from 1910 to 1923.

Nob Hill Lodge (NTBADS) had 20 beds and was created exclusively for TB treatment. It functioned from 1912-1923 and was purchased by Florence E. Stratton, an important figure in Colorado Springs history.

Idlewold Sanatorium, (NTBADS) was next door to the Nob Hill Lodge and was a small 10-bed TB facility that existed from 1912-1920. The structure is now used as a Ronald McDonald house for families of sick children.

Sunny Rest Sanatorium (NTBADS) was a TB treatment center with 50 beds that lasted from 1911-1930 and is now used as a nursing home. There were also a number of less well-known or less formal facilities, such as **Woodland Park, Crestline Heights, Cascade Avenue, Tejon Avenue, and Wood Avenue Sanatoriums**, and the **North Nevada Avenue “Lunger’s Row.”**

In Manitou Springs, **Manitou Park Sanatorium**, like the nearby **Red Crags Sanatorium**, were small and rather upscale institutions that never advertised for TB care, though such care might have been available. Both institutions seem to have functioned primarily as Convalescent homes or spas.

Pueblo County:

General Palmer, who helped to establish Colorado Springs, brought the D&RGW to Pueblo in 1872. Soon after, he started the Colorado Coal and Iron Company, later the Colorado Fuel and Iron Foundry. Pueblo became the “Pittsburgh of the West,” with the largest steel mill in the US West of Chicago and much other manufacturing. With so much work available, Irish and Italian immigrants overwhelmed the work force, along with many Hispanic workers. With such a strong foundation in manufacturing, Pueblo probably didn’t provide much in the way of wide and beautiful vistas, fresh air, and peacefulness that were thought to be part of the healing equation. Still, the large numbers of immigrants arriving in Pueblo to work at the foundry included many who had TB. While there were undoubtedly many TB cases in Pueblo, few sanatoriums were developed solely for TB treatment. No medical facilities in Pueblo were listed in any of the available NTBADS.

The **Colorado State Hospital** was established in Pueblo in 1879, and was primarily a mental hospital, although it included some TB treatment facilities for inmates. Due to its security capabilities, the State Hospital was also the site where prisoners from the Colorado State Penitentiary in Canon City were sent for TB treatment after the mid 1960’s. Pueblo seems to have been associated with mental hospitals rather than centers

for TB treatment. Two early sanatoriums in Pueblo were the **Woodcroft Sanatorium** and **Clark Magnetic Mineral Springs Sanatorium** (1905-1921?). The Woodcroft was built around 1896 and functioned as a private mental hospital until the mid 1930's. The Clark Magnetic Mineral Springs Sanatorium was a 57-bed institution, where people drank large quantities of mineral water every day and had access to massage and vibrator treatments; presumably it was a type of "spa."

The large **Fairmont Sanatorium** existed in Pueblo between about 1903-1913, but did not endure and later became an orphanage and then an apartment building. Whether TB or mental health was the focus of treatment there is unknown.

The **Harris Sanatorium** was built in 1910 near Rye in SW Pueblo County, but it was small (perhaps with 15 to 20 beds in small tent-cabins) and did not last more than a few years. George Williams * president of the Pueblo Historical Society provided this information and said that there had been two "Pest Houses" in Pueblo. One was located at 29th and Cheyenne and the other near what is now I-25. These would have been for indigent people with communicable diseases and the facility near I-25 had a small graveyard associated with it. However, that graveyard was recently destroyed in excavation for a new development. George thought that Pueblo, at only 4800 feet, might not have been considered "high enough" for good TB therapy, but it also sounds like General Palmer, in keeping Colorado Springs clean and beautiful, had gotten to have his cake and eat it too, by having nearby Pueblo produce the iron and steel his railroad empire needed, at the cost of having a more polluted environment.

*719-543-5294

In 1880, the Colorado Coal and Iron Company asked Dr. Richard Corwin to set up a company hospital in Pueblo. This hospital, the **Minnequa**, started with only 6 beds, but swiftly grew to 30 to 45 beds by 1890 and 80 by 1897. The facility continued to increase in size in the new century. In 1902, a new 200-bed facility opened.

Over these years the facilities for TB care grew as well. Noreen at the Pueblo County Library * said that in reading over some of the old hospital records there were lists of 350 patients or so being treated for TB every year at this hospital, and she said she would send copies of some of these records (I have not seen them, and if desired, Noreen should be contacted again). In the earliest phases of the hospital, there was a ward for communicable diseases, later a tent colony, and lastly, a separate building to be used for patients with contagious diseases including TB. The company worked to educate the workers and their families, as they had about 15,000 employees in Pueblo located at nearly 30 mines and coal camps in the region. The name of this hospital was changed to Corwin Hospital in 1929 upon the death of Dr. Corwin**.

