MONTHLY BULLETIN

Indiana State Board of Health

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The MONTHLY BULLETIN will be sent to all health officers and deputies in the State. Health officers and deputies should carefully read and file each copy for future reference. This is very important, for we expect to print instructions, rules and general information, which it will be necessary for officers to preserve.

CONTENTS.

DECEMBER BIRTHS.

The report of births is always a month late, because the law gives twenty days in which doctors and midwives may report.

Total births, 4,161. Males, 1,980; females, 2,181. Birth rate, 17.9 for 1,000 of population. Excess of birth over death rate, 6.1.

Whites—Males, 2,142; females, 1,930.

Negroes—Males, 39; females, 50.

Highest birth rate was in Ripley county, 38.3; Warren, 38.1.

Lowest birth rate was in Clay County, 4.1.

ABSTRACT OF MORTALITY STATISTICS FOR JANUARY, 1909.

Total number of deaths 2,744, annual death rate 11.8. In the corresponding month last year, 3,200 deaths, rate 14. In the preceding month 2,702 deaths, rate 11.6. Deaths by important ages were: Under 1 year of age, 437 or 16.5 per cent. of the total; 65 and over, 852, or 32.2 per cent. of the total.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 920,585, reports 951 deaths, rate 12.1. In the corresponding month last year, 1,057; rate, 13.8.

CENTRAL SANITARY SECTION, population 1,087,413, reports 1,115 deaths, rate 12. In the corresponding month last year, 1,275 deaths; rate, 14.1.

SOUTHERN SANITARY SECTION, population 722,146, reports 678 deaths, rate 11. In the corresponding month last year, 858 deaths; rate, 15.1. Note—We call attention to the fact that population has been determined by multiplying the school census by 3½. On account of shrinkage of population due to removal of factories in the Central Section and on account of increase of factories and phenomenal growth of towns in the Northern Section, and also on account of growth of factories in Southern Section it was necessary to change populations.

REVIEW OF SECTIONS: The Southern Sanitary Section shows the lowest death rate. It is even lower than the state rate. The Southern Sanitary Section shows the highest death rate for consumption, typhoid fever, diphtheria, pneumonia, diarrhoeal diseases, influenza and puerperal fever.

CITIES: Total population, 1,048,005; reports 1,290 deaths; rate 14.5. In the corresponding month last year, 1,466 deaths; rate, 16.8. Note—The total population of the cities in 1908 was placed at 1,028,102. It is now estimated at 1,048,005. The city death rate is 2.7 more than the rate for the whole state, and 4.1 more than the country. The death rates of cities having over 25,000 population were: Indianapolis, 13.5; Evansville, 12.6; Fort Wayne, 14.4; Terre Haute, 18.2; South Bend, 12.9.

SUMMARY OF MORBIDITY AND MORTALITY FOR JANUARY, 1909.

Reports show fewer deaths in January, 1909, than in the corresponding month last year. They also show less sickness. Tonsilitis was reported as the most prevalent disease, while influenza, pneumonia and bronchitis were the three most prevalent diseases in January, 1908. Following is the order of disease prevalence: Tonsilitis, pneumonia, rheumatism, bronchitis, influenza, diphtheria and membranous croup, scarlet fever, typhoid fever (enteric), measles, pleuritis, chickenpox, whooping cough, smallpox, diarrhoea, intermittent and remittent fever, erysipelas, inflammation of the bowels, cerebro-spinal meningitis, dysentery, typho-malaria fever, cholera infantum, puerperal fever, cholera morbus.

SMALLPOX: 148 cases in 24 counties, with no deaths. In the same month last year, 240 cases in 32 counties and no deaths. The following counties reported smallpox present: Allen, 3 cases; Cass, 1 case; Dearborn, 6; Decatur, 1; Delaware, 9; Elkhart, 3; Gibson, 1; Grant, 5; Greene, 1; Hamilton, 4; Harrison, 10; Henry, 7; Howard, 4; Madison, 5; Marion, 1; Miami, 7; Noble, 1; Rush, 15; Spencer, 2; St. Joseph, 20; Tippecanoe, 10; Tipton, 2; Vanderburgh, 6; Warren, 30.

TUBERCULOSIS: Total number of tuberculosis deaths, all forms, 352. Pulmonary form, 301. Of the total number, 28 were males in the age period of 18 to 40, and left 56 orphans. The female deaths in the same age period as above numbered 60, and they left 120 orphans. Total fathers and mothers lost in the age period of 18 to 40 were 88. Total number of orphans made, 176. Number of homes invaded, 316. One of the tuberculosis deaths was a person over 80 years of age.

PNEUMONIA: The disease existed in every county in the state. No special epidemic reported. Total number of deaths 367. In the corresponding month last year, 462. Of the total number of pneumonia deaths, 135 were over 60 years of age or about 40 per cent.; 136 were under five years of age.

TYPHOID FEVER: 194 cases in 39 counties, with 36 deaths. In the corresponding month last year, 256 cases reported in 42 counties with 51 deaths.

DIPHTHERIA: 170 cases in 45 counties, with 34 deaths. In the corresponding month last year, 203 cases in 40 counties with 30 deaths. The disease prevailed unusually in the following counties: Allen, 14; Clark, 8; Elkhart, 11; Perry, 14; Vanderburgh, 24.

VIOLENCE: The deaths by violence numbered 158. In the corresponding month last year, 195. Of the violence deaths, 70 occurred in the cities, and 88 in the country. Murders numbered 11, males 7, females 4. Suicides 32, males 21, females 11. Accidents numbered 115, males 81, females 34. Of the murders, 6 were by gun shot, 2 cutting and stabbing, 2 strangulation, 1 fracture of the skull. Of the suicides, gunshot 6, hanging 2, strangulation 3, cutting and stabbing 3, artificial gas 2, carbolic acid 12, chloroform and strychnia 4. Of the accidents, steam railroads caused 19 deaths, interurban railroads 4, street cars 5, burns and scalds 17, crushing injuries 15, drowning 3, gunshot 6, falls 13, horses and vehicles 5, ptomain poison 4, and the remainder by various methods.

REPORT OF THE DIVISION OF BACTERIOLOGY AND PATHOLOGY OF THE LABORATORY OF HYGIENE FOR JANUARY, 1909.

DR. J. P. SIMONDS, SUPERINTENDENT.

Sputum for tubercle bacilli, positive 92, negative 184; blood for Widal reaction, positive 5, negative 69; throat cultures for diphtheria bacilli, positive 31, negative 123; for gonorrhea, males positive 5, negative 12, females positive 7, negative 12; urine 17; carcinoma and epithelioma 5; sarcoma 1; other pathological tissues 10; blood 4; pus 5; water for typhoid negative 1; feces for intestinal worms 1; milk for tubercle bacilli, negative 1; for rabies, dogs' heads positive 6, negative 5, unsatisfactory 1, cat's head positive 1, hogs' heads negative 2. Total specimens examined 600.

Outfits sent out: Sputum 402; diphtheria 240; Widal 180; malaria 98, total 920.

On January 30, 1909, Dr. R. S. Rissler tendered his resignation as Assistant Bacteriologist, to take effect February 20, 1909.

RABIES IN INDIANA AND ELSEWHERE.

BY J. P. SIMONDS, M. D., SUPT. BACTERIOLOGICAL LABORATORY.

The records of the Laboratory of Bacteriology and Pathology of the Indiana State Board of Health show that in the past two years the brains of 131 animals have been examined to determine the presence or absence of rabies. Of these, 106 were shown to be suffering from this disease. The positive cases are classified as follows: 88 dogs, 10 cats, 6 hogs, 2 cows, 2 horses. During this time, 97 persons were bitten by rabid animals. Including these cases mentioned, it is known that during this time in the State of Indiana, 9 cows have died of rabies and 9 have been bitten by rabid dogs, the result being unknown. Seven dogs have bitten "cattle," the number and results not being given. Sixty-five head of hogs are known to have died of this disease. Six rabid dogs

were stated to have bitten an unknown number of hogs. One horse was bitten by a rabid animal and one horse died of rabies after biting an unknown number of other animals. These records do not show anything like the real results of the disease over the State for several reasons: First—In a majority of cases the actual number of animals bitten is unknown. Second—Because physicians and veterinarians sending dog heads to the laboratory very rarely give all the facts in the case in regard to the number of animals, or even the number of persons that have been injured by the rabid dog. Third—A large number of cases in the State have been sent to Chicago for diagnosis and for treatment. It is doubtful if the above figures given are even one-half of the actual disastrous results of the epidemic of rabies that has been raging throughout the State for the past several months.

