

MONTHLY BULLETIN

Indiana State Board of Health.

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J. H. FORREST, M. D., PRESIDENT..... Marion.
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The MONTHLY BULLETIN will be sent to all health officers and deputies in the State. Health officers and deputies shall 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.

ABSTRACT OF MORTALITY STATISTICS FOR DECEMBER, 1902.

The total number of deaths reported for the month was 2,634, a death rate of 12.3. There were 2,406 deaths in the preceding month with a death rate of 11.6. In December, 1901, the deaths numbered 2,842, death rate 13.3. The deaths according to important ages were: Under one year of age, 431 or 17 per cent. of the total number; 1 to 5, 166 or 6.7 per cent.; 5 to 10, 74 or 2.9 per cent.; 10 to 15, 56 or 2.2 per cent.; 65 and over 703 or 28.4 per cent. From important causes the number of deaths and rates per 100,000 were pulmonary tuberculosis 284 deaths, rate 133.1; other forms of tuberculosis 135, rate 16.4. Typhoid fever 91, rate 426; diphtheria 43, rate 22.5; scarlet fever 11, rate 5.1; whooping cough 18, rate 8.4; pneumonia 267, rate 125.1; diarrhoeal diseases under 5, 23, rate 10.7; cerebro-spinal meningitis 14, rate 6.5; influenza 19, rate 8.9; puerperal fever 8, rate 3.7; cancer 96, rate 45; violence 120, rate 56.2; smallpox 17, rate 7.9. In comparing these figures with those of December, 1901, we find there were 44 fewer deaths from consumption, but there were 13 more deaths from typhoid fever. Diphtheria shows a decrease in this comparison of 3 deaths, scarlet fever an increase of 9, measles a decrease of 2, pneumonia a decrease of 113, influenza a decrease of 6, cancer an increase of 14. There were two deaths from smallpox in December, 1901. The counties which report a death rate in excess of the average for the whole State, namely, 12.3, were: Benton, 15.2; Cass, 14.0; Fulton, 14.8; Huntington, 14.2; Kosciusko, 14.9; Laporte, 12.9; Marshall, 13.1; Newton, 14.6; Steuben, 14.7; St. Joseph, 16; Wells, 13.5; Bartholomew, 14.8; Brown, 14.5; Delaware, 13.7; Fayette, 13.1; Franklin, 15.1; Hancock, 12.9; Hendricks, 13.8; Marion, 17.1; Shelby, 12.9; Vigo, 15.2; Wayne, 13.3; Clark, 15.9; Dubois, 13.3; Floyd, 13.3; Gibson, 13.3; Greene, 16.9; Harrison, 13.5; Jackson, 17.2; Jefferson, 15.9; Perry, 13.1; Pike, 13.2; Scott, 12.7; Sullivan, 14; Warrick, 13.7.

BY SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, having a population of 839,835, and numbering 31 counties, reports 835 deaths, which is a rate of 11.7. The death rate for this section in the preceding month was 13, and in the same month last year it was 12.2. The pulmonary consumption death rate was 118, in 100,000, and in the preceding month the rate was 135.2, and in the corresponding month last year, it was 153.8. The typhoid rate in this section for this month was 30.9 per 100,000. In the preceding month the rate was 43.5, and in the corresponding month last year it was 30.9.

THE CENTRAL SANITARY SECTION, having a population of 1,024,725, and numbering 22 counties, reports 1,104 deaths, a rate of 12.7. This rate is .4 higher than the rate for the whole State and is .6 lower than the rate for the preceding month and is .6 lower than the rate for the corresponding month last year. The pulmonary tuberculosis rate for this section is 139.3 per 100,000. The corresponding month last year the rate was 151.9. The typhoid deaths numbered 36 which is a rate of 41.4. In the corresponding month last year, the deaths numbered 34, rate 39.1.

THE SOUTHERN SANITARY SECTION, having a population of 651,836 and numbering 25 counties, reported 695 deaths a rate of 12.5. This is a decrease of 2.1 as compared with the corresponding month last year. The rate of this section for pulmonary tuberculosis was 143, a decrease of 71 in comparison with the corresponding month last year. The rate for typhoid fever was 59.7 which is 3.6 more than in the corresponding month last year.

