

REPORT OF THE
COLORADO STATE BOARD OF HEALTH
1917 AND 1918

BY

DR. ERLO E. KENNEDY, EXECUTIVE SECRETARY.

The Colorado State Board of Health, in its efforts to protect and promote the health interests of the people of the great state of Colorado has been encouraged by the support extended by the various state officials, and aided by the hearty cooperation of local health officials throughout the commonwealth.

The importance of the functions of the board is receiving greater recognition and more practical encouragement of its operations by the people in general than at any period since its inception. This is due in great part to the untiring efforts of, and the educational propaganda carried on by previous boards through competent and efficient executive officials. It is evident that the education of public opinion in a democratic country is necessary for the progress and stability of public health work. To insure the highest degree of efficiency in administrative sanitation and disease prevention, it is necessary to first overcome the apathy with which the public receives the work of its health officials during the quiescent periods of smooth sailings and to be insured of its friendship and help when an epidemic threatens and a wrathful storm with lurking danger approaches. The people are willing to provide for their own protection and to take precautions for the welfare of their fellow beings if detailed explanation of the necessity for fulfilling the requirements of the health regulations is disclosed in a spirit of helpfulness and commendatory appreciation of individual endeavors to conform with sanitary requirements.

Health work today occupies a more important place in government affairs than the world has ever before known. Within the last decade it has risen from a place of minor consideration to one of chief importance. The experience of the military arm of our government in disease prevention through strict personal hygiene, sanitation and modern immunizing vaccination has impressed public officials and the general public with the fact that many of the diseases which annually kill hundreds of our civil population can be controlled and, in a short time, absolutely prevented by public health work.

Vaccination against typhoid fever has been the means of stamping out that disease not only in the United States Army, but in the armies of other nations that have required its use. It is giving just as good protection to the people who are adopting its use, even in outbreaks in epidemic form. The State Board of Health has used every means possible to inform the people of this absolute method of keeping off this, one of the most horrible diseases, and is meeting with some degree of success.

SANITARY HOTELS IN MOUNTAIN PARKS

The rapid growth of the mountain park population during the summer season in Colorado has presented a problem of sanitation and stream protection which has been met and handled by the State Health Department. This problem has been especially tedious in the Estes Park region. Each season finds thousands of vacationists swarming through a region which but a few years ago was a virgin forest. The region is now dotted with large hotels and resorts which annually are filled to capacity. The region is drained by the Big Thompson River which affords water supply to Loveland and other growing and prosperous towns of the northern part of the state. It was absolutely necessary that an ample means of sewage disposal be provided to prevent the pollution of this valuable stream. The State Board of Health was enabled to assist the able work of the health officials of Larimer County to the end that during the last few months all the hotels of Estes Park region outside the incorporated area have installed modern sewage disposal plants. The town of Estes Park has, during the last six months installed a modern, municipal Imhoff tank, with filter beds and chlorination equipment with a capacity for 3,000 people, at a cost of near \$8,000.00. The State Board of Health is proud to be able to recommend to the inquiring vacationists the hotels of this wide-a-woke, progressive region from a sanitary point of view.

MUNICIPAL SEWAGE DISPOSAL PLANTS.

The State Health Department has encouraged the towns of the state to install modern disposal plants to care for the sewage of the municipality.

The department has never been provided with a sanitary engineer, nor has financial provisions been made for carrying on this work. With a desire to render the fullest service to the people of the state, the department secured the aid of an engineer connected with the Highway Department, who has very generously furnished us with plans and specifications in the nature of blue prints whenever requested to do so. In this manner we have been able to give material aid to the towns of Estes Park, Trinidad and Littleton, which towns have recently completed magnificent plants, which should take care of their sewage without further expenditure for a number of years.

Blue prints have been furnished other towns which plan to build disposal plants just as soon as prices of building materials again become more nearly normal.

MEDICAL INSPECTION.

The epidemiological work and sanitary inspection of the State Health Department is cared for by a single inspector. It requires constant attention, and the duties of that official call him into every section of the state. Dr. J. W. Morgan is the Medical Inspector for the Department, having spent several years in this capacity with the State Board of Health. The inspection of hospitals, and state institutions are only a small part of the work of this official. Much time is given to tracing the cause of epidemics of contagious and infectious diseases, and informing the public of the methods of their prevention, assisting local health officials in the control of epidemics, such as small-pox, scarlet fever, diphtheria, measles and other diseases of a contagious nature, becomes part of the duties of this official.

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During the year the medical inspector has visited most every county in the state and has had the cooperation of the county and city health officers in the enforcement of the law and in the education of the people as to the economic value of disease prevention.