*719-562-5600

**Information in this and below is from Kathleen Eriksen at the El Pueblo History Museum, 719-583-0453.

St. Mary's Hospital, established by the Sisters of Charity from Ohio, opened in a former boarding house in 1882. It grew swiftly and in 1892 an addition provided facilities for TB treatment on sun porches. Eventually, so many TB patients received care there that the hospital became known as "St. Mary's Sanatorium." It continued to grow, especially with the purchase of an adjacent building in 1904. In 1948, the Colorado Fuel and Iron Company gave the Corwin hospital to the Sisters of Charity and in 1955 a new St. Mary-Corwin Hospital was built. The organization has continued to keep up with the times and is now known as **St. Mary-Corwin Medical Center**.

Two smaller hospitals in Pueblo that existed only briefly included the **Women's Hospital** (1891-1915) and the **Ladies Benevolent Society Hospital** (1881-1898). The Women's Hospital was served those who were neither catholic nor employees of Colorado Fuel and Iron and the Ladies Benevolent Society Hospital served the homeless or destitute: fallen women, homeless families, abused children and drunken men. It is likely that both institutions included residents with TB, but TB was not a primary focus of care.

A final hospital on the Pueblo scene was **Parkview Episcopal Hospital**. It was built in 1923, after a flood had destroyed all the local bridges over the Arkansas. The earlier hospitals were all on the south side of the river and people on the north side of the river had no easy access to medical care until the new hospital was built. It included sunrooms and sleeping porches for TB care.

The large **Fairmont Sanatorium** existed in Pueblo between about 1903-1913, but did not endure. It later became an orphanage and then an apartment. Whether TB or mental health care was the focus of treatment there is unknown.

The **Harris (Idlewilde) Sanatorium** was built in 1910 near Rye in SW Pueblo County. It was small with perhaps 20 to 30 beds in small tents or cabins. According to Rye resident Richard Bigalow, it continued to function well into the early 1940's. George Williams* president of the Pueblo Historical Society provided information on the Harris and Fairmont facilities. He stated that there had been two "Pest Houses" in Pueblo, one at 29th and Cheyenne and the other near what is now I-25. These would have been for indigent people with communicable diseases with the one near I-25 having a small graveyard associated with it. However, that graveyard was recently destroyed in excavation for a new development. George believed that Pueblo, at only 4800 feet, might not have been considered "high enough" for adequate TB therapy. Furthermore, it sounds like General Palmer, in keeping Colorado Springs clean and beautiful, may have gotten to have his cake and eat it too, by having nearby Pueblo produce the iron and steel his railroad empire needed at the cost of having a more polluted environment.

*719-543-5294

2.2 Mountains:

Chaffee County:

People at the **Heart of the Rockies Medical Center**, in Salida, CO * were very helpful and interesting. They said that there had been a “tent sanatorium” and TB treatment center there in the 1900’s. The railroads were responsible for the existence of Salida and the railroads were responsible for building the first Railroad Hospital there in 1885. This hospital eventually developed into the current **Heart of the Rockies Medical Center**. For more information, they suggested that the Railroad archives at the state historical society or Western History collection at the Denver Public Library would be able to provide more information.

*719-539-6661

Fremont County:

Coalmining was a mainstay of the economy of Fremont County during the early 1900’s, with much of the coal being sent east to Pueblo. Many of the coal camps were company towns of the CF&I, in Pueblo, and CF&I provided a doctor for each of its coal camps. These doctors would probably have had the priority of keeping people healthy or returning them to health and work as rapidly as possible.

The resource person at the Fremont County Local History Center, LeDonna Dunn*, said that there were a number of Sanatoriums in Fremont County and several others on the edges of nearby counties. However, none of these were listed in the NTBADS. The restoration of health was a big draw for migrants and Canon City not only had rail transport but also hot and cold springs and a climate that was equal to or better than any other treatment site in Colorado.

*719-269-9036

Sue, at the local history department of the Canon City Library, said that there were many small Sanatoriums, including the **Rainbow Ranch Health Camp** near Coaldale in Western Fremont County. This is where people lived in the typical platform tents, primarily during the summer. Ranchers and owners of boarding houses also rented out rooms to people who came to “take the air.” There were 18 doctors in town in 1900, which reflected the popularity of Canon City as a TB treatment center. There were a number of relatively small and transitory private hospitals or sanatoriums in town. These often didn’t last very long, but they did treat TB for those who could pay for as long as they existed. The institutions included **Dr. Howe’s Sanatorium** (1900- 1905?), which closed when the family moved back East. **The Ward Sanatorium** (1900-1903) became the **Graves Sanatorium** (1904-1930) after the death of Dr. Ward and was purchased in the mid -1930’s and renamed the **Colorado Sanatorium**, which lasted into the early 1950’s. **Dr. Goodloe’s Hospital** (1908- 1915) had 25 beds in a remodeled private home. When he sold it to Holmes during WWI, its name changed to **the Holmes Hospital**,

which boasted that it only employed graduate nurses (1915-1938's). When the Holmes Hospital closed during the Depression, the Benedictine Sisters purchased the building and its name changed again, this time to **St. Thomas More Hospital**. This hospital endured and was remodeled several times. In 1995, management of the hospital was taken over by Centura Health.