The following are stories of actual cases: In August, 1908, a stray dog appeared on the farm of Mr. Kaler, of New Augusta and killed 21 chickens. It was not known at the time that any other animals were bitten. On August 29th, a large mother hog was found dead but the owner did not think of rabies, having forgotten about the incident of three weeks ago. On September 1st a pig died, but there was still no suspicion of rabies. When, however, two days later another pig from the same litter developed symptoms of a fulminant case of the disease, while a third pig was affected with the paralytic form, the thought occurred to him that these cases might be rabies. Accordingly he brought the heads of the pigs to the laboratory and a diagnosis of rabies in both cases was soon made. Mr. Kaler was advised to take Pasteur treatment because he had been bitten by the first pig that died. As time progressed more animals died, among them a heifer. At the end of 20 days (from August 29 to September 18) the following animals on Mr. Kaler's farm had succumbed to rabies: 2 mother hogs; 2 shoats weighing 110 and 125 lbs. respectively; 5 pigs, 6 weeks old; 1 heifer, 6 months old.

Mr. Dillen of Calvertsville lost over 30 pigs and several of his fattening hogs. The brain of one of the pigs showed it to have been suffering from rabies. How these swine became infected is altogether unknown.

Rabies is a disease that is very wide spread, and exists practically all over the world except in Australia. This continent has the enviable record of never having had a case of rabies. This is due to the fact that the virus of the disease has never been introduced into the country, and now laws have been passed absolutely prohibiting the importation of dogs, thus preventing the virus from being imported.

Rabies is an extremely old disease. It has been known for centuries. It was described by Aristotle, Xenophon, Plutarch, Hippocrates, Celsus and Galen. The description of the disease by these early writers is exceedingly realistic and picturesque. It was not at all uncommon during the middle ages, and not a few members of royal families suffered death from the disease.

"In Missouri and Ohio in 1860 so many cattle were destroyed by this disease, that the owners sought reimbursement from the Government."

In 1906, in Pennsylvania besides a large number of dogs, 47 cattle, 14 hogs and 157 sheep were known to have died of rabies. In 1907 in the same state, in one county alone, 154 dogs, 25 cows and 10 horses were known to have died of the disease. It is likely that these records are also incomplete.

In the autumn and spring of 1905 in Jacksonville, Florida, 1,200 dogs had to be killed on account of rabies. Twelve persons were bitten, and three of them died of hydrophobia.

The United States census of 1890 shows that there were 143 deaths in humans from hydrophobia. The census of 1900 shows that there were 123 deaths from the same disease.

Salmon collected statistics from the health offices of 73 cities which showed that there had been 230 deaths in those cities between 1890 and 1900.

Contrary to public opinion, the season of the year does not have a very marked influence on the number of cases of rabies in dogs. The records of the Pasteur Institute in Paris show that the largest number of cases came there for treatment during March, April and May, while the smallest number came in September, October and November.

The records of the Pasteur Institute at Lille, France, for 7 years (1895 to 1902) show a total of 1,797 cases, distributed as follows: Winter 396, spring 445, summer 439, autumn 516. Salmon analyzes 14,066 cases of rabies in dogs as follows: Cases occurring in winter 2,948, spring 4,209, summer 3,874, autumn 3,035. The somewhat greater number of cases of rabies in dogs that occurred between April and September is due to the fact that during this period of the year, dogs run at large more freely than in the colder months. Where the virus is present in a given community, a dog will take the disease, if actually infected, just as readily if the temperature is 30 degrees below zero as when it is 110 in the shade.

It has been shown by the most careful scientific investigation that the saliva of an infected dog can transmit the disease to another animal from 48 hours to one week before the dog begins to show any symptoms whatever of rabies.

The value of laboratory examinations for the diagnosis of rabies is shown by the following statistics collected from the combined statistics of 6 European laboratories: In a total of 550 examinations, Negri bodies were found in 334 cases. These are minute bodies found in the brain cells of an animal suffering

from rabies and are believed to be absolutely diagnostic of the disease. In every one of these 344 cases, the animal was proven to be suffering from rabies by injecting a small amount of emulsion of the brain substance into a guinea pig which afterward died of rabies. In the remaining 206 cases, no Negri bodies were found and out of this number 11 animals were shown to be suffering from rabies by the inoculation of guinea pigs. Hence it is seen that the presence of Negri bodies is practically absolutely diagnostic of the disease, while the absence of these bodies does not entirely rule it out. When the animal is killed very early in the course of the disease, these bodies are sometimes not found.

Other nations have found effective methods of dealing with rabies in animals. A dog tax, the destruction of homeless dogs, and the muzzling of all licensed dogs has been found to be the most effective means of handling the situation. It has proved efficient in Sweden. In Holland, the disease was common. In 1875 a law requiring that dogs be muzzled was passed, and in 1879 there were only three cases in the entire country. Since then, the country has been entirely free from the disease except for an occasional case along the Belgium border.

Rabies was common in Berlin prior to 1875. Since that time, throughout Prussia a law requiring the killing of all dogs suspected of rabies and the muzzling and leading of all dogs when in public places has been in force. This caused a complete eradication of the disease and there has not been a case of rabies in the city of Berlin since 1883.

In Great Britain in 1887, there were 217 cases of rabies in dogs; in 1888, 160; in 1889, 312 cases. The increase caused alarm and muzzling was enforced with the result that in 1890 there were 129 cases; in 1891, 79; and in 1892, 38 cases. Opposition to muzzling arose and the ordinance was no longer enforced. In 1893 there were 93 cases, in 1894 248 cases, and in 1895, 672 cases. The muzzling ordinance was again enforced and in 1896 there were 438 cases; in 1897, 151 cases; in 1898, 17 cases; in 1899, 9 cases, and in 1900, none. Since that time rabies has been practically unknown throughout Great Britain, and last year when in one of the medical schools it was desired to show the students the Negri bodies in the brain of a dog suffering from rabies, the material had to be imported from New York. There was no dog in the entire country of Great Britain that could supply the infected brain.

At a meeting of the Massachusetts Association of Boards of Health early in this month, Doctor Langdon Frothingham stated that "In Massachusetts the number of rabid dogs each year of late had been about 500, and the disease (rabies) has been observed in other animals to the number of an additional 100. In 1907, 158 persons were treated for dog bite and 6 died from rabies, while in 1908, there were 8 that died and 140 that were treated."

There is a popular belief even among some medical men that there is no such disease as hydrophobia, but that the deaths said to have been caused by this malady were in reality due to autosuggestion on the part of the patient in whom there had been aroused a fear of a horrible death after having been told that he had the disease. A short time ago, Mr. William Marsh, a very wealthy Brooklyn man, died from hydrophobia. A great many claimed that his death was due entirely to autosuggestion because he had been told by his physician that he had hydrophobia. Only a few days afterward, however, in the same city, Captain Edward Rabey also died of hydrophobia without ever having been told by his physician that he was suffering from the disease. Surely no one would accuse the dogs, cows, horses and other animals that have died of the disease of being killed by autosuggestion.

In the District of Columbia, there is a very rigid law requiring the leading and muzzling of dogs. It is quite common for tramp dogs to wander into Washington City from Maryland and Virginia. Between January 30, and June 24, 1908, 2,250 of these tramp dogs were destroyed in the District of Columbia. The bodies of those dogs that showed any suspicion of the disease were sent to the laboratory of the Bureau of Animal Industry in Washington and of these, 86 were found to be suffering from rabies.

Hydrophobia in human beings is a horrible disease. Not every person bitten by a rabid animal will become infected, but there is absolutely no means of determining who will be among the exempt few.

In the Philippine Islands, rabies is quite common. The natives know nothing of Pasteur treatment, but they do appreciate fully the deadliness of the disease. The victims of wounds by rabid animals are considered such hopeless cases that they at once begin to prepare for death and never consider it even worth while to consult a medical man.