A synopsis of the work done by the Medical Inspector is here given:

Nuisances	12
Poliomyelitis	1
Sewage Disposal	17
Sanitary Surveys	19
Small-pox	24
Complaints against doctors	3
Scarlet Fever	7
Measles	7
Institutions inspected	27
Typhoid Fever	9
Dairies	3
Rabid Dogs	1
Complaints against Coroner	1
Address delivered	4
Schools Inspected	6
Diphtheria	2
Whooping Cough	1
Venereal Diseases	5
Water Supply	5
Sewage disposal plants for cities	3
Sewage disposal plants for homes and hotels	10

INFLUENZA EPIDEMIC.

During the month of September, the states east of the Mississippi river were visited by the serious epidemic known as Spanish Influenza. This disease was introduced in America by sailors returning to this country from Europe, and made its first appearance at a quarantine station near the city of Boston. It soon began to develop among the sailors quartered near the harbor and from them spread throughout the city. By the end of September all the eastern states were fighting the most serious epidemic of sickness that had ever been known in the history of American medicine.

On about September 20, 1918, a detachment of two hundred and fifty Montana soldiers chosen under the selective draft arrived in Boulder for special training at Colorado University. When this body of troops arrived thirteen of them were seriously ill. By the end of one week ninety-one of them had developed a disease giving a same line of symptoms. Efforts were made to get a definite diagnosis, but the physicians in charge hesitated, for they had been led to believe that the causative factor of the 1918 Influenza epidemic was the same as that of the epidemic which swept the country during the winter of 1889-90, namely the Bacillus of Pfeiffer, and they had been unable to isolate that disease germ.

At about the same time a draft contingent of some two hundred and nine men from Montana arrived at Colorado College for special training at that Colorado Springs institution and it was found that about twenty-five of their number were suffering from the same disease.

While efforts were made to keep these military contingents isolated, the disease soon made its appearance among the civilian population of both Boulder and Colorado Springs, and from these two prosperous little cities the disease spread to every part of the great state.

On Saturday, October 5th, the Colorado State Board of Health issued a warning to the people of the state that Epidemic Spanish Influenza had made its appearance among us, that it was one of the most communicable diseases with which we had ever had to deal; that it was primarily a crowd disease transmitted from person to person by the secretions of the respiratory organs; and, urging the local health officials to be on their guard and, upon the first appearance of the disease in their respective communities to close all places of public assemblages, including schools, theatres, churches, pool halls and to prohibit social gatherings of every nature whatsoever.

The following day Governor Julius C. Gunter summoned the secretary of the State Board of Health to a conference at his home. At this conference it was decided to call together on Monday the heads of all state educational institutions including Colorado College, together with their medical officers in charge of the military detachments, for a conference with the Governor, the Mayor of Denver and all available members of the State Board of Health. The Secretary of the State Health Board was authorized to communicate by wire with these men and to arrange the conference, which was done.

CONFERENCE HELD.

A conference was held in the executive chambers, Monday, October 7th, at 2 o'clock p. m., which was attended by Governor J. C. Gunter, Dr. George Noolin, of Colorado University, Lieut. Col. John W. Barber, M.C.U.S.A., Dr. F. D. Alderson and Dr. L. A. Packard of the School of Mines, Dr. W. E. Crabbe of the Colorado Teachers' College, Dr. Charles A. Lory and Major Mills, Med. Corps, U.S.A. of the State Agricultural College, Dr. U. N. Dunniway of Colorado College, Chancellor H. S. Buchtel and Dr. H. W. Stuver of Denver University, Mayor F. R. Mills of Denver, Lieut. W. T. Kohn, and the Secretary of the Colorado State Board of Health.

After a thorough discussion of the seriousness of the Influenza epidemic, its rapid spread, its appalling death rate and the best means for its control, it was decided that an executive order in the form of a proclamation should be issued as follows:

"WHEREAS, epidemic Influenza has made its appearance in various sections of our state; and,

"WHEREAS, it is a matter of national importance that this epidemic be limited in its duration, the number of victims and the extent of its spread; and,

"WHEREAS, the national government has impressed upon us the importance of taking action in this grave matter;

"NOW, THEREFORE, I, JULIUS C. GUNTER, Governor of the State of Colorado, do hereby call upon the various health officers of the state and upon the public press to advise the people of the state of the danger of public assemblages and to impress upon them that Spanish Influenza is a crowd disease; and I do further urge upon all mayors and city and town officers to take appropriate action to arrest and prevent this dread disease by closing theaters, churches, schools and other places where people assemble until the epidemic has run its course, except forts, military camps and also colleges where quarantine has been established by lawful authority. I further urge that the quarantine be respected and that the people be requested to remain at home while suffering from severe colds, or other indispositions until the nature of their illness be determined.

"It is further hereby declared that all the powers of the state will be exercised through the State Board of Health and otherwise in preventing and arresting the spread of this epidemic through the powers of local municipalities and otherwise.

