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SYPHILIS AND WORKMEN'S COMPENSATION.

A workman was injured by an accident in a sawmill at Traverse City, Mich. Under the workmen's compensation law payments were made for a period of 19 weeks, when the employer refused to make further payments, upon the ground that the employee's continued disability was due to syphilis, which retarded the healing of the wound.

The Michigan Supreme Court decided that payments must be continued. Mr. Justice Person in the opinion said: "The consequences of the injury extend through the entire period, and so long as the incapacity of the employee for work results from the injury, it comes within the statute, even when prolonged by preexisting disease."

The opinion is published in this issue of the Public Health Reports, page 2725.

PHARMACEUTICAL EXHIBIT AT PHILADELPHIA.

By MARTIN I. WILBERT, Technical Assistant, Hygienic Laboratory, United States Public Health Service.

The Philadelphia College of Pharmacy, in connection with the fiftieth anniversary of the alumni association, is now holding an exhibition of modern scientific pharmacy contrasted with the pharmacy of a century ago. The exhibition was opened on August 30 and is to continue to September 30, 1916. Among the many interesting features it includes a drug store of 1812, together with many historical relics, and contrasted with this is a suggestion for a modern up-to-date pharmacy sufficiently equipped with the scientific laboratories required at the present time to cooperate with the medical profession in the modern practice of medicine. This modern pharmacy is equipped with a refrigerator safe for the keeping of biological products, a chemical laboratory for the systematic examination of chemicals and their preparations, a pharmacognostical laboratory for the examination of drugs, a bacteriological laboratory for the detection of bacterial contaminations and the control of solutions and medicines, and a manufacturing laboratory for the production of galenical preparations and such other forms of medicines as can

be produced economically in the present-day pharmacy. The dispensing room, which is shown in connection with the showroom, contains a model 5-foot shelf of books that should be found in every up-to-date drug store.

Among the more interesting of the general exhibits, there was shown for the first time a copy of the Pharmacopœia of the United States of America, Ninth Decennial Revision. The National Formulary, fifth edition, was also on exhibition. These two books, while they are decreed as being official from September 1, 1916, were generally unobtainable on that date. It is little wonder, therefore, that pharmacists who had the pleasure of being able to attend during the opening days of the exhibition almost invariably devoted more time to these new, but as yet rare, books than to any other portion of the exhibit. In connection with the exhibition of Pharmacopœias, there is a complete set of the Pharmacopœias of the United States and a representative showing of the Pharmacopœias of the several nations of the world. There is also on exhibition a complete set of the several editions of The United States Dispensatory and a considerable amount of material illustrating the methods employed and the character of the work done by the Committee of Revision of the United States Pharmacopœia. In this connection there is shown a complete set of the earlier Digest of Comments on the Pharmacopœia; also a complete set of the present Digest of Comments on the Pharmacopœia and the National Formulary. Attention is directed to the comprehensiveness of the latter publication by a sign which reads:

The Digest of Comments, originated by Charles Rice, has grown to be the greatest work of reference on the the U. S. P. and N. F.

Drugs of all kinds, particularly botanical drugs, are much in evidence. A very large number of herbarium specimens and even growing plants are exhibited. Among the growing plants is a fairly large comphor tree and a liberal sample of comphor made in the United States. Illustrative of the uncommon chemicals made in this country at the present time there is a sample of atropine, made from wild growing stramonium with the use of Lloyd's reagent.

Several firms show biological products and an additional number exhibit pharmaceutical products that are biologically standardized. Considerable apparatus for the biological standardization of drugs are shown both by users and manufacturers of this apparatus, and several novelties in this direction attract considerable attention.

A complete set of the American Journal of Pharmacy from 1825 to 1916 with an exhibition of portraits of the several editors and reproductions of the illustrations used in some of the articles constitutes an unusual and extremely interesting part of the general exhibit. The interest that has more recently been taken in the cultivation of drugs is well shown by a collection of photographs of

drugs and growing plants from the drug garden of the University of Minnesota, at Minneapolis. These photographs have been placed on exhibition by Prof. Newcomb, and their comprehensiveness and mechanical excellence serve to attract considerable attention. Among the chemical exhibits is one that includes both crude materials and finished products. This exhibition from an educational point of view is exceptionally valuable. A collection of magnesia products is interesting in that it serves to show some of the varied uses to which magnesia products are being put at the present time.

The physiological standardization of galenical preparations is everywhere emphasized, and the exhibition as a whole not only serves to call attention to the evolution of pharmacy during a century but also suggests the inevitable and possibly radical development of scientific pharmacy in the very near future.

PUBLIC HEALTH ADMINISTRATION IN YOUNGSTOWN, OHIO.

By CARROLL FOX, Surgeon, United States Public Health Service.

The following report gives the results of a study of health organization and administration in the city of Youngstown, Ohio. The study was carried on from May 15 to July 1, and includes investigations in the office and in the field.

Youngstown is a prosperous community in the northeastern part of the State, located on both sides of the Mahoning River. The city has an area of 25 square miles and includes what was originally an entire township. It is served by four trunk-line railroads: The Erie, Baltimore & Ohio, Pennsylvania, and New York Central. The Mahoning River is not a navigable stream.

Youngstown is essentially an iron and steel manufacturing center. Among its other industries are plants for the manufacture of products made from rubber, gas mantles, oilcloth, mazda bulbs, leather, cigars, etc.

The population figures used in this report were obtained from the United States Census Bureau, which estimates the population as of July 1, 1915, at 104,489. Of this number approximately 65 per cent are foreigners, who work in the iron and steel mills.

Little mention of State law has been made in this report, except as it relates to the powers and duties of the city board of health. Such part of it as is necessary to the subject has already been summarized in the report on health organization and administration in Toledo, Ohio.[1]

Adjoining the city of Youngstown, and practically a continuation of it, is the village of East Youngstown, in which is located one of

[1] Reprint No. 284 from the Public Health Reports.

the larger steel mills. This village has a population of about 9,000 people, most of whom are foreigners.

For assistance and information received during the course of this study, acknowledgment is made to the officials of the health and other city departments, the chamber of commerce, especially its secretary and the chairman of the committee on public health, and to those citizens connected with the various charitable organizations or otherwise interested in public health.

ADMINISTRATION AND ORGANIZATION.

The city health organization is under the administration of a board of health, which appoints a health officer as its executive officer. The board, together with its powers and duties, is provided for by statute.

Membership of the board.—The board of health consists of five members, appointed by the mayor. No special qualifications are necessary. The mayor by virtue of his office is president, but the board is authorized to elect a president pro tempore to act in the absence of the mayor.

Term of office of members.—Members of the board are appointed for a term of five years, a term expiring and a new member being appointed each year.

Meetings of the board.—The board meets regularly once a month and as much oftener as is necessary to transact business. Provision is made for special meetings at the call of the president or of three of its members.

Salary and expenses of members.—Members of the board receive no salary.

Powers and duties.—The board of health is given the authority by statute to promulgate regulations for its own government and for the control of disease and the betterment of the public health. Regulations intended for the general public when "adopted, advertised, recorded, and certified" as are ordinances of municipalities, must be recognized by the courts as having the same force as ordinances adopted by the council. For violation of any such regulation there is provided a fine of not to exceed $100 or imprisonment not to exceed 90 days, or both.

The board must appoint a health officer, but no special qualifications for the position are specified in the statute.

The board may appoint a clerk to have general charge of the records and reports and the proceedings of the board.

With the consent of the council the board may also appoint "ward physicians" and as many persons for sanitary duty as may be required. These latter employees have general police powers and are

designated "sanitary police." All appointments are made according to civil-service regulations.

The board is given exclusive control over its employees. It may define their duties and fix their salaries, and they serve during its pleasure.

The board is further given authority by statute to employ guards to maintain quarantine; to appoint a local registrar under civil-service regulations; to abate "nuisances"; to regulate the location, construction, and repair of "yards, pens, and stables," and the use, emptying and cleaning thereof, as well as of water-closets, privies, cesspools, sinks, plumbing, drains, etc., and to abate all nuisances or correct all conditions detrimental to health or well-being found on school property, by serving notice on the board of education. A fine is provided for failure to comply with an order, and authority is given to the board of health to employ inspectors of schools and school buildings to maintain sanitary conditions.

Where plumbing and sewerage are feasible and necessary but neglected or "refused" in any building, the board may take the necessary action to require correction or may correct the condition, in which event the cost must be assessed against the property.

When necessary, the board of health may impose a quarantine on vehicles of common carriers and may make rules and regulations to restrict communicable diseases disseminated by persons traveling in such vehicles. It is also empowered to investigate houses or localities in which communicable disease is suspected to exist; to quarantine at home or in a suitable place, cases of quarantinable diseases; to placard houses containing certain diseases; to disinfect after communicable diseases; to destroy infected articles or buildings under certain conditions; to provide everything necessary to persons in quarantine, the expense so incurred, except for those measures imposed strictly for the protection of the public health, to be borne by the individual quarantined, if able to pay, and if not, by the municipality; to take measures, supply agents, and afford inducements and facilities for gratuitous vaccination; to close schools and prevent public gatherings during epidemics, threatened epidemics, or when a dangerous communicable disease is unusually prevalent; to maintain health supervision of schools or to cooperate with the school board in maintaining such supervision; to appoint inspectors for maintaining the purity of foods; to inspect maternity boarding houses and lying-in hospitals; to make to the State the necessary reports relating to morbidity and mortality or any special reports required, and to make to the State board of health and the municipal council an annual report on or before January 15.

The activities engaged in by the city board of health are: Registration of births and deaths, control of disease, inspection of milk, meat.

and other foods, laboratory work, abatement of nuisances, plumbing inspection, and collection of garbage by contract.

Personnel.—At present the personnel of the health department, exclusive of the board of health, and their respective salaries, are as follows:

1 health officer (part time)	$1,000
1 secretary and bacteriologist	1,800
1 food and dairy inspector	1,200
1 meat inspector	960
1 plumbing inspector	1,800
1 assistant plumbing inspector	1,320
1 chief of sanitary police	1,200
5 sanitary police, at $960	4,800
2 stenographers, at $600	1,200
1 stenographer (part time)	240
1 garbage weight master	900
Total	16,420

Office hours.—The office and laboratory, located in the city hall, are open every week day from 8 a. m. until 5 p. m. and Saturdays from 8 a. m. until 12 o'clock noon. There is allowed one hour for lunch. On Sundays and holidays sufficient time is spent in the laboratory by the bacteriologist to perform any emergency work that may be required.

The working hours of the sanitary police conform to those of the office, except that half of the force is on duty Saturday afternoon and emergency work is performed on holidays. The sanitary police are in fact subject to call at any hour, day or night.

All employees are entitled to a vacation of two weeks each year.

Transportation.—The chief of the sanitary police, the milk inspector, and each of the plumbing inspectors are furnished with an inexpensive two-passenger automobile. In addition to the above the health department owns a two-horse ambulance, which is used only for conveying smallpox patients to the detention hospital. Horses are hired as needed. Sanitary police and inspectors of the health department may ride free on the street cars upon showing their badge.

Discussion.—The present health officer is a part-time official and has held his office for many years. He has had, therefore, unusual opportunities to become familiar with the diagnosis and prevention of the common communicable diseases.

It should be noted that Youngstown, except for the bacteriologist, is lacking in those subordinate officials, such as an epidemiologist and public health nurses, who are directly concerned with the control of disease. In carrying out the provisions of State law granting authority to the board of health to appoint sanitary police, it has been the custom to appoint sanitary policemen without technical knowl-

edge rather than sanitary policewomen with the qualifications of public health nurses. As a result of the present organization, it is possible to apply preventive measures only from the old point of view of a supervision over the environment rather than from the modern point of view of a supervision over the individual.

It is obvious that the city of Youngstown is of sufficient size and importance to employ a full-time health officer. It is likewise evident, after a careful study of the situation, that the immediate need of field work of a technical nature is urgent and the amount required great, and that it would be impracticable if not impossible for one whole-time man to perform it and carry on at the same time the necessary administrative duties.

For reasons of economy it would therefore seem wise to defer placing the health officer on a whole-time basis until some future date and to appoint without delay an epidemiologist to devote his entire time to the field work. He would act as the assistant to the health officer and should have as his assistants an efficient corps of public health nurses. Thus the executive work would be performed as at present and new activities would be carried on by the addition of a force of scientific workers.

THE REGISTRATION OF BIRTHS AND DEATHS.

The registration of births and deaths in the city of Youngstown is provided for by statute. The clerk of the city board of health has been appointed local registrar, the city of Youngstown forming a primary registration area. The reports of births and deaths are recorded with care and accuracy, and as nearly as can be determined all of the deaths are registered.

Registration of deaths.—During the year 1915 there were recorded in the health department 1,404 deaths, exclusive of stillbirths, making a crude death rate of 13.4 per thousand. Of these deaths, 116 occurred in nonresidents. Subtracting this figure from the total number of deaths, there remain 1,288 deaths, giving a death rate corrected for deaths in nonresidents of 12.3. To this should be added the unknown number of deaths of residents of Youngstown which occur outside of Youngstown.

There were during the year 1915, 146 stillbirths, a number which might have been decreased by proper prenatal supervision.

Preventable deaths.—There were during the year 1915, 876 deaths ascribed to preventable causes. This is 68 per cent of the total deaths.

The following table gives these deaths more specifically and the indicated death rate per 100,000, together with the number of cases of disease reported to the health department and the indicated case fatality rate.

Deaths registered as from preventable causes, all ages, calendar year 1915.

Disease.	Number of deaths registered.	Indicated death rate per 100,000.	Number of cases reported.	Indicated case fatality rate.
				Per cent.
Typhoid fever	21	19.9	97	21.6
Smallpox	2	1.9	284	.7
Measles	2	1.9	388	.5
Scarlet fever	6	5.7	175	3.4
Whooping cough	6	5.7	387	1.5
Diphtheria	8	7.6	144	5.5
Tuberculosis, pulmonary	80	76.5	275	29.0
Tuberculosis, other forms	17	16.2	.....	.....
Pneumonia	236	225.8	.....	.....
Diarrhea and enteritis	120	114.8	.....	.....
Erysipelas	3	2.8	.....	.....
Rabies	2	1.9	.....	.....
Tetanus	6	5.7	.....	.....
Syphilis	21	20.0	.....	.....
Influenza	6	5.7	.....	.....
Dysentery	1	.....	.....	.....
Septicemia, including puerperal	18	.....	.....	.....
Meningitis, tuberculous excepted	11	.....	.....	.....
Bronchitis	9	.....	.....	.....
Abscess	2	.....	.....	.....
Malignant growths	62	59.3	.....	.....
Accidental	70	66.9	.....	.....
Premature birth	68	.....	.....	.....
Congenital debility, lack of care, etc	59	.....	.....	.....
Other conditions peculiar to early infancy	40	.....	.....	.....
Total	876	.....	.....	.....

Infant mortality.—Of the 1,404 deaths in 1915, 379 occurred in infants under 1 year of age. For practical purposes the latter may be classed as preventable. The indicated infant mortality rate for the city during 1915 was 157.1. The accompanying map indicates that the deaths in children under 1 year occur mainly within those sections of the city inhabited by the foreign population. The following table gives the registered causes of these deaths:

Registered causes of deaths in infants under 1 year, mostly preventable, calendar year 1915.

Disease.	Number of deaths registered.	Percentage of total deaths under 1 year.	Disease.	Number of deaths registered.	Percentage of total deaths under 1 year.
Scarlet fever	1	0.26	Bronchitis	2	0.52
Measles	1	.26	Pneumonia	86	22.69
Whooping cough	4	1.05	Diarrhea and enteritis	92	24.27
Diphtheria	1	.26	Accidental	5	1.31
Influenza	2	.52	Premature birth	68	17.94
Erysipelas	2	.52	Congenital debility, lack of care, etc	59	15.56
Tetanus	1	.26	Other causes peculiar to early infancy	40	10.55
Tuberculosis, other forms	3	.78			
Syphilis	9	2.37			
Meningitis, tuberculous excepted	3	.78	Total	379	99.90

Registration of births.—There were reported to the health department during 1915, 2,412 births, exclusive of still births, making an indicated birth rate of 23 per thousand.

EPIDEMIOLOGICAL ACTIVITIES.

The Notification of Diseases.

The notification of diseases is required by regulations of the State board of health. These regulations are based on the model law for morbidity reports.

Methods of procedure.—In reporting diseases physicians usually make use of the telephone. The information reported is taken down by a clerk in the health department. It is then transcribed to a card, which is referred to one of the sanitary police for his information. After he has taken the proper action relative to placarding, etc., the card is filed away. Each disease reported is also recorded in a book.

The morbidity report cards supplied by the State board of health are not utilized to any great extent by physicians.

The city reports its diseases to the State board, as required, at the end of each month in a summarized report.

Control of Diseases.

Requirements of regulations.—The regulations of which the following is a summary were passed in 1893 and are rather general in nature. Nothing has been added since that time, except a regulation making chicken-pox a quarantinable disease and an extensive ordinance applying to nuisances and their abatement. The regulation relating to chicken-pox was promulgated in 1915 on account of the prevalence of smallpox.

In the case of certain of the notifiable diseases the health officer is required to placard the premises, and it is unlawful for any person to remove such placard without authority.

Where an attempt is made to conceal the true nature of the disease, it becomes the duty of the health officer to appoint one or more physicians to decide upon the case by actual inspection of the patient.

Within three days after the discharge or death of any patient, the attending physician, or head of the household, must notify the health officer in writing. The health officer is empowered to remove a person suffering with a communicable disease to an isolation hospital, and may require all contacts to be confined within the house or to be removed to the isolation hospital.

School authorities are forbidden to receive into any school a pupil coming from a family in which there is a case of chicken-pox, cholera, yellow fever, typhus fever, smallpox, scarlet fever, diphtheria, measles, or whooping cough, except upon the presentation of a certificate from the health officer. School authorities are forbidden to receive into any school a pupil not vaccinated within the preceding five years unless said pupil has had smallpox. When entering school every pupil is required to bring a certificate from a physician stating that he or she has been vaccinated within the preceding five years or has had smallpox. No child must be permitted by parents or guardians to attain the age of one year without having been vaccinated. No person having smallpox or other communicable disease is permitted to expose himself in the public streets, public conveyances or vehicles, nor is it permitted for a driver or owner of any such conveyance or vehicle knowingly to transport such person. Where a person suffering from a communicable disease has been transported in any public vehicle, the same must be disinfected. It is unlawful to sell,

lend, etc., any clothing, rags, bedding, or other things which have been exposed to infection.

It is forbidden to take a body dead of any one of the diseases mentioned above into any church, lecture room, chapel, or public place. In the case of persons dead of smallpox, cholera, yellow fever, scarlet fever, diphtheria, or typhus fever, directions are given in the regulations for preparing the body, and public funerals are prohibited.

No person, except the physician, is permitted to enter a house where any of the above diseases are being treated, without permission from the health officer, or until the case has fully recovered and the necessary disinfection been practised.

Method of procedure.—The card on which is noted the report of a case of notifiable disease is turned over to one of the sanitary police in whose district the case has occurred. He visits the house and placards it. The card is then placed in the daily reminder file until quarantine has terminated, when it is filed away permanently. After the termination of quarantine a sanitary policeman performs the required fumigation. In the case of typhoid fever a special form has been devised on which is noted the epidemiological data obtained by the chief sanitary police. Every case of suspected smallpox is seen by the health officer. The methods pursued in preventing the spread of communicable diseases are shown in the tabulation.

Typhoid fever.[1]— The registered death rate per 100,000 from typhoid fever during the year 1915 was 19.9. There were 97 cases reported with 21 deaths. The high case-fatality rate, 21.6 per cent, indicates that there were a number of cases of typhoid fever occurring in the city which were unreported, unrecognized, or concealed.

A study of the typhoid curve by months (Charts 1 and 2) shows two distinct peaks, one in the spring and one in the fall. The epidemiological record of typhoid fever can not be considered sufficiently accurate or extensive to base conclusions upon, but it is likely that much of the typhoid fever arises from contact with patients or carriers, and from flies.

A large percentage of the typhoid fever was found in houses within the sewered districts and the epidemiological records show that of the houses investigated, 76 in number, 55 had sewer connections. The households of 26 only were using city water, the others deriving their drinking water from dug or drilled wells or springs. In seven instances more than one member of a household became infected, the number of cases in each family being as follows: 4, 3, 3, 2, 2, 3, 3.

A study of the methods used at the water purification plant and of the results usually obtained permits one to exclude the city water as a cause of the continuance of typhoid fever.

[1] See Charts 1, 2, and 3.

It is estimated that 90 per cent of the milk supply is pasteurized, and a study of the epidemiological records of typhoid fever on file in the health department for 1915 would seem to indicate that milk does not play any part in the spread of the disease. However, the methods of pasteurization are so varied and the technique of operation is so faulty in many instances that milk as a factor in the spread of typhoid fever can not be excluded. A thorough study is necessary relative to the efficacy of pasteurization as practiced in Youngstown.

The surface privy is unquestionably dangerous when open to flies, and all such privies should therefore be abolished. Until this can be accomplished they should be screened. Shallow wells no doubt play a part in the continuance of the infection and should be eliminated as soon as, or where, city water is available.

Smallpox.—There were reported to the health department during 1915, 284 cases of smallpox with two deaths.

Only those cases that occur in persons in boarding houses or hotels, or those who have no homes are taken to the isolation hospital. Other patients are quarantined at their homes, meaning an expense for maintenance which the city is required to meet and frequently the expense of employing guards to enforce quarantine. The former expense in 1915 was $861.65 and the latter $1,091.35. The entire cost to the city on account of smallpox during the year 1915, including the erection of a temporary hospital, supplies and attendants for the hospital, maintenance of quarantine at homes and medical services was $4,724.51. This does not include the time occupied by the health officer and the various sanitary inspectors engaged in inspecting, placarding, disinfecting, etc. Vaccination of contacts is not practiced. The amount of money expended on account of smallpox in a year would furnish vaccine virus sufficient to vaccinate 47,245 persons.

The time has arrived for the question of the prevention of smallpox to be put squarely up to the people, who in vaccination have a rapid and sure method of protecting themselves.

As in other places, the observation is repeatedly made that the foreign-born adult population who have been adequately vaccinated in the old country do not contract smallpox. The disease is prevalent among the native-born unvaccinated population only.

The quarantine of contacts is expensive, antiquated, and inefficient. The expenses involved and necessitated by a failure on the part of the ignorant or misinformed to avail themselves of the only sure means of protection, vaccination, must be borne to a large extent by those intelligent citizens who respect the rights of their neighbors and who therefore protect themselves by vaccination.

It is quite proper for the health officials in dealing with smallpox to limit their preventive measures to the isolation of the patient in an isolation hospital and to the vaccination of contacts, as well as all citizens, including the pupils of the public and parochial schools. The regulations requiring the vaccination of school children are excellent and should be enforced, and in their application the health department should receive the whole-hearted cooperation of the school authorities.

Isolation hospital.—The isolation hospital which the city owned was condemned and demolished. The appearance of smallpox during 1915 necessitated some means of isolation. A temporary hospital was therefore erected on the site of the old hospital. The temporary hospital consists of two small buildings, one of new construction and one a portable schoolhouse. In the former there are two wards heated by a hot-air furnace. This building will accommodate about 18 patients. In the latter building there are a kitchen and two rooms, one for an attendant and one for a nurse. The hospital is furnished with gas, electricity, and water, but no modern toilet facilities are available at present. The cost of this building, including the installation of the lighting and heating system, was $1,759.17. Smallpox only is isolated in this hospital.

Tuberculosis.—During 1915, 275 cases of tuberculosis, with 80 deaths, were reported to the health department. This gives a mortality of 29 per cent and indicates that many cases of the disease were not notified. The death rate per 100,000 was 76.5. The activities carried on against the disease by either public or private agencies are very superficial and inadequate. The establishment of a corps of nurses in the health department, as well as the appointment of an epidemiologist, would enable the board of health to carry on some very excellent antituberculosis work, as well as other activities that would produce prompt results in the prevention of disease.

The tuberculosis sanatorium.—There was completed about a year ago a hospital which will accommodate approximately 100 patients and cost between $2,500 and $3,000 a bed. This hospital was built jointly by five counties, in which are included the cities of Youngstown, Akron, and Canton, in addition to a number of more or less important but less populous communities. The hospital is located 55 miles from Youngstown and near Akron. A hospital not larger than 100 beds is obviously too small to meet the needs of the territory comprised in the five counties. It is in fact too small to isolate the tuberculous of either Youngstown or Akron. It is located too far from Youngstown to be of great benefit to that city. When one considers that there were 80 deaths from tuberculosis during 1915 and at least 80 open cases, which will terminate during 1916, and

that Youngstown has a population of over 100,000, it may be emphatically stated that the city is large enough to warrant the construction of a tuberculosis sanatorium for its own people. It would therefore be wise for the city of Youngstown and the county of Mahoning to make an effort to turn their interests in the five-county hospital over to the other counties, or, for that matter, to the city of Akron alone, with the view that at some future time Youngstown, with the assistance of the county, will own and maintain its own institution for the isolation of tuberculosis.

In addition to the above institution, the county of Mahoning owns an isolation hospital which is built on the grounds of the county infirmary and will accommodate some 14 patients. It is located 10 miles from Youngstown. When the five-county sanatorium was opened the county isolation hospital was closed. It would certainly seem advisable, until the county and city can own a larger institution, that this county hospital be opened as an isolation hospital to be used for the communicable diseases and especially for advanced cases of tuberculosis which will not stand transportation to any distance. Thus the afflicted will be given a place in which to spend their remaining days near friends and relatives. This point is an important one to consider before deciding upon a site on which to construct a tuberculosis sanatorium.

Some advanced cases are now being sent by the county to a makeshift hospital, which is really nothing more than a shack and should be condemned and demolished. It is located within the city in a district where much insanitary property is in evidence.

Pneumonia.—During 1915 236 deaths from pneumonia were reported to the health department, making a death rate per 100,000 of 225.8. Many of the deaths ascribed to pneumonia occurred in children under 1 year of age, this figure representing 22.69 per cent of the total deaths under 1 year.

Diarrhea and enteritis.—Next to pneumonia the high death rate was in the case of diarrhea and enteritis, amounting to 114.8 per 100,000. There were 120 deaths ascribed to this condition, 92 of which were in children under 1 year of age. This figure represents 24.27 per cent of the total deaths under 1 year. Pneumonia and diarrhea and enteritis, together with premature birth and the condition reported as congenital debility, were the principal registered causes of the high infant mortality in the city of Youngstown. All can be classed as controllable. Active work along the lines of child welfare carried on by the corps of nurses mentioned above would undoubtedly result in the saving of many lives and a marked reduction in the death rate of the city.

Discussion.—It has already been pointed out that there are lacking in the health department those employees who are most directly concerned in the prevention of disease, an epidemiologist and public health nurses. In all of the important communicable diseases a careful epidemiological study should be made so that the source of the disease may be determined and preventive measures applied. It is then necessary to follow up by daily visits every case investigated that preventive measures may be adequately taken during the course of the disease and its spread prevented. The former duties are carried on by the epidemiologist, the latter by the public health nurses.

In addition to the epidemiological study, the epidemiologist should be required to render professional services at child-welfare stations and antituberculosis dispensaries, both of which should be opened by the health department without delay. The work contemplated would require the full-time services of a physician familiar with public health work. He should have under him the public health nurses, not less than 16 in number, and the general administrative control of the diagnostic laboratory. There would then be a force adequate to handle the public health question from the modern standpoint of a supervision over the individual harboring the infection as well as a force of sanitary inspectors to exercise a supervision over the environment.

According to modern views the great danger in the spread of disease lies in the individual who is sick with that disease or who is a carrier of the causative organism. Therefore, the logical thing to do in order to prevent the spread of the disease is to isolate the patient. To do this the city is badly in need of a permanent isolation hospital. Such a hospital should be located within easy access. If possible it would be wise to erect it on the grounds already occupied by one of the hospitals of the city, placing it under the general management of that hospital. This is a scheme which has worked out elsewhere satisfactorily.

In addition to an isolation hospital for such diseases as diphtheria and scarlet fever, there should also be provided a sanatorium in which to isolate open cases of tuberculosis found in the city of Youngstown. Such a hospital might be erected with the assistance of the county, or it could be a part of the isolation hospital to be used for other communicable diseases. It is safe to say that a combined hospital of this kind should have not less than 200 beds, 150 for tuberculosis cases and 50 for other communicable diseases. The present temporary hospital could still be utilized for the isolation of smallpox, but as has already been pointed out, if an adequate amount of vaccination is performed there should be no need for a place in which to isolate smallpox.

Tabulation of regulations for the control of the common communicable diseases, Youngstown, Ohio.

Disease.	Period of isolation (patient).	Period of quarantine (contacts).	Circulars of information.	Terminal fumigation.	Treatment of bread-winners.	Exclusion from school and public gatherings.	To be reported by physicians.	To be placarded.	School and public library notified.	Sale of foods prohibited.
Diphtheria	Until 2 negative cultures taken 48 hours apart are obtained and not less than 14 days.	Until termination of isolation and 1 negative culture.	None	Yes	May be permitted to carry on vocation.[1]	Yes; patient and contacts.	Yes	Yes	Yes	Yes.[2]
Scarlet fever	Until disappearance of desquamation.	Until termination of isolation.	None	Yes	Same	Same	Yes	Yes	Yes	Yes.[2]
Measles	Until 10 days after placarding.	Until termination of isolation (nonimmune children only).	None	No	No restriction on adult members of household.	Yes; except those who have had measles.	Yes	Yes	No	No.
Smallpox	Until disappearance of all scales.	Until termination of isolation, after which observation for 14 days.	None	Yes	May be released after vaccination.	Yes; patient and contacts.	Yes	Yes	Yes	Yes.
Chicken-pox	None[4]	None	None	No	No restriction	Yes; patient only	Yes	Yes	No	No.
Whooping cough	Yes; until through whooping.	do	None	No	Same	do	Yes	Yes	No	No.
Typhoid fever							Yes			Yes.[3]
Tuberculosis			Yes	Yes			Yes			

[1] Except when vocation brings him in contact with children or general public.
[2] Some one not in contact with patient and with negative culture permitted to carry on the business.
[3] No one coming in contact with patient allowed to handle food products.
[4] Most cases, especially in adults, examined to exclude smallpox.

Diagnostic Laboratory.

The diagnostic laboratory of the city board of health has been in existence some 17 years, although it is only in recent years that it has received adequate recognition from the legislative body. At present it is housed in a well-lighted room in the city hall in connection with the offices of the board of health and is well equipped to do any work that may be required of it.

The laboratory is in charge of a bacteriologist, who is also the secretary or clerk of the board of health as well as the chemist and the local registrar.

The routine work carried on in the laboratory consists of the examination of cultures for diphtheria, the examination of sputum for tuberculosis, and in the case of typhoid fever, of blood for the Widal reaction or blood cultures for the causative organism. In addition, daily examinations are made of the city water supply, and milk samples collected by the milk inspector are examined for visible dirt, specific gravity, and butter fat.