After a patient has been bitten by a rabid animal, he can be prevented from developing hydrophobia if he is given Pasteur treatment within a reasonably short time after the bite is inflicted. After the development of symptoms of genuine hydrophobia, Pasteur treatment is of no avail.

From 1886 to 1905, at the Pasteur Institute in Paris, France, 29,201 persons bitten by supposedly rabid animals were given treatment. The mortality in the first year was 0.94 per cent. and decreased steadily until in 1902 it reached 0.15 per cent.

The records of the New York Pasteur Institute show a death rate of 0.68 per cent. among 1,608 patients treated. At the Chicago Pasteur Institute, among 3,010 patients treated there was a death rate of 0.23 per cent.

THE TUBERCULOUS COW.

It is generally agreed by scientific men that the best test for tuberculosis in animals is the tuberculin test. But there is more or less popular feeling against it in certain quarters. The Agricultural Department has provided that a farmer may specifically ask for the tuberculin test or for a physical examination or for a physical examination and then a tuberculin test, in case the physical examination indicates tuberculosis.

Thousands who have asked for a physical test come back sooner or later and ask for a tuberculin test because no man living can tell for a certainty whether he has eliminated all the cows having tuberculosis or not. Under the New York law, cattle showing the disease by physical test must be slaughtered. All having the disease as revealed by the tuberculin test, and not by physical examination or signs, may be retained. The farmer can make his choice as to whether they shall be slaughtered under the direction of the State or be detained with the understanding that their milk will be pasteurized before use. If a farmer has a pure blood cow of high value and wishes to preserve her for the purpose of having her offspring, he may keep her isolated from the other cows and her milk if pasteurized will be perfectly wholesome for the food of calves or persons. Her calves will in all probability be born healthy. If one chooses to retain a number of cows of this kind, keeps his calves separate, feeds wholly pasteurized milk, it is only a matter of a few years when his diseased herd will be replaced by a healthy herd without any serious interference with his business.

The State pays 50 per cent. of the full value of stock for animals slaughtered under its supervision when they are found to have tuberculosis in generalized form. If the tuberculosis is localized, the State pays 80 per cent. of the full value. The law makes it a misdemeanor to use spurious tuberculin; it is also a misdemeanor for a man to sell a diseased cow to any other person except for immediate slaughter unless that sale be accompanied by a statement signed by both parties, showing knowledge of the disease.—N. Y. Health Bulletin.

A MODEL ORDINANCE REGULATING THE PRODUCTION AND SALE OF MILK.

Most of the cities and larger towns of Indiana endeavor in some way to regulate the production and sale of dairy products. A few of the larger cities support well-equipped laboratories for the testing of milk, and have competent milk inspectors. In other cities the local boards of health do what they can to improve the milk supply, but because of lack of funds or an indifferent public opinion, accomplish but little.

Dairymen have not as a class appreciated the value of a proper regulation of the production and sale of milk, but have considered any attempt to supervise their dairies to be a transgression of their rights to market what they produce in any manner that they choose to follow. This feeling is not to be wondered at.

Sanitary milk production has been sought by the health officers almost entirely with the one object of reducing infant mortality, and too frequently ordinances have been passed and rules adopted which are not fair to the dairy interests and which are not destined to work for the benefit either of the trade or of the consumer.

During the summer of 1908 a convention of health officers and milk producers was called by the State Board of Health, for the purpose of discussing these vexed questions and of arriving at some common basis of understanding upon which an efficient milk inspection could be developed without creating unnecessary hardships to the milk producer. At the close of this meeting a resolution was adopted calling for the appointment of a committee of dairymen to draw up a model ordinance as the first step toward a solution of the problem. This committee after working for some months prepared an ordinance which was submitted to the State Dairy Association at its meeting in January. The association adopted the model ordinance and placed itself on record as approving it in every detail. This ordinance has since been approved by the State Board of Health and is now presented for the consideration of all cities and towns as embodying every essential to sanitary milk production and distribution. The ordinance is fair to the dairy interests and secures for the consumer what he requires and is entitled to, a pure milk supply. It is suggested that the ordinance be adopted without change except as local conditions may demand by every city and town of the State.

AN ORDINANCE REGULATING THE PRODUCTION AND SALE OF MILK AND CREAM IN THE CITY OF ————, PROVIDING FOR THE LICENSING OF PERSONS ENGAGED IN THE SALE THEREOF, FIXING STANDARDS UNDER WHICH SUCH SALES MAY BE MADE AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.

Section 1. Be it ordained by the Common Council of the city of ....., that it shall be and it is hereby made unlawful for any person, persons, firm or corporation to sell, offer for sale, exchange or barter, within the corporate limits of the city of ....., or to have in his, their or its possession with intent to sell, any milk or cream intended for human food, without first obtaining a license therefor from the city of ....., as hereinafter provided.

Sec. 2. Any person, persons, firm or corporation desiring to obtain a license, as provided in section 1 of this ordinance, shall file a written application with the Secretary of the City Board of Health and shall file therewith a statement that the applicant's business is being conducted,

or is to be conducted, in strict accordance with the laws of the State of Indiana, the rulings of the State Board of Health applying thereto and the provisions of this ordinance, hereinafter set out.

Sec. 3. The Secretary of the City Board of Health, when satisfied with the showing made by the applicant, shall issue to said applicant, for the sum of ....., a license to sell milk and cream in the city of ..... for one year from the date of issuance of such license, and said applicant shall keep at all times a copy of said license posted in a conspicuous place on his premises, and if a retailer or distributor shall have his name, the number of his license and his place of business marked in plain letters, not less than one inch in height, on all vehicles used by him in the conveyance and sale of milk.

Sec. 4. The Secretary of the City board of Health is hereby empowered to revoke the license of any dealer in milk or cream who has failed or refused to comply with any of the provisions of this ordinance; and he is hereby directed to revoke the license of any dealer who has been convicted of selling adulterated milk.

Sec. 5. No building shall be used for stabling cows for dairy purposes which is not properly constructed, well lighted, well ventilated and provided with a suitable solid floor of plank, cement or other impervious material that can be readily cleaned, and laid with proper grade and channels to carry off all drainage.

Sec. 6. 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 cream; nor shall any fowl, hog, horse, sheep, goat or other animal be kept in any room used for milking or for storing milk or cream.

Sec. 7. 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.

Sec. 8. All manure shall be removed from the room or stable in which cows are milked, daily, and shall not be stored where odors from the same will be noticeable at the stable or milkroom.

Sec. 9. All persons keeping cows for the production of milk for sale shall cause each cow to be kept clean and groomed.

Sec. 10. 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 for such cows, and none but fresh, clean, pure water shall be stored in such receptacle.

Sec. 11. 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.

Sec. 12. All milk shall be removed from the stable as soon as drawn 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 cream, and for washing and sterilizing all utensils and apparatus in which milk is removed, stored and delivered.

Sec. 13. 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.

Sec. 14. 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.

Sec. 15. 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.

Sec. 16. 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.

Sec. 17. 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 unsanitary surroundings or drainage, or under conditions favorable to unhealthfulness or disease, and milk to be sold for consumption as such within one hour after receiving the same shall be cooled to a temperature not higher than 50° F. and shall be kept at such temperature until delivered.

Sec. 18. Every person engaged in the production, storage, transportation, sale, delivering or distribution of milk, immediately on the occurrence of any case or cases of infectious diseases, either in himself or his family or amongst his employes or their immediate associates, or within the building or premises where milk is stored, sold or distributed, shall notify the Secretary of the City Board of Health.

Sec. 19. No person having an infectious disease or having recently been in contact with a person having an infectious disease, shall milk or handle cows, measures or other vessels used for milk intended for sale until all danger of communicating such diseases to other persons shall have passed, as determined by the Secretary of the City Board of Health.

Sec. 20. No vessels, which have been handled by persons suffering from infectious diseases shall be used to hold or convey milk until they have been thoroughly sterilized.