"WHEREFORE, I have hereunto set my hand and caused to be affixed the Great Seal of State, at the Capitol, Denver, Colorado, this Seventh day of October, A. D. 1918."

Julius C. Gunter.
Governor.

ATTEST:

James R. Noland.
Secretary of State.

Perhaps never in the history of the state of Colorado had local officials and the general public responded so nobly to an appeal from the executive as did the people respond to this appeal for cooperation by Governor Gunter, and never in the history of the State Board of Health had that department received greater recognition or more hearty cooperation and support than did that branch of the state government during the epidemic of the fall of 1918. Without a single exception, every community in the state responded to every regulation promulgated, looking toward the prevention of a widespread outbreak of the dread disease.

While a uniform method of prevention was adopted by all the larger cities and towns of the state, every town adopted additional regulations to meet its local requirements. The State Board of Health wishes to commend the good and conscientious work of the county and municipal authorities throughout Colorado. It believes that this wholehearted cooperation of our officials prevented much suffering and saved many lives, and desires to express in grateful terms its appreciation for the help given it.

SECOND PROCLAMATION ISSUED.

The State Board of Health remained constantly on guard during the epidemic and convened in special session from time to time to consider means and methods which might be adopted for the purpose of limiting the number of victims and the duration of the dreaded malady. A special meeting of the Board was held in its office, Monday, October 14th, at which time the following resolutions were unanimously adopted:

"WHEREAS, a serious epidemic of Spanish Influenza resulting in a most appalling death rate throughout the entire United States has appeared in Colorado and is now extending widely over the state, and,

"WHEREAS, this disease is proving the most contagious and virulent ever experienced in this country, therefore,

"BE IT RESOLVED by the Colorado State Board of Health that all public gatherings both indoor and outdoor, of whatsoever character or nature are hereby forbidden and the people are advised and warned against visiting among their friends and acquaintances.

"ALL persons are cautioned to avoid coming into contact with other persons suffering from any illness, no matter how trivial of whatever nature, as it is the people who are suffering from supposed colds who are spreading the contagion."

On the following day the Secretary of the Board conferred with Governor Gunter regarding the steps taken by the Board. As a result a second Executive Order was proclaimed on October 16th, reading as follows:

"EXECUTIVE ORDER.

"PROCLAMATION.

"WHEREAS, the Colorado State Board of Health at a meeting held on the evening of October 15, 1918, after mature and careful deliberation adopted the following resolutions, to-wit:

"WHEREAS, a serious epidemic of Spanish Influenza resulting in a most appalling death rate throughout the entire United States has appeared in Colorado and is now extending widely over the state, and,

"WHEREAS, this disease is proving the most contagious and virulent ever experienced in this country, therefore,

"BE IT RESOLVED by the Colorado State Board of Health that all public gatherings both indoor and outdoor, of whatsoever character or nature are hereby forbidden and the people are advised and warned against visiting among their friends and acquaintances.

"ALL persons are cautioned to avoid coming into contact with other persons suffering from any illness, no matter how trivial of whatever nature, as it is the people who are suffering from supposed colds who are spreading the contagion."

"NOW, THEREFORE, I, JULIUS C. GUNTER, GOVERNOR OF THE STATE OF COLORADO, do hereby urge upon the people of the state to follow the injunctions contained in said resolutions and to cooperate with the

State Board of Health in all ways necessary and pertinent to enforcing this Order and preventing the spread of this epidemic.

"And I do hereby call upon all Mayors, and other city officials to exercise the power of the municipal instrumentalities to accomplish these ends; and I am confident that all the people of the State of Colorado may be counted upon for loyal cooperation in this paramount matter.

"WHEREFORE, I have hereunto set my hand and caused to be affixed the Great Seal of State at the Capitol, Denver, Colorado, this Sixteenth day of October, A. D. 1918.

Julius C. Gunter.
Governor of Colorado.

ATTEST:

James R. Noland.
Secretary of State.

Suffice it is to say that this second proclamation from the chief executive of the state met with the same unanimous approval by the local officials throughout the state, as had the first. The cooperation accorded the state authorities by these officials and the business interests affected should receive the commendation of all good people of Colorado.

PHYSICIANS SUPPLIED WHERE NEEDED.

When the epidemic first reached the state the Health Department anticipated the possible need of medical help in the various communities, and in order to meet these needs, called the press reporters to the office and requested the newspapers of the state to assist it during the emergency, explaining the scarcity of physicians in many sections of the state on account of the patriotic response by Colorado doctors to the nation's call for military service. As a result, the press of the state, especially the large daily papers of Denver and Pueblo, gave publicity to our possible needs, and the department had twelve physicians registered with it for emergency work before a single call for help was received.