In 1902, a plan was put forth to build a large and prestigious TB sanatorium that would be a philanthropic and charitable institution where the indigent could receive care. However, the planners expected the city's help in developing this institution and it never materialized. In the absence of such a place, those who couldn't pay for care had little choice but to go to one of the "Pest Houses," where those with communicable diseases could be isolated from the general population. One of these "Pest Houses" became the site for the County Hospital and Farm during the early 1910's. In 1936, the warden of the Hospital petitioned for additional money to increase space for TB patients, indicating that people with TB certainly lived there, though treatment may have been limited.

Pat Kent at the Museum of Colorado Prisons suggested calling Bill Wilson, a warden or former warden at the Colorado State Territorial Prison* to find out about more regarding TB care for prisoners. Bill said that early on, prisoners with TB were isolated in a separate part of the prison and treated for TB on site. This practice was stopped by the mid 1960's and since then prisoners with medical needs are sent to the Colorado State Hospital in Pueblo.

*719-275-3626

Gordon Hodgin of the Delta county Historical Society*, now in his 90's but with an "excellent memory for Delta County history and everything else" came to Colorado in 1908 with his father who had consumption (TB). He traveled around with his father, who was always seeking some kind of help for TB, and he remembers **Dr. Graves Hospital for TB** in Canon City, as well as a **Tent Sanatorium** that was probably in either Estes Park (Larimer County) or Granby (Grand County). He also recalled a Tent Sanatorium somewhere near Guffey, in Park County. Some of these may have been seasonal sanatoriums, like that near La Veta in Huerfano County, since winter conditions would have been harsh for ill people living in tents.

*See Western Slope, below

Huerfano County:

Like Las Animas and Fremont Counties, coal mining was a mainstay of the Huerfano County economy during the early 1900's and in many of the coal camps, basic medical care was provided by CF&I doctors. The town of Walsenburg does not appear to have ever had any medical facilities that emphasized TB care. With coal mining at the core of the county's economy and at an altitude of 6,300', the combination of Black lung, TB and altitude might have meant that affected individuals either moved away or died. There

was an early “County Pest House” that existed through the 1920’s. Later, a private institution named **Lamme Hospital** provided care locally until 1961, at which time the citizens chose to tax themselves to provide for a Community Hospital. This was run by the Mennonites from about 1962-1980’s and has now been replaced by the **Spanish Peaks Regional Health Center**, which includes both the State Veterans Nursing Home and a hospital.

The town of La Veta had a hospital from 1908-1941, but it primarily provided surgery and emergency care. However, there was one small TB treatment center, which may have been typical of several of the “tent sanatoriums” or “camp sanatoriums” that existed in the Colorado Mountains. Between the early 1880’s and 1900, **Camp Staplin Ranch**, 7 miles south of La Veta up the Wahatoya Canyon, provided a summer TB treatment camp for 20 to 30 people who came from as far away as New York and Chicago. People lived in tents and while some benefited from the 8,250' elevation and returned again and again over the years. Nancy Christoferson*, is the local historical expert for the La Veta area.

*719-742-3325

Las Animas County:

Noreen at the Pueblo County Library * explained that coal mining was a mainstay of the economy of several counties to the south and east of Pueblo during the early 1900’s. These counties included Fremont, Huerfano and Las Animas County. Much of the coal produced in coal camps there were sent north to Pueblo. Many of the coal camps were company towns of the CF&I, in Pueblo and CF&I provided a doctor at each of its camps. These doctors provided local health care and the Company also provided health and first aid education. However, with the possible exception of a small TB Tent Sanatorium at Stonewall, in extreme western Las Animas County, there were no centers specifically designed for TB treatment. The local history section at the Carnegie Public Library in Trinidad has records that suggest that, sometime after WWI, there was an effort to create a US Public Health Service TB Hospital in the former coal camp of Tercio located in the SW corner of the County. However, no appropriation was ever made to fund such a project, and so it fell through.

*719-562-5600

Ron Roe, respiratory therapist at the current Mt. San Rafael Hospital in Trinidad and formerly director of the hospital’s Black Lung clinic, said that he had never heard of any TB sanatoria in Las Animas. Old records suggest that miners were diagnosed with TB fairly frequently and on occasion were kept and treated at the old Mt. San Rafael Hospital, which was run by the Sisters of Charity. Ron also noted that TB incidence seemed to be higher among coal miners than among the rest of the public. *

* When he was running the Black Lung clinic he routinely did Tine (TB skin) Tests and they were frequently positive.

2.3 Plains:

Baca County:

Virginia Bashom at the Southeast Colorado Hospital in Springfield, CO said that while the hospital itself did not have roots in any previous TB care institution, she thought there had been a TB Sanatorium in or near Two Buttes located in the NE corner of the county, which was started by Dr. Verity from the Chicago area. However, the local expert on Dr. Verity and Two Buttes history is Mary Mae Gorley. * She said Dr. Verity had delivered her, but that she had never heard of any such place. Dr. Verity came to Baca County in about 1912 because a friend was involved in the construction of the Two Buttes Reservoir. Dr Verity's friend may have suggested that Dr. Verity move to Colorado, since he too was suffering from TB. The climate seemed to have helped him, since Mary Mae Gorley said he lived to be 95 or 93 years. However, it is difficult to be certain of what really happened, where, and to whom, let alone being able to clearly distinguish why.