Method of procedure.—The laboratory issues to physicians free of charge specimen outfits for the submission of material to be examined for diphtheria, tuberculosis, and typhoid fever. In the case of diphtheria, two test tubes, each containing a sterile swab, are furnished, one swab to be used for taking specimens from the throat and one for taking specimens from the nose. Loeffler's blood serum is inoculated from the swab, incubated at 35° C. for 18 hours and smears, then treated by Kinyon's modification of Ponder's stain.

In the case of tuberculosis, wide-mouthed bottles containing a small amount of carbolic acid solution are furnished. Material is stained in the usual way.

To transmit blood to be tested for the Widal reaction, an aluminium foil is furnished, or for blood cultures, a test tube containing oxbile. The latter is corked and sealed with paraffin.

The specimens of water submitted twice daily by the superintendent in charge of the city water works are three in number, one a sample of the raw water, one the water after sedimentation, and one after filtration. Bacterial counts on agar at 20° C. are made from each sample as well as a determination as to the presence of the colon bacillus. The latter is accomplished by planting in lactose bile fermentation tubes. Of the raw water ½ c. c. is used, experience having shown that the colon bacillus may usually be found in that amount. Of the filtered water samples, 1 and 10 c. c. are planted. Tubes showing gas are planted on neutral red-lactose-bile-agar and incubated. Colonlike colonies are then tested in lactose, dulcite, and saccharose broths and also for indol.

In the case of milki, bacterial counts are not made. The routine examination consists of filtration through a cotton disk to determine

the presence of visible dirt, the use of the lactometer to determine the amount of solids, and the Babcock test to determine the amount of fat.

The cost of operating the laboratory during the year 1915 amounted to $2,075.70, including the salary of the bacteriologist. There were made during the same period 5,092 examinations, making a cost per examination of 40¾ cents.

Tabulation of examinations made in the laboratory, calendar year 1915.

	Positive.	Negative.	Total		Positive	Negative.	Total.
Typhoid fever:				Milk			1,673
Blood cultures.	8	29	37	Cream			15
Widal tests	5	34	39	Water:			
Tuberculosis	161	379	540	Well			53
Diphtheria:				City water			1,680
For diagnosis	72	391	463				
For release	95	497	592	Total			5,092

MUNICIPAL ENGINEERING ACTIVITIES.

The Water Supply.

The municipal water supply is taken from the Mahoning River within the city limits, above the outlet of all municipal sewers. This river receives pollution along its entire course, but more especially from the larger municipalities of Warren, Niles, and Girard. In addition great quantities of industrial waste are cast into it from the various iron and steel industries along its banks. The water therefore contains a large amount of suspended matter, both organic and inorganic in composition.

The water furnished to the city is first purified by means of mechanical filtration.

There are two sedimentation basins with a capacity of 4,000,000 gallons each. During 1915 both alum and copper sulphate were used in the process of purification, the former in amounts averaging 2.35 grains per gallon and the latter in amounts averaging 1 part per million. The addition of copper sulphate not only eliminated the growth of algæ which were becoming objectionable, but also seemed to have a marked beneficial influence on the purity of the filtered water. Since the rise in price of copper sulphate its use has been discontinued and alum alone used. This coagulant is mixed in tanks, from which it passes into a well. From here it is sucked by the action of the pumps directly into the pipes conducting the raw water to the sedimentation basins. Upon entering a basin the flow of water is directed back and forth by two baffle walls to a final compartment which it enters from below. Having traversed this compartment it passes over a weir into the pipe leading to the filter beds.

The filter beds are 28 in number, 16 of them in use and 12 in the process of construction. Each of the former is capable of furnishing approximately 850,000 gallons of water and each of the latter is designed to furnish 1,000,000 gallons of water per day. The filter material is composed of three layers of gravel in different sizes and 3 feet of sand. The filters are washed from below by filtered water, agitation being produced by compressed air.

No chlorine treatment is used. About 2½ per cent of the filtered water is required as wash water. Approximately 10,000,000, or 95 gallons per capita, are furnished to the city daily.

Water is supplied to the low-lying portions of the city by direct pressure from centrifugal pumps, while in those parts of the city with higher elevation, pressure is maintained by means of standpipes.

The entire plant is modern both in construction and operation. Work is now in progress to improve certain of the details relative to preliminary treatment.

During 1914 there was but one month, October, in which the average percentage of efficiency of the filters was below 97. During this year of efficient service the maximum number of deaths from typhoid fever in any fall month was three in September. In the year 1915, during the same period there was an increase in the number of deaths from typhoid, there having occurred four in September and five in October. During May, June, and July the filters did not operate to the degree of efficiency to be desired and colon bacilli were present in 10 c. c. samples for an unusual number of days in each month from May until November. This condition usually occurs after heavy rains. While it is thought that the city water plays no part in the spread of typhoid, yet it would seem wise to take some additional safeguards by installing a chlorine plant to be used only when filtration alone does not produce the desired results.

It would also seem advisable to provide adequate methods for disposal of industrial waste products above the intake of the water supply. Such products are now passed into the river untreated.

There are still in use in the city a number of wells of varying depths. The shallow wells at least should be abolished where city water is available.

There is at present a dam under construction in the Mahoning River and located 37 miles above Youngstown, which will impound 10,000,000,000 gallons of water. This will furnish the city at times of low water a reserved supply for both domestic and industrial purposes.

The following tables give in some detail the results of the analysis of water supplied to the city for domestic purposes.

Tabulation of results of the examination of 560 samples of the city water supply, calendar year 1915.

	½ c. c.		1 c. c.		10 c. c.		Number of days present in 1 c. c. or less.	Number of days absent in 1 c. c. or less.	Number of days present in 10 c. c.	Number of days absent in 10 c. c.
	+	−	+	−	+	−				
January:										
Raw	43	1					24	0		
Settled			12	32			12	12		
Filtered			1	43	3	41	1	23	3	21
February:										
Raw	42	1					24	0		
Settled			14	29			11	13		
Filtered			0	43	0	43	0	24	0	24
March:										
Raw	49	1					27	0		
Settled			5	45			5	22		
Filtered			0	50	0	50	0	27	0	27
April:										
Raw	48	0					26	0		
Settled			35	13			11	15		
Filtered			2	46	3	45	1	25	2	24
May:										
Raw	46	0					26	0		
Settled			23	23			20	6		
Filtered			2	44	7	39	2	24	4	22
June:										
Raw	47	1					26	0		
Settled			26	22			20	6		
Filtered			3	45	18	30	3	23	10	16
July:										
Raw	48	0					27	0		
Settled			35	13			22	5		
Filtered			10	38	24	24	8	19	14	13
August:										
Raw	47	1					26	0		
Settled			24	24			18	8		
Filtered			4	44	11	37	4	22	7	19
September:										
Raw	45	2					26	0		
Settled			14	33			10	16		
Filtered			1	46	8	39	1	25	6	20
October:										
Raw	43	2					25	0		
Settled			18	27			11	11		
Filtered			1	44	9	36	1	24	7	18
November:										
Raw	42	3					25	2		
Settled			7	38			6	21		
Filtered			0	45	8	37	0	27	6	21
December:										
Raw	48	0					27	0		
Settled			5	43			6	21		
Filtered			0	48	1	47	0	27	1	26

NOTE.—A day free from colon bacilli means a day during which no colon bacilli were found in either of the daily samples examined.

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Raw water	1,323	740	572	1,175	201	213	240	298	247	414	635	2,631
Settled water	40	17	11	155	27	30	36	57	11	19	11	24
Filtered water	2	1	2	54	37	89	16	23	3	3	2	3
Percentage of efficiency	98.38	99.77	99.33	94.80	89.41	76.32	89.56	94.0	97.71	99.08	99.20	99.79

The Disposal of Sewage.

Sewage is passed into the Mahoning River untreated. Located between the intake of the water supply and the highest sewer outlet is a dam.

There are few districts in the more populated sections of the city where sewers are not available. In one there are no sewers at all.

Here it was planned to lay the necessary pipes and secure the necessary grade for the main by carrying it through one of the city parks to the river. For some reason, which is not apparent, the plan was opposed and work has, therefore, not commenced. This sewer should be laid without further delay. In two other sections of the city the sewers are laid, but as yet they have not been provided with outlets; therefore, houses in those sections have not been able to connect. There are in the city at present 141 miles of sewers, main and lateral.

The method of connecting to the sewer through the medium of a catch basin as practiced in Toledo is not permitted in this city.

Plumbing.—The inspection of plumbing comes within the jurisdiction of the health department. The work of the plumbing inspectors is closely associated with that of the building department of the city and, therefore, the inspectors of plumbing occupy offices in common with that department. It is suggested that it would be advisable to transfer the division of plumbing inspection to the building department.

The plumbing code is patterned after the State law, but has been simplified wherever possible and consistent with safety. It is therefore practicable to install a simpler system of plumbing than is permitted in some other places.

Every action which tends toward simplicity in the plumbing code and reduction in the expense of installing plumbing is to be encouraged and commended.

The Collection of Garbage and Rubbish.

The collection and disposal of garbage.—The collection of garbage is done by contract under the supervision of the city board of health. This board, out of money appropriated for the purpose, pays $2.25 for every ton collected. The amount expended in this way amounted in 1915 to $22,514.99 and represents the collection of 10,006⅔ tons of garbage, or approximately 27½ tons per day. The garbage is collected in iron, end-dump wagons, with a capacity of approximately two tons. The regulations require that these wagons be kept covered by a canvas cover. To facilitate collections the city is divided into seven districts—a business and six residential districts. From the former, garbage is collected daily in summer and four times a week in winter. From each of the residential districts, collections are made twice a week in summer and once a week in winter. The garbage is taken to a central station where it is weighed by an employee of the health department and then loaded into cars and transported to the reduction plant. The cost of transportation and reduction is borne by the department of service of the city, which pays the reduction plant 45 cents for every ton reduced. The reduction plant is privately owned. In the process of disposal the garbage is first dried.

It is then treated with gasoline to extract the fats, after which it is dried again, ground and used as an ingredient for the manufacture of fertilizer. The offensive gases are given off during the first drying process. They are passed through washers before discharge through the chimney. In connection with this plant for garbage reduction, there are likewise retorts for handling dead horses or other large animals.

The collection and disposal of rubbish.—The city has little or nothing to do with the collection of rubbish. It is carted away according to the whims of the householder and at his expense. The city, however, does maintain an incinerator for the destruction of rubbish. This incinerator was built in 1898 for the cremation of garbage, but is now out of date and too small to be used for that purpose. Small dead animals are collected at the rate of 50 cents for a dog and 25 cents for a cat by anyone who will undertake the job. They are burned at the incinerator with the rubbish. It cost the city $264.25 during 1915 to collect small animals.

Discussion.—It is thought that it would be desirable to have the city operate its own system for the collection of garbage. This change could be made when the present contract has expired. At the same time a system of rubbish collection should be inaugurated. These two classes of refuse may be collected without a duplication of equipment as the same wagons may be utilized to haul garbage and rubbish alternately.

After the first expense involved in acquiring equipment it is believed that the city can collect its own garbage at a figure lower than it is now paying under contract and at the same time have on hand the machinery with which to collect other city waste. This plan should be considered before another garbage contract is let.

In this connection it might be pointed out that during 1914 the city of Toledo collected garbage and delivered it to the reduction plant at approximately $2.10 per ton. The privately owned reduction plant charged the city 22½ cents per ton for disposal.

It is not at all unlikely that the amount of garbage collected in Youngstown during 1915 does not represent the total amount of garbage produced by the city. Estimating the amount at one-half a ton per 1,000 inhabitants there should be approximately 50 tons per day, as against an average of 27½ tons actually collected. It can be said with certainty that there is quite a lot of garbage mixed with rubbish and which is therefore not collected as garbage. This together with the garbage produced in the outlying rural sections of the city might account for the discrepancy.

It should also be pointed out that rubbish, provided it contains no garbage, is valuable as a fill to reclaim low-lying areas of the city. Thus land is made valuable which would be otherwise worthless.

Such filling should be done under the supervision of a city employee, so that the method will not lead to any objectionable results. One must keep in mind that such fills, while they may be unsightly for the time being, are not insanitary.

PUBLIC HEALTH SOCIAL SERVICE.

Health Supervision of School Children.

The health supervision of school children is carried on by the educational authorities under the direction of the health officer.

There are engaged in the work four medical inspectors who receive $10 a day for 20 days at the beginning of the school year, in which time they are expected to complete their duties. There are also engaged in the work two specialists on the eye, ear, nose, and throat, who furnish treatment without remuneration to children referred to them. Four nurses at $80 per month are engaged during the school year only.

Methods of procedure.—Children in high and parochial schools are not examined.

Each child is given a card which follows it throughout its school life. On this card is noted any defect as well as the result of treatment. Where treatment is necessary notification blanks in duplicate are made out, one of which is sent to the family and one given to the nurse, whose duty it is to follow up the case. Where the patients are unable to pay for medical services they are either referred to one of the two specialists mentioned above and treated at the free dispensary of the Youngstown hospital, or given a card of admission to one of the hospitals, if hospital treatment is necessary. Throughout the entire school year nurses are required to visit schools daily for the purpose of detecting beginning communicable diseases or other conditions requiring attention, to follow up cases as they may think necessary, to visit the homes of children reported absent by the principal and by talks or otherwise to instruct the pupil in personal hygiene. In their work they cooperate with the health department as well as the truant officer.

No dental clinic has been established, but inspection by both physicians and nurses is made to include the teeth and some dental work is performed by the dentists of the city free of charge.

Medical clinics are frequently held in the school, to which parents and family physicians are invited. At these clinics the child is thoroughly examined by the four medical inspectors, and defects are pointed out to the parents, together with the necessity for treatment. The object is in large measure an educational one.

There has been inaugurated in some of the schools the pupil health officer and pupil nurse system, whereby the boy and girl

appearing neatest during the week are appointed health officer and nurse, respectively, for duty during the coming week. This is said to be a great incentive to improvement in matters of personal hygiene.

The toothbrush drill is also required and each pupil made to own a toothbrush.

The educational authorities will furnish glasses free of charge to worthy cases.

During 1915 the medical inspectors inspected 13,166 pupils. Only those pupils are given a thorough examination who, in the opinion of the inspectors, require it. Much is left to the discretion of the inspectors. There were found 7,895 defects, of which 2,273 were corrected. The nurses made 1,694 visits to the homes.

The Visiting Nurses' Association.

The visiting nurses' association is supported by private philanthropy. There were employed during 1915 10 nurses, and there was available to defray the expenses of the organization during the same period the sum of $10,000. There have recently been added 3 additional nurses to the corps on account of the child-welfare work, which will be carried on through the summer months of the present year.

The nurses visit the indigent sick who are in need of nursing services. Their duties include assistance rendered to those suffering from communicable diseases such as tuberculosis, typhoid fever, measles, and scarlet fever, as well as activities along the lines of child-welfare and prenatal care. The work is also of an educational nature, as instruction is given, by word and practice, along the lines of preventive medicine. It may be said, in fact, that many of the duties of these nurses are distinctly of a public-health nature and performed for the benefit of the public health.

Child-Welfare Work.

Except for the work performed by the visiting nurses' association as part of its routine, there has been no special activity carried on to prevent the unnecessary deaths among infants causing the high infant mortality rate of 157.1. Recently there has been raised through private charity $1,500 for work of this kind to be performed during the summer months of the present year. This work will be done through the agency of the visiting nurses' association, who have added for the purpose three extra nurses to their corps. Infant-welfare stations will be opened in several parts of the city.

Antituberculosis Activities.

Where active field work is performed along the lines of the prevention of tuberculosis it is done by the visiting nurses' association. There is a society, however, which raises a small amount from the sale of Red Cross seals. This money is spent in furnishing supplies to those who are worthy and who are afflicted with tuberculosis. A certain amount of this money is also used to defray the expense of maintaining a very limited number of beds in the tuberculosis sanatorium. No antituberculosis dispensaries are operated.

The work performed by the health department toward preventing tuberculosis and the tuberculosis sanatorium have already been mentioned (pp. 2662–2663).

Discussion.

It is generally agreed that a corps of public health nurses is the most important part of any health department. The work that they perform should be productive of the best results. There is hardly a field in the whole science of preventive medicine in which their services can not be employed to advantage. It is therefore most essential that the health department have a corps of such employees at its command. The number should not be less than 16. The city should then be divided into 16 districts and a nurse placed in each district. The poorest and most thickly populated sections of the city should be divided into the smallest districts. Each nurse should then perform within her district all the duties required of a public health nurse. At the present time it is quite impossible for the city, for financial reasons, to employ and pay 16 nurses, but it is quite possible by a combination of the nursing forces now employed by other bodies to attain the same results, for the time being at least.

According to modern views, it is in the interest of efficiency and economy to combine all the forces employed in public health work and place them under one controlling head. It would, therefore, seem advisable to combine the nurses of the Visiting Nurses' Association and the school nurses engaged by the board of education and to enlarge the force by the addition of four nurses to be employed by the board of health. A combination like this would make available 21 nurses. Reserving five for general nursing, or what might be strictly spoken of as charitable work, there would remain 16 nurses to carry on the necessary public health activities. The latter would be engaged in prenatal and infant welfare work, school nursing, and duties in connection with the control of the communicable diseases.

As much of the work of these nurses would be carried on at the homes of industrial workers, who represent a large part of the population, it might be possible to enlist the cooperation of the large

steel industries, so that they would be willing to employ some additional nurses, thus adding to the force and making it possible to reduce the size of the districts.

It is unfortunate that the city government is not in a position to pay the salaries of an adequate corps of nurses. The work that they perform, as contemplated herein, is strictly speaking public health work and, therefore, a legitimate governmental function.

FOOD INSPECTION.

Food inspection as carried on by the health department of Youngstown will be taken up under the following headings:

The control of the milk supply.

The inspection of meats and other foods.

The Control of the Milk Supply.

The control of the milk supply of communities in Ohio is placed by statute in the hands of the local boards of health. State law also makes provisions for the maintenance of the purity of milk. In addition the board of health of Youngstown has promulgated regulations setting a standard for the purity of milk and requiring that certain precautions be taken in its production and sale.

Requirements of regulations.—All places where milk is sold or handled must be licensed by the board of health. Before such license is issued the place must be inspected by the dairy inspector.

No milk is allowed to be sold in the city unless it has come from cows which have been tuberculin tested and shown to be free from tuberculosis. Any person selling milk from untested cows will have his permit revoked.

No person is permitted to bring into the city for sale or delivery or to offer for sale any milk—

1. That contains more than 88 per cent of water or fluids, less than 12 per cent total solids, or less than 3 per cent of butter fats.
2. That has had any part of the cream removed.
3. That has a specific gravity of less than 1029.
4. That contains any foreign chemical.
5. That contains pathogenic bacteria.
6. That contains more than 500,000 bacteria per cubic centimeters.
7. That is drawn from a cow having a communicable disease, or a cow from a herd having or exposed to any communicable disease.
8. That is drawn from a cow 15 days before or after parturition.
9. That is drawn from a cow fed on garbage, distillery waste, or other improper food.
10. That has a temperature or has been kept at a temperature above 65° F.
11. That has not been kept under conditions required by the regulations.

The first three provisions do not apply to milk sold under the name of skimmed milk.

For laboratory purposes the standard for the cleanliness of milk is based on a determination of the visible dirt present in one-half pint after filtering through a cotton disk from three-fourths to 1 inch in diameter. By this standard "clean milk" is milk that does not leave more than 6 particles of dirt nor tint or color the cotton except with

fat. From this there are three gradually lowering standards comprising "fairly clean milk," "dirty milk," and "filthy milk." The two latter grades may not be sold or brought into the city.

Vehicles from which skimmed milk is sold must be distinctly labeled in letters not less than 1 inch in height with the words "skimmed milk," or if the milk is not sold from a vehicle each vessel must be so labeled as to show that it contains skimmed milk. Skimmed milk must contain at least 9 per cent milk solids. No person is permitted to sell milk in quantities less than 1 gallon, except in sanitary bottles suitably capped, unless the milk is sold from a milk house or dairy, when it may be dipped. The milk house must not be located less than 15 feet from a privy vault or cesspool.

In addition to the above the regulations provide for the location of storage plants for milk, the cleanliness of wagons, the labeling of wagons, the covering of wagons, the bottling of milk, the removal of employees from houses containing communicable diseases, the sealing of containers, taking samples, etc.

Dairies are required to be scored, the score card providing for the condition of the cow, the stable, the water supply, the milk house, the health of attendants, and the cleanliness of milking. Scores are made on the basis of 1,000 points.

Methods of procedure.—There is but one man engaged in the supervision of the milk supply. He is required to inspect and score producing farms, to exercise a general control over pasteurizing plants and places selling milk and to collect samples for analysis. In addition he is required to inspect perishable foods offered for sale.

Samples of milk are collected in the early morning, and are taken with as little delay as possible to the laboratory of the health department. Here they are subjected to three tests, the lactometer test to determine the amount of solids, the sediment test to determine the amount of visible dirt, and the Babcock test to determine the amount of butter fat. The laboratory standard for clean milk is based on the amount of visible dirt. This test alone does not seem to be adequate, but in connection with the bacterial count the information obtained by this means would be of value.

The inspector determines the temperature of the milk while on the wagons, and if it is below the standard (65°) it is returned to the producer.

During this survey an inspection was made of a number of the producing farms, and while a few might be classed as good, many were far from satisfactory. All had the milk house separate from the barn and all were cooling milk by one means or another, some in a very primitive way. A few use ice in the process of cooling, and a very few ice the bottles while delivering to the consumer. Generally speaking, barns were poorly ventilated and dirty, although occasionally one was found to be in excellent condition. Allowance must be made because of the time of year, the farmers being more interested in planting their crops than in maintaining the sanitary condition of their barns. To a large extent the business of dairying is carried on merely as a side issue to agricultural pursuits.

Inspections were also made of the pasteurizing plants. The methods of pasteurization differ widely, some using the "holding" and some the "flash" system. One plant pasteurizes in the bottle. Many of the plants are too small for the purpose, sanitary conditions are not maintained as they should be, and the technique of the operation is poor. Necessarily the time and temperature of pasteurization vary greatly and no plant is supplied with a thermoregulator or temperature recorder.

A provision of the regulations requires that milk sold in quantities less than 1 gallon must be bottled at the dairy. Therefore, all milk which is not pasteurized is bottled at the producing farm, either by machine or by hand. Capping is also accomplished mostly by hand.

Discussion.—The investigation of the milk supply shows conclusively that it is absolutely impossible for one man to properly handle the situation and that it is essential that a thorough study, both in the field and in the laboratory, be made of the different processes in use in the production of Youngstown's milk supply. This will mean the addition of at least one milk inspector, making one for dairy inspection and one for city milk inspection. A thorough study should be made of the operations of each pasteurizing plant. Samples should be collected from the farms producing the milk, from the plant before the milk goes into the pasteurizer and after it is pasteurized, and from the bottle as delivered to the consumer.

These samples should be examined for bacterial content. It is doubtful whether some of the pasteurizing plants are getting the results to be expected from pasteurization. After a careful study has been made it will probably be found necessary to require each plant to use the "holding" method and pasteurize at a temperature of 145° for not less than 25 minutes. The installation of a thermoregulator and a temperature recorder at each plant should be compulsory. It would then be as well to require the pasteurization of all milk sold in the city of Youngstown, except only milk produced under the standard set for certified milk. Certified milk is now sold in Youngstown from a farm producing certified milk for the Allegheny County Medical Society of Pennsylvania.

Tabulation of information relative to milk supply, city of Youngstown, Ohio.

Number of milk samples analyzed in laboratory, 1915	1,673
Grade 1, "Clean milk"	417
Grade 2, "Fairly clean milk"	840
Grade 3, "Dirty milk"	395
Grade 4, "Filthy milk"	21
Butter fat above standard	1,569
Butter fat below standard	98
Total solids above standard	1,177
Total solids below standard	496

Samples of cream examined, 1915		15
Number of producing farms		862
Number of pasteurizing plants		17
Pasteurizing by holding method in bulk		10
Pasteurizing by holding method in bottles		1
Pasteurizing by flash method		6
Daily consumption of milk	gallons	8,820
Daily consumption of cream (family use and ice cream)	do	290
Longest haul by wagon or truck	miles	15
Longest haul by electric car	do	20
Longest haul by train	do	50
Percentage of milk supply pasteurized (estimated)	per cent	90

Inspection of Meats and Other Foods.

Meats.—There are no slaughterhouses under Government supervision. The ante and post mortem inspection of animals in the local packing house is performed by an inspector of the health department. His entire time is taken up with this work and that of inspecting butcher shops. Some slaughtering on a small scale is done outside of the city limits. The meat is brought into the city for sale, but is not inspected, mainly on account of the difficulty in determining when and where it is to enter the city.

Other foods.—There is no organized food or restaurant inspection. The inspection of perishable foods, fruits and vegetables especially, is made by the milk inspector, who is also required to give such time as he may to the inspection of other places selling food or other food products. It is obvious that it is impossible for one man to carry on this work as well as the milk inspection.

An inspection of retaurants is also made a part of the routine work of the sanitary police. No scoring of any kind is done.

Except for milk, the laboratory does not perform any analyses to determine the quality of food products.

Discussion.—The health department should be provided with an inspector, whose duties would be chiefly concerned with the inspection of places selling foods as well as the products sold therein. These places would include restaurants, bakeries, stores, markets, and the like. Thus, with an inspector for this purpose, one meat and one sanitary inspector already employed, and an additional milk inspector, the city would have the minimum force with which to supervise the food supply from the public health standpoint.

All places handling food should be scored and the results published.

Regulations should be promulgated to maintain sanitary conditions and to prevent those suffering from communicable diseases from handling food.

All meat slaughtered outside of the city limits without inspection and brought into the city for sale should be taken to a central point, so that the city meat inspector might inspect it with facility.

THE SANITARY POLICE.

The sanitary police force is composed of six uniformed men, one of whom is the chief sanitary inspector. Their duties are mainly concerned with the abatement of nuisances and the placarding and fumigation of premises for communicable diseases.

The city is divided into five districts in order to facilitate the work.

Once a year a survey is made with reference to the sanitary condition of the different premises within the city. The results of the inspection are noted on blank forms, devised for the purpose, which include spaces to state the condition of the house, cellar, yard, and the character of toilet facilities. Where orders are issued to abate nuisances disclosed as a result of this survey reinspections are required.

Discussion.—The enforcement of the law requiring sewer connections, the fly proofing of privies, which for any reason may not be connected to the sewer, the elimination of shallow wells, the prevention of the accumulation of manure, the enforcement of the regulation requiring that all premises be furnished with a garbage tin and the enforcement of a housing code are the important duties of a sanitary inspector. Successful work along these lines alone would go far to improve the public health.

It is to be regretted that the inspectors can not devote their entire time to such duties. This, however, is impracticable because the average citizen has a false conception of the duties of a health department. He believes that pestilence arises from the collection of ashes or old bottles in the adjoining lot, sewer gas, a dead dog in the street, the neighbor's chicken yard, bad odors and the like, and therefore everything that offends the special senses is reported to the health officer as dangerous to health. It is in attending to such matters that the sanitary police are required to perform a great deal of work which has little or no bearing on the public health, and which is a reason why many health departments are devoting a greater part of their energies and appropriations to things that count for little or nothing in the prevention of disease and are unable to perform those duties which are of real importance. This unfortunate condition must be attributed largely to the various health departments, which have neglected to educate the people along the lines of modern thought in public health work. Many health departments of the present day are still using antiquated methods, and so long as the people think that everything unsightly must necessarily be insanitary, health departments are compelled to expend the bulk of their money in performing duties that do not concern the public health. Thus it is difficult to secure funds to make much-needed reforms.

Many of the complaints that now come to the health department should be made to the police department, and it should be the duty of that department to have such nuisances abated. In fact the modern view contemplates that each patrolman act as a sanitary inspector. This has been accomplished elsewhere without increasing the size of the police force and without interfering with the patrolman's usual duties.

It is thought that the chief and four sanitary police are sufficient for Youngstown and that one of the six should be transferred for milk inspection, thus giving the health department an additional milk inspector, who is badly needed.

THE HOUSING PROBLEM.

In the city of Youngstown the housing problem has become quite an extensive one because of the rapid growth of the city due to the expansion of the iron and steel industries in recent years. This has produced a large influx of foreigners to work in the mills. These people settle by races in different parts of the city, where facilities for taking care of numbers are poor. Overcrowding and insanitary conditions are therefore likely to occur. While the question requires more careful study than the writer was able to give, a few observations of a general nature were made. There are but few places that might be described as tenement houses and but few "flop" houses, but the boarding house is very common in the districts under consideration. Many of such houses are detached, so that there are windows on all sides and light and ventilation may therefore be obtained. Some, however, are built in rows on streets or in courts. The type of boarding house under consideration is usually operated by a man and his wife, who are frequently parents of a large family. Rooms are rented to the mill workers and the cooking is done for them at a small figure. There are usually three or four beds in each room, each bed being occupied by one individual during the day, and another during the night. Thus there are six or eight people to a room, one-half of whom sleep there during the day and one-half during the night.

Notwithstanding the activities on the part of the sanitary police to secure sewer connections, a number of places for one reason or another are not yet connected. This is one cause of the insanitary conditions. Another which was very noticeable was due to the collection of rubbish in the courts and yards. This of itself, while unsightly, was not insanitary except that in many instances there was clear evidence of the rubbish having been mixed with garbage, making a fly-breeding and rat-feeding center and producing a condition requiring

the attention of the health department. In many instances a proper garbage tin was not furnished.

In practically all of the houses visited the sleeping rooms were provided with one or more windows opening directly to the outside, giving adequate ventilation. Overcrowding can therefore not be called serious, provided that the windows are kept open and that there is no communicable disease introduced. Overcrowding implies close contact, which in the presence of a communicable disease is especially dangerous.

The majority of persons living under such conditions are young adult males, who must be physically fit to carry on the class of labor in which they are engaged. In fact, a study of the mortality tables which have previously been given shows that the death rate of the city is not high, but that the infant mortality rate is unduly large. The child under one year of age succumbs to conditions that have little influence over the health of the adult.

Modern dwelling houses have been constructed in several places in the city to rent for a reasonable figure. This scheme should be carried further. Much of the property in the foreign sections is really of little value and it would hardly pay to attempt any alterations or improvements. For this reason the houses should be demolished and small modern dwellings constructed to be rented to those in moderate circumstances. Where for any reason it is impracticable to obtain sewer connections, the health department should make an effort to have all outside privies screened against flies. A frequent collection by the city of rubbish as well as garbage would prevent the accumulation of such material in the courts and yards. Garbage tins should be required of every householder and an effort made to prosecute those who throw their garbage in unauthorized places. Regulations should be made to prevent overcrowding, and otherwise to regulate the use of any house as boarding, tenement, or "flop" house.

DISSEMINATION OF INFORMATION.