It is gratifying to report that during the eleven weeks period beginning October 8th and ending December 23rd, the department was able to meet every call for a physician made for emergency work. During that period twenty-eight physicians were sent out by the State Board of Health and the United States Public Health Service, and this list of twenty-eight men were able to meet the emergency needs of fifty-one communities of the state from which calls for physicians came.

U. S. PUBLIC HEALTH SERVICE AID.

The United States Public Health Service rendered valuable service to the people of Colorado during the period when the epidemic was at its height.

The Secretary of the State Board of Health was appointed the Bureau's representative for Colorado, with title of "Field Director," at a nominal salary of One Dollar per year and authorized to place physicians where needed to fight the Influenza epidemic, at a salary of \$300.00 per month, four dollars per day allowance for sustenance, and all actual traveling expenses, with an appointment as temporary Acting Assistant Surgeons.

Under this authority nine medical men were given appointments and stationed at points within the state where the need for medical assistance was the greatest.

The Bureau of Public Health Service also authorized its representative in Denver to direct the local health officers to make daily reports of Influenza cases, and deaths from that disease by wire to the State Board of Health at the expense of the Federal Government. The state Health Department then wired a summarized report to the Federal Bureau at Washington without cost to the state. This arrangement was of great assistance to the State Board of Health in keeping in touch with the local situation throughout the commonwealth.

The State Health Department is grateful for this financial help from the Federal Government, for without it we would have been so seriously handicapped as to have made it embarrassing. Unfortunately the department was not provided with an emergency fund with which to meet a serious epidemic

This emergency came near the close of the biennial period and at a time when our meager appropriation had been exhausted. It was gratifying to have the Federal Government come to our assistance and relieve us of this embarrassing situation, by placing at our disposal a share of the \$1,000,000 made available by Congress to fight Influenza in the nation. While we were not limited in our expenditure, yet we were conservative and expended for services in Colorado, about \$3,300.00 from this appropriation.

That the services rendered by these representatives of the Bureau were highly appreciated by the communities in which the service was rendered is evidenced by numerous letters received, of which the following is a fair sample:

"Silverton, Colo., Nov. 13, 1918.

"Dr. E. E. Kennedy, Chairman,
State & Federal Health Board,
Denver, Colorado.

"Dear Sir:

"We wish to call your attention to the splendid services rendered by Dr. E. E. Slick of Ridgway while representing the State and Federal Health Board in San Juan County.

"Dr. Slick responded to our call for help and on his arrival took active charge of the City Hall Emergency Hospital. His untiring efforts in behalf of the Influenza patients at the Hospital, as well as those who were sick in homes, brought about a number of cures.

"Considering the condition in which so many were brought to the City Hall, we feel that he is deserving of much praise in being able to turn out as many cured as he did.

"We trust that should the Influenza again break out in Silverton, you will see your way clear to send Dr. Slick to us again."

"Yours truly,

Wm. H. Crooke,
Mayor.

B. E. Allen,
J. H. Slattery,"
Members Health Board."

DEPARTMENT OF STATISTICS

The statistical branch of the State Board of Health is one of its most important . Statistics are the health officers' guide. The work of compiling the statistics of this branch includes contagious and infectious diseases, grouped under the head of "Reportable Diseases," and the records of births and deaths.

Under the head of "Reportable Diseases" are listed forty-four communicable diseases, two diseases of uncertain origin and fourteen occupational diseases, making sixty diseases which must be reported. There are reported to the department an average of eight hundred cases per month, which are listed under the proper heading and arranged by town and county for the permanent records of the office.

From these statistics, the executive health official is enabled to know the prevalence of any epidemic, its geographic location and the extent of its developments. He is also enabled thereby to take the proper means of controlling and abating the outbreak, to take the necessary steps to prevent its spread and to warn the people of the impending danger and to advise methods of protection against the same.

BIRTH AND DEATH RECORDS.

The Department of Vital Statistics has been making an especial effort to get a more complete birth and death record. The law requiring a burial permit has been the cause of a fairly complete report of deaths in the state, and the physicians are giving greater care to conform with the federal requirements in giving a specific cause of death. A copy of every death certificate filed in this department is forwarded to the Bureau of Vital Statistics at Washington and must be correct before the same is accepted.

It is evident that a large per cent of the birth records never reach the state registrar. An effort is being made to get before the people the importance of these records through the cooperation of the Supt. of Schools of the various counties in bringing this necessity before the people. The day is at hand when the law requires complete birth registration.