*719-326-5956

Bent County:

Fort Lyon/ US Navy VA Hospital #80, Las Animas:

According to Lavonne Garrison of the Pueblo VA Nursing Home, this agency was started a few miles East of Las Animas at Fort Lyon. Ms. Garrison was going to send additional information about Fort Lyon, but it didn't arrive in time for me to include it in this report. Fort Lyon was originally established in about 1860, as an Indian fort and is now a historic site. In 1918, the VA took over a large TB Sanatorium there and turned it into a TB Sanatorium for Navy veterans. This site was listed in the available NTBADS. A big complex of buildings was created as part of the Sanatorium and VA hospital. The facility is currently owned by the state, and is a health care facility for the State Penitentiary system, used primarily for older or ill inmates.

Cheyenne County:

There were several clinics in Cheyenne Wells in the early days, but the Keefe Memorial Hospital was established in 1945. The original Dr. Keefe, for whom the hospital is named, had come to Colorado because he had TB and he apparently recovered and worked there for some time. According to Sue Chronic*, in more recent years, people in Cheyenne County who had TB were generally quarantined and treated at home.

*719-767-5662

Kiowa County:

Prior to the mid 1940's, just a few doctors in the town of Eads provided all medical care in Kiowa County, which measures approximately 20 mile by 80 miles. One of these doctors maintained a small "hospital" in a private home, but there were never any TB treatment facilities in the County. My informant, Ruby Whistle* was born in the 1930's and graduated from high school in Eads and by the time her first child was born in the late 1940's the Weisbrod Community District Hospital was up and running.

*719-879-1322

Kit Carson County:

Diane Mentley at the Memorial Hospital in Burlington*, said that to the best of her knowledge there were no TB treatment facilities in the county; in fact they had no hospital at all until 1948. She believed that all TB sanatoriums were along the Front Range.

*719-346-5311

Lincoln County, Co:

According to Sheila at Lincoln Community Hospital*, no TB treatment was available in Lincoln Co, at any time.

*719-743-2421

Morgan County:

The current Colorado Plains Medical Center in Brush* had its origins in the **Eben-Ezer Mercy Institute**, (NTBADS) which was founded by members of the Bethany Lutheran Church in Denver in 1903 or 1904. These trustees decided to establish a Lutheran Sanatorium and Deaconess Mother House in Brush, Colorado on 35 acres near the railroad track. In 1904 a Danish Lutheran newsletter called Föbe (pronounced Phoebe) called Danish Christian Women to consider coming to work at the sanatorium. The first patient, from Wisconsin, was admitted in March of that year.

*970-867-3391

The Eben Ezer had a nursing school, and the associated Mount Elim Hospital, which opened in 1914, provided all types of Medical care, but the Eben Ezer did have a large proportion of TB patients. After WW I, as the numbers of TB patients seeking care in Colorado's dry climate began to decline, the Eben Ezer began to focus more on long-term care for the elderly and disabled.

In 1953, the Mt. Elim Hospital was leased to the Brush hospital district, which later became the Colorado Plains Medical Center in Brush, according to Sandy at that facility. Meanwhile, the Eben-Ezer physical plant still exists and is now being used as a nursing home. It has been designated as a state historic site, and there is a history available.

*Contact Val for more information at 970-842-6610.

Otero County:

Mennonite Sanatorium in La Junta * Mennonites first came to the area in the 1890's after recognizing that high altitude and dry climate was very good for people with respiratory disease. Many of them wrote to kinfolk back home about the healthy climate and some people actually came to Colorado for health reasons. Some of these people lived with family, but it was difficult for those who had no local relatives. As a result, the Mennonites built a Sanatorium in 1908, south of Swink, CO. This facility and its successors were listed in the NTBADS. There were beds for 45 to 50 people in small, hexagonal tents or buildings that housed up to 2 to 3 people each. Treatment for TB consisted primarily of plenty of fresh air, rest, sunshine, and good food. A three-year nursing school was also part of the facility and helped to ensure staffing. The buildings existed until about 1970, though the main dining room had been used as a hay barn since about 1945.

*Contact person: Dr. Howard Stutzman, 719-384-5261, OR Arkansas Valley Regional Medical Center, 719-383-6000 OR Don Lowman, Otero Museum Assoc at 719-384-7406.

The town of La Junta had a hospital in the 1920's, but it was financially shaky, whereas the Mennonite Sanatorium was financially successful. Seeing a need for a stable hospital, the townsfolk asked the Mennonites to run their hospital. The Mennonite Sanatorium was moved closer to La Junta in 1920 to facilitate this sharing, and then in 1928 the two were combined as the **Mennonite Sanatorium and Hospital** in La Junta and the Sanatorium was closed. The Mennonite Hospital ran until 1997 until it became the **Arkansas Valley Regional Medical Center***.