An annual report is issued by the board of health. This contains little or nothing of popular educational value. It is mainly statistical in nature and contains copies of recent ordinances or regulations pertaining to public health. The annual report has been limited, both as to size and distribution, by a lack of funds. In the case of tuberculosis a circular of information furnished by the State is sent to the patient.

It is necessary that the health department carry on an extensive educational campaign. It is suggested that probably the least expensive and most efficacious method would be the publication in

the newspapers of a popular article at least once each week explaining to the citizens the essentials of preventive medicine. The newspapers would no doubt be glad to cooperate in this matter.

RECEIPTS AND EXPENDITURES.

The money made available to the health department during the year 1915 from the general tax levy was $41,220.54, as against $158,601.79 for the service department and $214,569.49 to the department of safety. Each of these departments also derives an income from other sources, as, for instance, license fees and the like, so that there was actually expended by the safety department during the year 1915, the sum of $300,062.30, by the service department $176,555, and by the department of health $52,767.23. The latter figure includes a loan which was necessary on account of an epidemic of smallpox. This was paid back during the same year. The tabulation of expenditures shows that the health department actually expended for its maintenance $46,600.63, including the emergency expenditures on account of smallpox. The difference between this and the $52,676.23, quoted above, is accounted for by the payment of the loan. Excluding the emergency expenditures, it cost to maintain the health department during 1915, $41,876.12, which represents just about the amount that it is entitled to from the general tax levy and is a sum entirely too small adequately to maintain the health department, when it is remembered that from that sum must be deducted $22,514.99 to pay for the collection of garbage. In order that the health department may take up the active field work, which, because of the lack of funds and therefore the lack of necessary employees, it has been unable to do, it should receive not less than $50,220 per annum, or $9,000 per annum more than its customary allowance. Out of this sum should be paid a full-time epidemiologist at not less than $2,500 a year and four full-time nurses at $900 a year each. Four nurses would make a start and could do effective work especially if there could be effected a combination of all of the nurses in the city now doing public health nursing through private philanthropy. There should also be paid from this amount one additional inspector for food inspection, at $900 per year.

Because of the lack of funds to advertise as required by law, the board of health has been unable to pass some much needed regulations or a sanitary code. This should be done without delay.

Tabulation of expenditures, calendar year 1915.

	General administration.	Epidemiological.	Diagnostic laboratory.	Registration of births and deaths.[1]	Milk and food inspection.	Sanitation.	Plumbing inspection.	Total.
Badges						$1.00		$1.00
Binding	$0.40		$6.00	$9.75				16.15
Books and periodicals	2.00		7.50			3.50		13.00
Drugs, chemicals, and disinfectants		$281.38	47.02					328.40
Dues to societies	8.00							8.00
Emergency services	6.00				$3.00			9.00
Express, freight, and drayage	2.97		.96					3.93
Heat, light, and water	13.05							13.05
Insurance	2.86							2.86
Miscellaneous		.30			3.41	.75	$1.30	5.76
Office furniture	102.20							102.20
Postage	81.00						10.00	91.00
Printing	53.00	7.25	13.00		79.50	32.95	57.75	243.45
Removal of dead animals						264.25		264.25
Removal of garbage						22,514.99		22,514.99
Repairs and alterations	13.00		21.65					34.65
Salaries:								
Health officer	1,000.00							
Bacteriologist			1,800.00					
Inspectors					2,160.00	6,900.00	3,120.00	16,420.00
Clerks	1,200.00						240.00	
Stationery	54.25		1.35	5.00			10.20	70.80
Supplies	5.53	8.50	153.47				.75	168.25
Telephone and telegraph	27.00						13.52	40.52
Towels			24.75					24.75
Transportation		22.15			329.25	440.30	659.36	1,451.06
Traveling expenses		17.00			2.10			19.10
Typewriters and repairs	2.25							2.25
Vaccinations		27.70						27.70
Total for ordinary expenses	2,573.51	364.28	2,075.70	14.75	2,577.26	30,157.74	4,112.88	41,876.12
EMERGENCY EXPENDITURES FROM SPECIAL BOND ISSUE ON ACCOUNT OF SMALLPOX.								
Material and construction temporary isolation hospital		1,759.17						1,759.17
Supplies for hospital		440.94						440.94
Supplies, families in quarantine		861.65						861.65
Services:								
Attendants at hospital		309.50						309.50
Guards for the maintenance of quarantine		1,091.25						1,091.25
Physicians		262.00						262.00
Total expenses on account of smallpox		4,724.51						4,724.51
Total ordinary and extraordinary expenses	2,573.51	5,088.79	2,075.70	14.75	2,577.26	30,157.74	4,112.88	46,600.63

[1] The expenses incurred in the collection of vital statistics are borne mainly by the State and county.

RECOMMENDATIONS.

As a result of the study of public health administration in Youngstown, certain definite conclusions have been reached and are made the basis of the following recommendations:

1. That for the purpose of administration the city health department be subdivided into the following divisions: The board of health, the executive office, division of epidemiology, division of milk and food inspection, division of sanitary inspection, and division of birth and death registration.

2. That a full-time epidemiologist be appointed to investigate the origin of each case of communicable disease occurring in the city, especially typhoid fever, scarlet fever, diphtheria, tuberculosis, and measles, so that preventive measures may be taken promptly at the source, the epidemiologist also to act as physician at infant-welfare stations and the like.

3. That as soon as the organization will permit there be established a sufficient number of infant-welfare stations and antituberculosis dispensaries to be maintained throughout the entire year.

4. That as soon as possible there be effected a combination of nursing forces in the city placing them in the health department under the direction of the epidemiologist.

5. That each nurse be given a district in which she shall perform all of the public health duties required.

6. That for administrative purposes the diagnostic laboratory be placed in the division of epidemiology under the supervision of the epidemiologist.

7. That a thorough study be made of and a better supervision be maintained over the milk supply of the city.

8. That to assist in maintaining this supervision an additional milk inspector be appointed by transferring one of the sanitary policemen.

9. That all of the market milk of Youngstown be pasteurized before being offered for sale to the public and that to insure the efficacy of pasteurization uniform methods be required.

10. That in order to prevent the spread of communicable diseases and to handle the child-welfare work and other public-health problems, there be added to the health department four sanitary policewomen with the qualifications of a public-health nurse, their duties to include the placarding of houses and the supervision of the prophylactic measures to be taken at the home as well as duties in connection with the reduction of infant mortality and similar measures.

11. That an additional inspector be added to the food and milk division, his duties to be the inspection of places handling food and the products sold therein.

12. That the cooperation of the police force be obtained to investigate nuisances and to issue the necessary orders to abate the same.

13. That as soon as practicable an isolation hospital be constructed with a capacity of not less than 50 beds, such hospital to be used for the isolation of the common communicable diseases, tuberculosis excepted.

14. That as soon as possible the city of Youngstown and the county of Mahoning arrange to transfer their interests in the five-county

hospital to the other cities and counties interested and that a tuberculosis sanatorium be built in Youngstown to care for the tuberculous of the city.

15. That all surface wells within the city be eliminated.

16. That water mains and street sewers be extended to all parts of the city as soon as possible.

17. That the health department furnish disinfectants free of charge to families in which there is a case of typhoid fever.

18. That at the expiration of the present contract the city organize its own system of garbage collection as well as rubbish collection. That the types of wagons adopted be such that they may be used for both garbage and rubbish.

19. That each householder be required to provide a proper garbage tin.

20. That the educational work of the health department be extended.

21. That automobile transportation be furnished for the use of the epidemiologist.

22. That adequate regulations be promulgated by the board of health to provide for the care of the communicable diseases, care and disposal of manure, the regulation of tenement and lodging houses, protection of food from flies, and the like.

23. That the laws and ordinances relating to public health and the regulations, rules, and instructions of the board of health be published for the benefit of the employees of the board, so that they may carry on their duties intelligently and understand their authority.

24. That all citizens of the city cooperate with the health department in its efforts to suppress disease and that physicians make special effort to report promptly all cases of communicable diseases.

25. That special effort be made on the part of the physicians and others to report promptly all births occurring in the city.

26. That there be appropriated for use of the health department the sum of $50,220 per annum to defray the expenses of ordinary maintenance and an additional force to consist of one epidemiologist, four public-health nurses, and one food inspector.

27. That at some future date a full-time health officer be appointed; that he receive a salary of not less than $3,500, and that his tenure of office depend upon efficiency.

28. That there be installed at the water-purification plant a method of treating the water with chlorine to be used as an emergency when the filters do not act with their usual degree of efficiency.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended August 26, 1916, was received from Senior Surg. Pierce, of the United States Public Health Service, in charge of the work:

FEDERAL AND COUNTY INSPECTION SERVICE.

[For the enforcement of the law of June 7, 1913.]

Counties.	Number inspections.	Number reinspections.	Acres inspected.	Acres reinspected.	Acres treated.		Holes treated.
					Waste balls.	Grain.	
Alameda	.....	110	.....	30,419	.....	3,944	.....
Contra Costa	4	73	1,610	24,308	.....	5,080	.....
Stanislaus	46	82	7,727	30,975	165	11,374	1,035
San Benito	41	40	22,247	13,692	.....	13,779	.....
Santa Cruz	.....	35	.....	5,640	.....	2,063	.....
Merced	37	21	15,532	5,270	.....	2,500	.....
Monterey	37	7	31,366	1,275	20	4,205	.....
Santa Clara	43	7	13,911	2,828	.....	1,366	.....
San Mateo	17	.....	212	.....	.....	.....	.....
Total	225	375	92,605	114,407	185	44,311	1,035

RATS COLLECTED AND EXAMINED.

Cities.	Collected.	Examined.	Found infected.
Oakland	39	39	None.
Richmond	61	61	None.
Pittsburg	85	85	None.
Albany	7	.....	None.
Total	192	185	None.

RECORD OF PLAGUE INFECTION.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley	Aug. 28, 1907	(1)	(1)	None.
Los Angeles	Aug. 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).	Sept. 24, 1909	Oct. 17, 1909[2]	June 23, 1916	293 squirrels, wood rat.
Contra Costa	July 13, 1915	(1)	June 28, 1916	1,629 squirrels.
Fresno	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced	(1)	(1)	May 12, 1916	7 squirrels.
Monterey	(1)	(1)	May 27, 1916	38 squirrels.
San Benito	June 4, 1913	(1)	July 1, 1916	72 squirrels.
San Joaquin	Sept. 18, 1911	(1)	Aug. 26, 1911	18 squirrels.
Santa Clara	Aug. 31, 1910	(1)	June 21, 1916	32 squirrels.
San Luis Obispo	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Cruz	(1)	(1)	May 30, 1916	5 squirrels.
Stanislaus	(1)	(1)	June 2, 1911	18 squirrels.
San Mateo	(1)	(1)	June 21, 1916	1 squirrel.

[1] None. [2] Wood rat.

The work is being carried on in the following named counties: Alameda, Contra Costa, Stanislaus, San Benito, Santa Cruz, Monterey, Merced, Santa Clara, and San Mateo.

The following is a record of municipal work performed under the supervision of the United States Public Health Service:

OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards	15
Reinspections made on vessels	1
Rats trapped on wharves and water front	67
Rats trapped on vessels	20
Traps set on wharves and water front	189
Traps set on vessels	47
Vessels trapped on	19
Poisons placed on water front (pieces)	3,000
Bait used on water front and vessels, bacon (pounds)	4
Amount of bread used in poisoning water front (loaves)	12
Pounds of poison used on water front	4
Poisons placed within the Panama-Pacific International Exposition grounds (pieces)	36,000

COOPERATIVE MUNICIPAL WORK.

Premises inspected	686
Nuisances abated	96

COOPERATIVE MUNICIPAL WORK—continued.

Rats trapped	87
Rats sent to laboratory	87
Rats examined	74
Poisons placed	49,200
Garbage cans stamped approved	575
Rats identified: Mus norvegicus, 45; Mus alexandrinus, 25; Mus rattus, 17.	

WORK DONE ON OLD BUILDINGS.

Wooden floors removed	4
Cubic feet new foundation walls installed	4,965
Concrete floors installed (square feet, 6,680)	4
Basements concreted (square feet, 11,650)	15
Yards and passageways, etc., concreted (square feet, 4,135)	18
Total area concrete laid (square feet)	22,465
Floors rat proofed with wire cloth (square feet, 3,500)	2

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following report of plague-eradication work at New Orleans for the week ended September 9, 1916, was received from Passed Asst. Surg. Simpson, of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.

Number of vessels fumigated with sulphur	2
Number of vessels fumigated with cyanide gas	10
Pounds of sulphur used	40
Pounds of cyanide used in cyanide-gas fumigation	502
Pints of sulphuric acid used in cyanide-gas fumigation	753
Clean bills of health issued	37
Foul bills of health issued	1

FIELD OPERATIONS.

Number of rodents trapped	7,841
Number of premises inspected	6,488
Notices served	330
Number of garbage cans installed	14

BUILDINGS RAT PROOFED.

By elevation	115
By marginal concrete wall	102
By concrete floor and wall	101
By minor repairs	278
Total buildings rat proofed	596
Square yards of concrete laid	2,782
Number of premises, planking and shed flooring removed	58
Number of buildings demolished	80
Total buildings rat proofed to date (abated)	125,623

LABORATORY OPERATIONS.

Rodents received, by species:	
Mus rattus	140
Mus norvegicus	719
Mus alexandrinus	167
Mus musculus	6,699
Wood rats	69
Musk rats	3
Putrid	109
Total rodents received at laboratory	7,905
Rodents examined	1,451
Number of rats suspected of plague	[1]13
Plague rats confirmed	6

PLAGUE RATS.

Case No. 326:
- Address, 1231 St. Thomas Street.
- Captured, August 16, 1916.
- Diagnosis confirmed, September 4, 1916.
- Treatment of premises—Rat proofing initiated; intensive trapping.

Case No. 327:
- Address, 1609 Dorgenois Street.
- Captured, July 18, 1916.
- Diagnosis confirmed, September 5, 1916.
- Treatment of premises—Intensive trapping.

Case No. 328:
- Address, 2329 Iberville Street.
- Captured, August 7, 1916.
- Diagnosis confirmed, September 5, 1916.
- Treatment of premises—Intensive trapping throughout entire neighborhood.

[1] Indicates the number of rodents the tissues of which were inoculated into guinea pigs. Most of these showed on necropsy only evidence of recent inflammatory process; practically none presented gross lesions characteristic of plague infection.

PLAGUE RATS—continued.

Case No. 329:
Address, 1420 Music Street.
Captured, August 8, 1916.
Diagnosis confirmed, September 6, 1916.
Treatment of premises—Intensive trapping; rat proofing initiated.

Case No. 330:
Address, Fig and Dublin Streets.
Captured, August 15, 1916.
Diagnosis confirmed, September 6, 1916.
Treatment of premises—Intensive trapping.

Case No. 331:
Address, 842 Canal Street.
Captured, July 26, 1916.
Diagnosis confirmed, August 8, 1916.
Treatment of premises—Immediate screening and repair of basement; intensive trapping and reinspection of block for repairs of any existing defect.

PLAGUE STATUS TO SEPT. 9, 1916.

Last case of human plague, Sept. 8, 1915.	
Last case of rodent plague, Aug. 16, 1916.	
Total number of rodents captured to Sept. 9	834,479
Total number of rodents examined to Sept. 9	330,629
Total cases of rodent plague to Sept. 9, by species:	
Mus musculus	9
Mus rattus	20
Mus alexandrinus	16
Mus norvegicus	289
Total rodent cases to Sept. 9, 1916	331

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended September 2, 1916, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT PROOFING.

New buildings inspected	17
New buildings reinspected	40
Basements concreted, new buildings (square feet, 6,275)	8
Floors concreted, new buildings (square feet, 14,475)	14
Yards, etc., concreted, new structures (square feet, 1,270)	5
Sidewalks concreted (square feet, 12,460).	
Total concrete laid, new structures (square feet, 34,480).	
New buildings elevated	3
New premises rat proofed, concrete	22
Old buildings inspected	5
Premises rat proofed, concrete, old buildings	4
Floors concreted, old buildings (square feet, 7,450)	4
Premises otherwise rat proofed, old buildings	1
Openings screened, old buildings	12
Rat holes cemented, old buildings	9
Wooden floors removed, old buildings	4
Wire screening used (square feet, 650).	
Buildings razed	2

LABORATORY AND RODENT OPERATIONS.

Dead rodents received	17
Rodents trapped and killed	257
Rodents recovered after fumigation	12
Total	286
Rodents examined for plague infection	204
Rodents proven plague-infected	None.
Poison distributed, pounds	28
Bodies examined for plague infection	1
Bodies found plague infected	None.

CLASSIFICATION OF RODENTS.

Mus rattus	21
Mus alexandrinus	39
Mus norvegicus	181
Mus musculus	45

WATER FRONT.

Vessels inspected and histories recorded	16
Vessels fumigated	1
Sulphur used, pounds	800
New rat guards installed	6
Defective rat guards repaired	24
Fumigation certificates issued	1
Port sanitary statements issued	37

The usual day and night patrol was maintained to enforce rat guarding and fending.

MISCELLANEOUS WORK.

Letters sent in re rat complaints	4
Restaurant permits vizéed	6

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped	65
Mus norvegicus found dead	2
Mus musculus trapped	2
Total	69
Rodents examined for plague infection	63
Rodents proven plague infected	None.

RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected	4
New buildings reinspected	10
New building, concrete foundation	1
New buildings elevated	3
New buildings, basements concreted (square feet, 2,208)	4
Total concrete, new buildings (square feet)	2,208

RODENTS EXAMINED IN TACOMA.

Mus norvegicus trapped	101
Mus alexandrinus trapped	2
Total	103
Rodents examined for plague infection	98
Rodents proven plague infected	None.

HAWAII—PLAGUE PREVENTION.

The following reports of plague-prevention work in Hawaii were received from Surg. Trotter, of the United States Public Health Service:

Honolulu.

WEEK ENDED AUG. 26, 1916.

Total rats and mongoose taken	354	Classification of rats trapped—Continued.	
Rats trapped	351	Mus norvegicus	47
Mongoose trapped	3	Mus rattus	6
Examined microscopically	286	Average number of traps set daily	984
Examined macroscopically	68	Cost per rat destroyed.....cents..	21½
Showing plague infection	None.	Last case rat plague, Aiea, 9 miles from Honolulu, Apr. 12, 1910.	
Classification of rats trapped:			
Mus alexandrinus	149	Last case human plague, Honolulu, July 12, 1910.	
Mus musculus	149		

WEEK ENDED SEPT. 2, 1916.

Total rats and mongoose taken	344	Classification of rats trapped:	
Rats trapped	341	Mus alexandrinus	158
Mongoose trapped	3	Mus musculus	120
Examined microscopically	274	Mus norvegicus	48
Examined macroscopically	70	Mus rattus	15
Showing plague infection	None.	Average number of traps set daily	984
		Cost per rat destroyed.....cents..	21½

Hilo.

WEEK ENDED AUGUST 26, 1916.

Rats and mongoose taken	2,488	Classification of rats trapped and found dead:	
Rats trapped	2,442	Mus rattus	585
Rats found dead	2	Mus musculus	1,025
Mongoose taken	41	Last case of rat plague, Paauhau Sugar Co., Jan 18, 1916.	
Rats and mongoose examined macroscopically	2,488		
Rats and mongoose plague infected	None.	Last case of human plague, Paauhau Sugar Co., Dec. 16, 1915.	
Classification of rats trapped and found dead:			
Mus norvegicus	539		
Mus alexandrinus	295		

PORTO RICO—PLAGUE PREVENTION.

The following table shows the number of rats and mice examined in Porto Rico for plague infection during the two weeks ended September 6, 1916. No plague infection was found.

Place.	Rats.	Mice.
San Juan	116	10
Santurce	103	29

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during August, 1916, to other State or provincial health departments by department of health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Anterior poliomyelitis:		
Minneapolis, Hennepin County.	Mackinac Township, Grand Forks County, N. Dak.	Child from North Dakota visited at Braham, Isanti County, Minn., July 20-28, July 31 he developed poliomyelitis in Minneapolis.
Deer Creek Township, Otter Tail County.	Wyndmere, Richland County, N. Dak.	Probably mild, abortive case; went to Wyndmere.
Rochester, Olmsted County.....	Alpena, Jerauld County, S. Dak.....	Brought to Mayo Clinic, Rochester, Aug. 18.
St. Paul, Ramsey County.....	Webster, Day County, S. Dak.....	Brought directly from Webster, S. Dak., to St. Paul City Hospital.
Smallpox:		
Mankato, Blue Earth County...	Rock Springs, Rosebud County, Mont.	Diagnosis of smallpox made at Mankato upon arrival from Rock Springs.
Typhoid fever:		
Minneapolis, Hennepin County.	Cincinnati, Hamilton County, Ohio.	Performer in Ringling's circus; taken from train to hospital on arrival at Minneapolis.
Faribault, Rice County.....	South Bend, St. Joseph County, Ind.	Left Faribault for South Bend while ill with typhoid fever.
Duluth, St. Louis County.....	Buffalo, Erie County, N. Y.....	Resident of Buffalo; marine engineer on steamer Northern Queen; ill at hospital, Duluth.
St. James, Watonwan County...	Oakland, Marion County, Cal.....	Ill at Oakland; probably infected at St. James, Minn.
Do.....	Le Grande, Guadalupe County, N. Mex.	Resident of Le Grande; "beat way" on freight from Texas to South Dakota; came to St. James ill with typhoid.

RECIPROCAL NOTIFICATION—Continued.

Cases of communicable diseases referred during August, 1916, to other State or provincial health departments by department of health of the State of Minnesota—Continued.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis:		
Mayo Clinic, Rochester	Sterling, Whiteside County, Ill.	4 advanced; 13 moderately advanced; 3 incipient; 1 apparently arrested; 3 condition not reported.
Do	Alta, Buena Vista County, Iowa	
Do	Bennett, Cedar County, Iowa	
Do	Dyersville, Dubuque County, Iowa	
Do	Fenton, Kossuth County, Iowa	
Do	Orchard, Mitchell County, Iowa	
Do	St. Ansgar, Mitchell County, Iowa	
Do	Sanborn, O'Brien County, Iowa	
Do	Sioux City, Woodbury County, Iowa	
Do	Calumet, Houghton County, Mich.	
Do	Greenland, Ontonagon County, Mich.	
Do	Montique, Oushegon County, Mich.	
Do	Ramsay, Gogebic County, Mich.	
Do	Vulcan, Dickinson County, Mich.	
Do	Hilger, Fergus County, Mont.	
Do	Wolf Point (Indian Reservation), Sheridan County, Mont.	
Do	Halsey, Thomas County, Nebr.	
Do	Harvey, Wells County, N. Dak.	
Do	Delaware, Delaware County, Ohio	
Do	Muskogee, Muskogee County, Okla.	
Do	El Paso, El Paso County, Tex.	
Do	Superior, Douglas County, Wis.	
Do	Reedsburg, Sauk County, Wis.	
Do	Schreiber, Ontario, Canada	
Thomas Hospital, Minneapolis, Hennepin County.	Estherville, Emmet County, Iowa	
Do	Wallingford, Emmet County, Iowa.	
Do	Mercer, McLean County, N. Dak.	

CEREBROSPINAL MENINGITIS.

State Reports for August, 1916.

Place.	New cases reported.
Indiana:	
Kosciusko County	1
Maryland:	
Baltimore City	4
Baltimore County—	
Highlandtown	1
Total	5
Minnesota:	
Cass County—	
Bena	1
Freeborn County—	
Hayward Township	1
Lac qui Parle County—	
Agassiz Township	1
Total	3
Ohio:	
Cuyahoga County—	
Cleveland	1
Greene County	1
Richland County—	
Mansfield	2
Trumbull County—	
Warren	1
Wood County	1
Total	6
South Carolina:	
Kershaw County	1
West Virginia:	
Fayette County	1
Marshall County	1
Wood County	1
Total	3

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Bridgeport, Conn	1	1	New York, N. Y	7	5
Chicago, Ill	1	1	North Adams, Mass	1	1
Detroit, Mich	1		Philadelphia, Pa	4	2
Duluth, Minn	1		Pittsfield, Mass	1	1
East Orange, N. J		1	St. Louis, Mo	2	
Fall River, Mass	1	1	South Bend, Ind	1	1
Los Angeles, Cal		1	Washington, D. C	1	
Lowell, Mass	1	1	Wichita, Kans	1	1
Milwaukee, Wis	1	1			

DIPTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2710.

ERYSIPELAS.

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill	3		Newark, N. J	4	
Cleveland, Ohio	2		New York, N. Y		2
Denver, Colo	1		Norristown, Pa	1	
Harrisburg, Pa	1		Pittsburgh, Pa	3	
Hartford, Conn	1		St. Louis, Mo	2	1
Jersey City, N. J		1	St. Paul, Minn	1	
Milwaukee, Wis	2		Topeka, Kans	1	
Nashville, Tenn	2				

MALARIA.

State Reports for August, 1916.

Place.	New cases reported.
Louisiana:	
Acadia Parish	39
Allen Parish	4
Assumption Parish	36
Beauregard Parish	8
Bossier Parish	3
Caddo Parish	29
Claiborne Parish	1
De Soto Parish	11
East Feliciana Parish	5
Evangeline Parish	3
Grant Parish	13
Iberia Parish	19
Iberville Parish	1
Jackson Parish	3
Jefferson Davis Parish	3
Lafayette Parish	6
Lincoln Parish	1
Morehouse Parish	47
Ouachita Parish	9
Plaquemines Parish	10
Rapides Parish	2
Richland Parish	5
St. Charles Parish	4
St. Helena Parish	1
St. Landry Parish	43
St. Mary Parish	15
St. Tammany Parish	19
Tangipahoa Parish	20
Tensas Parish	11
Terrebonne Parish	1
Union Parish	7
Vermilion Parish	4
Vernon Parish	7
Washington Parish	2
West Carroll Parish	21
West Feliciana Parish	4
Winn Parish	2
Total	419
Maryland:	
Allegany County—	
Cumberland	1
Allegany Hospital	1
Anne Arundel County—	
Annapolis	1
Baltimore County—	
Arbutus	1
Calvert County—	
Chaney	2
Dunkirk	2
Maryland—Continued.	
Charles County—	
Indianhead	3
Chapel Point	1
Waldorf, R. F. D	1
Prince Georges County—	
Silver Hill, R. F. D	1
Brentwood	1
Anacostia	1
Queen Annes County—	
Winchester	2
Wye Mills, R. F. D	1
Queenstown, R. F. D	2
Somerset County—	
Manokin	6
Wicomico County—	
Quantico	1
Total	28
Minnesota:	
Wilkin County—	
Campbell	1
Mississippi:	
Adams County	188
Alcorn County	248
Amite County	234
Attala County	457
Benton County	100
Bolivar County	2,065
Calhoun County	741
Carroll County	555
Chickasaw County	279
Choctaw County	171
Claiborne County	251
Clarke County	107
Clay County	164
Coahoma County	1,543
Copiah County	512
Covington County	175
De Soto County	305
Forrest County	150
Franklin County	182
George County	54
Greene County	54
Grenada County	279
Hancock County	164
Harrison County	141
Hinds County	1,142
Holmes County	1,060
Issaquena County	113

MALARIA—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Mississippi—Continued.	
Itawamba County	340
Jackson County	59
Jasper County	178
Jefferson County	352
Jefferson Davis County	130
Jones County	466
Kemper County	177
Lafayette County	724
Lamar County	156
Lauderdale County	340
Lawrence County	262
Leake County	186
Lee County	439
Leflore County	1,576
Lincoln County	229
Lowndes County	114
Madison County	611
Marion County	731
Marshall County	435
Monroe County	138
Montgomery County	323
Neshoba County	272
Newton County	63
Noxubee County	153
Oktibbeha County	364
Panola County	1,112
Pearl River County	88
Perry County	205
Pike County	97
Pontotoc County	125
Prentiss County	301
Quitman County	240
Rankin County	259
Scott County	313
Sharkey County	125
Simpson County	323
Smith County	212
Stone County	28
Sunflower County	1,882
Talahatchie County	800
Tate County	707
Tippah County	331
Tishomingo County	336
Tunica County	673
Union County	409
Warren County	443
Washington County	1,411
Wayne County	73
Wilkinson County	310
Winston County	163
Yalobusha County	324
Yazoo County	1,958
Walthall County	70
Total	33,579
New Jersey:	
Bergen County	5
Camden County	1
Essex County	7
Gloucester County	2
Mercer County	3
Middlesex County	1
Morris County	1
Passaic County	4
Somerset County	8
Sussex County	31
Union County	3
Total	66
Ohio:	
Cuyahoga County—Cleveland	1
Portage County	1
Summit County	1
Total	3
South Carolina:	
Georgetown County	7
Greenwood County	1
Lexington County	20
Orangeburg County	1
	29

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala	4	1	New Orleans, La	28	1
Fall River, Mass	1	.....	Norfolk, Va	1	1
Hartford, Conn	1	.....	Oklahoma, Okla	.....	2
Mobile, Ala	6	1	Philadelphia, Pa	2	.....

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2710.

PELLAGRA.

State Reports for August, 1916.

Place.	New cases reported.
Louisiana:	
Assumption Parish	3
Caddo Parish	1
East Baton Rouge Parish	1
Grant Parish	2
Morehouse Parish	1
St. Mary Parish	2
Vernon Parish	1
Total	11
Mississippi:	
Adams County	5
Alcorn County	4
Amite County	2
Attala County	9
Bolivar County	70
Carroll County	5
Chickasaw County	5
Choctaw County	5
Claiborne County	1
Clarke County	6
Clay County	8
Coahoma County	50
Copiah County	20
Covington County	9
De Soto County	20
Forrest County	10
George County	4
Greene County	1
Grenada County	1
Harcock County	4
Harrison County	7
Hinds County	49
Holmes County	15
Issaquena County	4
Itawamba County	5
Jasper County	1
Jones County	18
Lafayette County	4
Lamar County	3
Lauderdale County	16
Leo County	7
Le Flore County	5
Lincoln County	16
Lowndes County	5
Madison County	5
Marion County	7
Marshall County	13
Mississippi—Continued.	
Monroe County	3
Montgomery County	2
Neshoba County	12
Newton County	2
Noxubee County	10
Oktibbeha County	8
Panola County	7
Pearl River County	3
Perry County	6
Pike County	2
Prentiss County	3
Quitman County	14
Rankin County	4
Scott County	14
Sharkey County	2
Simpson County	5
Stone County	5
Sunflower County	32
Tallahatchie County	9
Tate County	11
Tippah County	5
Tishomingo County	9
Tunica County	12
Union County	1
Warren County	1
Washington County	28
Wayne County	1
Winston County	2
Yalobusha County	2
Yazoo County	22
Walthall County	2
Total	658
New Jersey:	
Passaic County	1
South Carolina:	
Cherokee County	1
Chester County	1
Kershaw County	1
Williamsburg County	1
Total	4
West Virginia:	
Wayne County	2

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.
Birmingham, Ala.		2
Boston, Mass.		1
Charleston, S. C.		1
Fort Worth, Tex.		2
Lincoln, Nebr.	1	1
Little Rock, Ark.	1	
Mobile, Ala.	1	
Nashville, Tenn.		1
New Orleans, La.	1	1
Norfolk, Va.	2	2
Wilmington, N. C.	2	
Worcester, Mass.	2	1

PNEUMONIA.