The State Board of Health is frequently asked for copies of birth certificates where the same is wanted to establish identity; to prove legitimacy; to show school age; to obtain school permit to work; to establish the right to inherit property; to establish liability to military duty or exemption therefrom; to establish the right to vote; to qualify to hold title to and to buy or sell real estate; to establish the right to hold public office; to prove the age at which the marriage contract may be entered into; to establish the age of consent; to establish parentage for children of soldiers under the pension law and aid in the benefits of insurance liability under the industrial law. With this knowledge before them, the people must be impressed with the necessity of having the births of their children properly recorded.

The efforts of the statistical department is meeting with marked success. The increase in the number of births reported with each succeeding month is more than encouraging to the department whose ambition is to have Colorado recognized by the federal bureau at Washington as eligible to admission into the registration area, which requires a report of at least ninety per cent of all births within the state.

PLUMBING BRANCH.

The Plumbing Branch of the Board of Health was opened and made ready for business May 28, 1917, the result of a plumbing law passed by the Twenty-First General Assembly.

Mr. John J. Connors was appointed Chief Plumbing Inspector and this branch has been directly under his supervision. The purpose of this branch is to insure sanitary and efficient plumbing throughout the state by requiring all persons engaged in that trade to secure a license from the Examining Board of Plumbers, and making it obligatory to secure a permit from the State Health Department before installing plumbing fixtures. This law is meeting with the approval of the plumbing trade throughout the state and the department feels under obligations to the leading master plumbers for the aid they have extended us in getting into operation so quickly a law so new to the smaller cities and towns of Colorado.

This branch of the Health Department is already doing good service to the people of the state by insuring the sanitary installation of plumbing in schools, hotels and other public buildings and therefore causing the proper disposal of sewage for the protection of the public health.

FOOD AND DRUGS DEPARTMENT

The Food and Drugs Division of the State Board of Health during the biennial period, although very much handicapped by reason of the very small appropriation and few inspectors, has been very active.

This division of the State Health Department is supervised by Dr. S. R. McKelvey, Food and Drug Commissioner. Dr. McKelvey was formerly the executive secretary of the State Board of Health, in which capacity he had general supervision of the Food and Drugs branch of the department. The experience here gained has enabled him to give valued service to the Health Department in enforcing the provisions of the Food and Drugs Law.

The field of work to be covered by this Division is much more extensive than generally supposed and includes the enforcement of the Pure Food and Drugs Act covering quality, purity and sanitation of all food and drugs wherever found within the state. The enforcement of the Narcotic Law has also received much attention.

The work of this Division includes matters relating to drugs and drug stores—every variety and kind of food, groceries, butcher shops, bakeries, restaurants, hotels, soft drinks, canning factories and their products, proper branding of food and drugs, prescribing and use of opium, cocaine, chloral hydrate, cannabis indica and their derivatives.

During 1917 over four thousand inspections and investigations have been made by the three inspectors and the Commissioner. Hundreds of samples of food and drugs have been taken throughout the state and delivered to the State Chemist for examination and analysis.

Of these approximately one hundred and thirty were found unsatisfactory or unfit for human consumption. Numerous hearings have been held by reason of violation of the law, and in all cases where conditions relating to food, drugs and the use of narcotics were found unfit, every effort possible was made to bring about proper and satisfactory conditions.

Special attention has been given to the canning factories throughout the state in order that the output next season may meet all legal requirements and prove to be equal to or superior to the quality of similar goods produced elsewhere.

Many of the proprietors and managers of the canning factories have been called to the office of the Commissioner in order to discuss matters pertaining to purity and sanitation of canned goods. The purpose of these hearings was not simply because of some violation of law but to point out to those engaged in the canning business how they may avoid the high percentage of mold fields and a high bacterial count in their manufactured products. Canned goods imported from other states have also received considerable attention.

At the beginning of the melon season the State Food and Drug Commissioner appointed a State Inspector of Cantaloupes and Melons and also issued letters of authority to forty Assistant State Inspectors of Cantaloupes and Melons. During the season about eighty-five carloads of water melons were inspected. As the raising of cantaloupes is by far the greatest melon industry within our state, that matter received special attention and some figures relative to the melon inspection will be of interest.

During the year, over two thousand carloads of cantaloupes in this state were inspected as provided by law. This number of carloads is equivalent to approximately one million four hundred and thirty-two thousand crates. The estimated number of cantaloupes inspected and shipped is approximately fourteen millions.

This work of melon inspection has been of great value to not only the producers but to the people of the entire state. By reason of inspections made much better prices were received from

eastern purchasers and by reason of the greater demand melon raisers of the state will increase their acreage next year.

BUREAU OF VENEREAL DISEASES.

During the year of 1917, our nation entered the world war. The call went out for volunteers; Congress passed the Selective Draft Act; hundreds of thousands of our young men were called from civilian life to the various training camps throughout the nation to prepare for active military service at the front.