Sec. 21. No bottle, can or receptacle used for the reception or storage of milk shall be removed from a private house, apartment or tenement wherein a person has an infectious disease until such bottle, can or receptacle shall have been properly sterilized under the direction of the Secretary of the City Board of Health.

Sec. 22. When the Secretary of the City Board of Health, the City Milk Inspector, or other person authorized to collect samples of milk or cream for analysis shall, in the discharge of his duties, take samples of such products he shall before taking samples from a bulk container cause the milk or cream to be thoroughly mixed by stirring or pouring said milk or cream. The samples shall be collected in clean receptacles in duplicate and in the presence of the producer, vendor or driver. The person taking said samples shall, in the presence of such witness, seal both samples and shall tender at the time of taking one sample to the producer or vendor of such product and advise him of the purpose of taking the samples. In the case of sales of milk or cream in bottles as original packages the sample shall not be divided but two bottles shall be taken and sealed as above provided for bulk milk, one of which shall

be tendered to the producer or vendor and the other reserved by the inspector for analysis.

Sec. 23. No person either by himself, his servant or agent, or as the servant or agent of another person, shall sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange or deliver, expose or offer for sale or exchange adulterated milk or cream or milk or cream to which water or any foreign substance has been added, or milk or cream produced from cows which have been fed on the refuse of distilleries, or from sick or diseased cows, or as pure, milk from which the cream or a part thereof, has been removed, or of milk or cream which is not of standard quality, or milk or cream collected and kept or handled under conditions which are not cleanly and sanitary, or milk containing less than eight and one-half per cent. of milk solids exclusive of fat, and three and twenty-five hundredths per cent. of milk fat or cream containing less than 18 per cent. of milk fat or milk or cream which contains any added color, thickener, or preservative: Provided, however, "Refuse of distilleries" shall not be construed to mean or apply to dry distillers' grains in solid condition.

Sec. 2 4 .Any person, persons, firm or corporation violating any of the provisions of this ordinance, shall, upon conviction be punished by a fine of not less than $10.00 nor more than $50.00.

Sec. 25. This ordinance shall take effect on .....

Sec. 26. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

SOME HYGIENE TRUTHS STATED BY GREAT MEN.

"Give him air, he'll straight be well."—Shakespeare.

"Hygiene can prevent more crime than any law."—Hugo Münsterberg.

"Health is the essential factor in productiveness, prosperity and happiness, and hence in the advancement of civilization."—Sir Frederick Treves.

"A state which will not prevent what can be foreseen is open to indictment."—Münsterberg.

"There is a budget which we pay with frightful regularity; it is that of unnecessary disease and premature death."—Irving Fisher.

"We should every one of us individually and collectively as a commonwealth, feel the need of cutting down consumption, this grinding tribute, by reducing to the vanishing point its incursions."—Osler.

"Sanitary instruction is even more important than sanitary legislation."—Earl F. Derby.

"If it is Christian to cure, it is Christian to prevent. If it is Christian to cure children's diseases, it is Christian to provide clean streets. A sanitary inspector may be as religious as a church visitor."—Rev. Herbert Welch, President Ohio Wesleyan University.

"If we had through the misfortune of war, or the sudden rise of pestilence, or through some awful calamity, the destruction of life that annually takes place on account of the spread of this disease (tuberculosis) we should be appalled and mass meetings would be held in every community and demand would be made that the most urgent measures should be adopted. It is only because we are accustomed to this waste of life and are prone to think that it is one of the dispensations of Providence that we go on about our business, little thinking of the preventive measures that are possible."—Charles E. Hughes.

"The preservation of national vigor should be a matter of patriotism."—President Roosevelt.

"National hygiene and preventive measures can rid mankind of disease."—Metchnikoff.

"Without health, life is no life."—Dr. Rabelais.

"Now, do take warning by me. I am set up by a beneficent providence at the corner of the road, to warn you to flee from the hebetude that is to follow. So remember to keep well; and remember any thing than not to keep well; and again I say, *anything* rather than not to keep well."—Robert Louis Stevenson.

The function of the physician is to guide the patient while nature cures the disease.

Unreasoning credulity is the foundation upon which patent medicines rest.

Never buy patent medicines.

Medicines should never be used except upon the advice of physicians.

WHY LET CONSUMPTIVES RUN AT LARGE?

The most advanced idea in the movement to eliminate the dreadful scourge of tuberculosis is to compel every person in the advanced stages of the disease to be isolated from the general public by being placed in a hospital or sanitarium. This seems rather harsh and in the present state of public opinion would be a regulation difficult to enforce. But when we really get in earnest about the matter we will do what is best for the healthy rather than consult the whims of those whose span of life is about concluded. The cold and perhaps cruel truth is that a consumptive has no more right to scatter the germs of his terrible affliction among the strong and well than has the victim of smallpox or diphtheria. We quarantine for such a mild contagion as whooping cough. Why let the consumptive run at large?—Frankfort Times.

TEST FOR PURITY OF MINE AIR.

Dr. Angus Smith, in a report to Lord Kinnaird's commission, gives it as his opinion that the quantity of CO_2 in the air of mines should never exceed ¼, or .25 per cent.

Dr. Smith gives a very simple test by which determination can readily be made to determine whether mine air contains as much, more, or less quantity of CO_2 than ¼ per cent.

The necessary apparatus consists of: One eight-ounce bottle and cork; one five-ounce bottle and cork; one bottle of limewater with excess of lime; one pipette or measure holding one-half ounce; four one-half-ounce bottles, corked; one one-fourth-ounce bottle, containing an alcoholic solution of phenolphthalein; one piece of india rubber about one foot long.

The method of preparing for and making the test is as follows: Measure one-half ounce of clear limewater and pour it into a five-ounce bottle, and fill up with distilled water, giving a solution of 10 per cent. strength. Add a drop or two of the phenolphthalein solution; the limewater assumes a pink color. Now, fill the eight-ounce bottle with mine air from a sample flask which has been obtained from the mine, add one-half ounce of the colored solution and shake. If the pink color disappears quickly, the air contains more than ¼ per cent of CO_2. If the color fades only after repeated re-shaking, the quantity of CO_2 in the air is approximately ¼ per cent.

CORONER'S AUTHORITY.

The Supreme Court has decided that the authority of the coroner to hold an autopsy on the body of one who dies suddenly does not extend to making such investigations whenever he cares to make them, nor even to making an autopsy in the interest of science to learn the nature of a disease that causes death.

A judgment refusing to allow Dr. William J. Sandy, of Morgan County, $25 for holding an autopsy, by direction of the coroner, on the body of a child that died of acute diphtheria, while taking a drink of water, was affirmed.

Judge Myers said: "The statute restricts the right or obligation of holding inquests by the coroner to cases where death is supposed to have come by violence or casualty and as part of the inquest an autopsy may be had, and whilst the statute ought not to be so strictly construed as to defeat its purpose * * * a coroner is not the sole arbiter of the necessity. If this were so, a broad field would be opened for mere conjecture as to the cause of death in any case where medical science may be baffled. * * *

"Being a ministerial power the authority of the coroner must be exercised within some reasonable presumption that the death has resulted from violence or casualty; it can not be justified in the interest of science, for no such authority is given except as to prescribed persons (dying by violence or casualty) and there are distinct rights as to the dead. Otherwise the sacred dead might be the subjects of the surgeon's knife in any case in which the coroner might see fit, and at the public expense. * * *

REASONABLE SUPPOSITION.

"A reasonable supposition that a death occurs from violence or casualty is as necessary to confer jurisdiction to hold an inquest, or to hold an autopsy as that the body be found in his county. The evidence shows that the child had been visited by appellant on Saturday morning, without a discovery of the malady, diphtheria of the larynx, a disease difficult of diagnosis; that the child had been in and out of the house during most of the preceding day and died early Sunday morning after taking a drink of cold water, which it walked across the room to obtain.

"It had been under the constant care of its parents, both of whom were present when it died, and there was not the slightest suspicion of death from casualty immediately after death, suspected death or violence.

"On the other hand, a physician called from the true cause from the symptoms and attending circumstances. It was simply a case of death from natural causes, somewhat difficult of diagnosis. * * *

"The statutes as to certification of causes of death and imposing restrictions on holding funerals in case of death from contagious diseases are for statistical purposes and as health regulations, and are purely police regulations. * * * The statute with respect to inquests and autopsies has, from the earliest times, been an aim of the criminal law, both to punish those guilty and protect those innocent of crime."