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Binghamton, N. Y.	5	4	Philadelphia, Pa.	30	14
Chicago, Ill.	74	27	Pittsburgh, Pa.	12	8
Cleveland, Ohio.	7	10	Reading, Pa.	1	1
Columbus, Ohio.	2	1	Rochester, N. Y.	2	.....
Dubuque, Iowa.	3	3	Stockton, Cal.	3	1
Flint, Mich.	1	.....	Toledo, Ohio.	3	.....
Los Angeles, Cal.	5	4	York, Pa.	1	.....
Newark, N. J.	5	4			

POLIOMYELITIS (INFANTILE PARALYSIS).

Cases Reported by States.

The following tabular statement shows the numbers of cases of poliomyelitis reported to the United States Public Health Service by State Health Authorities, during the periods shown:

		Cases reported.			Cases reported.
Alabama:			Illinois:		
July 1 to Aug. 31	99		July 1 to 31	76	
Sept. 1 to 25	12		Aug. 1 to 31	339	
		111	Sept. 1 to 16	148	
Arizona:					563
July 1 to 31	2		Indiana:		
Aug. 1 to 31	2		July 1 to 31	27	
Sept. 1 to 25	2		Aug. 1 to 31	38	
		6	Sept. 3 to 16	17	
Arkansas:					82
July 1 to 31	5		Iowa:		
Aug. 1 to 31	1		July 1 to 31	30	
Sept. 1 to 25	0		Aug. 1 to 31	82	
		6	Sept. 1 to 25	55	
California:					167
July 1 to 31	12		Kansas:		
Aug. 1 to 31	18		July 1 to 31	14	
Sept. 1 to 25	9		Aug. 1 to Sept. 13	33	
		39			47
Colorado:			Kentucky:		
July 1 to 31	1		Aug. 14 to 24		2
Aug. 1 to 31	2		Louisiana:		
Sept. 1 to 25	2		July 1 to 31	19	
		5	Aug. 1 to 31	6	
Connecticut:			Sept. 1 to 25	3	
July 2 to 29	143				28
July 30 to Aug. 26	280		Maine:		
Aug. 27 to Sept. 16	219		July 1 to 31	0	
		642	Aug. 1 to 31	26	
Delaware:			Sept. 1 to 25	36	
July 1 to 31	1				62
Aug. 1 to 31	10		Maryland:		
Sept. 1 to 25	18		July 1 to 31	10	
		29	Aug. 1 to 31	64	
District of Columbia:			Sept. 1 to 26	68	
July 1 to 31	8				142
Aug. 1 to 31	18		Massachusetts:		
Sept. 1 to 26	5		July 1 to 31	107	
		31	Aug. 1 to 31	253	
Florida:			Sept. 1 to 25	490	
July 30 to Aug. 5		3			850
Idaho:			Michigan:		
Aug. 1 to 31	4		July 1 to 31	51	
Sept. 1 to 25	3		Aug. 1 to 31	163	
		7	Sept. 1 to 25	117	
					331

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

Cases reported by States—Continued.

		Cases reported.
Minnesota:		
July 1 to 31	142	
Aug. 1 to 31	373	
Sept. 1 to 23	154	
		669
Mississippi:		
July 1 to 31	57	
Aug. 1 to 31	31	
Sept. 1 to 25	3	
		91
Missouri:		
July 1 to 31	4	
Aug. 1 to 31	3	
Sept. 1 to 25	4	
		11
Montana:		
July 1 to 31	11	
Aug. 1 to 31	28	
Sept. 1 to 25	15	
		[1] 54
Nevada:		
July 1 to Sept. 24		0
New Hampshire:		
July 1 to 31	7	
Aug. 1 to 31	19	
Sept. 1 to 25	16	
		42
New Jersey:		
July 1 to 31	640	
Aug. 1 to 31	2,114	
Sept. 1 to 26	817	
		3,571
New Mexico:		
July 1 to Sept. 25	....	0
New York (exclusive of New York City):		
July 1 to 31	490	
Aug. 1 to 31	1,700	
Sept. 1 to 26	1,053	
		3,183
North Carolina		[2]
North Dakota:		
July 1 to 31	....	
Aug. 1 to 31	2	
Sept. 1 to 25	6	
		8
Ohio:		
July 1 to 31	94	
Aug. 1 to 31	168	
Sept. 1 to 25	47	
		309
Oklahoma:		
July 1 to 31	12	
Aug. 1 to 31	10	
Sept. 1 to 25	2	
		24
Oregon:		
Sept. 1 to 26		2
Pennsylvania:		
July 1 to 31	107	
Aug. 1 to 31	711	
Sept. 1 to 18	490	
		1,308
Rhode Island:		
July 1 to 31	26	
Aug. 1 to 31	57	
Sept. 1 to 25	54	
		137
South Carolina:		
July 1 to 31	20	
Aug. 1 to 31	58	
Sept. 1 to 25	21	
		99
South Dakota:		
July 1 to 31	5	
Aug. 1 to 31	19	
Sept. 1 to 25	14	
		38
Tennessee:		
July 1 to 31	18	
Aug. 1 to 31	21	
Sept. 1 to 25	0	
		39
Texas:		
July 1 to 31	22	
Aug. 1 to 31	25	
Sept. 1 to 25	12	
		59
Utah:		
Aug. 1 to 31	....	5
Vermont:		
July 1 to 31	1	
Aug. 1 to 31	8	
Sept. 1 to 25	12	
		21
Virginia:		
July 1 to 31	24	
Aug. 1 to 26	14	
		38
Washington:		
July 1 to 31	5	
Aug. 1 to 31	2	
Sept. 1 to 25	7	
		14
West Virginia:		
July 1 to 31	5	
Aug. 1 to 31	10	
Sept. 1 to 25	10	
		25
Wisconsin:		
July 1 to 31	20	
Aug. 1 to 31	173	
Sept. 1 to 25	128	
		321
Wyoming:		
July 1 to 31	0	
Aug. 1 to 31	1	
Sept. 1 to 25	3	
		4

[1] Not including cases on Crow Reservation.
[2] Disease present, but the number of cases is not known.
[3] Previous report gave 3 cases for August. Later report changed this to 2 cases.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports—July 1 to September 23, 1916.

The following table shows the number of cases of poliomyelitis reported to the United States Public Health Service by the health departments of cities which reported five or more cases in any one week during July, August, and September, 1916:

City.	Cases reported for week ended—											
	July 8.	July 15.	July 22.	July 29.	Aug. 5.	Aug. 12.	Aug. 19.	Aug. 26.	Sept. 2.	Sept. 9.	Sept. 16.	Sept. 23.
Atlantic City, N. J.	.....	.....	.....	.....	.....	7	2	5	5	.....	2	2
Baltimore, Md.	1	.....	2	1	1	5	4	9	16	12	13	10
Bayonne, N. J.	.....	1	.....	1	4	12	14	4	1	5	1	.....
Birmingham, Ala.	1	.....	1	3	6	1	.....	2	.....	.....	.....	.....
Boston, Mass.	1	.....	3	4	4	8	4	8	13	22	38	.....
Bridgeport, Conn.	.....	.....	4	5	6	6	.....	3	3	.....	.....	2
Cambridge, Mass.	.....	.....	.....	.....	1	.....	2	2	1	2	5	4
Camden, N. J.	.....	.....	.....	2	5	11	13	6	9	5	7	2
Chicago, Ill.	2	4	10	13	15	23	25	22	24	25	21	20
Cincinnati, Ohio.	.....	1	1	1	2	2	4	5	2	3	6	3
Cleveland, Ohio.	4	4	2	1	1	.....	1	2	5	2	3	1
Detroit, Mich.	.....	2	1	3	4	1	.....	6	1	4	3	3
East Orange, N. J.	.....	.....	1	3	7	2	8	10	6	10	3	2
Flint, Mich.	.....	.....	.....	4	1	3	3	8	.....	4	.....	4
Harrison, N. J.	.....	1	1	.....	.....	10	10	6	.....	.....	.....	.....
Hartford, Conn.	.....	2	1	3	3	.....	.....	4	6	7	5	5
Haverhill, Mass.	1	.....	.....	.....	.....	.....	1	5	.....	1	.....	1
Indianapolis, Ind.	.....	1	1	.....	2	.....	.....	.....	.....	5	4	2
Jersey City, N. J.	4	5	8	17	27	22	27	16	22	9	6	8
Kearny, N. J.	.....	1	.....	3	6	7	4	5	.....	.....	3	.....
Long Branch, N. J.	.....	.....	.....	1	1	1	1	2	8	.....	4	1
Manchester, N. H.	.....	.....	.....	.....	1	.....	.....	.....	3	5	1	5
Minneapolis, Minn.	.....	.....	.....	.....	8	8	12	14	12	4	5	.....
Montclair, N. J.	.....	.....	1	1	.....	4	5	2	1	.....	.....	.....
Newark, N. J.	14	65	.....	137	247	260	230	150	89	45	38	.....
Newburyport, Mass.	.....	.....	.....	.....	.....	.....	.....	1	2	5	1	7
New York, N. Y.	535	933	741	912	1,117	1,151	865	707	441	352	252	156
North Adams, Mass.	.....	.....	4	.....	1	.....	.....	5	2	2	1	4
Northampton, Mass.	.....	.....	.....	.....	1	.....	5	2	1	1	.....	1
Orange, N. J.	.....	3	2	10	15	9	8	10	15	4	1	2
Perth Amboy, N. J.	1	3	2	4	5	4	2	3	1	3	2	.....
Philadelphia, Pa.	2	.....	9	16	31	86	106	132	120	125	85	70
Pittsburgh, Pa.	1	1	1	3	1	5	1	3	5	5	2	1
Pittsfield, Mass.	.....	1	1	.....	.....	1	2	7	2	10	8	6
Plainfield, N. J.	.....	.....	2	3	.....	2	6	10	1	6	4	2
Providence, R. I.	1	2	1	3	3	4	3	2	10	7	10	17
St. Louis, Mo.	1	1	.....	2	.....	.....	.....	5	2	.....	.....	.....
St. Paul, Minn.	1	.....	.....	5	13	6	9	6	8	7	2	3
Somerville, Mass.	.....	.....	.....	1	.....	.....	6	1	2	1	7	1
Springfield, Mass.	.....	.....	.....	2	2	2	.....	5	5	9	12	8
Syracuse, N. Y.	.....	.....	.....	.....	9	3	23	34	33	49	29	20
Toledo, Ohio.	2	9	8	11	11	16	10	10	7	11	1	2
Trenton, N. J.	.....	2	1	1	.....	4	7	11	7	11	14	23
Washington, D. C.	.....	2	3	2	2	3	5	7	2	4	.....	1
West Hoboken, N. J.	3	1	3	3	5	9	3	7	.....	.....	.....	.....

New York.

New York City.—Surg. Lavinder reported September 21: New cases, 26; deaths, 6. September 22: New cases, 20; deaths, 11. September 23: New cases, 26; deaths, 7. September 24: New cases, 15; deaths, 6. September 25: New cases, 14; deaths, 5. September 26: New cases, 20; deaths, 11. Approximate corrected totals: Cases, 8,934; deaths, 2,255.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for August, 1916.

Place.	New cases reported.
Indiana:	
Adams County	1
Allen County	4
Cass County	1
Dearborn County	2
Decatur County	1
Delaware County	1
Elkhart County	3
Floyd County	1
Fountain County	1
Hamilton County	1
Harrison County	1
Hendricks County	2
Huntington County	1
Lake County	2
Marion County	1
Newton County	1
Pike County	1
Posey County	1
St. Joseph County	3
Tippecanoe County	1
Vanderburgh County	1
Vigo County	1
Wabash County	1
Wayne County	1
Wells County	2
Whitley County	2
Total	38
Louisiana:	
Bossier Parish	1
Caddo Parish	1
Iberia Parish	1
St. James Parish	1
Tangipahoa Parish	1
Vermilion Parish	1
Total	6
Maryland:	
Baltimore City	34
Anne Arundel County—	
Curtis Bay	1
Drury	1
St. Margarets	3
Winchester Station, R. F. D.	1
St. Margarets, R. F. D.	1
Annapolis	2
Baltimore County—	
Thistle Mills	1
Roland Park	1
Landsdowne	1
Arlington	1
Mount Zion, R. F. D.	1
Carroll County—	
Hampstead	1
Charles County—	
Berry, R. F. D.	1
Garrett County—	
Dodson	1
Oakland	1
Harford County—	
Bel Air	1
Fallston, R. F. D.	1
Howard County—	
Laurel, R. F. D.	1
Montgomery County—	
Clarksburg, R. F. D.	1
Prince Georges County—	
Mount Rainier	1
Seat Pleasant	1
Hyattsville	1
Bladensburg	1
Washington County—	
Wilson	1
Hagerstown	1
Maryland—Continued.	
Wicomico County—	
Salisbury	1
Willards	1
Total	64
Minnesota:	
Aitkin County—	
McGregor	1
Workman Township	4
Anoka County—	
Anoka	2
Columbia Heights	7
Beltrami County—	
Bemidji	1
Blue Earth County—	
Appleton Township	1
Carlton County—	
Cloquet	3
Wrenshall Township	1
Carver County—	
Chaska	4
Norwood	2
Watertown Township	1
Cass County—	
Hiram Township	1
Chippewa County—	
Leenthrop Township	1
Chisago County—	
Rush City	1
Nessel Township	1
Clay County—	
Georgetown	1
Hawley	1
Hawley Township	1
Cottonwood County—	
Carson Township	1
Crow Wing County—	
Deerwood	1
Garrison Township	2
Dakota County—	
South St. Paul	1
West St. Paul	1
Randolph Township	2
Dodge County—	
Hayfield	1
West Concord	2
Faribault County—	
Seely Township	1
Fillmore County—	
Wykoff	1
Goodhue County—	
Cannon Falls	2
Goodhue	2
Red Wing	3
Belle Creek Township	1
Belvidere Township	1
Burnside Township	1
Cherry Grove Township	1
Florence Township	1
Pine Island Township	1
Warsaw Township	1
Grant County—	
Herman	2
Logan Township	1
Hennepin County—	
Edina	1
Minneapolis	48
St. Louis Park	4
Champlin Township	1
Minnetonka Township	1
Minnetrista Township	4
Plymouth Township	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Minnesota—Continued.	
Isanti County—	
Maple Ridge Township	1
Jackson County—	
Middleton Township	2
Kanabec County—	
Peace Township	4
Kandiyohi County—	
Willmar	3
Gennessee Township	1
Lac qui Parle County—	
Madison	1
Garfield Township	1
Le Sueur County—	
Elysian Township	1
McLeod County—	
Hutchinson	2
Stewart	1
Mahnomen County—	
Beaulieu Township	4
Chief Township	2
White Earth Indian Reservation	1
Mille Lacs County—	
Bogus Brook Township	1
Borgholm Township	1
Mower County—	
Adams	1
Dexter	1
Taopi	1
Pleasant Valley Township	1
Morrison County—	
Pike Creek Township	1
Swanville Township	1
Murray County—	
Lake Wilson	2
Fenton Township	1
Leeds Township	1
Nicollet County—	
Lake Prairie Township	1
Nobles County—	
Summit Lake Township	1
Norman County—	
Halstad	9
Olmstead County—	
Byron	1
Rochester	10
Stewartsville	1
Cascade Township	2
New Haven Township	1
Pleasant Grove Township	6
Salem Township	1
Viola Township	10
Ottertail County—	
Fergus Falls	2
Edna Township	1
Inman Township	1
Orwell Township	1
Pipestone County—	
Rock Township	1
Polk County—	
Fertile	1
Fisher Township	1
Pope County—	
Chippewa Falls Township	2
Ramsey County—	
St. Paul	37
White Bear	1
Redwood County—	
Belview	1
Redwood Falls	1
New Avon Township	1
Sundown Township	1
Three Lakes Township	1
Renville County—	
Olivia	2
Beaver Falls Township	1
Camp Township	2
Minnesota—Continued.	
Rice County—	
Morristown	1
Scott County—	
Shakopee	1
New Market Township	2
Sibley County—	
Green Isle Township	3
Stearns County—	
Belgrade	1
Richmond	1
St. Cloud (part)	6
Farming Township	1
Luxemburg Township	1
Melrose Township	7
Millwood Township	4
Munson Township	4
St. Augusta Township	3
Spring Hill Township	1
Steele County—	
Owatonna	1
Stevens County—	
Morris	2
Baker Township	1
Swift County—	
Kerkhoven	1
Dublin Township	1
Todd County—	
Burnhamville Township	2
Grey Eagle Township	5
Little Sauk Township	1
Stowe Prairie Township	1
Traverse County—	
Leonardsville Township	1
Wabasha County—	
Elgin	1
Hammond	1
Mazeppa	1
Wabasha	8
Zumbro Falls	1
Chester Township	3
Glasgow Township	1
Mount Pleasant Township	1
Pepin Township	1
Plainview Township	1
Waseca County—	
Waseca	1
Washington County—	
Grant Township	3
Oneka Township	1
Winona County—	
Utica	1
Winona	30
Richmond Township	1
Whitewater Township	1
Wilson Township	2
Wright County—	
Buffalo Township	1
Total	373
Mississippi:	
Alcorn County	1
Amite County	1
Attala County	1
Bolivar County	1
Clarke County	1
Clay County	2
Coahoma County	1
Copiah County	3
Harrison County	2
Monroe County	2
Neshoba County	1
Panola County	1
Pike County	1
Pontotoc County	1
Rankin County	2

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Mississippi—Continued.	
Scott County	2
Stone County	2
Tate County	1
Tunica County	2
Union County	1
Wayne County	1
Wilkinson County	1
Total	31
New Jersey:	
Atlantic County	24
Bergen County	95
Burlington County	15
Camden County	68
Cape May County	12
Cumberland County	4
Essex County	1,002
Gloucester County	11
Hudson County	316
Hunterdon County	22
Mercer County	39
Middlesex County	103
Monmouth County	123
Morris County	52
Ocean County	5
Passaic County	59
Salem County	18
Somerset County	18
Sussex County	9
Union County	116
Warren County	3
Total	2,114
Ohio:	
Allen County	4
Ashtabula County—	
Ashtabula	2
Butler County	2
Clark County	1
Clermont County	2
Crawford County—	
Bucyrus	1
Cuyahoga County—	
Cleveland	9
Darke County	3
Defiance County	7
Delaware County	1
Fairfield County	2
Franklin County	2
Fulton County	5
Greene County—	
Xenia	4
Hamilton County	14
Hancock County	3
Hardin County	1
Henry County	3
Huron County	2
Knox County	2
Lawrence County—	
Ironton	1
Licking County	3
Logan County	5
Lorain County	1
Ohio—Continued.	
Lucas County	52
Mahoning County	2
Marion County	2
Miami County	3
Monroe County	1
Montgomery County	3
Muskingum County—	
Zanesville	1
Richland County	1
Sandusky County	3
Seneca County	2
Shelby County	1
Summit County—	
Akron	5
Trumbull County	2
Van Wert County	1
Warren County	1
Wood County	5
Wyandot County	3
Total	168
South Carolina:	
Aiken County	7
Berkeley County	1
Anderson County	8
Calhoun County	1
Chester County	1
Chesterfield County	1
Dillon County	2
Greenville County	8
Greenwood County	1
Horry County	1
Laurens County	2
Lexington County	5
Oconee County	1
Orangeburg County	2
Pickens County	2
Richland County	7
Saluda County	1
Spartanburg County	3
Union County	1
York County	3
Total	58
West Virginia:	
Fayette County—	
Winona	1
Marshall County	1
Mineral County—	
Keyser	1
Ohio County—	
Wheeling	1
Raleigh County—	
Beaver	1
Lester	1
Randolph County—	
Horton	1
Wetzel County—	
New Martinsville	3
Total	10
Wyoming: Bighorn County	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Albany, N. Y.	1		New Britain, Conn	1	
Baltimore, Md	12	9	Newburyport, Mass	5	1
Bayonne, N. J	5		New York, N. Y	352	129
Boston, Mass	22	8	Norristown, Pa	1	
Bridgeport, Conn		1	North Adams, Mass	2	
Brookline, Mass	1		Northampton, Mass	1	
Buffalo, N. Y	1	1	Oakland, Cal	1	
Cambridge, Mass	2		Orange, N. J	4	3
Camden, N. J	5		Perth Amboy, N. J	3	
Chelsea, Mass	1	1	Philadelphia, Pa	125	39
Chicago, Ill	25	7	Pittsburgh, Pa	5	
Chicopee, Mass	1		Pittsfield, Mass	10	1
Cincinnati, Ohio	3		Plainfield, N. J	6	
Cleveland, Ohio	2		Providence, R. I	7	
Covington, Ky	1		Reading, Pa	1	
Detroit, Mich	4		Rutland, Vt	1	
East Orange, N. J	10	1	Saginaw, Mich	3	
Fall River, Mass	1		St. Joseph, Mo	1	
Flint, Mich	4	1	St. Paul, Minn	7	1
Grand Rapids, Mich	2		Saratoga Springs, N. Y	1	
Hartford, Conn	7	1	Somerville, Mass	1	
Haverhill, Mass	1	1	Springfield, Mass	9	1
Indianapolis, Ind	5		Syracuse, N. Y	49	13
Jersey City, N. J	9	4	Toledo, Ohio	11	2
Lancaster, Pa	2		Trenton, N. J	11	4
Little Rock, Ark	1		Washington, D. C	4	
Los Angeles, Cal	1		Wheeling, W. Va	1	1
Lynchburg, Va	4		Wichita, Kans	1	
Lynn, Mass	2	1	Wilkes Barre, Pa	1	
Manchester, N. H	5	2	Williamsport, Pa	1	
Medford, Mass	3		Wilmington, Del	3	1
Minneapolis, Minn	4		Worcester, Mass	2	
Mobile, Ala	1		York, Pa	1	
Newark, N. J	45	16			

RABIES IN MAN.

City Report for Week Ended Sept. 9, 1916.

During the week ended September 9, 1916, a case of rabies in man was reported at Chicago, Ill.

RABIES IN ANIMALS.

City Reports for Week Ended Sept. 9, 1916.

During the week ended September 9, 1916, two cases of rabies in animals were reported at Detroit, Mich.; and two cases at St. Paul, Minn.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2710.

SMALLPOX.

State Reports for August, 1916.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Vaccinated within 7 years preceding attack.	Last vaccinated more than 7 years preceding attack.	Never successfully vaccinated.	History not obtained or uncertain.
Maryland:						
Washington County—						
Hagerstown	1				1	
Minnesota:						
Hennepin County—						
Minneapolis	1			1		
Jackson County—						
Enterprise	1				1	
Morrison County—						
Little Falls	1				1	
Norman County—						
Green Meadow	2				2	
Ramsey County—						
St. Paul	4				4	
St. Louis County—						
Duluth	1				1	
Todd County—						
Long Prairie	1			1		
Winona County—						
Winona	1			1		
Total	12			3	9	
Ohio:						
Ashtabula County—						
Conneaut	1					1
Auglaize County	1					1
Columbiana County—						
E. Liverpool	1					1
Cuyahoga County—						
Cleveland	3					3
Knox County	8					8
Lucas County—						
Toledo	1					1
Mahoning County—						
Youngstown	1					1
Miami County—						
Piqua	2			1	1	
Wyandot County	1					1
Total	19			1	1	17

Miscellaneous State Reports.

Place.	Cases.	Deaths.
Indiana (Aug. 1-31):		
Counties—		
De Kalb	3	
Knox	1	
Kosciusko	3	
Owen	10	
St. Joseph	1	
Tipton	8	
Vanderburg	2	
Vigo	1	
Total	29	
Louisiana (Aug. 1-31):		
Parishes—		
Caddo	2	
Vermilion	1	
Total	3	
Mississippi (Aug. 1-31):		
Counties—		
Carroll	1	
Jasper	2	
Mississippi (Aug. 1-31)—Con.		
Counties—Continued.		
Jones	9	
Lauderdale	5	
Yazoo	1	
Total	18	
South Carolina (Aug. 1-31):		
Counties—		
Aiken	4	
Horry	1	
Williamsburg	1	
Total	6	
West Virginia (Aug. 1-31):		
Counties—		
Taylor	1	
Wayne	1	
Total	2	

SMALLPOX—Continued.

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Cleveland, Ohio	2		New Orlens, La	1	
Danville, Ill	1		Portland, Oreg	1	
El Paso, Tex	1		Toledo, Ohio	3	

TETANUS.

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill		1	New York, N. Y	1	
Cincinnati, Ohio	1		Pittsburgh, Pa	1	
Cleveland, Ohio		1	St. Louis, Mo	2	
Galveston, Tex		1	Syracuse, N. Y	1	1
Harrisburg, Pa	1		Toledo, Ohio		1
Jersey City, N. J		1	Trenton, N. J		1
Los Angeles, Cal	1	1	Worcester, Mass	1	1

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2710.

TYPHOID FEVER.

State Reports for August, 1916.

Place.	New cases reported.	Place.	New cases reported.
Indiana:		Indiana—Continued.	
Adams County	1	Martin County	5
Allen County	19	Monroe County	5
Boone County	5	Montgomery County	4
Brown County	2	Morgan County	2
Cass County	3	Noble County	1
Clark County	9	Orange County	5
Clinton County	5	Owen County	10
Crawford County	3	Perry County	4
Daviess County	3	Pike County	5
Dearborn County	10	Porter County	1
Decatur County	1	Posey County	6
Dekalb County	3	Pulaski County	10
Delaware County	4	Putnam County	3
Dubois County	6	Randolph County	2
Floyd County	15	Ripley County	8
Fountain County	1	Rush County	5
Gibson County	14	Scott County	4
Grant County	1	Shelby County	3
Greene County	1	Spencer County	10
Hamilton County	3	Starke County	2
Hancock County	6	St. Joseph County	12
Hendricks County	16	Sullivan County	3
Henry County	2	Tippecanoe County	7
Jackson County	4	Tipton County	1
Jay County	2	Vanderburg County	138
Jefferson County	1	Vermilion County	2
Jennings County	1	Vigo County	3
Johnson County	16	Warren County	2
Knox County	3	Washington County	2
Kosciusko County	4	Wayne County	8
Lake County	17	Wells County	1
Laporte County	11	White County	1
Lawrence County	14	Whitley County	3
Madison County	6		
Marion County	449	Total	940
Marshall County	1		

TYPHOID FEVER—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Louisiana:	
Acadia Parish	12
Allen Parish	4
Ascension Parish	1
Avoyelles Parish	1
Beauregard Parish	6
Bossier Parish	2
Caddo Parish	6
Calcasieu Parish	3
Caldwell Parish	3
Claiborne Parish	1
De Soto Parish	2
East Baton Rouge Parish	2
East Carroll Parish	1
Grant Parish	2
Iberia Parish	4
Iberville Parish	2
Jefferson Davis Parish	7
Lafayette Parish	1
Lincoln Parish	4
Morehouse Parish	2
Ouachita Parish	1
Plaquemines Parish	5
Pointe Coupee Parish	4
Rapides Parish	6
Red River Parish	1
Sabine Parish	1
St. John Parish	4
St. Landry Parish	4
St. Martin Parish	1
St. Mary Parish	2
Tangipahoa Parish	4
Terrebonne Parish	6
Union Parish	5
Vermilion Parish	5
Vernon Parish	2
Washington Parish	1
West Carroll Parish	2
Winn Parish	1
Total	121
Maryland:	
Baltimore City	175
Allegany County—	
Cumberland	11
Grahamton	1
Westernport	3
Lonaconing	1
Frostburg	2
Corriganville	1
Lintenersville	1
Franklin	1
Kiefer, R. F. D	1
Old Town, R. F. D	3
Lantern Creek	1
Green Ridge	1
Eckhart Mines	1
Midland	1
Westernport, R. F. D	1
Cresaptown	1
Western Maryland Hospital	7
Allegany Hospital	1
Anne Arundel County—	
Marley	1
Camp Parole	1
Annapolis	2
Robinson Station, R. F. D	1
St. Margarets	1
Harmans	3
Pasadena, R. F. D	2
Shipley Station, R. F. D	1
Elvaton, R. F. D	1
Lansdowne, R. F. D	1
Churchton, R. F. D	1
Benfield, R. F. D	1
Millersville	1
Maryland—Continued.	
Anne Arundel County—Contd.	
Naval Academy Junction	1
Gambrills	1
Mulberry Hill	1
Baltimore County—	
Owings Mills	1
Rosedale	1
Granite	1
Highlandtown	8
Pikesville	1
Parkton, R. F. D	2
Forest Park	1
Woodlawn	1
Raspeburg	2
Catonsville	3
Pimlico	1
Texas	1
Parkton	1
Howard Park	1
Lauraville	1
Westport	1
White Marsh	1
Rossville	1
Maryland School for Boys	1
Sparrows Point	1
Relay	1
Reisterstown	1
Overlea	1
Towson	1
Colgate Creek	1
Woodlawn, R. F. D	1
Calvert County—	
Island Creek	3
Dunkirk	1
Poplers	5
Chesapeake Beach	2
Wilson	1
Boones	1
Sollers	1
Caroline County—	
Federalsburg	7
Ridgely	2
Preston	3
Federalsburg, R. F. D	1
Denton, R. F. D	3
Marydel, R. F. D	1
Greensboro	1
Preston, R. F. D	2
Hillsboro, R. F. D	1
Ridgely, R. F. D	1
Henderson, R. F. D	1
Marydel	1
Carroll County—	
Sykesville	1
New Windsor	1
Patapsco, R. F. D	1
Oakland Mills, R. F. D	1
Middleburg	1
Spring Mills	1
Oaklahoma	1
Cecil County—	
Elk Neck	1
North East	1
Union Hospital	1
Charles County—	
Hughesville	5
Chapel Point, R. F. D	1
Faulkner	1
Waldorf	2
Brentland	1
New Town, R. F. D	1
Allens Fresh	1
Faulkner, R. F. D	3
Popes Creek	1
Wayside	1
McConchie	1
La Plata Jail	1