When these young men had been mobilized from the various sections of the country and statistics became available, the officers in charge were astounded at the great numbers of cases of venereal diseases among the men on their arrival at the camps. The fact that these men were infected upon their arrival in camp was proof that the responsibility for venereal infection lies with the civilian communities.

A conference of the Surgeon General of the Army, the Surgeon General of the Navy, and the Surgeon General of the Public Health Service was held in Washington, and a plan of action for the suppression of prostitution and its inevitable results, venereal infection, was formulated.

This plan of action called upon the various State Health Departments to assume their share of the responsibility for the great number of venereal infections in the army, and to make every effort possible to protect our fighting men so that they might be returned to their homes in as nearly a perfect condition as the hazards of war would permit. It was shown that this subject involved not only the health and morals of a few million American boys, but that it involves a problem of the gravest import to the women of this generation and the children of the next; the future welfare of our nation.

The Colorado State Board of Health, realizing the seriousness of this question and the urgent need of prompt and uniform action by every state to eradicate this menace to mankind, promptly responded to the appeals from our officials at Washington, and organized a State Bureau of Venereal Diseases for Colorado.

A detailed plan of action was placed before Governor Gunter and the State Council of Defense, requesting their cooperation and financial aid. In response to this appeal an appropriation of ample means to carry on the work was provided by Governor Gunter from the "Defense and Emergency Fund," made available by the extraordinary session of the Twenty-First General Assembly.

A report of this bureau follows:

APPROPRIATION MADE BY

THE COLORADO STATE COUNCIL OF DEFENSE, \$4500.

Postage	\$ 225.00
Sterile vials, corks, microscopic slides and mailing tubes	133.67
Office supplies, including use of typewriter	69.27
Salaries of Bacteriologist and one clerk	1250.00
Railway fare and traveling expenses	315.11
Express, telegraph and telephone	81.85
1200 placards with glass and frames (200 free)	235.00
Dr. Hickey to Washington and return	103.82
Printing and electrotypes	974.88
Stereomograph complete, including accompanying slides	274.25
Total	\$3662.85

GENERAL INFORMATION.

All physicians, druggists and hospitals have been furnished with printed instructions.

Bacteriological supplies including sterile vials, microscopic slides, report blanks, mailing tubes and instructions have been sent to all health officers for use of physicians.

Object - Primarily to protect soldiers, secondarily to protect human race.

Cases Reported in April,

May and June.

Syphilis 178, Gonorrhea 352, Chancroid 58, Total 588.

Cases reported in July not yet tabulated.

Bacteriological Examinations
in April, May June and July.

Syphilis 535, Gonorrhea 54, Chancroid 2, Total 591.

EDUCATIONAL.

The policy of the government is to educate the people relative to disease. This policy is correct. Diseased soldiers have generally been infected before leaving home.

Drs. Kennedy and McKelvey have delivered about thirty addresses to medical societies, city officials, ministers, policemen, soldiers, men, women and the general public.

About seventy thousand pamphlets have been printed and ten thousand already in hands of readers.

One thousand framed placards are being placed in toilets of public buildings throughout the state.

INSTITUTIONS.

While helping to win the war by protecting the boys who will go to the front we must not forget to protect them from the ravages of disease when they return. On investigation, I find that a very large per cent of the inmates of the State Prison and of the Hospital for the Insane are syphilitic.

Of thirty-six samples of blood received from the Insane Asylum within the last week over fifty per cent are syphilitic. There are nearly 1700 of these unfortunate beings in the institution at Pueblo. The sadness of the situation is greatly augmented by reason of the fact that not until now have we known that syphilis is the cause of insanity in a large majority of the cases. This revelation will now bring proper aid to our insane. This matter is also an economic problem.

May we not ask the General Assembly to do its duty.

SUPPLEMENTAL REPORT BY DIRECTOR OF BUREAU.

APPROPRIATION.

The additional appropriation of \$1,000.00, since my last report, makes a total of \$5,500 appropriated by the State Council of Defense for use of this Bureau. In addressing the Council some months ago, my estimate of the necessary sum to keep the work going as then outlined, until there might be legislative action, would require \$600.00 more than the \$5500. My estimate is now known to have been nearly correct, as the total appropriation is practically exhausted.

ACTIVITIES.

It should be understood that with the exception of work done by one office clerk and one bacteriologist, all the work in this bureau is performed by employees belonging to the Division of Food and Drugs. Without this arrangement it does not appear that the Bureau could have accomplished very much by reason of the fact that sufficient money was not available for salaries. In this connection I wish to say that serious illness among employees and their families during the last several weeks has very much interfered with much valuable work that had been contemplated.

The same plan for dealing with the venereal problem remains as explained in my previous report attached thereto.

INSTITUTIONS.