COMPARISON OF SANITARY DISTRICTS: The Northern Sanitary Section, as is usual, shows the lowest death rate, 11.7, and this rate is .6 less than the average for the whole State. The lowest death rate for children under 1 year of age, 16.5 per cent., was in the Central Section. The Northern Section shows the lowest death rate from consumption. It also shows the lowest death rate from typhoid fever, scarlet fever, pneumonia, puerperal fever and violence. Only two of the smallpox deaths occurred in the Northern Section.

CITIES: The cities of the State, representing a population of 1,857,850, report 1,061 deaths, a rate of 14.5. This is a decrease as compared with the corresponding month of last year of 1.2 and it is 2.2 higher than the average for the whole State. The rate for tuberculosis was 140.3 per 100,000, which is 7.2 higher than the rate for the whole State. The typhoid fever rate was 37.1, which is 5.5 less than the rate for the whole State.

COMPARISON OF CITIES AND COUNTRY: The cities show a death rate of 14.5 and the country 11.1. The country also shows a lower death rate for consumption, diphtheria, pneumonia, diarrhoeal diseases, cerebrospinal meningitis, cancer, violence and smallpox. In the following diseases the country death rate was higher than the city death rate: Typhoid fever and influenza.

CITIES BY CLASSES: CLASS A, having more than 50,000 population, having a total population of 228,171, including Indianapolis and Evansville, reports 301 deaths, a rate of 15.5. This is an increase of 15.5. This is an increase of 1 in the rate as compared with the corresponding month last year and is 3.2 higher than the average for the whole State.

CLASS B, having from 25,000 to 50,000 population, including Ft. Wayne, South Bend and Terre Haute, and representing a total population of 117,787, reports 166 deaths, a rate of 17.6. This is .5 higher than the corresponding month last year, and is 4.3 higher than the average for the whole State.

CLASS C, having from 10,000 to 25,000 population, including fourteen cities, representing a population of 216,823, reports 255 deaths, a rate of 13.7. This is 2.7 less than the corresponding month last year and 1.4 higher than the average for the whole State.

CLASS D, cities having from 5,000 to 10,000 population, including twenty-three cities in all, and representing a total population of 161,751, reports 192 deaths, a rate of 14. This is 1.6 lower than the corresponding month last year and is 1.7 more than the average for the whole state.

CLASS E, having a population under 5,000, numbering thirty-six cities and representing a total population of 131,508, report 147 deaths, a rate of 13.1. This is 2.5 lower than the corresponding month last year and is .8 more than the average for the whole State.

Comparison by sanitary districts is graphically shown by the map on page 141.

DISEASE PREVALENCE IN DECEMBER: Smallpox for the twenty-third consecutive month leads the list as the most prevalent. Tonsillitis was the second most prevalent disease, while rheumatism occupied this place in the preceding month. The order of disease prevalence was as follows: Smallpox, tonsillitis, rheumatism, bronchitis, pneumonia, influenza, typhoid fever, intermittent fever, scarlet fever, pleuritis, diarrhoea, diphtheria and croup, erysipelas, inflammation of the bowels, whooping cough, measles, dysentery, puerperal fever, cerebro-spinal meningitis, cholera infantum, cholera morbus.

We again observe that diseases of the air passages continue more prevalent than other classes of diseases and we must again call attention to the fact that this is due to our shutting ourselves in houses and thus using much foul air.

SMALLPOX IN INDIANA IN DECEMBER.

There were reported 642 cases of smallpox in December with 17 deaths in 41 counties. Compared with the corresponding month of 1901 this is a decided increase, for in that month 465 cases with two deaths in 28 counties were reported. Expressed in percentage the increase was

number of cases 38 per cent., area invaded 46.4 per cent. deaths 750 per cent. The severe epidemic centers were in Knox, Marion, Vigo, Washington, Adams, Allen, Monroe, Randolph, Ripley, Lagrange, Hancock and Lawrence counties. The distribution by counties of smallpox in the month was as follows: Adams, 12 cases; Allen, 14; Bartholomew, 2; Carroll, 2; Cass, 12; Clark, 1; Crawford, 1; Daviess, 38; Dekalb, 7; Elkhart, 2; Fayette, 2; Gibson, 1; Grant, 3; Greene, 5; Hancock, 13; Howard, 11; Jackson, 7; Jay, 2; Johnson, 1; Knox, 109; Lagrange, 20; Lake, 21 and 1 death; Laporte, 4; Lawrence, 21; Marion, 112 and 15 deaths; Marshall, 4; Martin, 3; Monroe, 16; Morgan, 4; Orange, 1; Owen, 6; Pulaski, 4; Randolph, 30; Ripley, 50; Starke, 5; Steuben, 2; St. Joseph, 13 with 1 death; Vanderburgh, 2; Vermillion, 6; Vigo, 28; Wabash, 2; Washington, 58; Wayne, 2.