*Two books are available about the Sanatorium and its history. They are: Privileged to Serve, by Allen Erb, Mennonite - Hospital Administrator 1919-1940's, and Lamp in the/ of the West, by Maude Schwartzendernber, about the school of nursing. These are available through the La Junta Public Library.

Phillips County:

The representative of Haxtun Hospital* said that there had never been any TB treatment facility in Phillips County and this information was corroborated by folks at **Melissa Memorial Hospital** in Holyoke, CO** who also said that there had never been any kind of TB care facility in Phillips County.

*970-774-6123

**970-854-2241

Sedgwick County:

No records or memories seem to exist of any TB treatment facilities in the county.

Washington County:

There was a hospital in Akron, Washington County, (Victory Hospital) until the comparatively recent past, when the facility was converted into a nursing home.

Yuma County:

No TB care facility existed anywhere in the County; the nearest facility was in Brush at the Eben-Ezer. Currently there are two hospitals in Yuma County, the Wray Community District Hospital on the east and the Yuma District Hospital on the west. There was a County Poor Home in the Wray area around the turn of the century, but the first hospital came into existence around 1912. Another was built early in the 1950's with funds from the Hill-Burton act. The current Wray Community District Hospital building dates back only to 1995. Dolores Barker at this hospital told me that the father of one of the local doctors had had TB, and she suggested I call Dr. Robert Buchanan* in Wray to learn more about how this was handled. Dr. Buchanan told me his father had developed TB in 1921, at the age of about 16. He was treated briefly at National Jewish Hospital in Denver, but then returned home for the rest of his 2-year treatment. During this time, he lived winter and summer in one of the typical TB treatment tents set up in the family's yard. Part of his treatment was to have a fresh, raw egg every day. This treatment was apparently successful, and shows a new phase of recommended TB care at or close to home, and under quarantine.

*970-332-5832

Medical care in Yuma began in 1887 in a ranch kitchen belonging to a Dr. Gardner. Surgeries were performed on the kitchen table. Later, there was a small private hospital established in a home and a convalescent home in another private home. A Yuma District Hospital was built in around 1949 and was preceded by a smaller community hospital or perhaps two. In 1928, members of the local Lutheran Church decided that the town needed a real hospital and they established the Lutheran Deaconess Hospital Association, which operated out of a house. In 1938, the Lutherans felt that they could no longer deal with the association. A group of local businessmen and concerned individuals in the community raised funds to purchase the hospital, which they turned into a Community Hospital that functioned until 1945 upon which it became clear that a more modern facility was needed. Community fundraising made it possible to build a new hospital in 1948, which formed the core of the current Yuma District Hospital, which is funded in part by the county and federal government.

2.4 San Luis Valley:

No one in the San Luis Valley seemed to remember hearing of any TB treatment facilities in the San Luis Valley. However, the **National Tuberculosis Association 1911 Directory of Sanatoria** lists a not-quite-open-yet Rocky Mountain Camp Sanatorium in Antonito, in Conejos County. It was to have a capacity of 25 incipient cases (the group of TB cases that was thought to be most benefited by such care) and would only operate from June 1 through October 1. National Tuberculosis Association Directory of Sanatoria for 1931 and 1934 lists St. Joseph's Hospital in Del Norte as having provision for up to 12 TB cases. The current Rio Grande Hospital* in Del Norte is descended from St. Joseph's Hospital, which was established in the 1890's. The old building is now a nursing home and the Hospital has moved. The only other hospital in the San Luis Valley is the San Luis Valley Regional Medical Center** in Alamosa, which was established in 1928, but seems not to have offered TB care.

*719-657-2510

**719-589-2511

2.5 Western Slope:

Montrose Co.:

Bert Hatter, at **Montrose Memorial Hospital*** was not aware of any TB sanatoriums existing in the Montrose area, and Peg Mavis at the Montrose Co. Health Dept** concurred, saying that most local TB cases in Montrose County were sent either to Denver (National Jewish) or to Glenwood Springs for treatment.

*970-242-0971

**(970-252-5000)

Mesa County:

I spoke with Dave Fishell, at the Museum of Western Colorado in Grand Junction. * He said there was no TB treatment available in Mesa County, with the possible exception of the **County Pest House in Grand Junction**, which existed from the late 1890's through 1920's and was probably more like a county poor farm, with some type of isolation or quarantine available for communicable diseases such as TB. He commented that the western slope was settled late, after the Ute Indians were removed in 1881. Towns developed very rapidly after that, which is well documented. He also indicated that two predictors for the existence of early sanatoriums included good railroad connections and the presence of hot springs. Glenwood Springs was well known and somewhat popular, but did not become big until 1882, when the D&RGW came through town. The railroad itself became the local economic base for some parts of the region, especially Grand Junction, where there was a roundhouse with capabilities to service 20 locomotives at a time.