This decision does not affect or bear upon the vital statistics law, which commands disinterment and inquest upon dead bodies buried without a burial permit.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES FOR JANUARY, 1909.

NORTHERN SANITARY SECTION.

Total population	920,585
Total deaths	951
Death rate per 1,000	12.1
Consumption, rate per 100,000	98.6
Typhoid, rate per 100,000	6.4
Diphtheria, rate per 100,000	8.9
Scarlet fever, rate per 100,000	2.5
Diarrheal diseases, rate per 100,000	12.8

CENTRAL SANITARY SECTION.

Total population	1,087,413
Total deaths	1,115
Death rate per 1,000	12.0
Consumption, rate per 100,000	137.8
Typhoid, rate per 100,000	15.1
Diphtheria, rate per 100,000	17.3
Scarlet fever, rate per 100,000	5.4
Diarrheal diseases, rate per 100,000	8.6

SOUTHERN SANITARY SECTION.

Total population	722,146
Total deaths	678
Death rate per 1,000	11.0
Consumption, rate per 100,000	158.4
Typhoid, rate per 100,000	27.7
Diphtheria, rate per 100,000	17.9
Scarlet fever, rate per 100,000	3.2
Diarrheal diseases, rate per 100,000	13.0

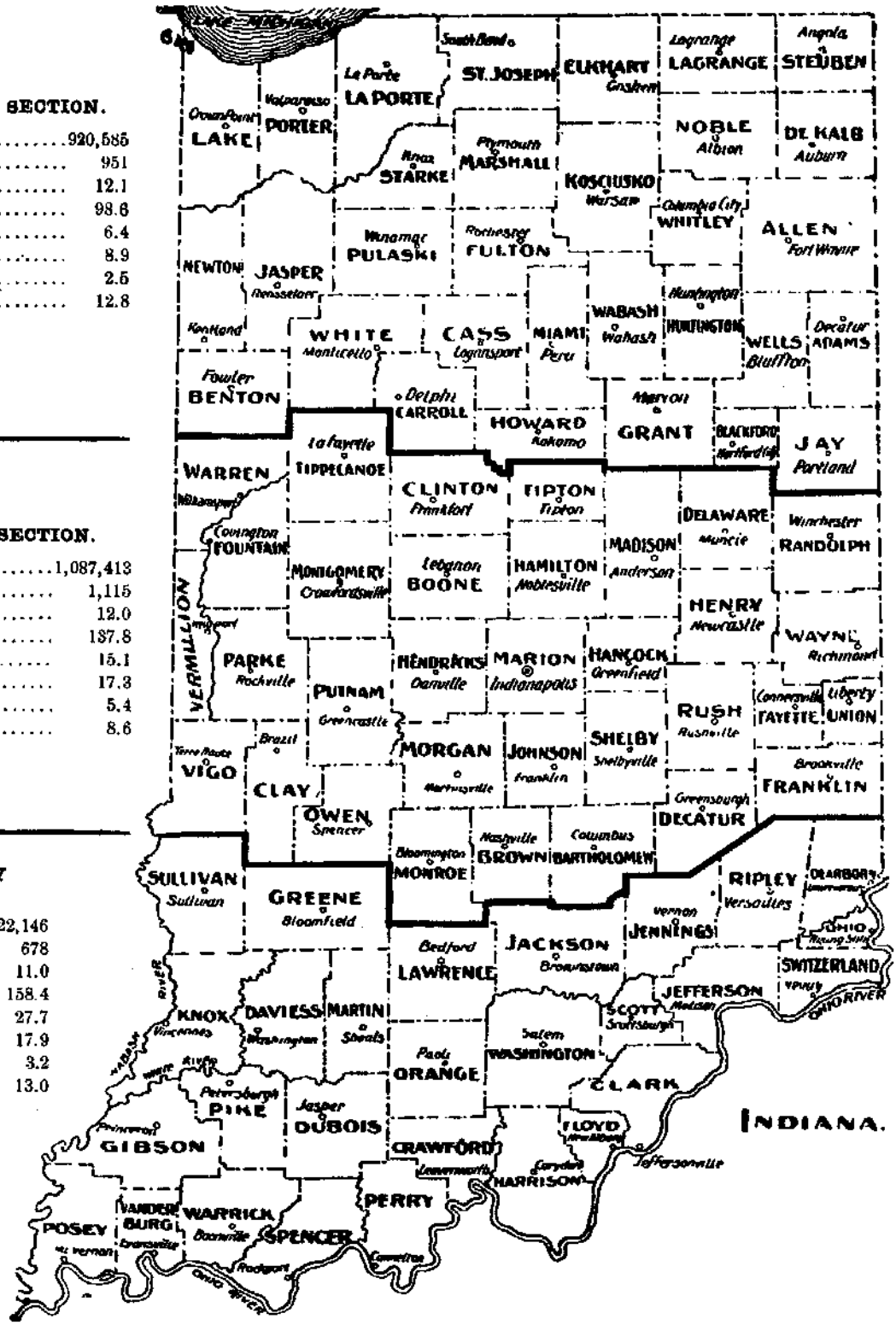

TABLE 1. Deaths in Indiana by Counties During the Month of January, 1909.