I had hoped by this time to present a complete report as to the result of examinations of blood taken from inmates of the State Penitentiary at Canon City, and also of patients in the Colorado State Hospital at Pueblo. The matter of getting blood from so many persons has been no easy task and has required so much time that I am not yet able to give any statement different than what I said in my last report.

POLITICAL ECONOMY.

For many years much of the legislation has been of such a character as to remind one of the peculiar predicament of placing the cart before the horse.

The people are overwhelmed with the burden of taxation in order to meet the cost of maintaining asylums for the insane, homes for the blind, feeble-minded institutions, penitentiaries, reformatories, homes for orphans and free clinics. These appalling conditions among mankind and the tremendous expense involved would be reduced to the minimum and practically removed in a few years if legislation were directed not at the evil but at the cause.

May I not suggest that the principles evolved by a study of economics during recent years be utilized in legislation relating to public health matters and not totally ignored as they have always been in the past. The strictest economy imaginable could be brought about by legislating wisely in the interest of public health. No one questions the propriety of making proper provision for protecting inferior animals against disease. Why not encourage proper legislation to protect the health and lives of human beings?

EDUCATIONAL.

Activities along the lines of public health are greatly augmented by the moral support of the people. This support may be obtained with certainty in only one way. The people must know the facts, then they will not only support health activities but will help themselves.

The public should know that venereal diseases constitute a prolific cause of countless surgical operations, locomotor ataxia, defective mentality, paralysis, paresis or softening of the brain, insanity, blindness among children, serious hereditary ailments, miscarriages, epilepsy and various diseases of the vital organs.

This bureau has adopted a policy of educating the public in these matters by use of moving picture films and by public lectures.

It has been said that the training of a child should be begun before it is born. I want to modify this statement by saying that the training of a child should be begun one hundred years or more before it is born. If people of the present age have a greater knowledge than the ancients as to the needs of the human race, then in that degree are we responsible for proper dissemination of knowledge leading to a better posterity.

LEGISLATION.

It will be the duty of competent persons experienced in matters pertaining to public health to specify in detail what should be incorporated in such public health measures as may be properly handled by the General Assembly. General health laws already in existence should be strengthened and there should be specific legislation relative to the matter of venereal diseases.

The Bureau of Venereal Diseases already established under war conditions should be continued. It should be remembered that much has been done, but that those in charge have planned to do much greater things along these lines as soon as time and means will permit. The General Assembly can provide the means if it will.

RECOMMENDATIONS

It has been the ambition and purpose of the present Colorado State Board of Health to make the Department one of the important branches of the State Government. We have extended the scope of the work which should be covered by this Department to the extent of our financial means. We believe that our endeavors have met with a certain degree of success and that the time has come when the Health Department should be strengthened. Our experience prompts us to make the following suggestions:

First: That the Secretary of the State Board of Health be placed on a full time basis; that he receive a salary commensurate with the educational, administrative and executive ability required of a successful public health officer, which should be not less than \$3500.00 per year; and that he hold his office as long as he renders efficient service to the state.

Second: That for administrative purposes the state health organization be divided into (1) the board of health, (2) the executive and administrative office, (3) with five divisions as follows: -

(1) A Division of Epidemiology, with a full time medical inspector as its chief, under which division should be placed a full time laboratory man capable of doing the bacteriological, pathological and chemical work of the department.

(2) A Division of Public Health Engineering, into which should be merged the State Plumbing Department, with a capable full time sanitary engineer at its head.

(3) A Division of Statistics, at the head of which should be the clerk of vital statistics.

(4) A Division of Food and Drugs, with a commissioner of food and drugs in charge.

(5) A Division of Venereal Diseases, to cooperate with the Federal Bureau of Venereal Diseases, with a combined state and Federal officer in charge.

REMARKS

The medical inspector at the head of the Division of Epidemiology should have at least one assistant medical inspector, as the duties of this Division are many and the field to be covered is wide in its scope. This Division should be able to visit any section of the state in which an epidemic threatens or in which a communicable disease of a serious nature makes its appearance, in order that he may assist the local officials in determining the source of and to prevent the spread of the disease.

The chief of this Division should receive a salary of not less than \$3500.00 per year, and the assistant medical inspector should receive a salary of not less than \$2,000.00 per year.

The laboratory man should receive a salary of not less than \$2500.00 per year. Under the present arrangement the State Health Department has a bacteriologist who is designated as the State Bacteriologist. He is only a part time official, receiving a salary of \$1500.00 per year. With this small pay for his services he is obliged to maintain a private office and laboratory; therefore, the services he is able to render the state as a public official are limited.

The Bureau of Venereal Diseases also employs a part time bacteriologist at a salary of \$1800.00 per year, to do its laboratory work. It is believed that the Health Department could secure the services of a capable laboratory man who would be able to do the work of the Department as a bacteriologist and also take care of the pathological and chemical analyses which the Department requires from time to time, and at a salary much less than the combined salaries of the two bacteriologists now employed.