*970-242-0971

Delta County:

Around 1895-1898, **St Michaels Catholic Church** established a monastery for monks with TB. It was an impressive two-story building, but it was in use only until 1904. The monastery was meant to be self-sufficient and grow its own crops and food, with the monks providing all labor. However, the combination of work and TB apparently proved unmanageable, even in the helpful climate of Delta. Several monks, who once lived there, died within a few years of their arrival and were buried in the local cemetery.

The building was later turned into a school, private home, an apartment complex and then a nursing home. The informant, Gordon Hodgin* had come to the Delta area in 1908 with his consumptive father. He said the old monastery was the object of considerable interest to the kids because the basement had several large lumps in the earth floor, which children believed to be bodies that had been buried there; much later someone excavated these 'lumps' and found nothing more than trash. Because Hodgin's father had TB, the family was familiar with some of the treatment centers. He said that there was a Tent sanatorium near Guffey and he thought that the Rocky Mountain Camp Sanatorium might have been in or near Estes Park or perhaps in Grand County, near Granby.

*970-874-3879

2.6 Western Slope, Northern Colorado:

Railroad connections to this part of Colorado were limited until after 1928, when the Moffat tunnel was completed, making it possible to travel directly from Denver to Steamboat Springs and points west. As a result of this late date for direct rail connections and the higher, colder environment of North Central Colorado, it is likely that populations were low, tourists few and TB treatment facilities rare or non-existent. Two possible exceptions were the Rocky Mountain Tent Sanatorium, which Gordon Hodgin* of the Delta County Historical Society mentioned and a possible Tent sanatorium near Kremmling.

*970-874-3879

Grand County:

The person I spoke with at the **Kremmling Memorial Hospital**, in Kremmling, CO* said that she had studied TB in the Kremmling area and noted that in individuals who had recovered from TB, the malady could reappear as the individual got older and their immune function declined. She also said that her husband, Dave McLimore, who grew up in the Kremmling area, had told her there was some sort of TB treatment facility near Kremmling, up in the Gore Range, and perhaps only during the summer. **

*970-724-3442

**For more information, contact Dave at 970-724-9396, evenings

Garfield County:

Becca Warren, Infection Control officer at Craig's Memorial Hospital and a Glenwood Springs native said that the local Indians had used the hot springs for curative purposes. Therefore, when the white settlers came in, there was already a well-established tradition of the springs' health benefits. She said there were six recognized TB care centers in the town, including Porter's Hospital and the Hot Springs Lodge, which was a TB sanatorium and whose main building was a military rehab facility during WW II, and that remained a hospital into the early 1950's.

Trish Cerise, the Infection control officer at **Valley View Hospital Association** in Glenwood Springs recommended the Frontier Historical Society as a resource. However, she also said that historically, health care was a big 'industry' in Glenwood and part of the accepted care was to have open windows, summer and winter. In winter, patients might wake up to snow covering their beds.

Willa at the Historical Society* said that the entire settlement of Glenwood, with all its pools and vapor springs, was thought of as a sort of health resort. Glenwood Springs as a whole *was* "the Sanatorium" but there was no specific *institution* that was the center of treatment. Instead, people came to town to seek cures through the hot springs, vapor caves or "inhalatorium," but each individual or family would have to find their own accommodations and doctor. Oftentimes, these people stayed at either one of the many small and private 'hospitals,' private homes that rented rooms or in the hotels.

*970-945-4448

The Hotel Glenwood was reputed to have a whole wing for TB patients. The only known early Sanatorium was a hotel, converted by the Sisters of Charity to St. Josephs Sanatorium in 1898. The sisters planned to make money on the Sanatorium, but they also took in people who weren't sick with TB (at least when they came in). The facility lost money and went bankrupt by 1900. The predecessor of the current Glenwood Springs' Valley View Hospital was a sanatorium established in 1908, which may have been involved in some type of TB care, however it was essentially a general hospital.

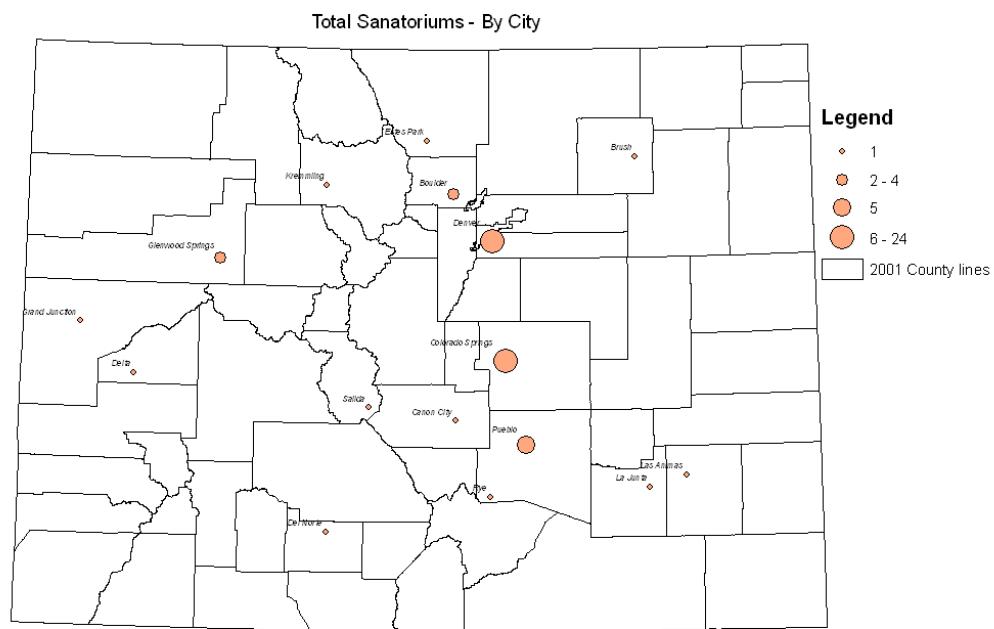
Many of the pools and vapor caves in Glenwood Springs were expensive, but just west of town was an institution known as "Ware's Bathhouse," which was less expensive and more heavily used by people who were poor and ill. Chris Daylor, representative of the **Grand River Medical Center** in Rifle* said that there had never been any TB care center in Garfield County except at Glenwood Springs. There is no listing for any TB treatment Center in Glenwood Springs in the **National Tuberculosis Association Directory of Sanatoria** for 1911, 1923, 1931 or 1934. _