STATE AND COUNTIES.	Population. Estimated 3d Times School Census 1908.	Total Deaths Reported for January, 1909.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.						Deaths from Important Causes.															
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	65 Years and over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Diseases, under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.
State of Indiana	2,739,144	2,744	11.8	162	437	133	58	37	83	852	301	51	38	34	2	9	5	28	367	28	4	41	13	124	158	...	268
Northern Counties	920,585	951	12.1	53	166	30	12	11	25	310	77	18	5	7	...	2	4	5	114	10	3	12	4	51	57	...	99
Adams	25,452	25	11.5	1	4	...	...	2	1	7	2	...	...	...	...	...	...	...	3	...	...	1	...	2	2	...	...
Allen	89,579	82	10.6	5	8	1	2	...	2	29	13	1	...	...	...	...	...	...	8	2	...	...	...	6	11	...	20
Benton	12,320	11	10.5	1	4	1	...	...	2	3	2	...	...	...	...	...	...	...	3	...	...	...	...	1	1	...	...
Blackford	16,222	17	12.3	...	5	...	...	...	...	4	...	1	...	...	...	...	...	...	6	...	...	...	...	1	...	...	...
Carroll	18,868	13	8.1	1	...	...	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Cass	35,231	42	14.0	2	5	2	...	...	3	10	6	1	...	1	...	...	...	1	5	...	...	...	...	4	...	...	9
Dekalb	24,503	28	13.4	2	9	1	...	...	...	9	2	...	...	1	...	...	...	...	2	...	...	1	...	2	...	...	1
Elkhart	47,667	42	10.3	1	4	...	1	1	1	20	1	...	...	...	...	...	...	...	4	...	...	...	...	1	2	...	...
Fulton	17,689	17	11.3	2	5	...	...	2	...	2	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Grant	57,239	81	16.6	5	13	...	...	1	1	32	6	...	...	...	...	...	...	...	5	...	1	1	...	4	3	...	22
Howard	29,837	46	18.1	2	6	3	...	1	3	13	5	2	...	...	...	...	...	...	4	1	1	3	1	2	2	...	...
Huntington	30,607	26	10.0	...	3	1	...	...	...	14	1	...	...	...	...	...	...	...	4	...	...	...	...	3	2	...	...
Jasper	14,469	15	12.2	...	6	...	...	...	...	7	...	...	...	...	...	...	...	...	4	...	...	...	...	1	1	...	...
Jay	27,156	28	11.2	3	2	...	...	...	1	13	2	1	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...
Kosciusko	28,139	30	12.5	2	2	...	...	...	1	12	3	1	...	...	...	...	...	...	6	...	...	...	...	3	2	...	1
Lagrange	15,449	11	8.4	1	2	...	...	...	...	7	...	...	...	...	...	...	1	...	3	...	...	1	...	...	...	...	...
Lake	63,444	73	13.5	7	25	3	1	1	1	5	3	1	1	1	...	...	2	1	10	4	...	...	1	3	12	...	3
Laporte	56,007	59	12.4	5	9	2	...	...	...	27	4	1	1	...	...	...	...	...	6	...	...	...	...	2	6	...	7
Marshall	25,067	28	13.1	5	4	1	1	...	...	7	...	...	...	...	...	...	1	...	4	1	...	...	...	...	1	...	...
Miami	29,543	46	18.3	1	4	3	1	1	3	16	3	...	...	3	...	...	...	1	6	...	...	...	1	2	...	...	...
Newton	10,612	6	6.8	...	1	...	...	...	...	4	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...
Noble	22,627	26	13.5	3	4	2	...	...	1	7	4	1	1	1	...	...	...	...	3	...	...	...	1	...	...	...	...
Porter	20,965	16	9.0	...	3	...	2	...	1	6	1	...	1	...	...	...	...	...	1	1	...	...	...	3	...	...	...
Pulaski	15,928	11	8.1	...	3	...	...	...	...	5	1	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...
Starke	12,404	10	9.5	...	3	...	1	...	...	1	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...
Steuben	13,359	18	15.8	...	1	1	...	...	1	12	1	...	...	...	...	...	...	...	2	...	...	2	...	...	2	...	...
St. Joseph	72,387	77	12.5	3	19	5	2	...	2	20	10	3	...	...	...	1	...	...	6	1	...	1	...	4	6	...	5
Wabash	28,119	27	11.3	1	4	1	...	2	...	10	...	2	...	...	...	1	...	1	2	...	...	...	...	1	...	...	...
Wells	24,234	17	8.2	...	4	1	1	...	...	3	2	1	...	...	...	...	...	1	4	...	...	...	...	1	2	...	...
White	18,490	15	9.5	...	3	2	...	...	1	4	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
Whitley	16,922	10	6.9	...	...	...	...	...	...	7	1	...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	...
Central Counties	1,087,413	1,115	12.0	70	160	57	24	17	36	347	127	23	14	16	...	5	1	6	151	9	1	15	5	59	61	...	103
Bartholomew	23,933	25	12.3	1	2	...	3	...	1	11	3	1	2	...	...	1	...	...	1	...	...	1	...	2	...	...	...
Boone	24,475	23	11.0	1	2	3	1	...	1	7	1	2	...	...	...	...	...	...	5	...	...	...	...	...	2	...	...
Brown	10,034	12	14.1	1	1	...	...	...	...	5	3	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...
Clay	37,180	23	7.2	1	2	1	2	...	1	5	1	1	...	1	...	...	...	...	3	...	...	...	...	1	1	...	...
Clinton	27,478	19	8.1	2	1	2	...	...	...	7	...	...	...	...	...	...	...	...	1	...	...	1	...	1	2	...	1
Decatur	18,147	21	13.6	1	3	...	...	...	...	9	2	...	...	...	...	...	...	...	4	...	...	...	...	1	...	...	1
Delaware	50,859	51	11.8	4	5	3	3	1	...	14	3	3	...	1	...	3	...	1	1	1	...	1	...	3	...	...	2
Fayette	12,271	16	15.3	1	4	1	...	...	...	4	...	...	...	...	...	...	...	...	4	...	...	...	...	1	2	...	...
Fountain	19,274	26	15.9	2	6	...	...	...	...	14	1	...	...	...	...	...	...	...	4	...	...	1	...	1	1	...	...
Franklin	15,743	13	9.7	1	4	...	...	...	...	4	1	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...
Hamilton	28,591	31	12.7	2	2	1	...	...	1	8	7	1	...	...	...	...	...	1	3	...	...	4	...	...	1	...	1
Hancock	19,211	24	14.7	1	5	3	...	...	...	6	3	1	1	...	...	...	...	...	7	1	...	...	1	1	...	...	...
Hendricks	20,447	13	7.5	...	1	1	...	...	1	7	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...
Henry	23,569	22	11.0	...	1	1	2	...	1	7	2	1	...	1	...	1	...	...	...	...	...	...	...	3	3	...	...
Johnson	19,733	23	13.7	5	3	...	...	...	1	7	3	...	...	...	...	...	...	...	3	...	...	...	...	1	...	...	...
Madison	71,141	73	12.1	6	17	6	2	3	3	11	7	1	1	3	...	...	...	4	14	1	...	...	...	1	3	...	2
Marion	258,773	303	13.8	12	35	12	7	3	12	82	32	10	1	4	...	...	1	...	38	1	...	2	2	11	23	...	68
Monroe	23,254	23	11.6	...	5	1	...	...	3	9	3	...	...	1	...	...	...	...	6	...	...	...	...	1	1	...	...
Montgomery	27,146	34	14.7	1	5	1	...	...	1	13	5	...	...	...	...	...	...	1	5	...	...	...	...	2	3	...	1
Morgan	22,421	13	6.8	1	1	...	...	1	...	1	3	...	...	...	...	...	...	...	2	...	...	...	...	3	1	...	...
Owen	15,372	11	8.4	...	1	1	...	...	...	7	2	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...
Parke	22,876	20	10.3	2	6	1	...	1	1	2	1	...	...	...	...	...	...	...	7	...	...	...	...	1	...	...	1
Putnam	20,037	17	10.0	1	1	1	...	...	...	5	2	1	...	...	...	...	...	...	...	...	1	1	...	2	2	...	...
Randolph	28,238	32	13.3	2	4	...	...	2	2	14	6	...	1	1	...	...	...	...	4	...	...	...	...	...	...	...	1
Rush	17,615	17	11.3	2	5	2	...	...	2	3	1	...	...	...	...	...	...	...	4	1	...	1	...	...	1	...	...
Shelby	25,347	18	8.3	...	3	2	...	...	...	9	...	...	...	...	...	...	...	...	3	...	...	...	...	2	3	...	...
Tippecanoe	39,522	39	11.6	4	5	3	...	2	1	11	4	...	3	...	...	...	...	...	2	1	...	...	...	1	2	...	8
Tipton	19,609	20	12.0	...	4	1	...	...	...	8	3	...	...	...	...	...	...	1	3	...	...	1	...	...	...	...	...
Union	5,117	8	18.4	...	2	...	...	...	...	3	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Vermillion	16,856	22	15.4	1	6	2	...	1	1	5	2	...	1	...	...	...	...	...	4	...	...	...	1	2	1	...	...
Vigo	79,450	102	15.1	11	11	7	3	3	3	21	19	1	2	4	...	...	...	...	9	1	...	...	1	1	7	...	12
Warren	7,117	8	13.2	...	...	...	...	...	...	4	1	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...
Wayne	36,577	53	17.0	4	7	1	1	...	...	23	4	...	1	...	...	...	...	...	7	...	...	...	...	5	2	...	5
Southern Counties	722,146	678	11.0	39	112	46	20	9	22	169	97	12	17	11	2	2	...	6	102	8	...	14	4	23	40	...	36
Clark	33,840	37	12.9	2	1	5	1	...	...	11	8	...	3	...	...	1	...	...	5	...	...	...	...	1	1	...	3
Crawford	14,056	9	7.5	...	2	...	...	...	...	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Daviess	32,935	23	8.2	...	7	1	3	2	...	11	8	...	...	1	...	...	...	...	4	...	...	5	...	1	...	...	1
Dearborn	23,439	23	11.5	...	3	1	...	...	...	13	4	...	...	...	...	...	...	...	4	...	...	...	1	1	2	...	...
Dubois	24,069	11	5.3	...	2	1	...	...	1	2	3	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...
Floyd	33,390	47	16.6	2	10	5	...	...	2	16	5	...	3	1	...	...	...	...	9	1	...	...	...	2	2	...	2
Gibson	32,856	29	10.4	1	5	1	1	...	2	8	4	...	...	...	...	...	...	1	5	...	...	1	...	...	1	...	2
Greene	40,265	30	8.7	1	8	2	2	...	...	10	2	...	1	2	...	...	...	...	4	...	...	...	...	2	5	...	2
Harrison	22,781	17	8.8	...	2	1	1	...	3	4	3	1	...	1	...	...	...	...	7	...	...	...	...	...	...	...	...
Jackson	26,376	16	7.1	1	4	...	...	1	...	4	4	...	...	...	...	...	...	...	2	...	...	1	...	...	1	...	...
Jefferson	21,969	29	15.5	2	3	2	...	1	1	6	3	...	...	1	...	1	...	...	4	...	...	1	...	...	3	...	...
Jennings	16,079	24	17.6	1	5	...	...	...	...	5	3	...	1	...	...	...	...	...	1	1	...	...	...	1	1	...	...
Knox	41,079	47	13.5	4	11	7	...	...	1	7	6	...	...	...	...	...	...	5	12	1	...	1	...	...	...	...	...
Lawrence	31,838	20	7.4	1	2	...	...	1	2	5	2	1	1	...	...	...	...	...	3	...	...	...	...	1	2	...	...
Martin	15,421	15	11.4	...	5	1	1	...	...	2	2	1	1	...	...	...	...	...	2	...	...	...	1	1	...	...	...
Ohio	4,214	6	16.8	...	...	...	...	1	...	4	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Orange	18,592	20	12.6	2	5	...	2	...	...	4	1	...	1	...	1	...	...	...	2	1	...	...	...	...	3	...	...
Perry	21,304	18	9.9	...	3	3	3	...	1	3	5	...	...	4	...	...	...	...	4	...	...	...	...	...	1	...	...
Pike	22,176	34	18.9	4	1	3	2	...	3	15	5	2	1	...	...	...	...	...	3	...	...	1	...	1	...	...	...
Posey	23,586	19	9.5	2	3	1	2	...	...	4	4	...	...	...	...	...	...	...	4	...	...	...	...	1	...	...	...
Ripley	19,393	6	3.6	...	...	...	1	...	...	3	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...
Scott	9,709	7	8.5	...	1	...	...	...	1	2	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
Spencer	22,993	12	6.1	2	...	...	1	...	...	5	1	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...
Sullivan	32,882	30	10.7	4	5	2	...	1	...	11	5	...	1	...	...	...	...	...	3	...	...	1	...	...	3	...	...
Switzerland	10,010	13	15.3	1	...	2	...	1	1	4	...	1	...	...	...	...	...	...	2	...	...	1	1	...	...	...	...
Vanderburgh	82,589	90	12.8	8	14	6	...	...	2	17	9	4	1	1	...	...	...	...	11	2	...	2	1	7	8	...	26
Warrick	24,482	26	12.5	1	7	2	...	1	1	5	1	...	1	...	...	...	...	...	4	1	...	...	...	2	2	...	...
Washington	19,768	20	11.9	...	3	...	...	...	1	5	4	...	1	...	1	...	...	...	3	...	...	...	...	1	1	...	...