TYPHOID FEVER—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Maryland—Continued.	
Dorchester County—	
East New Market	1
Walnut Landing	2
Andrews	1
Cambridge	15
Finchville	2
Linkwood	1
Eldorado	3
Rhodesdale	2
Airey's, R. F. D	1
Golden Hill	1
East New Market, R. F. D	1
Hoopersville	1
Adamstown	2
Bishops Head	1
Salem, R. F. D	1
Vienna, R. F. D	2
Vienna	1
Cambridge, R. F. D	2
Woolford	3
Cabin Creek	1
Ross Neck	1
Hurlock	1
Williamsburg	1
Frederick County—	
Doubs	1
Burkittstown, R. F. D	1
Buckeystown	2
Hyattstown, R. F. D	1
Thurmont, R. F. D	1
Frederick	4
Middletown	1
Brunswick	1
Point of Rocks	1
Walkersville	1
Monrovia	1
Wolfsville	1
Graceham	1
Ijamsville	1
Frederick City Hospital	2
Garrett County—	
Kitzmiller	3
Grantsville	1
Bloomington	1
Harford County—	
Stephney	1
Oakington, R. F. D	1
Churchville	2
Fallston, R. F. D	1
Bel Air	3
Howard County—	
Ellicott City, R. F. D	1
Laurel, R. F. D	2
Olney, R. F. D	1
Jessup	1
Alberton	1
Dorsey	1
Kent County—	
Chestertown	1
Piney Neck	1
Rock Hall	1
Chestertown, R. F. D	7
Coleman	1
Millington	5
Millington, R. F. D	1
Montgomery County—	
Rockville	1
Dickerson, R. F. D	1
Silver Spring	1
Travilah	3
Dickerson	1
Seneca, R. F. D	1
Travilah, R. F. D	2
Barnesville	1
Mount Ephraim	1
Cabin John	1
Great Falls	1

Place.	New cases reported.
Maryland—Continued.	
Prince Georges County—	
Brentwood	1
Woodmore, R. F. D	1
Forestville	5
Forestville, R. F. D	2
Berwyn, R. F. D	1
Poplar Hill	1
Anacostia, R. F. D	1
Suitland	1
Nottingham	2
Pumpkintown	1
Seat Pleasant	3
Hyattsville	2
Riverdale	1
Bladensburg	1
Aquasco	1
Lakeland	1
Piscataway, R. F. D	1
Collington, R. F. D	1
Queen Annes County—	
Millington, R. F. D	3
Fords Store	3
Barclay	1
Queenstown, R. F. D	1
Fords Store, R. F. D	1
Stevensville	1
Chester	1
Ingleside, R. F. D	1
Sudlersville, R. F. D	1
Crumpton, R. F. D	1
St. Marys County—	
Mechanicsville	1
Oraville, R. F. D	1
St. Inigoes	1
Somerset County—	
Princess Anne	9
Marion	8
Crisfield, R. F. D	2
Chance	3
Westover	1
Deals Island	2
Shelltown	1
Wenona	2
Crisfield	5
Westover, R. F. D	1
Mount Vernon	1
Princess Anne, R. F. D	1
Eden, R. F. D	1
Oriole	2
Tulls Corner, R. F. D	2
Loretta	5
Eden	1
Talbot County—	
St. Michaels	5
Chapel	1
Trappe	3
Easton	1
Washington County—	
Boonsboro	1
Trego	1
Smithsburg, R. F. D	2
Halfway	3
Cear Foss, R. F. D	1
Williamsport	2
Hagerstown	2
Hancock	1
Wicomico County—	
Pittsville	1
Salisbury	15
Fruitland	1
Fruitland, R. F. D	1
Bivalve	1
Mardella	1
Salisbury, R. F. D	2
Parsonburg	1
Delmar	1
Pennsylvania General Hospital (case imported from Delaware)	1

TYPHOID FEVER—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Maryland—Continued.	
Worcester County—	
Snow Hill	1
Pocomoke City	1
Bishopville	1
Bishop	1
Total	602
Minnesota:	
Aitkin County—	
Hill City	1
Anoka County—	
Columbia Heights	1
Becker County—	
Frazee	1
Beltrami County—	
Spooner	1
Big Stone County—	
Ortonville	1
Blue Earth County—	
Lime Township	1
Brown County—	
Springfield	1
Carlton County—	
Cloquet	6
Chisago County—	
Rush City	1
Clay County—	
Moorhead	1
Crow Wing County—	
Brainerd	1
Dakota County—	
South St. Paul	2
Faribault County—	
Dunbar Township	1
Hennepin County—	
Minneapolis	26
Hubbard County—	
Akeley	1
Park Rapids	1
Kandiyohi County—	
Willmar	1
Koochiching County—	
International Falls	1
Lac qui Parle County—	
Dawson	1
Garfield Township	1
Lake County—	
Knife River	1
Lyon County—	
Lynd Township	1
Marshall County—	
Stephen	1
Warren	1
Big Woods Township	1
Valley Township	1
Nicollet County—	
North Mankato	1
Olmsted County—	
Rochester	3
Otter Tail County—	
Maine Township	1
Pennington County—	
Thief River Falls	1
Polk County—	
Reis Township	1
Ramsey County—	
St. Paul	10
Rice County—	
Faribault	9
Northfield	1
St. Louis County—	
Biwabik	1
Duluth	10
Ely	9
Morse Township	1
Stuntz Township	1

Place.	New cases reported.
Minnesota—Continued.	
Stearns County—	
Richmond	1
Steele County—	
Owatonna	2
Stevens County—	
Shonnes Township	1
Wabasha County—	
Minneiska Township	1
West Albany Township	1
Watonwan County—	
St. James	3
Winona County—	
Winona	1
Mount Vernon Township	1
Wright County—	
Monticello	1
French Lake Township	1
Total	119
Mississippi:	
Adams County	16
Alcorn County	20
Amite County	10
Attala County	17
Bolivar County	55
Calhoun County	14
Carroll County	13
Chickasaw County	6
Choctaw County	8
Claiborne County	1
Clarke County	11
Clay County	6
Coahoma County	35
Copiah County	18
Covington County	7
De Soto County	12
Forrest County	8
Franklin County	3
Grenada County	57
Hancock County	3
Harrison County	9
Hinds County	35
Holmes County	9
Issaquena County	1
Itawamba County	4
Jackson County	1
Jasper County	9
Jefferson County	2
Jefferson Davis County	6
Jones County	59
Kemper County	11
Lafayette County	9
Lamar County	16
Lauderdale County	29
Lawrence County	1
Leake County	10
Lee County	11
Leflore County	10
Lincoln County	10
Lowndes County	5
Madison County	18
Marion County	19
Marshall County	58
Monroe County	11
Montgomery County	10
Neshoba County	8
Oktibbeha County	6
Panola County	10
Pearl River County	6
Perry County	3
Pike County	9
Pontotoc County	1
Prentiss County	2
Quitman County	6
Rankin County	8
Scott County	15

TYPHOID FEVER—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
Mississippi—Continued.	
Simpson County	29
Smith County	10
Stone County	1
Sunflower County	24
Tallahatchie County	16
Tate County	16
Tippah County	9
Tishomingo County	35
Tunica County	7
Union County	7
Walthall County	46
Warren County	1
Washington County	25
Wayne County	5
Wilkinson County	1
Winston County	26
Yalobusha County	24
Yazoo County	7
Total	1,040
New Jersey:	
Atlantic County	31
Bergen County	14
Burlington County	18
Camden County	74
Cape May County	6
Cumberland County	11
Essex County	21
Gloucester County	17
Hudson County	20
Hunterdon County	4
Mercer County	12
Middlesex County	18
Monmouth County	24
Morris County	5
Ocean County	7
Passaic County	1
Salem County	3
Somerset County	2
Union County	1
Warren County	1
Total	287
Ohio:	
Adams County	5
Allen County	12
Ashland County	1
Ashtabula County	4
Athens County	14
Auglaize County	3
Belmont County	11
Brown County	1
Butler County	25
Carroll County	1
Champaign County	1
Clark County	20
Clermont County	8
Clinton County	6
Columbiana County	8
Coshocton County—	
Coshocton	1
Crawford County	8
Cuyahoga County	40
Darke County	3
Defiance County	11
Delaware County—	
Delaware	3
Erie County	1
Fairfield County	1
Franklin County	31
Gallia County	5
Greene County	6
Guernsey County	13
Hamilton County	13
Hancock County	2
Henry County	8
Hocking County	4
Holmes County	2
Huron County—	
Norwalk	1
Jackson County	4
Jefferson County	9
Lawrence County	11
Licking County	13
Logan County	5
Lorain County	12
Lucas County	56
Madison County	4
Mahoning County	16
Marion County	12
Medina County	5
Meigs County	3
Mercer County	2
Miami County	9
Monroe County	1
Montgomery County	17
Morgan County	1
Morrow County	2
Muskingum County	16
Noble County	1
Ottawa County	2
Paulding County	6
Perry County	4
Pickaway County	2
Pike County	9
Portage County	3
Preble County	3
Putnam County	4
Richland County—	
Mansfield	1
Ross County	8
Sandusky County	9
Scioto County	9
Seneca County	6
Shelby County	1
Stark County	11
Summit County	20
Trumbull County	4
Tuscarawas County	9
Union County	2
Van Wert County	1
Vinton County	2
Warren County	4
Washington County	5
Wayne County	1
Williams County	7
Wood County	9
Wyandot County	2
Total	619
South Carolina:	
Abbeville County	4
Aiken County	3
Berkeley County	1
Chester County	1
Darlington County	1
Florence County	1
Georgetown County	2
Greenville County	1
Greenwood County	1
Kershaw County	4
Lancaster County	2
Laurens County	3
Marlboro County	5
Oconee County	9
Pickens County	1
Richland County	1
Sumter County	5
	45

TYPHOID FEVER—Continued.

State Reports for August, 1916—Continued.

Place.	New cases reported.
West Virginia:	
Barbour County	3
Berkeley County	26
Boone County	2
Braxton County	3
Doddridge County	8
Fayette County	9
Gilmer County	3
Greenbrier County	20
Hampshire County	6
Hancock County	3
Hardy County	2
Jefferson County	5
Kanawha County	16
Lewis County	4
Lincoln County	3
McDowell County	5
Marshall County	13
Marion County	16
Mercer County	12
Mineral County	1
Monongalia County	3
Monroe County	6
Nicholas County	3
Ohio County—Wheeling	13
Pendleton County	5
Preston County	2
Putnam County	4
Ritchie County	1
Roane County	14
Taylor County	6
Tucker County	3
Upshur County	12
Webster County	4
Wood County	9
Wyoming County	9
Total	251
Wyoming:	
Johnson County	1
Niobrara County	1
Uinta County	1
Washakie County	5
Total	8

City Reports for Week Ended Sept. 9, 1916.

Place.	Cases.	Deaths.
Albany, N. Y	1	
Ann Arbor, Mich	10	
Atlantic City, N. J	7	
Austin, Tex	3	
Baltimore, Md	59	7
Bayonne, N. J	1	
Binghamton, N. Y	1	
Birmingham, Ala	9	3
Boston, Mass	8	
Bridgeport, Conn	1	
Brockton, Mass	3	
Brookline, Mass	1	
Buffalo, N. Y	4	8
Butler, Pa	2	
Butte, Mont	3	
Cambridge, Mass	2	
Camden, N. J	4	
Canton, Ohio	3	
Charleston, S. C	2	1
Chelsea, Mass	2	
Chicago, Ill	22	3
Cincinnati, Ohio	4	1
Cleveland, Ohio	9	1
Coffeyville, Kans	1	
Columbus, Ohio	7	
Concord, N. H	1	
Covington, Ky	1	
Cumberland, Md	2	
Danville, Ill	6	
Denver, Colo	3	
Detroit, Mich	16	4
Duluth, Minn	4	
Elgin, Ill	29	3
El Paso, Tex		1
Fall River, Mass	9	
Flint, Mich	6	
Fort Worth, Tex	3	
Galveston, Tex	4	1
Grand Rapids, Mich	1	1
Harrisburg, Pa	20	
Hartford, Conn	1	1
Hoboken, N. J	2	
Indianapolis, Ind	85	
Jersey City, N. J	11	1
Kalamazoo, Mich	2	
Kenosha, Wis	1	2
Kokomo, Ind	3	
Lawrence, Mass	1	
Lexington, Ky	6	
Lima, Ohio	6	
Lincoln, Nebr	1	
Little Rock, Ark	4	
Los Angeles, Cal	2	
Lowell, Mass	4	
Lynchburg, Va	5	2
Lynn, Mass	31	2
Milwaukee, Wis	2	1
Minneapolis, Minn	4	
Mobile, Ala	5	1
Nashville, Tenn	9	1
Newark, N. J	6	2
New Bedford, Mass	3	
New Castle, Pa	1	
New Haven, Conn	2	
New Orleans, La	9	1
New York, N. Y	83	7
Norfolk, Va	4	1
Oakland, Cal	1	
Oklahoma, Okla	1	
Omaha, Nebr		1
Perth Amboy, N. J	1	
Philadelphia, Pa	23	5
Pittsburgh, Pa	7	1
Portland, Me	2	
Providence, R. I	5	1
Reading, Pa	1	
Richmond, Va	12	2
Roanoke, Va	2	
Rochester, N. Y	1	
Sacramento, Cal	1	
Saginaw, Mich	2	
St. Louis, Mo	19	3
St. Paul, Minn	1	
Salt Lake City, Utah	1	2
San Diego, Cal	2	
San Jose, Cal	1	
Schenectady, N. Y	1	
South Bend, Ind	1	1

TYPHOID FEVER—Continued.

City Reports for Week Ended Sept. 9, 1916—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Springfield, Ohio	3	3	Wichita, Kans	12	.....
Steelton, Pa	1	.....	Wilkes Barre, Pa	1	.....
Syracuse, N. Y	2	.....	Wilkinsburg, Pa	1	.....
Tacoma, Wash	1	.....	Williamsport, Pa	1	.....
Toledo, Ohio	11	.....	Wilmington, Del	3	2
Topeka, Kans	1	.....	Worcester, Mass	1	.....
Trenton, N. J	2	.....	York, Pa	2	.....
Washington, D. C	15	1	Zanesville, Ohio	4	.....
Wheeling, W. Va	1	.....			

TYPHUS FEVER.

City Report for Week Ended September 9, 1916.

During the week ended September 9, 1916, a case of typhus fever was reported at New York City.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for August, 1916.

Place.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.
Indiana	155	134	74
Louisiana	22	5	12
Maryland	92	203	46
Minnesota	106	88	96
Mississippi	161	39	60
New Jersey	291	.....	97
Ohio	362	261	232
South Carolina	114	.....	7
West Virginia	37	173	20
Wyoming	.....	.....	2

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Sept. 9, 1916.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md	584,605	170	9	1	13	.....	2	.....	46	25
Boston, Mass	745,139	232	25	3	10	.....	13	.....	51	35
Chicago, Ill	2,447,045	613	112	10	16	2	42	2	194	56
Cleveland, Ohio	656,975	172	19	.....	.....	.....	2	.....	25	17
Detroit, Mich	554,717	227	48	3	3	.....	14	1	31	17
New York, N. Y	5,468,190	1,414	106	5	36	1	16	.....	123	177
Philadelphia, Pa	1,683,664	545	30	4	8	1	7	.....	87	61
Pittsburgh, Pa	571,984	175	27	2	18	5	5	.....	21	11
St. Louis, Mo	745,988	201	23	2	1	.....	14	.....	45	18

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Sept. 9, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.	461,335	165	10	.....	1	1	9	.....	21	14
Cincinnati, Ohio	406,706	122	27	1	1	.....	8	.....	18	17
Jersey City, N. J.	300,133	66	9	1	2	.....	1	.....	16	5
Los Angeles, Cal.	465,367	.....	5	.....	3	.....	4	.....	44	13
Milwaukee, Wis.	428,062	96	15	1	1	.....	18	.....	11	6
Minneapolis, Minn.	353,460	.....	24	.....	1	.....	2	.....	.....	.....
Newark, N. J.	399,000	105	4	.....	5	.....	1	.....	21	13
New Orleans, La.	366,484	.....	11	.....	13	.....	.....	.....	15	8
Washington, D. C.	358,679	124	7	.....	5	.....	11	.....	11	14
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.	209,722	68	1	.....	.....	.....	7	.....	6	5
Denver, Colo.	256,161	.....	6	.....	.....	.....	1	.....	.....	6
Indianapolis, Ind.	265,578	.....	13	.....	2	.....	5	.....	4	.....
Portland, Oreg.	272,843	33	.....	.....	.....	.....	2	.....	4	2
Providence, R. I.	250,025	69	4	.....	.....	.....	6	.....	1	10
Rochester, N. Y.	250,747	60	1	.....	3	1	.....	.....	9	3
St. Paul, Minn.	241,999	43	2	.....	.....	.....	.....	.....	9	5
From 100,000 to 200,000 inhabitants:										
Albany, N. Y.	103,580	.....	1	.....	.....	.....	.....	.....	7	.....
Birmingham, Ala.	174,108	54	.....	.....	.....	.....	1	.....	3	6
Bridgeport, Conn.	118,424	36	7	.....	1	.....	.....	.....	1	1
Cambridge, Mass.	111,669	29	2	.....	3	.....	2	.....	4	5
Camden, N. J.	104,349	.....	2	.....	.....	.....	.....	.....	7	.....
Fall River, Mass.	126,904	51	2	.....	.....	.....	1	.....	4	7
Grand Rapids, Mich.	125,759	33	1	.....	1	1	.....	.....	6	2
Hartford, Conn.	108,969	46	4	1	.....	.....	3	.....	9	1
Lowell, Mass.	112,124	25	3	1	6	2	1	.....	5	1
Lynn, Mass.	100,316	26	4	.....	.....	.....	5	.....	2	1
Nashville, Tenn.	115,978	26	.....	.....	.....	.....	1	.....	2	3
New Bedford, Mass.	114,694	32	2	.....	.....	.....	.....	.....	6	4
New Haven, Conn.	147,095	.....	1	.....	.....	.....	1	.....	11	1
Oakland, Cal.	190,803	.....	2	.....	5	.....	2	.....	3	2
Omaha, Nebr.	135,455	49	10	.....	.....	.....	.....	.....	.....	2
Reading, Pa.	105,094	24	1	.....	.....	.....	1	.....	4	1
Richmond, Va.	154,674	48	4	.....	1	.....	4	.....	4	8
Salt Lake City, Utah.	113,567	23	1	.....	7	.....	10	.....	.....	1
Springfield, Mass.	103,216	15	2	.....	.....	.....	2	.....	1	2
Syracuse, N. Y.	152,534	74	4	.....	1	.....	1	.....	7	4
Tacoma, Wash.	108,694	.....	2	.....	14	.....	.....	.....	.....	.....
Toledo, Ohio.	187,840	71	5	2	1	.....	3	.....	.....	8
Trenton, N. J.	104,212	48	4	.....	.....	.....	1	.....	2	1
Worcester, Mass.	160,523	55	7	.....	.....	.....	4	.....	11	6
From 50,000 to 100,000 inhabitants:										
Atlantic City, N. J.	55,806	.....	2	.....	2	.....	.....	.....	2	.....
Bayonne, N. J.	67,582	.....	.....	.....	.....	.....	.....	.....	5	.....
Berkeley, Cal.	54,879	10	.....	.....	.....	.....	.....	.....	.....	.....
Binghamton, N. Y.	53,082	30	4	.....	1	.....	.....	.....	1	.....
Brockton, Mass.	65,746	14	.....	.....	.....	.....	.....	.....	1	.....
Canton, Ohio.	59,139	14	4	.....	.....	.....	3	.....	.....	1
Charleston, S. C.	60,427	37	2	1	.....	.....	.....	.....	.....	.....
Covington, Ky.	56,520	14	1	.....	.....	.....	.....	.....	1	1
Duluth, Minn.	91,913	.....	1	.....	.....	.....	.....	.....	.....	.....
El Paso, Tex.	51,936	27	1	1	1	.....	1	.....	.....	1
Erie, Pa.	73,798	.....	2	.....	1	.....	1	.....	11	37
Flint, Mich.	52,159	17	2	.....	.....	.....	.....	.....	.....	.....
Fort Worth, Tex.	99,528	18	2	.....	1	.....	.....	.....	.....	.....
Harrisburg, Pa.	70,754	21	1	.....	.....	.....	.....	.....	.....	2
Hoboken, N. J.	76,104	22	.....	.....	.....	.....	.....	.....	1	1
Lawrence, Mass.	98,197	27	2	.....	1	.....	.....	.....	1	2
Little Rock, Ark.	55,158	21	1	.....	.....	.....	.....	.....	.....	.....
Malden, Mass.	50,067	12	1	.....	.....	.....	1	.....	1	.....
Manchester, N. H.	76,959	25	1	.....	.....	.....	.....	.....	3	3
Mobile, Ala.	56,536	25	1	.....	.....	.....	.....	.....	3	3
New Britain, Conn.	52,203	.....	.....	.....	.....	.....	.....	.....	.....	1
Norfolk, Va.	88,076	25	.....	.....	.....	.....	.....	.....	3	3
Oklahoma, Okla.	88,158	12	1	.....	1	.....	.....	.....	.....	1
Passaic, N. J.	69,010	21	2	.....	.....	.....	.....	.....	.....	1
Pawtucket, R. I.	58,156	20	3	.....	.....	.....	.....	.....	.....	1
Portland, Me.	63,014	19	1	.....	.....	.....	.....	.....	.....	.....

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Sept. 9, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants—Continued.										
Rockford, Ill.	53,761	6								1
Sacramento, Cal.	64,806	14	1						1	3
Saginaw, Mich.	54,815	17	8				8		1	1
St. Joseph, Mo.	83,974	23							1	1
San Diego, Cal.	51,115	12	1				1		2	1
Schenectady, N. Y.	95,265	23	2	1					1	1
Somerville, Mass.	85,460	18	2			1	1	1	4	1
South Bend, Ind.	67,030	15	6				3			
Springfield, Ill.	59,468	16	3				1	1		1
Springfield, Ohio.	50,804	22		1					4	1
Troy, N. Y.	77,738		1		2				1	3
Wichita, Kans.	67,847		1	1			1		3	
Wilkes Barre, Pa.	75,218	22	1		1		1		2	1
Wilmington, Del.	93,161	36	1				3			
York, Pa.	50,513								4	
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,031	4								
Austin, Tex.	34,016	4	1							1
Brookline, Mass.	31,934	8	1							
Butler, Pa.	26,587	6	1	1	1					
Butte, Mont.	42,918	22	1							1
Chelsea, Mass.	[1] 32,452	14	1						4	1
Chicopee, Mass.	28,688	9	1							1
Cumberland, Md.	25,564	9	4	1						
Danville, Ill.	31,554	8							1	
Davenport, Iowa.	47,127						1			
Dubuque, Iowa.	39,650				1				2	2
East Orange, N. J.	41,155	9								
Elgin, Ill.	27,844	9								
Everett, Mass.	38,307			1				1		5
Everett, Wash.	33,767	5			1					2
Fitchburg, Mass.	41,144	13	9		1				2	
Galveston, Tex.	41,076	20	1							1
Haverhill, Mass.	47,774									1
Kalamazoo, Mich.	47,364	20	1						8	1
Kenosha, Wis.	30,319	6	3							
La Crosse, Wis.	31,522	8							1	
Lexington, Ky.	39,703	20	7				2			1
Lima, Ohio.	34,644						1			
Lincoln, Nebr.	46,028	14	3							
Long Beach, Cal.	26,012	11								
Lorain, Ohio.	35,662		1							
Lynchburg, Va.	32,385	15					1		2	2
Madison, Wis.	30,084						2		1	
Medford, Mass.	25,737	8								
New Castle, Pa.	40,351						1		1	
Newton, Mass.	43,085	11							1	
Niagara Falls, N. Y.	36,240	12							1	
Norristown, Pa.	30,833	7	1						2	
Orange, N. J.	32,524	10	1							
Pasadena, Cal.	43,859	9							7	
Perth Amboy, N. J.	39,725		3				1		4	
Pittsfield, Mass.	37,580	19	1						1	
Portsmouth, Va.	38,610	7								
Quincy, Ill.	36,764	11								
Quincy, Mass.	37,251	9								
Roanoke, Va.	41,929		1	1					2	1
San Jose, Cal.	37,994	11	3							
Steubenville, Ohio.	26,631	9					1			
Stockton, Cal.	34,508	26							1	4
Superior, Wis.	45,285	5								1
Taunton, Mass.	35,957	19							1	
Topeka, Kans.	47,914	11			1					
Waltham, Mass.	30,129	7								1
Watertown, N. Y.	29,384	10								
Wheeling, W. Va.	43,097	15								2
Williamsport, Pa.	33,495		5						2	
Wilmington, N. C.	28,264	9	2				1			
Zanesville, Ohio.	30,406	6					3			2

[1] Population Apr. 15, 1910; no estimate made.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended Sept. 9, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich	14,979	10	.....	.....	.....	.....	.....	.....	4	.....
Braddock, Pa	21,310	6	.....	.....	.....	.....	.....	.....	.....	.....
Cairo, Ill	15,593	7	.....	.....	.....	.....	.....	.....	.....	1
Clinton, Mass	[1] 13,075	4	.....	.....	.....	.....	.....	.....	.....	.....
Concord, N. H	22,480	8	2	.....	.....	.....	.....	.....	.....	.....
Galesburg, Ill	23,923	4	.....	.....	.....	.....	.....	.....	.....	.....
Kokomo, Ind	20,312	6	2	.....	.....	.....	.....	.....	.....	.....
Melrose, Mass	17,166	3	.....	.....	.....	.....	.....	.....	.....	1
Morristown, N. J	13,158	3	.....	.....	.....	.....	.....	.....	.....	.....
Nanticoke, Pa	22,441	8	.....	.....	.....	.....	1	.....	.....	.....
Newburyport, Mass	15,195	.....	.....	.....	.....	.....	.....	.....	1	1
New London, Conn	20,771	10	.....	.....	.....	.....	1	1	.....	.....
North Adams, Mass	[1] 22,019	5	.....	.....	1	.....	.....	.....	.....	2
Northampton, Mass	19,846	7	.....	.....	.....	.....	.....	.....	.....	.....
Plainfield, N. J	23,280	.....	.....	.....	.....	.....	.....	.....	1	.....
Rutland, Vt	14,624	6	.....	.....	1	.....	1	.....	.....	.....
Sandusky, Ohio	20,160	.....	.....	.....	3	.....	.....	.....	2	.....
Saratoga Springs, N. Y	12,842	7	1	.....	.....	.....	.....	.....	1	1
Steelton, Pa	15,337	6	.....	.....	.....	.....	.....	.....	1	.....
Wilkinsburg, Pa	22,361	3	1	.....	.....	.....	2	.....	.....	.....
Woburn, Mass	15,862	3	.....	.....	.....	.....	.....	.....	.....	.....

[1] Population Apr. 15, 1910; no estimate made.

FOREIGN.

CHOLERA ON VESSEL.

Steamship "Taihei Maru" at Dairen, China.

A case of cholera was reported at Darien, China, during the week ended August 12, 1916, on the steamship *Taihei Maru* from Hongkong and Chefoo.

BARBADOS.

Yellow Fever.

Yellow fever was reported present, September 25, 1916, in Barbados.

CHINA.

Examination of Rats—Shanghai.

During the week ended August 12, 1916, 276 rats were examined at Shanghai. No plague infection was found.

The last plague-infected rat at Shanghai was reported found during the week ended May 6, 1916.

CURACAO.

Quarantine Against Porto Rico Removed.

The quarantine which according to information dated May 13, May 25, and August 4, 1916,[1] was imposed at Curacao against arrivals from Porto Rico on account of smallpox, was removed August 29, 1916.

DOMINICAN REPUBLIC.

Quarantine Against Porto Rico Modified.

According to information dated August 26, 1916, the quarantine measures imposed May 26, 1916,[2] at ports in the Dominican Republic against arrivals from Porto Rico, on account of smallpox, have been modified as follows:

All ports of the Republic are declared open to all vessels arriving from Porto Rico.

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[1] Public Health Reports, May 26, 1916, p. 1325, June 23, 1916, p. 1631, and Sept. 1, 1916, p. 2367.

[2] Public Health Reports, July 7, 1916, p. 1789.

Passengers and crews of vessels arriving from Porto Rico must present to the port medical authority, on arrival, certificates of vaccination issued by the sanitary authorities of Porto Rico and viseed by one of the Dominican consuls residing there. The port physician must examine the vaccination scars of passengers and crews.

GREAT BRITAIN.

Further Relative to Plague at Bristol and Hull.

A memorandum has been received from the Local Board of Health of England and Wales stating that the three cases of plague reported at Bristol, August 18 and 31, 1916,[1] occurred during the period July 30 to August 10, 1916, in persons connected with a rag factory in that city, and the case at Hull, reported August 31, occurred August 19 in a boy who had been at work on the steamship *Keneh* lying at Hull for repairs.

KOREA.

Cholera—Chemulpo—Fusan.

Cholera was reported in Korea at Fusan, September 2, and at Chemulpo, September 18, 1916.

MEXICO.

Cholera—Isthmus of Tehuantepec.

Cholera was reported present on the Isthmus of Tehuantepec September 4, 1916.

Malaria—Tehuantepec.

There has been reported from Tehuantepec, Mexico, an epidemic of what is said to be malignant malaria.

Typhus Fever.

Typhus fever was reported September 12, 1916, to be increasing at Aguascalientes, Durango, Guanajuato, Matehuala, San Luis Potosi, and Zacatecas, Mexico.

PERSIA.

Cholera—Measures to Prevent Spread.

During the month of July, 1916, 7 cases of cholera were reported at Enzeli, 22 at Kazvin, 19 at Recht, and 25 at Urumiah.

Quarantine measures against the spread of cholera were ordered, July 25, 1916, to be enforced as follows:

Travelers passing through Kazvin en route to Teheran will be detained 5 days in quarantine. Those arriving from cities not infected with cholera will be subject to medical inspection only unless they have passed through Kazvin, in which case they will be treated as arrivals from Kazvin. Parcels-post matter will be disinfected.

[1] Public Health Reports, Aug. 25, 1916, p. 2290, and Sept. 8, 1916, p. 2453.

ST. THOMAS.

Quarantine Against Porto Rico Removed.

The quarantine measures imposed at St. Thomas, Danish West Indies, May 12, 1916,[1] against arrivals from Porto Rico, on account of smallpox, were removed August 15, 1916.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During the Week Ended Sept. 29, 1916.[2]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria	July 9–15	1		
Bosnia-Herzegovina	May 7–20	1		
China:				
Dairen	Aug. 6–12	1		On s. s. Taihei Maru via Hongkong and Chefoo.
India:				
Bombay	July 30–Aug. 5	17	13	
Indo-China:				
Saigon	July 17–30	14	12	
Japan:				
Yokohama	Aug. 14–20	5	5	Total to date: Cases, 6; deaths, 5.
Suburbs of city	do	8	4	Total to date: Cases, 10; deaths, 5.
Java				East Java, June 17–30, 1916: Cases, 29; deaths, 22. Mid-Java, June 17–30, 1916: Cases, 26; deaths, 20. West Java, July 7–13, 1916: Cases, 91; deaths, 61.
Batavia	July 7–13	16	12	
Korea:				
Chemulpo	Sept. 18	2		
Fusan	Sept. 2	1		
Persia:				
Enzeli	July 1–31	7	4	
Kazvin	do	22	15	
Recht	do	19	2	
Urumiah	do	25		
Philippine Islands:				
Manila	Aug. 6–12	37	14	
Provinces	do			Aug. 6–12, 1916: Cases, 293; deaths, 177.
Albay	do	24	10	
Batangas	do	9	2	
Bulacan	do	71	40	
Camarines	do	90	49	
Laguna	do	18	13	
Misamis	do	41	29	
Pampanga	do	11	11	
Rizal	do	26	20	
Romblon	do	2	2	
Tayabas	do	1	1	

PLAGUE.