*970-625-6433

Moffat County:

Apparently, Moffat County had no hospital of any kind and certainly no TB treatment facilities until 1949 when Memorial Hospital was built in Craig.

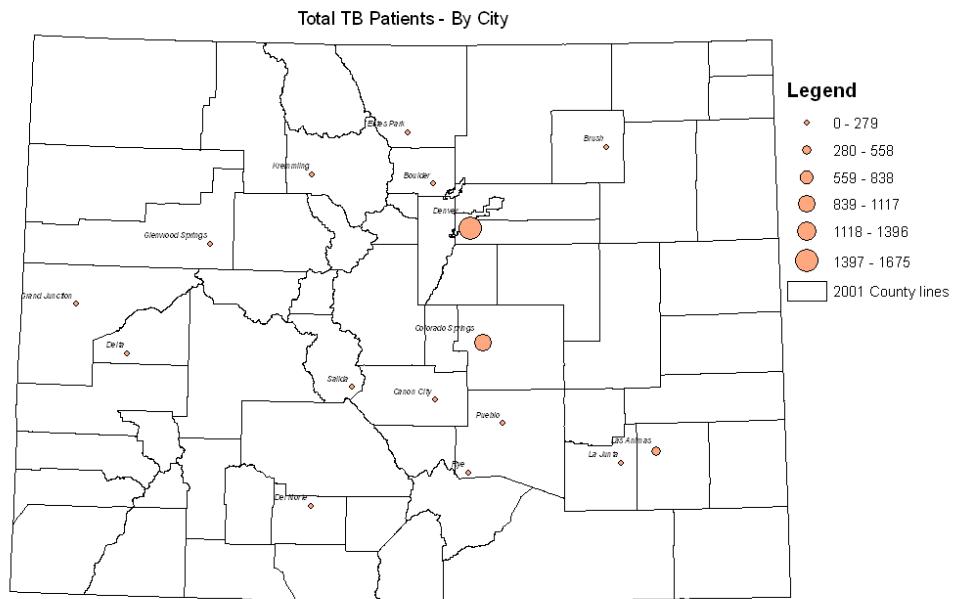
The first map below shows the number of known sanatoriums by city or area.



Clearly, the greatest numbers of TB treatment centers and of medical care facilities existed along the foothills, most markedly in what is now known as the Front Range Urban Corridor.

The second map shows the approximate number of patients that might have received TB care in each area. This number may be inflated by the fact that we often don't know what the patient mix was in many facilities where TB was just one of the maladies being treated. **The Agnes Sanatorium in Denver** had about 150 beds. * However, in reality, we don't know if all these 150 beds were in use by TB patients or if other illnesses and injuries were also being treated in the same facility. Despite the latter, the map makes it possible to develop a better sense of where people with TB were concentrated for treatment.

*150 was the number of beds counted to determine potential patient 'load'



3.0 Localized Regions with High Incidence of Acute Asthma Hospitalizations, and Relationships with Historical sites of TB Care:

With any disease, there will inevitably be variations in prevalence or incidence over time and space and asthma is no exception to this rule. One of the challenges for epidemiology is to determine which of these variations are trivial and transitory and which suggest the presence of some underlying problem that needs to be identified and addressed.

This study is a case in point. In looking over the maps of Asthma hospitalizations in Colorado over the years 1999-2001, it is clear that there are a number of locales where during a single year there is a higher occurrence of asthma hospitalizations, but no consistent pattern. The same location seldom shows repeated situations of high Asthma incidence. These brief and isolated incidents may reflect forest fires, dust storms or other local variations. Other areas, however, do seem to have consistent asthma problems, year after year.