TABLE 2. Deaths in Indiana by Cities During the Month of January, 1909.

CITIES.	Population Estimated by Times School Census, 1908.	Total Deaths Reported for January, 1909.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.						Deaths from Important Causes.																
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive	15 to 19, inclusive.	65 Years and over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Diseases, under 5	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.
Cities over 50,000 Population	405,031	484	14.4	30	80	23	10	4	17	117	62	13	4	8			1		53	5		3	4	19	48		185
Indianapolis	233,150	267	13.5	11	32	11	6	2	11	68	30	9	3	4			1		30	1		2	2	10	18		61
Evansville	64,442	69	12.6	7	13	6			2	10	6	3	1	1					10	2		1	1	4	7		17
Ft. Wayne	56,304	69	14.4	5	7	1	1		1	22	10	1							5	2				4	10		17
Terre Haute	51,135	79	18.2	7	8	5	3	2	3	17	16		2	3					8				1	1	5		10
Cities from 25,000 to 50,000 Population	43,599	48	12.8	1	14	2	2		1	9	9	1				1			3			1		1	4		2
South Bend	43,599	48	12.9	1	14	2	2		1	9	9	1				1			3			1		1	4		2
Cities from 10,000 to 25,000 Population	280,545	375	15.2	29	62	23	5	4	11	87	37	3	4	5			2	9	48	6	1	4	2	18	22		18
Anderson	22,505	25	13.1	3	6	1			2	4	2							1	5	1							1
East Chicago	10,979	21	22.5		10	2					3						2	1	4	3			1		3		
Elkhart	17,084	18	12.4	1	1		1			9									2					1	1		
Elwood	13,821	11	9.3	1	2	3	1			1	3							3	1								
Hammond	19,995	20	11.8	3	8		1			2				1					2						5		3
Jeffersonville	12,000	16	15.7	1		3	1			4	4								2					1	1		1
Kokomo	12,834	26	23.9	2	4	2			1	8	1	1							3			3	1	2	1		
Lafayette	20,223	22	12.8	2	1	2		2	1	6	3		1						1	1				1	2		4
Laporte	10,004	20	23.5	1	4	2				7	2	1							2					1			1
Logansport	16,730	19	13.4		3	1			2	6	4			1				1	2					3			1
Marion	24,181	30	14.6	4	4			1	1	4	3								2		1				2		
Michigan City	20,000	21	12.3	3	2					9	1		1						2					1	4		2
Muncie	23,118	25	12.7	2	2	1	1	1		5	2	1		1					1	1		1		3			1
New Albany	23,005	36	18.4	2	7	3			2	13	4		2	1					7					1	1		2
Peru	10,517	15	16.8		1	2			1	6				1				1	2					2			
Richmond	19,602	26	15.6	3	3					9	2								4					3	2		
Vincennes	13,947	24	20.3	1	4	1			1	4	4							2	7								
Cities from 5,000 to 10,000 Population	174,454	203	18.2	6	28	13	5	3	8	72	15	1		2		1		2	28			3		12	15		7
Alexandria	6,030	6	11.7		2			1	1										2						1		1
Aurora	5,218	3	6.7							1									1								
Bedford	7,672	7	10.7		1				1	2	1	1												1	1		
Bloomington	7,829	13	19.5		2				3	4	2								2					1	1		
Brazil	8,827	5	6.6			1			1	1									1								
Columbus	7,595	13	20.1		1		1			9	2					1			1					2			1
Connersville	6,114	8	15.4		3	1				1									2						1		
Crawfordsville	6,492	14	25.4			1				8	2								1						1		1
Frankfort	8,645	12	16.3	1		2				3												1		1			1
Goshen	8,711	6	8.1					1		4																	
Greensburg	5,268	9	20.0	1	1					4	1								2					1			1
Hartford City	5,789	1	2.0							1									1								
Huntington	9,936	11	13.0		1					7									2					2			
Linton	6,737	5	8.7		3		1			1				1					1								
Madison	7,945	19	28.2	2	1	1			1	3	1								1			1			2		
Mishawaka	9,989	10	11.8		1	2				3									3					2	1		
Mt. Vernon	6,072	3	5.8		1					1									1								
Princeton	6,394	13	24.0	1	1	1	1		1	4	2							1	1								2
Seymour	5,593	3	6.3		1														1						1		
Shelbyville	8,246	9	12.8			2				4									2						3		
Valparaiso	5,771	9	18.4		2		1			4									1					2			
Wabash	8,592	7	9.6		2					3								1									
Washington	8,992	10	13.2		1	1	1	1		4	2			1					1			1					
Whiting	6,037	7	13.6	1	4	1													2						2		
Cities under 5,000 Population	134,370	180	15.8	10	30	8	3	1	5	52	22	6	4	3				1	22	1		5	1	6	7		
Angola	2,042	6	34.6							5									1			1			1		
Attica	2,989	4	15.7		1					3									1			1					
Auburn	3,171	3	11.1							2																	
Bluffton	4,375	4	10.7				1				1	1						1						1			
Butler City	1,547	5	38.1							3														1			
Cannelton	2,033	3	17.4						1	1	2																
Clinton	4,508	4	10.4		2	1			1				1						1								
Columbia City	3,066	5	19.2							4	1								1								
Covington	1,974	1	5.9							1																	
Decatur	4,385	7	18.8	1	3					2									1			1			2		
Delphi	1,725	2	13.6							1																	
Dunkirk	3,874	4	12.1		2				1																		
Franklin	3,909	4	12.0	1						1	1																
Garrett	4,273	8	22.0	2	1						1								1			1					
Gas City	3,465	3	10.2		2														1								
Greencastle	3,174	3	11.1							2		1															
Greenfield	4,697	7	17.5		2	2				1	2	1							1	1					2		
Huntingburg	2,838	4	16.6			1			1		1													1	1		
Kendallville	3,906	6	18.1		1						2	1							1				1				
Lawrenceburg	4,249	5	13.8							3	1								2								
Lebanon	4,949	5	11.9		1		1			1															1		
Ligonier	2,336	2	10.2			1								1													
Logansport	2,422	3	14.6		2																			1			
Martinsville	4,795	5	12.3	1	1														2						1		
Mitchell	3,131	3	11.3					1					1														
Montpelier	2,985	9	35.5		3					2		1							2					1			
Noblesville	4,504	7	18.3		2	1					2	1										1					
North Vernon	2,957	8	31.9	1	2						1		1						1								
Plymouth	3,304	4	14.2	1						2																	
Portland	4,924	4	9.5	1						3									1								
Rensselaer	2,268	4	20.8		3					1									1					1			
Rising Sun	1,379	5	42.7							4	1																
Rockport	2,681	No deaths.																									
Rushville	4,371	4	10.8		1				1		1								1								
Tell City	3,986	5	14.8			1	1			1	1			2											1		
Tipton	4,191	4	11.2			1				1	1								1								
Union City	2,446	3	14.4							2	1																
Veedersburg	1,641	2	14.3		1						1																
Vevay	1,263	1	9.3																								
Warsaw	3,692	8	25.5	1						4									2								
Winchester	3,581	6	18.2	1						2	1		1														
Total Urban Population	1,048,005	1,298	14.5	78	194	69	25	12	42	347	143	24	12	18		2	3	12	156	12	1	18	7	56	88		138
Total Rural Population	1,638,382	1,454	10.4	88	243	64	31	25	41	505	158	27	24	16	2	7	2	8	211	14	3	25	6	68	70		78