China:				
Amoy	July 30–Aug. 5			Present in vicinity.
Hongkong	do	1	1	
India				July 23–29, 1916: Cases, 2,170; deaths, 1,543.
Bombay	July 30–Aug. 5	11	9	
Madras Presidency	do	82	62	
Indo-China:				
Saigon	July 24–30	3	1	
Java:				
Residencies—				
Pasoeroean	June 17–30	4	4	
Surabaya	do	4	4	
Straits Settlements:				
Singapore	July 23–29	1	1	

[1] Public Health Reports, June 23, 1916, p. 1631.
[2] From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During the Week Ended Sept. 29, 1916—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia	Aug. 13–19	5	5	
China:				
Dairen	Aug. 6–12		1	
Hongkong	July 30–Aug. 5	3	3	
Egypt:				
Cairo	Apr. 16–29	20	6	
India:				
Bombay	July 30–Aug. 5	5	2	
Madras	do	13	3	
Indo-China:				
Saigon	July 24–30	1	1	
Java				East Java, June 17–30, 1916: Cases, 46; deaths, 2. Mid-Java, June 17–30, 1916: Cases, 48; deaths, 11. West Java, July 7–13, 1916: Cases, 85; deaths, 15.
Batavia	July 7–13	5	3	
Mexico:				
Aguascalientes	Sept. 4–10		4	
Vera Cruz	Aug. 28–Sept. 3		1	
Portugal:				
Lisbon	Aug. 20–26	2		
Straits Settlements:				
Singapore	July 23–29	1	1	

TYPHUS FEVER.

Egypt:				
Alexandria	Aug. 6–12	18	2	
Cairo	Apr. 16–29	201	88	
Port Said	do	7	5	
Java				June 23–July 13, 1916: Cases, 26 deaths, 6.
Batavia	July 7–13		1	
Samarang	June 24–30		2	
Mexico:				
Aguascalientes	Sept 4–10		29	
Switzerland:				
Basel	July 24–Aug 13	5		
Turkey in Asia:				
Adana	June 25–July 8			Present.
Mersina	do	1		
Tarsus	do			Do.

YELLOW FEVER.

Barbados	Sept. 25			Present.
Mexico:				
Merida	Sept 3–9	2	2	To Sept. 9, 1961; Cases, 21; deaths, 6.

Reports Received from July 1 to Sept. 22, 1916.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary				Mar. 12–May 6, 1916: Cases, 425; deaths, 155.
Austria	Mar. 26–Apr. 8	2		
Bosnia-Herzegovina	Mar. 12–Apr 29	397	147	
Hungary	Mar. 20–Apr. 2	2		
Ceylon:				
Colombo	June 25–July 1	1	1	May 7–20, 1916: Cases, 43; deaths, 5, from s. s. Hong Kheng from Halfong: total to June 1: Cases, 61; deaths, 37. May 28–June 10, 1916: Cases, 19, from the port.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22, 1916—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Hongkong	Aug. 19			Present.
Egypt:				
Suez	May 18–20	5	2	From s. s. Pei-ho from Bombay.
Tor, quarantine station	May 22–June 3	112	42	Do.
Greece:				
Moschopolis	July 25–31	15	8	
India:				
Akyab	June 11–17		1	
Bassein	Apr. 23–June 10		3	
Bombay	May 14–July 1	21	9	
Do	July 2–29	56	33	
Calcutta	May 7–July 1		259	
Do	July 2–22		31	
Henzada	Apr. 23–June 17		6	
Madras	June 25–July 1	1	1	
Do	July 2–22	5	3	
Pegu	June 4–10		1	
Rangoon	May 24–July 1	12	8	
Indo-China				Dec. 1–31, 1915: Cases, 510; deaths, 395. Jan. 1–Feb. 29, 1916: Cases, 1,332; deaths, 762.
Provinces—				
Anam	Dec. 1–31	493	388	
Do	Jan. 1–Feb. 29	1,295	738	
Cambodia	....do	11	10	
Cochin-China	....do	6	1	
Tonkin	Dec. 1–31	17	7	
Do	Jan. 1–Feb. 20	20	13	
Saigon	May 1–July 2	162	74	
Do	July 3–16	35	23	
Japan:				
Kobe	Aug. 30	46		
Nagasaki	Aug. 8–18	262	107	
Osaka	Aug. 30	353		
Yokohama	Aug. 15	1		55 cases, with 9 deaths in quarantine, from s. s. Hawaii Maru from Hongkong via ports.
Java				East Java, Apr. 8–June 16, 1916: Cases, 21; deaths, 13 Mid-Java, June 3–16, 1916: 4 cases, 4 deaths. West Java, Apr 3–Jun 29, 1916: Cases, 661; deaths, 409.
Batavia	Apr. 13–June 29		89	
Malang	Apr. 8–14	2	2	
Malang and Djombang	Apr. 28–May 5	2	2	
Surabaya residency	May 6–19	5	2	Including Malang, 2 cases, and Sidoardjo and Malang, 3 cases, with 2 deaths.
Persia:				
Asterabad	June 10			Present, with 4 or 5 deaths daily.
Foumen	May 9	3	2	Previously erroneously include in cases at Rehct.
Ghazian	June 13	2	1	
Mohammerah	June 12			Present.
Teheran	Sept. 1			Do.
Philippine Islands:				
Manila	May 14–July 1	36	25	Not previously reported: Cases, 8; deaths, 1.
Provinces				July 16–Aug. 5, 1916: Cases, 868; deaths, 450.
Albay	July 2–Aug. 5	111	54	
Bataan	....do	4	2	
Batangas	July 30–Aug. 5	5	5	
Bulacan	June 18–July 1	17	4	
Do	July 2–Aug. 5	456	205	
Cagayan	June 25–July 1	2	1	
Do	July 2–8	2		
Camarines	June 18–July 1	69	32	
Do	July 2–Aug. 5	619	398	
Cavite	June 11–July 1	14	11	
Do	July 2–Aug. 5	21	16	
Laguna	May 21–July 1	31	20	
Do	July 2–Aug. 5	75	51	
Mindanao	July 16–Aug. 5	19	11	
Misamis	....do	82	41	
Pampanga	July 9–Aug. 5	61	52	
Rizal	May 21–July 1	11	9	
Do	July 2–Aug. 5	82	43	
Romblon	June 18–July 1	68	39	
Do	July 9–29	14	11	
Tayabas	June 10–24	11	8	
Siam:				
Bangkok	May 15–27	22	21	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements:				
Singapore	May 27-June 24	8	3	
Turkey in Europe:				
Constantinople	May 19-July 6	118	63	Present among soldiers June 14.
Turkey in Asia:				
Adana	June 16-July 3	85	46	
Aleppo	June 15-25	47	16	
Bagdad	June 15-27	77	17	
Damascus	June 16-July 3	77	50	
Jaffa	June 17-July 26	148	57	
Smyrna	June 15-28	22	13	Epidemic. Estimated number cases daily, 50.
At sea:				
Steamship Hong-Kheng	Apr. 27-May 9	17	14	En route from Haifong, Indo-China, to Colombo.
Steamship Pei-ho	Apr. 19-30	1	1	From Saigon, Indo-China, for Colombo.
Do	May 5-17	8	8	From Colombo for Suez.

PLAGUE.

Ceylon:				
Colombo	Apr. 30-July 1	49	46	
Do	July 2-22	28	25	
Chile:				
Mejillones	May 28-June 3	1	.....	
Antofagasta	June 4-July 22	2	.....	
China:				
Amoy	July 16-29	.....	.....	Many fatal cases.
Hongkong	May 28-June 30	7	7	
Do	July 23-29	1	1	
Ecuador:				
Ambato	May 1-31	.....	.....	Epidemic.
Bahia	....do	.....	.....	Country district, vicinity of Bahia.
Daule	June 1-30	4	2	
Guayaquil	May 1-June 30	10	3	
Manta	May 1-31	.....	.....	Country district, vicinity of Manta.
Egypt		.....	.....	Jan. 1-Aug. 10, 1916: Cases, 1,687; deaths, 823. Jan. 1-June 29, 1916: Cases, 1,634; deaths, 792.
Alexandria	May 26-Aug. 6	40	25	
Cairo	July 10	1	.....	Imported.
Port Said	May 28-June 28	8	5	
Do	July 20-Aug. 3	5	4	
Provinces—				
Assiout	May 27-June 29	9	8	
Beni-Souef	May 26-June 25	34	15	
Do	July 1-10	2	1	
Fayoum	May 26-June 30	112	45	
Do	July 1-Aug. 3	9	2	
Galioubeh	June 7	1	.....	
Girgeh	June 9-21	3	1	
Do	July 7-10	7	7	
Menoufieh	June 12-30	9	4	
Do	July 1-31	5	3	
Minieh	May 29-June 30	37	14	
Do	July 3-10	5	2	
Great Britain:				
Bristol	Aug. 18-31	3	.....	
Hull	Aug. 31	1	.....	
India		.....	.....	May 7-July 22, 1916: Cases, 6,600; deaths, 4,900.[1]
Bassein	Apr. 23-July 1	.....	201	
Bombay	May 14-July 1	290	264	
Do	July 2-29	71	43	
Calcutta	May 7-July 1	.....	14	
Henzada	Apr. 23-July 1	.....	14	
Karachi	May 14-July 1	72	61	
Do	July 2-15	1	3	
Madras Presidency	May 14-June 24	139	94	
Do	July 9-29	246	148	
Mandalay	May 14-June 3	.....	1	
Moulmein	Apr. 23-June 10	.....	37	
Do	July 2-8	.....	21	
Pegu	June 11-July 1	.....	2	

[1] Reports for week ended May 20 and 27, 1916, not received.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Prome	Apr. 23–May 20		1	
Do	July 2–8		6	
Rangoon	Apr. 23–July 1	467	440	Apr. 16–22, 1916: Cases, 54; deaths, 52.
Do	July 2–15	73	65	
Toungoo	June 25–July 1		2	
Indo-China				Dec. 1–31, 1915: Cases, 90; deaths, 70. Jan. 1–Feb. 29, 1916: Cases, 205; deaths, 153.
Provinces—				
Anam	Dec. 1–31	36	20	
Do	Jan. 1–Feb. 29	79	62	
Cambodia	Dec. 1–31	27	36	
Do	Jan. 1–Feb. 29	77	71	
Cochin China	Dec. 1–31	4	1	
Do	Jan. 1–Feb. 29	49	20	
Tonkin	Dec. 1–31	23	23	
Saigon	May 15–July 16	74	39	
Java:				
Residences—				
Kediri	Apr. 9–May 19	18	18	
Pasoeroean	Apr. 9–June 16	9	8	
Surabaya	do	24	21	
Surakarta	do	15	24	
Japan:				
Taiwan—				
Tamsui	July 16–22	2	1	17 miles from capital city.
Mauritius	Apr. 15–June 21	6	8	
Persia:				
Recht	May 2–19	20	14	
Siam:				
Bangkok	Apr. 30–July 1	66	59	
Do	July 2–8	9	7	
Straits Settlements:				
Singapore	Apr. 30–July 1	5	1	
Do	July 2–22		2	
Union of South Africa:				
Orange Free State	Jan. 23–Mar. 26	36	23	Remaining under treatment Mar. 26, 6 cases.

SMALLPOX.

Australia:				
New South Wales—				
Angledool	July 21–Aug. 3	1		
Guildford	June 9–22	2		
Narrabri	May 26–June 7	8		
Do	July 7–Aug. 3	16		
Sydney	June 23–30	1		
Do	July 1–Aug. 3	4		
Tamworth	June 9–22	1		
Do	July 7–20	1		
Walgett	July 21–Aug. 3	6		
Austria-Hungary:				
Austria				Feb. 13–May 20, 1916: Cases, 2,175.
Galicia, Province	Apr. 23–May 20	464		
Prague	July 2–29	2		
Vienna	May 27–July 1	4	1	
Do	July 9–Aug. 5	3		
Hungary—				
Budapest	May 21–July 1	38	15	
Do	July 2–8		1	
Brazil:				
Bahia	do	2	2	
Para	do		4	
Rio de Janeiro	Apr. 9–June 17	94	18	
Santos	May 8–14		1	
British East Africa:				
Mombasa	Apr. 24–May 31	4	2	
Canada:				
Ontario—				
Fort William and Port Arthur	July 9–15	1		
Niagara Falls	July 2–8	1		
Toronto	June 25–July 29	3		
Ceylon:				
Colombo	May 7–June 3	4		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Antung	May 22-June 18	2	1	
Chungking	May 7-June 24			
Do	July 2-22			Present.
Dairen	May 21-July 1	2	1	Do.
Do	July 16-Aug. 5	3		
Foochow	May 7-27			Do.
Do	July 2-22			Do.
Harbin	May 2-June 18	3	1	
Do	July 9-16	1		
Hongkong	May 7-June 24	68	50	
Do	July 2-29	4	3	
Nanking	June 11-17			Do.
Tientsin	May 14-July 1	45	11	
Do	July 2-29	3	1	
Egypt:				
Alexandria	May 28-June 17	4	2	
Cairo	Jan. 22-Apr. 15	55	19	
Port Said	Mar. 12-Apr. 15	4	3	
France:				
Paris	May 14-July 1	9		
Do	July 2-8	1		
Germany:				
Breslau	May 21-27	1		
Hamburg	June 11-17	1		
Königsberg	July 2-8	3		
Great Britain:				
Cardiff	June 4-17	1	1	
London	do	1		
Southampton	July 31-Aug. 5	1		
Greece:				
Athens	Apr 1-June 13	178	37	
Do	July 9-23			Present. Estimated occurrence, 10 cases weekly.
India:				
Bassein	May 7-June 10		2	
Bombay	May 14-July 1	153	79	
Do	July 2-29	27	20	
Calcutta	May 7-June 3		3	
Do	July 2-8		1	
Madras	May 14-July 1	139	42	
Do	July 2-29	46	29	
Rangoon	Apr. 23-July 1	200	135	
Do	July 2-15	4	4	
Indo-China				Dec. 1-31, 1915: Cases, 74; deaths, 14. Jan. 1-Feb. 29, 1916: Cases 134; deaths, 16.
Provinces—				
Anam	Dec. 1-31	48		
Do	Jan. 1-Feb. 29	24		
Cambodia	Dec. 1-31	19	13	
Do	Jan. 1-Feb. 29	37	14	
Cochin China	Dec. 1-31	1	1	
Do	Feb. 1-29	10		
Tonkin	Dec. 1-31	6		
Do	Jan. 1-Feb. 29	63	2	
Japan:				
Kobe	May 29-June 25	24	4	
Do	July 24-30	9	1	
Nagasaki	June 26-July 2	1	1	
Java				East Java, Apr. 8-June 16: Cases, 42; deaths, 9. Mid-Java, Apr. 1-June 16, 1916: Cases, 185; deaths, 36. West Java, Apr. 13-June 29, 1916: Cases, 278; deaths, 59.
Batavia	Apr. 13-June 29	31	9	
Samarang	May 13-19	2	2	
Surabaya	May 9-June 16	2	1	
Malta	Apr. 1-30	7	1	
Mexico:				
Aguascalientes	June 12-July 2		23	
Do	July 3-Sept. 3		19	
Frontera	May 28-June 10	4	1	
Guadalajara	June 11-17	35	9	
Mazatlan	May 31-June 6		4	
Tenosique	June 14			175 miles south of Frontera. Epidemic among troops
Vera Cruz	June 4-July 2		9	
Do	July 3-9		3	
Netherlands:				
Amsterdam	May 28-June 3	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands:				
Manila	do	1		
Do	July 1–8	3		
Porto Rico				June 19–25, 1916: Cases, 33.
Aguas Buenas	June 19–25	5		
Arecibo	do	2		
Do	Aug. 7–13	1		
Bayamon	June 19–July 2	2		
Naranjito	June 26–July 2	4		
Rio Piedras	do	1		
San Juan	do	24		
Toa Alta	do	12		
Portugal:				
Lisbon	May 21–July 1	15		
Do	July 9–Aug. 12	7		
Russia:				
Moscow	Apr. 30–July 1	222	59	
Do	July 2–15	23	127	
Riga	Apr. 6–12	1		
Do	July 1–22	2		Apr. 1–30, 1916: 1 case.
Petrograd	Apr. 23–July 1	162	35	
Do	July 2–30	32	9	
Siam:				
Bangkok	May 24–30	2		
Spain:				
Cadiz	July 1–31		1	
Madrid	May 1–31		13	June 1–30, 1916: Cases, 10.
Do	July 1–31		17	
Malaga	May 1–31		7	
Seville	June 1–30		3	
Valencia	May 21–July 1	12	4	
Do	July 8–Aug. 19	7		
Straits Settlements:				
Penang	May 14–20	3		
Singapore	Apr. 30–July 1	5	3	
Do	July 16–22		1	
Switzerland:				
Basel	May 13–July 1	29		
Do	July 2–15	9		
Union of South Africa:				
Durban	June 1–30	1		
Johannesburg	May 28–June 3	1		
At sea:				
Steamship Katuna				Case of smallpox landed at Colombo, Ceylon, May 12, 1916. Vessel arrived May 27 at Fremantle, Australia, was ordered to quarantine, and proceeded to Melbourne direct for disinfection.

TYPHUS FEVER.

Austria-Hungary:				
Austria				Feb. 13–May 20, 1916: Cases, 2,407.
Galicia, province	Apr. 22–May 20	1,311		
Vienna	July 2–15	3		
Hungary				Feb. 21–Mar. 5, 1916: Cases, 35; deaths, 7.
Budapest	May 21–June 24	14	2	
Do	July 2–29	2		
Canada:				
New Brunswick—				
St. John	July 29	4		
Canary Islands:				
Santa Cruz de Teneriffe	July 31–Aug. 5		1	
China:				
Antung	June 19–25	1	1	
Do	July 22–Aug. 13	2		
Harbin	May 2–8	1		
Do	July 3–16	1		
Tientsin	May 14–20		1	
Egypt:				
Alexandria	May 21–July 1	235	93	
Do	July 2–Aug. 5	114	53	
Cairo	Jan. 8–Apr. 15	191	98	
Port Said	Mar. 18–Apr. 15	11	4	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Sept. 22, 1916—Continued.

YELLOW FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Germany:				
Aix la Chapelle	July 2-8		1	
Berlin	June 18-24		1	
Do	July 16-Aug. 12		7	
Bremen	July 16-29	6		
Breslau	Aug. 15-21	3		
Chemnitz	May 28-June 3		1	
Frankfort on Main	June 11-17		1	
Hanover	May 7-27	4	1	
Do	July 1-22	2		
Königsberg	June 4-10	1		
Do	July 9-Aug. 19	11		
Leipzig	June 4-10		1	
Stettin	July 16-Aug. 19		3	
Great Britain:				
Belfast	July 16-Aug. 26	11	3	
Glasgow	July 9-Aug. 12	8	6	
Greece:				
Saloniki	May 1-July 2		61	
Do	July 3-9		12	
Italy:				
Palermo	June 29-July 5	1	1	
Japan:				
Hakodate	July 16-22	2		
Tokyo	May 22-July 25	114		Jan. 1-July 25, 1916: Cases, 468.
Java				East Java, Apr. 8-May 24, 1916: Cases, 20; deaths, 9. Mid-Java, June 9-16, 1916: Cases, 63; deaths, 14. West Java, Apr. 13-June 24 1916: Cases, 118; deaths, 18.
Batavia	Apr. 13-June 20	46	13	
Samarang	Apr. 1-June 9	20	6	
Surabaya	Apr. 8-May 12	6	6	
Mexico:				
Aguascalientes	June 12-July 2		32	
Do	July 3-Sept. 3		135	
Chihuahua	Sept 7	40		
Durango	Sept. 1			Present.
Juarez	Sept. 7	12		
Guadalajara	June 11-17	4	1	
Vera Cruz	June 4-9		2	
Do	July 24-Aug. 6		6	
Zacatecas, State				Sept. 7: Prevalent.
Netherlands:				
Rotterdam	July 30-Aug. 5		1	
Norway:				
Bergen	do		1	
Russia:				
Moscow	Apr. 30-July 1	909	52	
Do	July 9-15	19	3	
Petrograd	Apr. 23-July 1	59	13	
Do	July 3-30	12	2	
Sweden:				
Stockholm	June 21-27	1		
Do	July 9-29	5		
Switzerland:				
Geneva	May 21-27	1		
Zurich	July 23-Aug. 12	4		
Turkey in Asia:				
Adana	May 13-27			Present.
Bagdad	June 27			Do.
Haifa	Apr. 24-June 11	35	13	
Jaffa	Apr. 23-June 25		47	Mar. 19-Apr. 1, 1916: Present.
Mersina	May 7-27	8		Apr. 2-8, 1916: Cases, 3. May 6-20: Many cases.
Tarsus	May 13-27			Present.

YELLOW FEVER.

Ecuador:				
Babahoyo	June 1-30	2		
Guayaquil	May 1-June 30	76	51	
Milagro	June 1-30	1	1	
Mexico:				
Merida	July 1-Sept. 2	19	3	
Progreso	Aug. 13-Sept. 2	2	1	

SANITARY LEGISLATION.

COURT DECISIONS.

MICHIGAN SUPREME COURT.

Syphilis and Workmen's Compensation—Payments Must be Made Even When Recovery is Retarded by Preexisting Disease.

HILLS *v.* OVAL WOOD DISH CO. ET AL. (June 1, 1916.)

Claimant was injured, and payments were made for some time under the Michigan workmen's compensation law. Recovery was retarded because the claimant was suffering from syphilis. The court decided that it was impossible to determine what part of the period of disability was attributable to the injury and what part was caused by the disease. The order of the Industrial Accident Board directing that payments be continued was affirmed.

[158 Northwestern Reporter, 214.]

PERSON, J.: While claimant was employed in the sawmill of the Oval Wood Dish Co., at Traverse City, he met with an accident by which his right arm was injured above the elbow. As found by the Industrial Accident Board, "the flesh was bruised and torn and the front part of the arm denuded of its skin, exposing the blood vessels and muscles underneath." An agreement for compensation was reached and approved, and payments were made in compliance therewith for a period of 19 weeks. At the end of that period the payments were discontinued, and presently the respondents filed with the Industrial Accident Board a petition asking that they be relieved from making further payments upon the ground that claimant's continued disability was due to a venereal disease—viz, syphilis—which retarded the healing of the injury. The claimant filed an answer to this petition in which he denied that he had ever contracted such disease, or been afflicted with it; and we do not understand it to be claimed that he was suffering from syphilis in any active stage. As found by the Industrial Accident Board:

The evidence in this case does not suggest any active disease in applicant's body prior to the injury, nor does it disclose any substantial evidence of the existence of a bodily disease, except the fact that the wound did not readily heal and that symptoms led the physicians to suspect syphilis in the blood, together with some evidence that a Wasserman test of the blood was had and that such test showed the presence of syphilis. In this connection, it should be said that the essential part of the evidence as to the Wasserman test is hearsay, as it consisted merely of an unsworn report sent by mail from the Lincoln-Gardner laboratories, in Chicago, where a sample of applicant's blood had been sent to be tested.

Under this state of facts, it is urged that an order should have been made by the board relieving the respondents from payment of further compensation, and the argument in support of such contention is stated in the brief of their counsel, as follows:

The compensation act does not assume to pay for any period of disability beyond that which is traceable to the injury, either directly or indirectly. The case is to be dis-

tinguished from the cases where the accident has aggravated or accelerated a pre-existing disease. It has been held, under the English act, that where the injury aggravates a disease, the increased impetus given to that disease being a result of the injury, the disability caused thereby must be compensated for. But upon the record in this case there is no question of the acceleration of the syphilitic condition. Syphilis from its very nature is not accelerated by a cut or a bruise, but its presence on the other hand retards the healing of the cut. We may assume that upon an accident the employer is bound to compensate for the results of the injury and must be assumed to have accepted the employee in whom is a constitutional disease, the ravages of which are increased by the injury. But this does not go to the extent of saying that when the disease prevents the healing of the injury, or, in other words, this new cause supervenes the injury as a cause of the disability, the industry that contracted only to pay for the disability resulting from injury should pay this additional compensation.

We think it is clear, without further argument, that if the line can be drawn between the period of disability caused by the accident and that caused by the disease, no question would be made but that compensation would only extend over the period caused by the accident. * * * But even if this period can not be absolutely segregated, still we contend that the proper rule that should be applied is that compensation "should be allowed only for the period for which the injury complained of would disable a person of average condition not suffering" from the disease.

The board made no definite and specific finding as to whether, as a matter of fact, the period of claimant's disability was or was not being extended by the presence and action of the disease, but declined to relieve the respondent from further payments, for the following reason, stated in the written opinion which it filed:

The legal question presented by the petition is an important one. If the correct rule for determining the length of time compensation for disability should be paid in case of an injury of this general character is found to be the one contended for by respondents, the result will be far-reaching. The question then to be determined in cases of continuing disability would be whether the injury should have healed, or whether it should have healed more quickly than it did, instead of the actual resulting disability. Instead of the plain question of fact as to the nature and duration of the disability which the injured man actually suffered, it would present for decision the question as to how much he should have suffered, and how soon he should have recovered, upon the theory that only a part of the disability was due to the injury and the remaining part due to disease. In the opinion of the board, the respondents' contention must fail. The compensation law does not fix any standard of physical health, nor does it make any exceptions for cases of injuries to men whose health is impaired or below the normal standard. Neither does it except from the benefits of the law the man who carries in his body a latent disease which, in case of injury, may retard or prevent recovery. The law by its expressed terms applies to every man who suffers disability from injury. It does not exclude the weak nor the less fortunate physically, but was intended for the workingmen of the State generally, taken as they are.

The authorities seem to be strongly against respondents' contention. (Boyd's Workmen's Compensation, sec. 463; Bradbury's Workmen's Compensation, 2d ed., 385 and 386; Willoughby *v.* Great Western Ry Co., 6 W. C. C., 28; Ystradowen Colliery *v.* Griffiths, 2 B. W. C. C., 359.) This is not a case where the workman was suffering from some active disease or injury at the time of the accident, as applicant was apparently in good health in every respect up to the time he received the injury. The difficulties of proving the reasonable duration of disability which should result from an accident is discussed to some extent in the English cases above cited, pointing out the fact that Ward *v.* London & Northwestern Ry Co., 3 W. C. C., 193, which attempted to make such determination, is no longer regarded as authority. They further suggest the danger of attempting to fix the duration of disability on medical prognosis and opinion evidence, when it is conceded by the medical profession itself that it has yet much to learn in such matters.

We agree with the Industrial Accident Board that under the circumstances of this case the act does not contemplate any such apportionment of the period of disability as respondents ask for. Assuming that such disability is being prolonged by the disease, there is yet no point at which the consequences of the injury cease to operate. It is the theory of respondents, not that the consequences of the injury cease but that they are prolonged and

extended. There is no part of the period of disability that would have happened, or would have continued, except for the injury. The consequences of the injury extend through the entire period, and so long as the incapacity of the employee for work results from the injury, it comes within the statute, even when prolonged by preexisting disease.

The order of the Industrial Accident Board is affirmed.

KENTUCKY COURT OF APPEALS.

Milk Dealer's License—Exemption of Grocery Stores Selling Milk—Ordinance Held to be Valid.

CITY OF NEWPORT *v.* FRENCH BROS. BAUER CO. (Mar. 15, 1916.)

An ordinance which imposes a license tax upon milk dealers is not void because it exempts from its provisions grocery stores selling milk, where the grocery stores pay a license tax covering their entire business.

[183 Southwestern Reporter, 532.]

HURT, J.: The appellant, city of Newport, which is a municipal corporation of the second class, in 1896 adopted an ordinance, which was amended in 1897, and which, as amended, was in force in 1910 and 1911. The ordinance referred to prohibited any person, corporation, or company carrying on any trade, business, or profession within the city without first having obtained a license therefor as provided by the ordinance.

* * * * * * *

There was in force another ordinance of the city in 1910 and 1911 which imposed an annual license tax of $10 upon each person, corporation, or company engaged in the business of vending milk, whether carried on with a wagon or in a depot. The taxes so imposed were set apart and appropriated to the police fund of the city.

In 1912 the city adopted an ordinance by the terms of which a license tax of $10 per annum was imposed upon any one vending milk from a store or depot, except a grocery store, and $15 per annum upon the business of vending milk from a wagon, and, where more than one wagon was used in the business by any one holding a license, the additional wagon or wagons were required to pay a vehicle license tax.

* * * * * * *

The appellee, alleging that it was a corporation organized and existing under the laws of the State of Ohio, and engaged in producing, selling, and delivering bakery goods, butter, eggs, milk, cream, and ice cream, brought this suit, by which it sought to recover of appellant the license taxes paid to it, and to enjoin the city from further collecting such taxes from it, and from interfering with it in the conduct of its business by enforcing the penal features of the ordinances against it because of its failure to pay the license taxes imposed.

* * * * * * *

The milk vender's licenses complained of were obtained by appellee and the tax paid on May 26, 1910, $10; May 12, 1911, $10; May 14, 1912, $15; and May 14, 1913, $15. A milk dealer is one of the occupations which by section 3058, subsection 2, Kentucky Statutes, the legislative department of a city of the second class is expressly authorized to impose such license tax upon. The tax upon a milk dealer which appellee was required to pay for carrying on that occupation in 1910 and 1911 was levied by virtue of an ordinance which is as follows:

That each and every person, corporation, or company engaged in the business of vending milk in the city of Newport shall pay an annual license fee or tax of the sum of $10 when carried on with a wagon and $10 when carried on in a depot.

In the case of Weyman v. City of Newport (153 Ky., 487; 156 S. W., 109) this ordinance was attacked upon the ground that it discriminated in favor of the persons who sold milk, other than from wagons or in depots, and was not uniform as required by the constitution, but this court upheld the ordinance as valid, and as imposing the license tax upon all venders of milk, and that the word "depot" embraced any place from which milk was sold.

The license tax paid by appellee for carrying on its business as a milk dealer in 1912 and 1913 was imposed under another ordinance, which was enacted in 1912, and was an ordinance imposing a license tax upon the various occupations, trades, and professions pursued by the different citizens of Newport, and the section of which relative to the business of milk dealers was as follows:

> For venders of milk from a store or depot, except a grocery store, the sum of $10; from a wagon, the sum of $15, and when more than one wagon is used, the additional wagon or wagons shall pay vehicle license tax.

This ordinance is attacked upon the grounds that it is contrary to sections 3 and 171 of the constitution, in that it exempts the persons selling milk in groceries from paying the license tax which is imposed upon other milk dealers, and for that reason it is not uniform and enforces a discrimination in favor of the dealers of milk in grocery stores.