The Arkansas Valley, especially Pueblo, Fremont, Otero, Bent and Prowers Counties seem to have ongoing problems with Asthma and at times these problems appear to extend further into adjacent counties including El Paso, Huerfano, Las Animas and Baca. In addition, high rates are often found in the northeastern corner of Colorado, especially in Sedgwick County and are sometimes associated with high rates in Phillips, Logan and Washington counties. Furthermore, there are consistent problems in east central

Colorado, most commonly and severely in Kit Carson County, but sometimes with very high rates of hospitalization in Cheyenne County as well and somewhat high rates in the adjacent Kiowa and Lincoln counties.

In comparing these sites to locations of former TB Treatment facilities, it is notable that there were no TB treatment facilities known anywhere in northeast or east central Colorado with the exception of the Eben-Ezer Sanatorium in Brush (Morgan County). This suggests that there is probably no causal relationship between former sites of TB care, and current locations of more severe problems with asthma.

In support of this conclusion, there is the complete absence of Asthma problems from the area around Glenwood Springs, which was a major center for TB care on the Western slope. In addition, the Denver Metro area and Colorado Springs, which were for a long time were major centers of TB care for the state as a whole, show relatively localized and sporadic problems with Asthma, especially given the large populations in both areas.

On the other hand, the valley of the Arkansas presents a more complex problem. Certainly TB occurred here and there were at least several TB treatment facilities in major towns all the way along the Arkansas from Salida in Chaffee County to Fort Lyon in Bent County. Of equal importance, asthma is present in the same general area. *Are the two related?* In order to evaluate this question, it is necessary to ask yet more questions. The most obvious of them is: *Is there in fact a plausible relationship between susceptibility to asthma and risk of developing TB?* Certainly there is a relationship between the presence of asthma and the risk of developing complications such as bronchitis or pneumonia after an upper respiratory infection, but if there is no correlation between the presence of asthma and TB risk, then the whole idea of this particular historic or causal connection is rather weak.

4.0 Alternative Possibilities:

A possible alternative would be to enquire into relationships between maternal asthma and development of Asthma in offspring. * *If a mother with asthma is having problems especially during some phases of her pregnancy, might the fetus be at greater risk for development of asthma as an adult? **

*See the Barker Hypothesis

What are the potential relationships amongst the variables altitude, TB susceptibility, and black lung from coal mining? Are there other possible links between occupation, asthma, and specific regions?

What differences in socio-economic status (SES) exist between the various areas where asthma is a problem and where it is not a problem? For example, Colorado Springs was virtually designed to be a relatively upper class, cultured community and that probably characterizes the area even today. In contrast, immigrants to the Pueblo area were more likely to be working class and Pueblo is seldom thought of now as a city of culture and refinement. How about the counties east of Pueblo and in extreme eastern Colorado? Certainly lower SES contributes in many poorly understood ways to greater disease risk. Is asthma one of the diseases more common in people of lower SES? After all, the areas that people live in are influenced by social, political and economic environmental factors as well as the physical and biological characteristics inherent to these areas.

What about the effects of environmental change? In other words, when Colorado became a state, the prairies were just that: wide open grassland covered with native grasses, with virtually no trees except in river valleys. Now, however, there are lots of trees in most towns, which alters not only the local microenvironment, but also the range of pollen species and the timing of pollen release. Also, instead of just native grasses, we have a huge variety of crops and many, many introduced weedy species. As the patterns of agriculture change, these weedy species may be growing more plentiful and invasive, with resulting greater pollen production, which would tend to increase asthma risks. Is there a seasonal or weather-related pattern in asthma rates? Are there traceable effects of bad pollen years in children born in subsequent years?

Might some of the areas that sporadically show high asthma rates, especially on the Western slope and in mountain areas, be places where there were forest fires and smoke pollution, with resulting high but transient asthma rates? Is it possible that agricultural chemicals might be responsible for high rates of Asthma in eastern Colorado? It would be worth investigating whether there is a seasonal pattern of asthma distribution in these counties, with higher asthma rates during times that pesticides or herbicides or other chemicals are being applied. Furthermore, might there be a weather correlation? It is possible that runoff of agricultural chemicals (fertilizers, pesticides, herbicides) could collect in pools of water, then dry, and become wind-borne during some of our famous Colorado wind storms. For that matter, what about dust, with or without agricultural chemicals? Information on the Pueblo area suggested that mustard gas and other chemical warfare agents might be or have been stored east of Pueblo. If this is so, is it possible that such storage might develop leaks, and that these might increase asthma risk downwind?

5.0 References:

Blazing the Tuberculosis Trail (1990) Jeanne Abrams, Colorado Historical Society Monograph #6

Colorado State Archives: Arapahoe County, Colorado Poor Hospital Records 1895-1899.

Colorado, a History of the Centennial State, University Press of Colorado (19____) Abbott, C., Leonard, S.J., McComb D.

Exposures and Health Effects from Inorganic Agricultural Dusts (2000), Environmental Health. M. Schenker

History of Colorado, Volume III (1927). Baker, J.H., and Hafen L.R., Editors. Linderman Co., Inc. Denver, CO.

Touching Lives, a History of Medicine in Fort Collins, by Stanley W. Henson, Jr., MD