Mortality of Indiana for January, 1909.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated 3½ times School Census 1908.	Total Deaths Reported for January, 1909.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.												Deaths and Annual Death Rates per 100,000 Population from Important Causes.							
					Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		65 and Over.		Consumption.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria.	
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2,730,144	2,744	11.8	162	437	16.5	133	5.0	58	2.1	37	1.4	83	3.1	852	32.2	301	130.9	51	22.9	36	15.5	34	14.6
Northern Counties	920,583	951	12.1	53	165	18.3	30	3.3	12	1.3	11	1.2	25	2.7	316	35.1	77	98.6	16	20.5	5	6.4	7	8.9
Central Counties	1,087,413	1,115	12.0	70	160	15.3	57	5.4	24	2.3	17	1.6	38	3.4	347	33.2	127	137.8	23	24.9	14	15.1	16	17.3
Southern Counties	722,146	678	11.0	39	112	17.5	46	7.2	20	3.1	9	1.4	22	3.4	189	29.5	97	158.4	12	19.6	17	27.7	11	17.9
All Cities	1,048,005	1,290	14.5	76	194	15.9	68	5.6	25	2.0	12	.9	42	3.4	347	28.5	143	161.0	24	27.0	12	13.5	18	20.2
Over 50,000	405,031	484	14.1	30	60	13.2	23	5.0	10	2.2	4	.8	17	3.7	117	25.7	82	180.6	13	37.8	4	11.6	8	23.3
25,000 to 50,000	43,599	48	12.9	1	14	30.0	2	4.2	2	4.2	.....	.....	1	2.1	9	19.1	9	243.5	1	27.0	.....	.....	.....	.....
10,000 to 25,000	290,545	376	15.2	29	64	17.9	23	6.6	5	1.4	4	1.1	11	3.1	97	26.0	37	150.2	3	12.1	4	16.2	5	20.3
5,000 to 10,000	147,454	203	16.2	6	28	14.2	13	6.6	5	2.5	3	1.5	8	4.0	72	36.5	13	67.9	1	6.7	.....	.....	2	13.5
Under 5,000	134,376	180	15.8	10	30	17.6	8	4.7	3	1.7	1	.6	5	2.9	52	30.6	22	193.1	6	52.7	4	35.1	3	26.3
Country	1,639,382	1,454	10.4	86	243	17.7	64	4.6	31	2.2	25	1.8	41	3.0	505	36.9	158	113.7	27	19.4	24	17.2	16	11.5

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates per 100,000 Population from Important Causes.																							
	Croup.		Scarlet Fever.		Measles.		Whooping-Cough.		Pneumonia.		Diarrheal Diseases, Under Five.		Cerebro-Spinal Meningitis.		Influenza.		Puerperal Septicemia.		Cancer.		Violence.		Smallpox.	
	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2	.8	9	3.8	5	2.1	20	8.6	367	158.6	26	11.2	4	1.7	41	17.7	13	5.6	124	53.5	158	68.2	.....	.....
Northern Counties	.....	.....	2	2.5	4	5.1	5	6.4	114	146.1	10	12.8	3	3.8	12	15.3	4	5.1	51	65.3	57	73.0	.....	.....
Central Counties	.....	.....	5	5.4	1	1.0	9	9.7	151	164.7	8	8.6	1	1.0	15	16.2	5	5.4	50	54.2	61	66.1	.....	.....
Southern Counties	2	3.2	2	3.2	.....	.....	6	9.8	102	166.6	8	13.0	.....	.....	14	22.8	4	6.5	23	37.5	40	65.3	.....	.....
All Cities	.....	.....	2	2.2	3	3.3	12	13.5	158	175.6	12	13.5	1	1.1	18	18.8	7	7.8	56	63.0	88	99.0	.....	.....
Over 50,000	.....	.....	.....	.....	1	2.9	.....	.....	53	154.4	5	14.5	.....	.....	3	8.7	4	11.6	19	55.3	40	116.5	.....	.....
25,000 to 50,000	.....	.....	1	27.0	.....	.....	.....	.....	3	81.1	.....	.....	.....	.....	1	27.0	.....	.....	1	27.0	4	108.2	.....	.....
10,000 to 25,000	.....	.....	.....	.....	2	8.1	9	36.5	49	199.0	6	24.3	1	4.0	4	16.2	2	8.1	18	73.1	22	89.3	.....	.....
5,000 to 10,000	.....	.....	1	6.7	.....	.....	2	13.5	29	196.1	.....	.....	.....	.....	3	20.2	.....	.....	12	81.1	15	101.4	.....	.....
Under 5,000	.....	.....	.....	.....	.....	.....	1	8.7	22	193.1	1	8.7	.....	.....	5	43.9	1	8.7	6	52.7	7	61.4	.....	.....
Country	2	1.4	7	5.0	2	1.4	8	5.7	211	151.8	14	10.0	3	2.1	25	17.9	6	4.3	68	48.9	70	50.3	.....	.....

Meteorological Summary, Indiana Section. Climatological Service, U. S. Weather Bureau, for January, 1909. Furnished by W. T. Blythe, Section Director, Indianapolis, Ind.

SECTIONS.	Temperature.							Precipitation.				Condition of Sky.			Wind.
	Mean.	Departure from Normal.	Highest.			Lowest.						Number of Days.			
			Degrees.	Date.	Place.	Degrees.	Date.	Place.	In Inches. Average.	In Inches. Departure from Normal.	Snowfall, Unmelted.	Days with .01 inch or more.	Clear.	Partly Cloudy.	Cloudy	Prevailing Directions.
Northern Section	28.9	+3.7	69	23	Logansport	—10	4, 6	Hammond	2.82	+0.55	15.5	11	6	7	18	S.W.
Central Section	31.6	+4.7	73	23	Farmersburg	—15	13	Salamonia	2.44	—0.45	11.2	13	6	5	20	S.
Southern Section	35.3	+4.0	72	23	Evansville, Vincennes	— 3	13	Salem	3.76	—0.75	9.1	12	3	7	21	S.
				24	Jeffersonville											
State	31.9	+4.1	73	23	Farmersburg	—15	13	Salamonia	3.67	—0.23	11.9	12	5	6	20	S.