The portions of the ordinance copied into the petition purport to impose a license tax upon each occupation, trade, or profession carried on within the city, but the sections fixing the tax upon the various occupations, with the exception of milk venders from stores and depots, except grocery stores, and from wagons, are not set out in the petition, and the petition fails to allege that a license tax upon vending milk from a grocery store is not imposed. It is true that under authority given to municipal councils to impose license taxes upon trades, occupations, and professions a class may be designated for taxation and other classes not taxed; but when a class is designated for taxation, as all the persons of a certain trade or occupation, then all the persons who follow such trade or occupation must be taxed, and to that extent the taxation must be uniform, but the persons of the occupation may be separated into classes, upon a reasonable and fair basis, and a different license fee imposed upon each class. (Weyman v. City of Newport, 153 Ky., 490; 156 S. W., 109; Hager v. Walker, 128 Ky., 1; 107 S. W., 254; Schuster v. City of Louisville, 124 Ky., 189; 89 S. W., 689; City of Louisville v. Sagalowski, 136 Ky., 324; 124 S. W., 339; City of Covington v. Dalheim, 126 Ky., 26; 102 S. W., 829.) License taxes have been held to be valid when the same license fee is exacted from each person engaged in a certain occupation. A uniform tax in the nature of a license tax levied upon each person engaged in a certain occupation in accordance with the amount of business done by him, without any change in proportion to the increase of the business, has been held to be valid. Again, the class designated for taxation has been divided into subclasses, according to the amount of business done, and a different tax levied upon each of the subclasses, and this method of levying a license tax has been held to be valid. (Gordon v. City of Louisville, 138 Ky., 442; 128 S. W., 327.) Hence, if no license tax was levied upon the grocer who sells milk, it would be a discrimination in his favor and the ordinance would be invalid; but it is a matter of common knowledge that grocers sell in their stores all of the articles of both food and drink which go into the daily consumption of the people, and it would be utterly impracticable, as well as burdensome, to require a separate license for the sale of each article which he vends and a payment of a separate license tax thereon. If a grocer who sells milk in his store should be required to pay a license tax upon his

entire business as a grocer, which would include that of vending milk as well as the other articles sold from his store, it could not be said that the ordinance under discussion makes a discrimination in his favor against the venders of milk from wagons and from stores other than grocery stores. Considered in connection with the section of the ordinance which provides that each person who engages in an occupation within the city must pay a license tax, although the part of the ordinance which is copied into the petition does not provide for the levying of a license tax upon a grocer, and the petition failing to allege that such an ordinance was not then in effect, it can not be presumed that there was no such ordinance, and hence it can not be said that the ordinance complained of is inherently violative of law or of the well-settled principles that are generally recognized as limitations upon the enactment of ordinances by municipalities. Hence the appellee must necessarily affirmatively show that the facts are such that, as applied to him, the ordinance is discriminatory and unfair or oppressive, and this the appellee has failed to do by any allegation of his petition. (Wells *v.* Mount Olivet, 126 Ky., 131; 102 S. W., 1182; 31 Ky. Law Rep., 576; 11 L. R. A. (N. S.), 1080.)

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

COLORADO.

Communicable Diseases—Notification of Cases—Quarantine—Embalming—Diseases of Animals. (Reg. Bd. of H., Feb. 7, 1916.)

REGULATION 1. Unless otherwise specifically provided herein, the following words and terms used in this code are defined for the purposes thereof, as follows:

(*a*) The term "reportable disease" shall mean any disease named in regulation 2 of this code.

(*b*) The term "communicable disease" shall mean any disease designated in group 1 of regulation 2.

(*c*) The term "disease of unknown origin" refers to one of the diseases named in group 2 of regulation 2.

(*d*) The term "municipality" shall mean and include any incorporated town or city, or any county exclusive of incorporated towns and cities.

(*f*) The term "board of health" or "local board of health" shall mean and include the local board, department, health commissioner, or other body or official, by whatever title the same may be known, having the usual powers and duties of the board of health of a municipality. When in any municipality no board of health exists, then such municipality itself shall be considered a board of health.

(*g*) The term "health officer" or "local health officer" when not applied to a State official, shall mean and include the health officer, or other officer of a municipality, by whatever title he may be known, having the usual powers and duties of the health officer of a municipality.

REG. 2. *Reportable diseases designated.*

GROUP 1. COMMUNICABLE DISEASES.

Actinomycosis.
Anthrax.
Chancroid.
Chicken-pox (varicella).
Cholera, Asiatic.
Dengue.
Diphtheria.
Dysentery, amebic and bacillary.
Erysipelas.
Favus.
Foot-and-mouth disease (apthous fever).
German measles.
Glanders (farcy).
Gonococcus infection.
Hookworm disease (uncinariasis).
Impetigo contagiosa.
Leprosy.
Malaria.
Measles.
Meningitis, epidemic cerebrospinal.
Mumps.
Ophthalmia neonatorum.
Paragonimiasis.
Paratyphoid fever.
Plague.
Pneumonia.
Poliomyelitis, acute.
Puerperal septicemia.
Rabies (hydrophobia).
Relapsing fever.
Rocky Mountain spotted or tick fever.
Scabies (itch).
Scarlet fever.
Septic sore throat.
Smallpox (variola).
Syphilis.
Tetanus.
Trachoma.
Trichinosis.
Tuberculosis.
Typhoid fever.
Typhus fever (Brill's disease).
Undulant fever (Malta fever).
Whooping cough (pertussis).
Yellow fever.

GROUP 2. DISEASES OF UNCERTAIN ORIGIN.

Cancer.
Pellagra.

GROUP 3. OCCUPATIONAL DISEASES.

Arsenic poisoning.
Brass poisoning.
Carbon bisulphide poisoning.
Carbon dioxide poisoning.
Carbon monoxide poisoning.
Cyanide poisoning.
Dinitrobenzene poisoning.
Illuminating or fuel gas poisoning.
Lead poisoning.
Mercury poisoning.
Naphtha poisoning.
Poisoning by nitric-oxide fumes.
Silver poisoning.
Wood-alcohol poisoning.
Any other disease or disability due to the nature of employment.

REG. 3. *Statutory declaration.*—Pursuant to law and for the purpose of this code, all diseases named in regulation 2 are hereby declared to be dangerous to the public health, and must be reported at once to the local health officer. Each disease named in group 1 of regulation 2 is hereby declared to be a "communicable disease dangerous to the public health."

REG. 4. *Reporting cases.*—It shall be the duty of every physician in attendance upon a case of reportable disease to report the same immediately to the local health officer, within whose jurisdiction such case occurs, giving the full name, address, age, sex, color, nationality, occupation, school attended, if any, place of employment, name of employer, number of adults and children in the household, number of persons exposed, source of infection or probable origin and name of attending physician, provided that in cases of venereal disease the name and address of patients may be omitted.

Reports shall be made by telephone or telegram when practicable and shall also always be made in writing.

REG. 5. *Reporting when no physician is in attendance.*—Superintendents or persons in charge of hospitals, sanitariums, dispensaries or other institutions, nurses, midwives, teachers, dairy managers, heads of private households and proprietors and keepers of hotels, boarding houses or lodging houses, or other persons either treating or having knowledge of a reportable disease shall be required to report such disease coming under their observation, when no physician is in attendance.

REG. 6. *Report by health officers to State board.*—When any local health officer receives a report of a "reportable" disease named in regulation 2 he must immediately make and file a copy, and without delay, forward the original report to the State board of health.

* * * * * * *

REG. 52. *Removal of persons having communicable disease.*—After the establishment of quarantine or suitable isolation, no person, except by permission of the local health officer, shall carry, remove, or cause or permit to be carried or removed from or into any room, hotel, boarding house, lodging house, or other dwelling place any person affected with any communicable disease, except as hereinafter provided.

No person suffering from a communicable disease shall move or be moved from any municipality to another without consent of the State board of health, except where by mutual agreement one municipality maintains in adjacent territory a hospital for care of such patients or as hereinafter provided.

This regulation (regulation 52) shall not apply to persons affected by chancroid, dengue, favus, gonococcus infection, hookworm disease, malaria, ophthalmia neonatorum, pneumonia, puerperal septicemia, Rocky Mountain spotted fever, syphilis, tetanus, trachoma, trichinosis, and tuberculosis.

REG. 53. *Removal of infected clothing or other articles.*—Clothing, articles or material of any description, suspected of being contaminated by reason of close proximity to a person having any communicable disease, must not be removed from any room, building, or premises without disinfection, and then only by the consent of the local health officer.

REG. 54. *Funerals.*—No public funeral shall be permitted in case of death caused by anthrax, cholera, diphtheria, glanders, leprosy, epidemic cerebrospinal meningitis, scarlet fever, septic sore throat, and smallpox.

The family of the deceased shall in all such cases limit the attendance to as few adults as possible, always excluding children, and shall take all necessary steps to prevent the exposure of other persons to contagion or infection. The person authorizing the public notice of death from such causes shall have the name of the disease stated in such public notice. The body of any person who dies of any disease named in this regulation must be properly disinfected and placed in a tightly sealed coffin which shall not thereafter be opened. The funeral of such person must be strictly private.

REG. 55. *Rules for embalmers.*—(*a*) In the preparation of bodies for burial or transportation, the following precautions shall be taken by the embalmer when death has resulted from any communicable disease:

In case of death caused by a communicable disease, the body must be properly disinfected. Except where the room containing the body has been previously disinfected by the health authorities, the embalmer, before entering such room, shall don outer garments of rubber or cloth completely covering the body and a cap to cover the hair. Upon leaving the room, these shall be removed and be placed in a bag wrapped in a sheet or other covering, all of which shall be disinfected by formaldehyde fumigation, or by boiling in water, as soon thereafter as possible. He shall also, before leaving the house, thoroughly disinfect his hands, giving especial attention to the finger nails.

(*b*) All knives, trocars, needles, syringes, and other instruments, and all vessels, sponges, gloves, cooling boards, or other things taken into the room or used in embalming or otherwise in preparation of such dead bodies shall be thoroughly disinfected immediately after being used.

(*c*) All fluids or other matter removed from such bodies in the process of embalming shall be mixed with an equal quantity of a 5 per cent solution of either formalin or carbolic acid for purpose of disinfection.

REG. 56. *Placards.*—All placards must be conspicuously posted and must bear in large print the name of the disease on account of which the place is placarded. Placards may be removed only by order of the proper health officer.

REG. 57. *Blanks for reporting diseases.*—All blanks for reporting diseases shall be furnished by the State board of health and shall be worded as follows:

COLORADO STATE BOARD OF HEALTH.

S. R. McKELVEY, M. D., secretary and executive officer.

Reportable diseases.

[To Physicians: This report must be sent immediately to the local health officer. Place X in square opposite the disease to be reported.]

GROUP NO. 1—COMMUNICABLE DISEASES.		
1	Actinomycosis.	
2	Anthrax.	
3	Chancroid.	
4	Chicken-pox (varicella).	
5	Cholera, Asiatic.	
6	Dengue.	
7	Diphtheria.	
8	Dysentery, amebic and bacillary.	
9	Erysipelas.	
10	Favus.	
11	Foot and mouth disease (aphthous fever).	
12	German measles.	
13	Glanders (farcy).	
14	Gonococcus infection.	
15	Hookworm disease (uncinariasis).	
16	Impetigo contagiosa.	
17	Leprosy.	
18	Malaria.	
19	Measles.	
20	Meningitis, epidemic cerebrospinal.	
21	Mumps.	
22	Ophthalmia neonatorum.	
23	Paragonimiasis.	
24	Paratyphoid fever.	
25	Plague.	
26	Pneumonia.	
27	Poliomyelitis, acute.	
28	Puerperal septicemia.	
29	Rabies (hydrophobia).	
30	Relapsing fever.	
31	Rocky Mountain, spotted, or tick fever.	
32	Scabies (itch).	
33	Scarlet fever.	
34	Septic sore throat.	
35	Smallpox (variola).	
36	Syphilis.	
37	Tetanus.	
38	Trachoma.	

Name of patient?.....

County?..... Town or City?.....

Street and number?.....

Name of physician?.....

Town or city?.....

Date of report?.....

Has residence of patient been continuous at above place during three weeks prior to illness?..... If not, where?.....

If the disease was contracted outside of this state, give location definitely?.....

.....

Date of beginning illness?.....

Date of diagnosis by physician reporting?.....

Age of patient?.....Sex?.....Color?.....

Nativity?..... Occupation?.....

School attended, if any?.....

Place where last employed, if any?.....

Name and address of employer, if any?.....

.....

Number of adults in household?.....

Number of children in household?.....

Number of persons exposed?.....

Reportable diseases—Continued.

39	Trichinosis.	
40	Tuberculosis.	
41	Typhoid fever.	
42	Typhus fever (Brill's disease).	
43	Undulant fever (Malta fever).	
44	Whooping cough (pertussis).	
45	Yellow fever.	
	GROUP NO. 2—DISEASES OF UNCERTAIN ORIGIN.	
46	Cancer.	
47	Pellagra.	
	GROUP NO. 3—OCCUPATIONAL DISEASES.	
48	Arsenic poisoning.	
49	Brass poisoning.	
50	Carbon bisulphide poisoning.	
51	Carbon dioxide poisoning.	
52	Carbon monoxide poisoning.	
53	Cyanide poisoning.	
54	Dinitrobenzene poisoning.	
55	Illuminating or fuel-gas poisoning.	
56	Lead poisoning.	
57	Mercury poisoning.	
58	Naphtha poisoning.	
59	Poisoning by nitric-oxide fumes.	
60	Silver poisoning.	
61	Wood alcohol poisoning.	

Source of infection or probable origin?.....

If possibly milk-borne, name the dairy?.....

If possibly water-borne, state water used?.....

If tuberculosis: Family history positive or negative? .....

Part of body affected?.....

Stage of disease?.....Open case?.....

If smallpox: Successfully vaccinated?.....

When?.....

Discrete?..... Confluent?.....

Hemorrhagic?..... Varioloid? .....

For verification place here the list number found opposite the printed name of the disease above reported? No.....

....., Health Officer.

Address.....

REG. 58. *Infectious and contagious diseases among domestic animals.*—Any person who knows or suspects that any domestic animal is suffering from any infectious or contagious disease communicable to man, must immediately report the circumstances to the local health officer, who shall at once investigate, and upon finding the reported circumstances to be true, he shall report the facts of the State board of health and proceed to handle the case according to the statute. (See secs. 80 to 83, inclusive.)

REG. 59. * * * *Books.*—Books belonging to public libraries or schools must not be taken into private homes where a communicable disease exists. Books already in any house in which a communicable disease develops must not be returned to the library or school, but to the local health officer. Library or school books from houses in which scarlet fever, diphtheria, or smallpox exists must be burned. When the infection is due to any other disease than those named above the books must be burned or disinfected, as determined by the health officer.

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Foodstuffs—Division of Food and Drugs. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 63. RULE 26. *Premises subject to inspection.*—All buildings or premises occupied, used, or maintained for the manufacture, storage, sale, or distribution of food or drug products shall be open at all reasonable times to inspection by

the State board of health or authorized employees, agents, inspectors, or other officials thereof.

All cars, trucks, or vehicles used by common carriers in intrastate commerce shall in like manner be open to inspection.

Authorized agents, inspectors, or other officials of the State board of health shall at all reasonable times have access to the records of express, freight, and transportation companies or others engaged in the business of common carriers, in all matters relating to the sale or transportation within the State of foods or drugs.

RULE 27. *Organization of the Division of Food and Drugs.*—The Division of Food and Drugs shall consist of a food and drug commissioner and such food and drug inspectors, clerks, stenographers, and other employees as may be required to carry out the purposes of the food and drugs act.

All such employees shall be appointed by the State board of health under the provisions of existing laws.

All official orders shall be issued in the name of the State board of health.

All actions at law instituted by the Division of Food and Drugs shall be maintained under the authority of the State board of health.

The Division of Food and Drugs shall enforce the food and drugs act of 1907, the pure food and sanitary inspection law of 1913, the State narcotic drugs act, and all other acts or parts of acts remaining unrepealed upon the statute books which relate to the adulteration or misbranding of foods or drugs, except where statutory provision has been made for the enforcement of such acts by other departments.

The food and drug commissioner shall be the official head of the division and, under the authority of the State board of health, shall do and perform all acts and things necessary to the enforcement of the laws hereinbefore mentioned. He shall provide for the adequate inspection, supervision, and control of the production, manufacture, sale, and distribution of food and drug products within the State, and shall cause to be kept full and complete records of such inspection.

RULE 28. *Articles intended for technical or scientific purposes or to be used in the mechanical arts.*—Wherever goods ordinarily used as food articles for human consumption are manufactured, transported, or sold within the State the presumption will arise that such goods are so manufactured, transported, or sold for food purposes, unless they are labeled in a manner which will clearly indicate that they are for technical or scientific purposes or for use in the mechanical arts.

Whenever necessary to the protection of the public health, the food and drug commissioner shall require that such products be denatured in such a manner as to preclude their use for food purposes.

RULE 29. *Foods prepared for export and for interstate commerce.*—Food and drug articles prepared for export to foreign countries do not come within the provisions of the State food and drugs act provided such articles are not prepared or packed in violation of the laws of such foreign country.

Food and drug products intended for export shall be fully labeled to indicate that they are to be exported.

If such products shall at any time be sold or offered for sale or given away within the State, they immediately become subject to the provisions of the State food and drugs act.

Food and drug products intended for interstate commerce are not exempt from the provisions of the State act until such time as they have actually entered interstate commerce.

RULE 30. *Statement of weight or measure.*—If any statement of weight or measure appears upon the label of a package of food, it must be a true and

correct statement in terms of minimum weight or minimum measure and is required to appear upon the principal label. Reasonable tolerance for discrepancies due to different atmospheric conditions will be allowed.

Habit-Forming Drugs—Sale and Dispensing. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 64. *Narcotic drugs.*—Pursuant to the authority vested in the Colorado State Board of Health, under sections 18 and 21 of an act entitled "An act to regulate the sale, barter, exchange, distribution, dealing in, giving away, dispensing, or the disposition in any manner of opium or coca leaves, their salts, derivatives, or preparation, to regulate the treatment and to provide for the committal of the habitual users of such drugs, and for other purposes," approved April 9, 1915, which said act will hereinafter be referred to under the title of the "Colorado Narcotic-Drugs Act," the following rules are hereby adopted for the enforcement of said act:

RULE 1. *Sale and disposition of drugs at wholesale.*—Where any of the drugs mentioned in section 1 of the Colorado narcotic-drugs act are to be sold or otherwise disposed of at wholesale, the purchaser or receiver (unless specifically exempt under sec. 2 of the act) will, prior to such purchase or receipt, issue an order therefor in the form as required in section 6 of said act.

Sales at wholesale relate to the sale or disposition of any of the drugs coming within the scope of the law to a druggist for use, sale, or distribution in the lawful conduct of his business, or to a physician, surgeon, dentist, or veterinarian for use in the legitimate practice of his profession.

A complete observance of the requirements as set forth in articles 5, 6, 7, 8, and 9 of the Federal regulations with regard to forms used in ordering drugs at wholesale and to the preservation of such forms for the use of inspectors and other authorized officials, will be deemed a sufficient compliance with the provisions of section 6 of the Colorado narcotic-drugs act.

RULE 2. *Sales at retail—Upon written prescription.*—Sales of the narcotic drugs enumerated in section 1 of the act at retail or to the consumer are limited to such sales as may be made pursuant to the original written prescription of a duly licensed physician, dentist, or veterinary surgeon.

All such prescriptions must be—

First. Signed in full by a duly licensed physician, dentist, or veterinary surgeon issuing the same.

Second. Dated as of the date on which so signed.

Third. Must indicate the office address, office hours, registry number, and telephone number of such duly licensed physician, dentist, or veterinary surgeon.

Fourth. Must indicate the name and address of the person to whom such written prescription is issued.

Fifth. When issued by a veterinary surgeon, must indicate the kind of animal upon which such narcotic drug is to be used.

Druggists and apothecaries must refuse to fill any such prescription unless signed as herein required, nor must a prescription for such drugs be filled by any druggist or apothecary if he has reason to suspect that the same was fraudulently issued or obtained.

The dispensing of such drugs at retail or to the consumer by druggists or apothecaries, except upon the original written prescription of physicians, dentists, or veterinary surgeons, will be in violation of the act. Refilling of prescriptions is therefore prohibited.

No written prescription calling for more than 4 grains of morphine, 16 grains of opium, 2 grains of heroin, 8 grains of codeine, or 2 grains of cocaine shall be filled without verification by the physician, dentist, or veterinary surgeon

issuing the same. Such verification may be by telephone or other sufficient method.

Prescriptions must be exactly filled as soon after receipt as practicable, not later in any case than 10 days subsequent to the issuance thereof. And the druggist shall record upon the prescription the date when filled and the name of person to whom delivered.

Prescriptions must be preserved for a period of two years from the time when filled and must be readily accessible to authorized inspectors or officials. A separate file of all such prescriptions should therefore be kept by the druggist or apothecary filling the same, but such prescriptions may be numbered consecutively with other prescriptions received. Unless so filed a record must be kept, showing—

First. The file number given to each prescription filled.

Second. The name of the physician, dentist, or veterinary surgeon signing the same.

Third. The name of the person for whom such prescription is filled.

It will not be necessary to keep two sets of records or files of prescriptions, one for the Federal authorities and one to meet the requirements of the State narcotic drugs act. The records now kept in compliance with the regulations for the enforcement of the Harrison (Federal) act will be regarded as a complete observance of the State act and of these regulations in this particular.

In writing prescriptions for narcotic drugs coming within the scope of the law physicians are cautioned to include all information required by both the Federal and the State acts. While these requirements are not essential in carrying out the purposes of the law, they are necessary to the protection of both physicians and druggists from imposition by means of fraudulent prescriptions and orders.

Prescriptions for narcotic drugs mentioned in section 1 of the act may be issued only in good faith for medicinal purposes in the course of professional practice.

RULE 3. *Dispensing of drugs by physicians, dentists, or veterinary surgeons.*—Section 5 of the Colorado narcotic drugs act authorizes any duly licensed physician, dentist, or veterinary surgeon to dispense, distribute, or in any manner give within the State any of the drugs mentioned in section 1 of the act to his patients, providing such dispensing is done in good faith for medicinal purposes and in the course of his professional practice. A record, however, is required to be kept of all such drugs so dispensed or distributed (except such as may be dispensed or distributed to a patient, upon whom such physician, dentist, or veterinary surgeon may personally attend, i. e., personally visit), and must show—

First. The date when any such drug is dispensed or distributed.

Second. The kind and quantity dispensed or distributed in each case.

Third. The name and residence of the patient to whom such drug was dispensed or distributed.

The record so kept must be preserved for a period of two years from the date of dispensing or distributing and held subject to inspection by officers of the State board of health.

A veterinary surgeon is not permitted to dispense drugs nor to prescribe drugs for consumption by a human being.

No exemptions apply in the case of drugs dispensed to an habitual user. A record must be kept in all such cases in the manner heretofore described.

With the exception of the records required by the State law to be kept in the case of drugs dispensed to habitual users, the records now kept by

physicians, dentists, and veterinary surgeons in compliance with the Federal act will be regarded as a sufficient compliance with the requirements of the State narcotic drugs act and of these regulations.

RULE 4. *Sworn statement of receipts.*—Under the authority of section 7 of the act, the State board of health will require sworn statements of receipts in all cases where there is reason to suspect that any of the drugs coming within the scope of this act are being procured, compounded, or disposed of illegally, and in all such other cases as it may deem advisable.

Inspectors are instructed to promptly report any suspicious circumstances attending the sale, dispensing, or other use of the drugs enumerated in the act.

Statements of receipts will be made in the form and manner as set forth in article 15 of the Federal regulations.

RULE 5. *Revocation of licenses after conviction.*—The State board of health will report to the appropriate State board or other licensing officers of the State, all cases wherein any duly licensed physician, dentist, veterinary surgeon, pharmacist, or nurse has been convicted of a substantial violation of this act, for action as provided in section 12 of the act.

RULE 6. *Inventories.*—It will not be necessary for any person, firm, or corporation engaged in the business of dispensing drugs to the consumer or in the practice of any of the professions in the act enumerated to prepare any inventory of the drugs or preparations or remedies coming within the scope of the law, on hand at the time the Colorado narcotic drugs act becomes effective, other than the inventory as required by article 13 of the Federal rules and regulations. The inventory therein described will be kept open to inspection at all reasonable times by authorized inspectors or officers of the State board of health.

RULE 7. *Duties of officers.*—It will be the duty of the pure food and drug commissioner to perform each and every act necessary to carry out the purposes of the Colorado narcotic drugs act and of these regulations, to keep all records therein required, and to provide for adequate inspection of all places of business coming within the purview of the law, and to see that all of the requirements of the law and of these regulations are strictly observed.

The drug inspectors will make inspections at irregular intervals of the premises of all persons, firms, or corporations, engaged in the business of dispensing in any manner any of the narcotic drugs enumerated in section 1 of the act. They will under the authority of the State board of health inspect and, if necessary, verify all records, orders, prescriptions, statements, or returns made or received and at once report any violation of the law by them discovered.

Samples of suspected drugs which are held in violation of the law will be collected and forwarded to the laboratory of the State chemist for analysis.

It is hereby declared to be the purpose of this board to enforce the provisions of this act in the letter and the spirit of the law without unnecessary interference with the business of persons engaged in selling or otherwise dispensing the drugs coming within the scope of the act. This purpose must be kept clearly in mind by all employees or officers of this board.

Inspectors will work in conjunction with health officers of the different municipalities and counties of the State, with district attorneys and other peace officers in the various districts of the State and with the officers of the United States Internal Revenue Department in carrying out the provisions of the Colorado narcotic drugs act.

The food and drug commissioner will report each month in the regular monthly report and at such other times as may be required by this board, all things done by the food and drug department in connection with the enforcement of this act.

The right of search and seizure as contemplated in section 17 of the act, shall be exercised with the greatest discretion. Except in cases of gravest emergency, inspectors employed by this board, in putting the search and seizure provision into effect, are instructed to proceed only upon search warrant issued by a court of competent jurisdiction, and in no case without the direct authorization of the food and drug commissioner.

RULE 8. *Rules of the federal department adopted.*—Each and every ruling heretofore made by the Commissioner of Internal Revenue and approved by the Secretary of the Treasury, under the authority of an act of Congress, approved December 17, 1914, and known as the Harrison narcotic law, is hereby adopted and made a part of these regulations in so far as it is applicable by reasonable construction to the State narcotic drugs law. Each and every ruling which may hereafter be promulgated by these officials, in so far as applicable, is declared to be the ruling of the Colorado State Board of Health and in full force and effect as of the date of its adoption.

Foodstuffs—Manufacture, Care, and Sale. Bakeries—Slaughterhouses. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 65. *Sanitation of foods and drugs.*—RULE 1. The floors, side walls, ceilings, furniture, receptacles, implements, and machinery of every establishment or place where foods, drugs or beverages are manufactured, stored, sold, offered for sale, or distributed, and all cars, trucks and vehicles used in the transportation of food products, shall at no time be kept in an unclean, unhealthful and insanitary condition. For the purpose of this regulation, unclean, unhealthful and insanitary conditions shall be decreed to exist if foods or drugs in the process of manufacture, preparation, packing, storing, sale, distribution or transportation are not securely protected from flies, dust, dirt, and as far as may be necessary, by all reasonable means from all other foreign or injurious contamination; and if the refuse, dirt, and the waste products subject to decomposition and fermentation incident to the manufacture, preparation, packing, storing, selling, distributing and transporting of food are not removed daily; and if all trucks, trays, boxes, baskets, buckets, and all knives, saws, cleavers, and other utensils and machinery used in moving, handling, cutting, chopping, mixing, canning, and all other processes are not thoroughly cleaned daily; and if the clothing or hands of operatives, employees, clerks or other persons therein employed are unclean.

RULE 2. The side walls and ceilings of every bakery, confectionery, hotel and restaurant kitchen shall be well plastered, wainscoted, or ceiled with metal or lumber, and shall be oil painted, or kept well lime washed; and an interior woodwork in every bakery, confectionery, hotel and restaurant kitchen shall be kept well oiled or painted with oil paints and be kept washed clean with soap and water. Every building, room, basement, or cellar occupied or used for the preparation, manufacture, packing, storage, sale, or distribution of food susceptible to contamination or damage shall have an impermeable floor made of cement or tile laid in cement, brick, oiled wood, or other suitable material, which can be flushed and washed clean with water.

RULE 3. The doors, windows, and other openings of every food or drug producing or distributing establishment shall be fitted during the fly season with self-closing screen doors and wire window screens not coarser than 12-mesh wire gauze.

RULE 4. Every building, room, basement, or cellar occupied or used for the preparation, manufacture, packing, canning, sale, or distribution of foods, drugs, or beverages where the process of production, manufacture, packing, can-

ning, selling, or distribution is conducted shall have convenient toilet room or rooms. The floor of such toilet rooms shall be of cement, tile, oiled wood, brick, or other suitable material, and shall be washed and scoured daily. Such toilets shall be furnished with ventilating flue or pipe and with discharge into soil pipes leading from the building in which they are situated. Each toilet room shall be properly ventilated by a window or ventilating flue. Lavatories or wash rooms shall be provided adjacent to toilet rooms, and shall be supplied with soap, running water, and clean towels—excluding roller towels—and shall be maintained in a sanitary condition. Operatives, employees, clerks, and all persons who handle the material from which foods or drugs are prepared, or the finished product, before beginning work or after visiting toilet, shall wash their hands and arms thoroughly in clean water.

RULE 5. Cuspidors for the use of operatives, employees, clerks, or other persons shall be provided whenever necessary, and each cuspidor shall be thoroughly emptied and washed out daily with a disinfectant solution, and about 5 ounces of such a solution shall be left in each cuspidor while it is in use. No operative, employee, or other person shall expectorate on the floor or side walls of any building, room, basement, or cellar where the production, manufacture, packing, storing, preparation, or sale of any food or drug is conducted.

RULE 6. No person or persons shall be allowed to occupy as a sleeping or dwelling place any room used for a bakeshop, kitchen, dining room, confectionery, creamery, cheese factory, or place where food is prepared, served, or sold.

RULE 7. No employer shall require or permit any person who is affected with open tuberculosis, venereal, or other communicable disease to work; nor shall any person who has any of these diseases work in a building, room, basement, cellar, or vehicle occupied or used for the production, preparation, manufacture, packing, storage, sale, distribution, or transportation of foods, drugs, or beverages.

RULE 8. Every person or corporation in charge of, or in control of, or in authority over any of the places mentioned by and described in these regulations shall be responsible for the condition thereof, and it shall be his or its duty to see that the provisions of these regulations with reference to the condition, arrangement, and conduct of such places are carried out.

RULE 9. The sidewalk display of food products is prohibited unless such products are inclosed in a showcase or similar device which will protect them from flies, dust, or other contamination. Food products that necessarily have to be peeled, pared, or cooked before they are fit for consumption may be displayed on the sidewalk without cover, provided that in such display the bottom of the container be at least 18 inches above the surface of the sidewalk. The sidewalk display of meat or meat products is prohibited.