#3.

By having the full services of a laboratory man the Department would be able to assist the physicians of the state in general, and the local health officers in particular, in determining the causative factor and the source of much sickness. In this manner the Health Department would be an efficient agency for the prevention of sickness and suffering among the people of the state.

The State of Colorado is growing rapidly and there are springing up prosperous towns in various sections of our state as centers of social and business life. The agricultural lands of our state are being cultivated and where but a few years ago there were broad acres of land considered only fit for grazing purposes, there are now green fields dotted with happy and prosperous homes. This rapid increase of our population has brought up the problem of sanitation. The sewerage and waste matter of the growing towns must be disposed of in a manner so as not to contaminate the streams of the state which furnish water for domestic purposes. To meet these problems and solve them in a scientific manner requires the services of an efficient sanitary engineer.

This officer should receive a salary of not less than \$2500.00 per year, and should be competent to assist the State Plumbing Inspector in the efficient work which that officer is doing at the present time.

The Division of Statistics is an important branch of the Department. That Division not only has the important work of registering the births and deaths of the state but it also has the duty of caring for the morbidity and mortality statistical reports.

The war has taught us the importance of this branch of the Department. The Federal Government has called upon the State Health Department for statistical reports of a varied nature ranging from the number and cause of deaths among children from one to five years of age during certain periods, to the number of cases of a certain disease reported during a specified

time and the deaths from that disease during the period named. It has been embarrassing to say the least, not to be able to furnish the officials at Washington the statistics for which they asked, all because the Department did not have the clerical assistance needed to compile the statistics as is done in other states.

The Health Department believes that this Division can be and should be made self-sustaining by amending our marriage license law so as to make the marriages and divorces a part of the vital statistic records of the state. In many states of the union a law of this kind is in effect. We believe that these records should be a part of the records of vital statistics.

If the marriage license law of the state were amended so as to require the registrants of all marriages with the State Registrar of Vital Statistics and provide an additional fee of 50¢ for each marriage certificate issued by the County Clerk, and the divorce laws of the state amended to provide for an additional fee of \$1.00 for the payment of such registrants, it would raise an additional revenue of about \$6,000.00. The fees thus collected should be turned over by the registrar to

the State Treasurer each month, to be used for the maintenance of the Division of Vital Statistics.

The Pure Food and Drug laws are found to be inadequate. Under the present law it is found impossible to punish the proprietor of an insanitary place where foods are handled. Additional authority is also required for the Food and Drug Division to properly look after ice-cream and candy manufacturers and the making and selling of soft drinks. It is known that these places are the means of handing diseases from person to person and are the sources of much disease among the people; but unless the law is strengthened by legislative action this Division of the Health Department is unable to prevent these conditions existing.

#5.

A Division of Venereal Diseases should be permanently established as a branch of the State Health Department. This Division should have at its head a man capable of carrying on the educational work which would be required to control and suppress these diseases among our people. He should receive from the state a salary of not less than \$1500.00 per year, and arrangements should be made with the U.S. Public Health Service, through its Bureau of Venereal Diseases, for him to receive a like amount from the inter-departmental funds made available under the Chamberlain Kahn Act.

The State Health Department should be enabled to publish educational literature on the different subjects of public health and to distribute it among the citizens of the state to be used especially for instructing pupils of the public schools.

A record of the expenditures should be kept by the State Board of Health according to the nature of the expenses and the bureau incurring them so that the cost of maintaining any division or the cost of any activity may be determined without delay.

The State Health Department should have an appropriation of not less than \$38,000.00 per year appropriated, to be used in the following manner at the discretion of the State Board of Health:

Executive-Secretary, State Board of Health-----	\$ 3,500.00
One Medical Inspector-----	2,500.00
One Assistant Medical Inspector----- ¹ / ₂ -----	2,000.00
One Chief of Food & Drug Division-----	2,500.00
One Sanitary Engineer-----	2,500.00
One Bacteriologist-----	2,500.00
One Chief of Division of Vital Statistics-----	1,500.00
One Chief Inspector-----	1,800.00
Two Food Inspectors @ \$1500.00-----	3,000.00
One Drug Inspector-----	1,500.00
Four Clerks and Stenographers @ \$1200.00----- ¹ / ₂ -----	4,800.00
Traveling Expenses-----	4,500.00
Maintenance of Laboratory-----	900.00
Printing, Publications and Educational Exhibits-----	2,500.00
Office and Incidental Expenses-----	<u>2,000.00</u>
TOTAL-----	<u>\$38,000.00</u>

After careful and conscientious study we believe that if these suggestions can be carried into effect; that the State Health Department will be enabled to render a service to the people of Colorado of which the state may be justly proud.