RULE 10. Confectionery, dates, figs, dried fruits, berries, butter, cheese, and bakery products while on sale or display are required to be properly covered to protect them effectively from contamination or damage by flies, dust, or vermin.

REG. 66. *Bakeshops.*—RULE 1. Rooms in which the dough is mixed and the pastry prepared for baking must be well ventilated and lighted. Walls, ceilings, floors, proof boxes, pans, kneading troughs, and machines must be kept clean. Toilets and lavatories must not be directly connected with the working rooms, and sewerage pipes must not be led through them.

RULE. 2. Before beginning the work and before preparing and mixing the ingredients, the persons engaged in the work must wash their hands and arms thoroughly in clean water. For this purpose sufficient washbasins, together with soap and clean towels, excluding roller towels, must be provided.

RULE 3. Persons having open tuberculosis, venereal or other communicable disease must not be employed in bakeries.

RULE. 4. All windows and doors must be properly screened during the fly season.

RULE 5. The supply of flour must be stored in dry places, where it is protected from all contamination. Water used to coat the bread must be pure, unpolluted and provided fresh every day. The bread and pastry must not be laid on the bare floor.

RULE 6. It is strictly forbidden to sit or lie on any of tables or shelves which are intended for use for the dough or baked articles. Chairs and benches in sufficient number must be provided.

RULE 7. The working rooms must be furnished with cuspidors, at least one in each room, which must be emptied and washed out daily with a disinfectant solution and about 5 ounces of such a solution shall be left in each cuspidor while it is in use. Spitting on the floor is forbidden. Smoking, snuffing, chewing of tobacco or gum, is forbidden in the working rooms while work is in progress or while dough or baked articles are exposed.

RULE 8. The working rooms must not be used for any purposes other than those strictly connected with the preparing and baking of foods; especially must they not be used as washing, sleeping, or living rooms.

RULE 9. Domestic animals must not be kept in nor be permitted to enter bakeshops.

RULE 10. All barrels, boxes, tubs, pails, casks, kneading troughs, machines, or other receptacles containing food preparations must be kept covered.

RULE 11. Before bread is taken from the bakeshop, each loaf or double loaf should be placed in a suitable paper bag or be securely wrapped with clean glazed paper. The public is warned against using bread which has been taken from the bakeshop unwrapped.

REG. 67. *Slaughterhouses.*—RULE 1. Every person owning, leasing, or occupying any place, room, or building wherein cattle, sheep, swine, or poultry are killed or dressed, or any market, public or private, shall cause such place, room, building, or market to be kept at all times thoroughly cleansed and purified, and all offal, blood, fat, garbage, manure, or other unwholesome or offensive refuse shall be removed therefrom at least once every 24, if used continuously, or, if only used occasionally, within 24 hours after using, and such building, place, or premises shall have a suitable floor, made of cement or tile laid in cement, brick, or other material, which can be flushed and washed clean with water, and which shall be approved by the State board of health. No cesspool or pit for refuse or offensive matter of any kind shall be permitted in the room or building; nor shall swine be kept or fed within 150 feet of the slaughterhouse. Doors and windows must be screened to exclude flies and side walls and woodwork must be painted or whitewashed. When all meats and poultry within slaughterhouses are kept in screened rooms or refrigerated rooms, from which all flies are excluded, screen doors and windows may not be necessary.

RULE 2. Slaughterhouses are required to be kept in a sanitary condition, and they are declared to be insanitary when the slaughterhouse is dilapidated and in a state of decay; when the floors or side walls are soaked with decaying blood or other animal matter; when cobwebs or other evidence of filth or neglect are present; when the drainage of the slaughterhouse or yard is not efficient; when filthy pools or hog wallows exist in the slaughterhouse yard or under the slaughterhouse; when storage hides kept in slaughterhouse lie in pools of filth, or are infested with maggots, or give out vile odors;

when the water supply used in connection with the cleansing or preparing is not pure and unpolluted; when the bones or refuse are not burned or buried; when carcasses are transported from place to place without being covered with clean, white cloths, or if kept in unclean, bad-smelling ice boxes, refrigerators, or storage rooms.

RULE 3. Hogs and poultry shall not be fed any uncooked slaughterhouse offal or the uncooked flesh of animals.

RULE 4. Sale of meat of diseased animals or poultry or veal of calves less than four weeks old is prohibited.

REG. 68. *Sanitary requirements in the transportation of meats, fish, fowl, and game.*—Every dealer in slaughtered fresh meats, fish, fowl, or game, for human food, at wholesale or retail, at any established place, or as a peddler, in the transportation of such food from place to place to customers shall protect the same from dust, flies, and other vermin or substance which may injuriously affect it by securely covering it while being so transported.

Milk and Milk Products—Production, Care, and Sale. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 69. *Sanitation of dairies and the sale of milk and cream.*—RULE 1. All buildings used for stabling cows for dairy purposes shall be properly constructed, well lighted, well ventilated, and provided with a suitable solid floor of plank, cement, or other impervious material that can be readily cleansed, and laid with proper grades and channels to carry off all drainage.

RULE 2. No water-closet, privy, cesspool, urinal, inhabited room, or workshop shall be located within any building or room for stabling cows, or for the storage of milk or milk products; nor shall any fowl, hog, horse, sheep, goat, or other animal be kept in any room used for milking or for storing milk or milk products.

RULE 3. All rooms and stables in which cows are milked shall be thoroughly clean and in good repair, and shall be painted or whitewashed once each year.

RULE 4. All manure shall be removed at least once daily from the room or stable in which cows are milked and shall not be stored where odor from the same will be noticeable at the stable or milk room.

RULE. 5. All persons keeping cows for the production of milk for sale shall cause each cow to be kept clean and groomed.

RULE 6. The sale of watered or adulterated milk; or milk from cows kept upon garbage, sugar-beet pulp, swill, or other substances in a state of fermentation or putrefaction; or milk from cows kept in connection with a family in which there exists any communicable disease which may be carried by milk, is prohibited.

RULE 7. Every person using any premises for keeping cows shall cause the yard or pasture in connection therewith to be provided with a proper receptacle for drinking water for such cows, and none but fresh, clean, pure water shall be stored in such receptacle, provided that this shall not apply in case of a pasture through which runs a stream of pure water.

RULE 8. Any inclosure in which cows are kept shall be graded and drained so as to keep the surface reasonably dry and to prevent the accumulation of water therein, and no garbage, urine, fecal matter, or similar substances shall be placed or allowed to remain in such inclosure, and no open drain shall be allowed to run through it.

RULE 9. All milk shall be removed, as soon as drawn, from the stable to the milk room. The milk room shall be separate from the stable in which the cows are kept and shall not be used as a living or sleeping room, but shall

serve for the handling and keeping of milk and cream exclusively. It shall be sanitary in construction, properly screened, supplied with proper ventilation, light, and pure water, and suitable facilities for straining, cooling, and storing milk or milk products. Ample provision shall be made for washing and sterilizing all utensils and apparatus in which milk is removed, stored, and delivered.

RULE 10. All utensils used for the reception, storage, or delivering of milk or cream shall be made of glass, stoneware, glazed metal, or tinplate, free from rust, and of sanitary construction.

RULE 11. All cans, pails, strainers, coolers, dippers, separators, bottles, churns, butter workers, and other dairy utensils shall be cleansed from all remnants of milk and scalded with boiling water or live steam after each use.

RULE 12. All milk shall be strained through clean 80-mesh wire strainers, or properly sterilized cloth, and shall be cooled to 60° F. or below within one hour after it is drawn from the cow. It shall be kept at 60° F., or below, until it leaves the farm, and if retailed to the consumer, until delivered. Warm milk shall not be mixed with cold, but shall be kept in separate vessels until properly cooled.

RULE 13. All milk or cream cans delivered to creameries or dealers in cities shall be covered with tight-fitting lids, and when conveyed in open wagons shall be covered with clean canvas while being so conveyed.

RULE 14. No person, firm, association, or corporation buying, storing, or receiving milk for the purpose of selling the same for consumption as such, or for manufacturing it into butter, cheese, ice cream, condensed milk or other human food, shall keep the same in utensils, cans, vessels, or rooms that are unclean, or have insanitary surroundings or drainage, or under conditions favorable to unhealthfulness or disease. Milk to be sold for consumption as such within one hour after it is received shall be cooled to a temperature not higher than 60° F., and shall be kept at such temperature until delivered.

RULE 15. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk, immediately on the occurrence of any case or cases of typhoid fever, scarlet fever, or any other communicable disease which may be carried by milk, either in himself or his family or among his employees or their immediate associates, or within the building or premises where milk is stored, sold, or distributed, shall notify the local health officer.

RULE 16. No person having a communicable disease which may be carried by milk, or having recently been in contact with a person having such disease, shall milk or handle cows, measures, or other vessels used for milk or milk products intended for sale until all danger of communicating such disease to other persons shall have passed, as determined by the local health officer.

RULE 17. No vessels which have been handled by persons suffering from communicable diseases, which may be carried by milk, shall be used to hold or convey milk until they have been thoroughly sterilized.

RULE 18. No bottle, can, or receptacle used for the reception or storage of milk shall be removed from a private house, apartment, or tenement wherein an infectious disease exists until such bottle, can, or receptacle shall have been properly sterilized under the direction of the local health officer.

Hospitals, Sanatoria, Maternity Homes, Dispensaries—Licenses Required—Records—Regulations for. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 70. *Hospitals, sanatoria, lying-in hospitals, maternity homes, dispensaries, and other similar institutions.*—RULE 1. Any hospital, sanatorium, lying-in hospital, maternity home, dispensary, or other similar institution shall be considered within the purpose of this regulation if it announces in any way that

it will receive and care for, or if it is to be operated for, or if it is a matter of public knowledge that it is established to receive and care for persons who are sick or injured or any woman or girl approaching or during childbirth.

RULE 2. Any corporation, association, person, or persons, before opening such institution, shall apply for a license to do so to the State board of health, which will supply proper blanks for such application. A fee of $1 must accompany each application. This will be returned if the license is not granted. Licenses are issued only by order of the board at a regular or special meeting. A license must be posted in the office or other conspicuous place where it can be seen easily at all times. Any licensee discontinuing business must surrender his license to the board without delay.

RULE 3. All applicants for licenses must be of good moral character, capable and trustworthy; they must also have a suitable place for conducting their business. The board will determine after inspection whether the place is suitable for such business.

RULE 4. For sufficient reason licenses may be refused or revoked, provided that notice of time and place of hearing concerning same shall be given to applicants or licensees.

RULE 5. Licensees whose principal business is receiving and caring for tuberculous patients must receive tuberculous patients only.

RULE 6. Licensees who receive maternity patients are prohibited from advertising their business in any daily or weekly newspaper.

RULE 7. All maternity patients when in labor and for at least one week thereafter must be attended by a regularly licensed physician or licensed midwife, and the moral and professional standing of either physician or midwife must be satisfactory to the board. When a change is to be made in the employment of a physician regularly a member of the staff, notice of such change must be given to the board at once.

RULE 8. "No child shall be sold or otherwise disposed of for any valuable consideration by any of the persons subject to the provisions of this act," nor shall any child be given away for adoption or otherwise disposed of except by strict compliance with the statute governing such cases.

RULE 9. All applicants must give the name and address of the staff of physicians and surgeons in regular attendance upon the institution.

RULE 10. All licensees must keep a record in suitable form giving the name, address, date of admission, date of departure, and nature of sickness of each patient. In case of maternity patients the record must also show the expected date of labor, actual date of labor, name and sex of child, and what disposition has been made of the child. A record must be made immediately on admission of a patient, and such record must be kept up to date by making additional entries each day as events occur. Said record shall be open at all times for inspection by officers or duly accredited inspectors of the State board of health. Said named officers and inspectors shall at all times have the right to enter any licensed institution for the purpose of inspection and investigation.

RULE 11. All institutions coming within the provisions of this regulation, in addition "shall quarterly, on the 1st day of January, April, July, and October, make a report to the State board of health of the number and names of the people in charge or employed in such institution, and if physicians," their name and address. Adequate nursing, both in numbers and qualifications, must be provided; noncompliance with this rule may cause the license to be revoked.

RULE 12. It is required that a general healthful and sanitary condition shall be maintained at all times about both the buildings and grounds, and that a recognized average cubic-foot air space per patient be provided, with adequate means for ventilation. Especial attention shall be given to the cleanly and

sanitary character of all baths, toilets, and water-closets, and to methods of sewage disposal.

RULE 13. Some efficient means, approved by the board, shall be provided for the disposal of garbage and refuse. All garbage and refuse from institutions receiving or caring for tuberculous cases must be burned; institutions of this sort should construct an incinerator for this purpose.

RULE 14. All hospitals and sanatoria should have two separate diet kitchens; one for the preparation of food for managers, superintendents, resident physicians, nurses, and other attendants; the other for the preparation of foods for the patients. Fragments of food should not be returned to the diet kitchen, but to an incinerator for this purpose. (See also regulation 79.)

RULE 15. Sufficient provision should be made for the sterilization of soiled bedding, clothing, and utensils used in typhoid fever and other similarly communicable diseases. Nurses should be carefully instructed concerning the danger of "infection by contact."

RULE 16. All hospitals and sanatoria should have constructed for them a suitable container in which to sterilize by boiling the excreta of all patients affected with typhoid fever, paratyphoid, cholera, dysentery, tuberculosis, or other diseases in which infection is carried in urine or stools. Such sterilizer should be remote from the kitchen or any other place where food is either prepared or stored.

RULE 17. Nurses caring for this class of cases must not be permitted to attend to any duties in the diet kitchen in connection with the preparation of food for others.

RULE 18. Since the occurrence of typhoid fever is from 10 to 20 times as frequent in those nursing typhoid as in other persons not so exposed, and since paratyphoid is also of frequent occurrence, is transmitted by the same means, and can not be clinically differentiated in most cases, it is required that probationer nurses, on entering upon their duties in a hospital or other institution where typhoid cases are received, shall be given a combined prophylactic typhoid and paratyphoid vaccine unless they have either had these two diseases or have been so vaccinated within two years previous; and this shall be repeated every two years during their stay in the institution. It is required also that in any hospital or sanatorium, if any probationer nurse has not been successfully vaccinated against smallpox within five years previous, such vaccination shall be done immediately upon her entrance upon her duties.

RULE 19. Suspected "carriers" of disease of any sort must be excluded from service in kitchens, dining rooms or dairies belonging to or in connection with any hospital, sanatorium, or other similar institution.

RULE 20. Ample fire escapes shall be provided in all hospitals, sanatoria, and other similar institutions for the care of the sick and injured, and patients shall be given any necessary instruction concerning the manner of reaching such fire escapes.

RULE 21. Plans for the erection of hospitals, sanatoria, and similar institutions should receive the approval of the State board of health before the work of construction is begun.

Hotels and Rooming Houses—Sanitary Regulation. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 71. *Hotels and rooming houses.*—RULE 1. *Sewers and drainage.*—Every hotel and rooming house connected with a cesspool or located in any city or town having a sewerage system shall be well ventilated, drained, and connected according to sanitary principles with such cesspool or sewerage system,

and shall be kept free from effluvia arising from sewer, drain, water-closet, or other source within the control of the owner, manager, agent, or other person in charge.

RULE 2. *Bedding, sheets, and towels.*—The proprietor or manager of every hotel and rooming house in this State shall furnish each guest with clean individual towels. All public lavatories and wash rooms of any hotel or rooming house must be supplied with clean individual towels. All beds, bunks, or cots to be occupied by guests must be supplied with clean comforts, pillowslips, and sheets. Sheets must be of sufficient length and width to cover completely the mattresses and springs. Sheets and pillowslips after being used by one guest must be washed, ironed, or mangled, and dried before being furnished to another. All beds must be kept free from vermin.

RULE 3. Owners, keepers, and managers of hotels and rooming houses must provide fire escapes and fireproof stairways for persons occupying rooms above the second story as required by law.

State Institutions—Reports to State Board of Health—Communicable Diseases. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 72. *State institutions.*—RULE 1. The regular physician of every State institution where men, women, or children are kept at the expense of the State, as children of industrial schools, dependent children, inmates of institutions for the insane or feeble-minded persons, and inmates of penal institutions, must report annually to the State board of health such information as may be required.

RULE 2. When any communicable disease appears in any State institution, the patient or patients must be properly isolated, and, if necessary, removed from the institution to a place of safety, where they shall have proper medical attention and care until they may be safely returned.

Barbers and Barber Schools—Regulation. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 74. *Sanitary rules concerning barbers and barber trade.*—RULE 1. The proprietor or manager of every barber shop, barber school, or barber college must file immediately with the secretary of the Colorado State Board of Examiners of Barbers the name and residence of each and every apprentice therein, stating age and date of admission.

RULE 2. Every barber shop, barber school, or barber college must be provided with one or more licensed barbers to give instruction when needed.

RULE 3. All barber shops barber schools, or barber colleges, when situated so that they can obtain running water from the city water mains, must have running water, hot and cold, in their places of business. Waste water must be drained through pipes into a sewer or cesspool, as provided by ordinance of the city or town.

RULE 4. All shaving mugs and lather brushes must be thoroughly cleansed with hot water before using. Hair brushes, combs, aprons, neck dusters, and strops must be kept clean at all times. The use of powder puffs, finger bowls, sponges, styptic pencils, or alum in lump is prohibited. All astringents used for controlling bleeding, or for other purposes, must be used in powdered or liquid form.

RULE 5. Any person conducting a barber business must supply each and every patron with a fresh, clean towel, both hot and cold, where hot towels are used. No towels shall be used the second time without being boiled and laundered. All cuspidors must be cleansed with boiling water at least once in 24 hours, and a small quantity of fresh water left in them.

RULE 6. Any barber who is affected with open tuberculosis, venereal or other communicable disease must not practice the barber trade. Habitual drunkenness or the use of intoxicating liquor during business hours is strictly forbidden.

RULE 7. Every person conducting a barber business must provide for each work stand a vessel containing a proper solution of formaldehyde, or grain alcohol, for sterilizing massage bulbs, razors, tweezers, and all other instruments before using.

RULE 8. The floor, furniture, and fixtures of every barber shop, barber school, or barber college must be kept clean, and the place must be supplied with a sufficient quantity of hot water for all cleansing and sanitary purposes.

RULE 9. Every barber or apprentice when working at his trade must keep his person and his wearing apparel clean and in a sanitary condition; he must keep his finger nails short and clean and must wash his hands with soap and water immediately before attending each customer. Every place where the barber trade is being practiced or taught must be open to inspection during business hours by any member of the board of examiners.

RULE 10. Soaps, bay rum, face lotions, hair tonics, and other toilet articles, and all solutions, must be pure and unadulterated.

RULE 11. Every person conducting a barber business of any kind as proprietor, manager, or foreman is prohibited by law from employing any person to work at the barber trade who is not registered with the State board of examiners of barbers.

Laundries and Cleaning Establishments—Sanitary Regulation. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 75. *Laundries and cleaning establishments.*—RULE 1. Any building or premises used as a public laundry or as a cleaning establishment of any sort must be kept clean and sanitary as to its floors, side walls, ceilings, woodwork, fixtures, and utensils. The floors should be of cement or of well-laid flooring which is kept oiled as frequently as is necessary to lay the dust.

RULE 2. There must be proper provisions for drainage to convey the water of wash rooms quickly to drains and gutters; these must be connected with the sewerage system of the city or town where the establishment is located, if such sewerage system exists.

RULE 3. A certain recognized cubic-foot air space per person must be provided with proper ventilation by means of air shafts, windows, air ducts, or mechanical apparatus for such purpose.

RULE 4. No person shall be permitted to sleep or eat in the working rooms of any public laundry nor to sleep in any room in connection with such laundry. Special rooms apart from the working rooms must be provided for lunch rooms or rest rooms.

RULE 5. Toilet rooms, separate for both sexes, must be provided with lavatories which are supplied with hot and cold water and with individual towels. Both toilet rooms and lavatories must be kept at all times in a clean and sanitary condition.

RULE 6. No person affected with open tuberculosis, syphilis, or any other communicable disease shall be permitted to work in any capacity in any public laundry. Proprietors or persons in charge of such laundries shall not be permitted to employ in their laundries in any capacity persons known to be affected with such diseases.

RULE 7. The sprinkling of clothing by means of ejecting water or any liquid substance from the mouth upon the clothing is strictly prohibited.

RULE 8. Public laundries, dry-cleaning, or similar cleaning establishments of whatever character shall be prohibited from receiving for the purpose of laundering or cleaning from a residence, a flat, or an apartment placarded for a communicable disease any clothing, bedding, or other article whatsoever of similar texture or character, provided that in any case, if the article in question has been sterilized either by boiling for a half hour in water, or by immersion for two hours in a solution of carbolic acid (1–20) or formalin (1–10), or by disinfection with formaldehyde by methods designated in regulation 60, it may be received for the purposes named. The removal from placarded premises of clothing which has been so sterilized shall not be deemed and shall not be construed as a violation of the provisions of regulation 53.

Mattresses, Rags, and Secondhand Goods—Care and Sale. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 76. *Mattresses and secondhand goods.*—RULE 1. Rags or other dangerous material shall not be sold or manufactured into articles to be sold for personal use without first having been thoroughly disinfected.

RULE 2. Rags or second-hand clothing suspected of being infected, if imported into this State, shall be kept closely baled and not be opened until they can be submitted to thorough disinfection, provided that the State board of health reserves the right at any time for the protection of the public health to prohibit the importation of such rags or clothing into this State.

RULE 3. Rags and second-hand clothing collected within this State shall not be transported by any common carrier until they have been properly disinfected under the supervision of the local health officer, provided that the executive officer of the State board of health, after learning all the facts in a particular case, may issue a special permit for transportation of such rags and clothing to a more convenient place for disinfection.

RULE 4. All second-hand goods composed of wool, silk, or cotton, including also all second-hand clothing, suit cases, traveling bags, boots and shoes, must be disinfected by the use of formaldehyde in form and manner explained in regulations 59 and 60 before being sold or offered for sale by any dealer and before being offered at a "rummage sale."

The sale of rags, clothing, or other articles believed to be infected by reason of having been in contact with persons suffering with any communicable disease is positively prohibited.

The sale of any mattresses or other article of bedding which has been used in or about a public or private hospital or sanatorium or about any person having a communicable disease is prohibited.

RULE 5. Mattresses made from rags or other second-hand material shall not be imported into this State unless each mattress is securely and distinctly labeled, showing fully the nature of the material used in the manufacture of the mattress and accompanied by a statement from the proper health officer certifying that the material used was properly disinfected.

RULE 6. Mattresses made of rags or other second-hand material and manufactured within this State must be accompanied by a statement from the proper health officer certifying that the material used was properly disinfected; otherwise the mattresses must not be sold or offered for sale.

RULE 7. All rules regulating the manufacture, transportation, and sale of mattresses shall apply in like manner to pillows, cushions, muff beds, comforts, quilted pads, down quilts, bags containing hair, cotton, down, wool, shoddy wool, cotton linters, or feathers, or any other bedding material.

RULE 8. All mattresses and other articles for bedding, whether made from new or second-hand material, must be carefully labeled as required by law. (See sec. 289.)

Railway Sanitation—Communicable Diseases—Transportation of Bodies. (Reg. Bd. of H., Feb. 7, 1916.)

REG. 81. *Public conveyances.*—RULE 1. No person having reason to believe that he is suffering from cholera, diphtheria, plague, scarlet fever, smallpox, erysipelas, measles, leprosy, or chicken-pox shall enter, nor shall any person permit anyone under his care so affected to enter any public conveyance or common carrier, except a hack, wagon, carriage, or automobile, and then only after having notified the person in charge of such infection or exposure. Any conveyance so used must be thoroughly fumigated.

RULE 2. All conductors of railroad trains and street cars, if they have any reason to suspect any passenger to be suffering from any disease enumerated in Rule 1, shall immediately notify the nearest health officer located on their route, by the most direct and speedy means possible, of their belief, and the health officer must meet such railroad trains at the station or such street car at the nearest possible point, to determine, if possible, whether the disease exists.

RULE 3. When the health officer notified as provided in Rule 2 shall find any person in a car or other public conveyance to be affected with any disease named in Rule 1, the public conveyance shall be turned over to the health officer, who shall treat such conveyance as infected premises. When, in the judgment of the health officer, the case is in such early stage of development that other passengers are not endangered, the patient shall be removed from the conveyance, and it shall be allowed to proceed. If the health officer shall deem that the exposure is such as to have infected other passengers, he shall call upon the person in charge to remove the infected conveyance from service at the first place where suitable accommodations can be secured, and such health officer shall notify the health officer in whose jurisdiction the infected conveyance is left.

RULE 4. The drinking water and ice supply used in stations and on public conveyances shall be free from anything deleterious to health. In the construction of new equipment all receptacles for drinking water should be so constructed that they can not be opened readily by anyone except those having charge of them. Nothing but ice and water shall be placed in receptacles used for the storage of drinking water. The receptacle for drinking water shall be kept thoroughly clean at all times and shall be drained and flushed at car-cleaning terminals.

Persons employed to place ice and water in the receptacles must have clean hands and must rinse the ice immediately before depositing it in the vessel.

When a water-borne disease has developed in epidemic form in a municipality, water from such place for car tanks shall not be used without the approval of the State board of health.

RULE 5. The use of the common or public drinking cup is prohibited on all public conveyances and in waiting rooms.

RULE 6. All public conveyances, including toilet rooms therein, shall be kept in a reasonably clean condition at all times. Dry sweeping and dusting of occupied conveyances is strictly prohibited.

RULE 7. At cleaning terminals all passenger equipment shall be thoroughly cleaned and aired, and after such cleaning the hoppers, urinals, and toilet floors shall be mopped with a 14 per cent solution of formalin.

RULE 8. Upon arrival at cleaning terminals, sleeping cars shall be cleaned as follows:

The windows, doors, and ventilators shall be opened; the upper berths let down; the seat bottoms and backs lifted out; the mattresses, blankets, pillows, curtains, etc., loosely arranged for airing. If the weather permits, the removable articles mentioned above shall be taken out of the car, dusted, and aired in the open, and exposed to the sunlight for a time. The rest of the cleaning of the car shall be carried out as directed for day coaches under Rule 7.

RULE 9. Sleeping cars shall be fumigated at least once every 30 days and immediately after the car is known to have carried any disease named in Rule 1. Fumigation shall be carried out before the carpets have been removed or the cleaning of the car begun, and a record shall be posted in the car showing where and when the fumigation was done. Preparation for fumigation shall be as follows:

Close all outside doors, windows, deck sash, and ventilators. Arrange one window or more on each side of the car so that it can be opened from the outside to avoid the necessity of entering the car while the formaldehyde fumes are strong. Open all interior doors. Pull the seats forward and loosen the pillows in the pillow boxes. Open the upper berths and lay the head boards across the seats so that one corner will rest upon the seat arm. Lay the lower mattresses on the head boards with the middle arched upward, the ends being pushed together. Raise the curtain poles and hang the curtain near the end by a single hook. Throw the blankets over the curtain poles, making as few folds or thicknesses of the blanket as possible. Arch the upper mattresses in the upper berths.

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After the car has been fumigated it shall remain closed for a period of at least three hours, after which time the doors and windows shall be opened.

RULE 10. In all public conveyances the food boxes, refrigerators, lockers, drawers, and cupboards shall be kept thoroughly clean at all times.

RULE 11. The use of the common roller towel on common carriers and in waiting rooms is prohibited.

RULE 12. All toilet rooms, water closets, urinals, and toilet appliances in stations shall be cleaned daily, and when vaults or surface receptacles are used in connection with closets at stations, such vaults or surface receptacles shall receive at least weekly treatment with fresh lime or some other agent approved by the local health officer.

REG. 82. *Transportation of the dead.*—RULE 1. The documentary authority required by the Colorado State Board of Health for transportation of a dead body by a common carrier shall include a duplicate copy of the original death certificate, a removal permit by the local registrar, a certificate by the shipping undertaker and a paster to be filled out by the transportation company.

The blank form prepared by the State registrar shall be used and must be completely filled out. Each body for transportation must be embalmed by an embalmer holding a license by authority of the Colorado State Board of Embalming Examiners; provided that embalming may not be required when destination is within this State and will be reached within 30 hours after death.

RULE 2. The transportation of bodies dead of smallpox, plague, Asiatic cholera, diphtheria, scarlet fever, or leprosy shall be permitted only under the following conditions: The body shall be thoroughly embalmed with an approved disinfectant fluid, all orifices shall be closed with absorbent cotton, the body shall be washed with the disinfectant fluid, enveloped in a sheet saturated with

the same, and placed at once in the coffin or casket, and the outside case containing the same shall be metal or metal lined and hermetically and permanently sealed.

RULE 3. The transportation of bodies dead of any disease other than those mentioned in Rule 2 shall be permitted under the following conditions:

(*a*) When the destination is within this State and can be reached within 30 hours after death, embalming is not required, but the coffin or casket shall be incased in a strong outer box made of good sound lumber not less than seven-eighths of an inch thick; all joints must be tongued and grooved, top and bottom put on with cleats or crosspieces, and all put securely together.

(*b*) When the destination is not within this State or can not be reached within 30 hours after death, the body shall be thoroughly embalmed and the coffin or casket placed in an outside case constructed as provided in paragraph (*a*).

RULE 4. No disinterred body dead from any disease or cause shall be transported by common carrier unless approved by the health authorities having jurisdiction at the place of disinterment, and the same documentary authority shall be issued as required in Rule 1. The disinterment and transportation of bodies dead of diseases mentioned in Rule 2 shall not be allowed except by special permission of the health authorities both at place of disinterment and the point of destination.

All disinterred remains shall be inclosed in metal-lined boxes and be hermetically sealed, provided that bodies in a receiving vault when prepared by a licensed embalmer shall not be regarded as disinterred bodies until after the expiration of 30 days.

All disinterred remains having been buried so long as to be more or less disintegrated or as to require a new box must immediately after disinterment be wrapped in a strong sheet or heavy canvas saturated with a 1:500 solution of corrosive sublimate and then be placed in the box in which they are to be shipped, subject to all other rules for shipping dead bodies, so far as practicable.

RULE 5. The outside case may be omitted in all instances when the coffin or casket is transported in hearse or undertakers' wagon.

RULE 6. The term "approved disinfecting fluid," as used in these rules, means an embalming fluid that has been approved by the Board of Embalming Examiners of the State of Colorado or a fluid that contains not less than 14 per cent of formalin; the term "embalming," as employed in these rules, shall require the injection by licensed embalmers of not less than 10 per cent of the body weight, injected arterially in addition to cavity injection, and 12 hours shall elapse between the time of embalming and the shipment of the body. A 5 per cent solution of carbolic acid, a 1:500 solution of corrosive sublimate, or 14 per cent solution of formalin are approved as disinfectants for external washing of bodies when required by these rules.

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