The epidemic at Indianapolis was very fatal. In the pest house where most of the bad cases were cared for the death rate was almost 30 per cent. In cases of domiciliary quarantine the death rate was 20 per cent. Vaccination in Indianapolis is being pushed, and it is now believed that not less than 70 per cent. of the population has been vaccinated. When the figure reaches 80 to 90 per cent. the smallpox will disappear.

TYPHOID FEVER IN THE STATE IN DECEMBER.

Three hundred and thirty cases of typhoid with 91 deaths were reported in 57 counties. The death rate per 100,000 was 42.6.

TUBERCULOSIS IN THE STATE IN DECEMBER.

The total number of tuberculosis deaths in December was 318. Of these, 130 were males and 188 females. The death rate for the month was 133.1 per 100,000. The city death rate was 140.3 and the county rate 129.4. Of the total number, 23 were married males between the ages of 18 and 40, and 69 were married females between the same ages, and they left 184 orphans. It is, of course, impossible to tell how many of these orphans will become charges upon the State, but some of the number certainly will.

The great point in the matter is—how long will the intelligent people of Indiana allow this tiger called consumption to tear and rend them?

DEATHS FROM VIOLENCE.

There were 119 deaths from violence in December, 81 males and 38 females. There was 1 murder, 5 suicides, and the rest, 109, were accidental. Of the 9 suicides, 7 were males and 2 females. The 2 females chose poison, and so also did 3 of the males. Two of the males chose shooting and 1 chose a knife. Of the accidental deaths, 22 were by railroad accidents, 13 from fracture of the skull, 10 from gunshot wounds, 3 concussion of the brain, 19 burns and scalds, 3 carbolic acid, 3 freezing, 2 asphyxiation, and 1 strychnine.

SCARLET FEVER AND INFECTED MILK.

There was an interesting epidemic of scarlet fever among the students of Purdue University, at Lafayette, prior to the Christmas holiday. Six cases were confined in the hospital (St. Elizabeth's) and twenty-nine others, most of which were not well-defined cases, were at large among the other students. Some few cases were actually concealed by students and physicians, so that other students rooming in the same houses would not be quarantined, and thus lose time from their classes. At first, no common source of infection could be traced, the boys not eating at the same places, and in some cases not even knowing the other patients. The thirty-five cases, it was found, were fed at eleven different boarding houses or clubs, all of which were supplied with milk from the same dairyman. Interesting, too, in this connection was the fact that the boy who assisted in delivering the milk, came down with a severe case of "tonsillitis" at the same time as the students, and had to give up his work temporarily. Five private families, supplied with milk from this same man, had one or more cases of genuine scarlet fever among their children, at this same time. It is not likely that the boy who delivered the milk spread the disease, but that he contracted it by drinking the milk as did the students. An investigation of the dairy, and the dairyman's family, did not reveal anything that could have caused the epidemic. There was no sickness in the family, nor in either of the other two families that supplied the dairyman with additional milk. The probable explanation of the source of infection lies in the fact that last March the dairyman's family ran through a course of scarlet fever, and this being about the time that the winter clothing was abandoned for the thin summer clothing, that winter clothing would again have been put on but a short time prior to the outbreak among the students at Purdue. As it is known that the scarlet fever infection may remain virulent for a considerable time in clothing, it is not unlikely that it was through this means that the milk was infected. There is one other possibility, viz., that there might have been another family supplying the dairyman with milk in addition to the two families that he informed of, and he might have concealed this fact, knowing there was some sickness there. In this case the dairyman would be far more culpable. This is one of the few scarlet fever epidemics traced to infected milk that have been reported in this country.—By Severance Burrage, Professor of Hygiene, Purdue University.

QUESTIONS ANSWERED: Dr. S. O. Barwick, health officer of Wakarusa, asks that we answer the following questions in the Bulletin:

First, "In case of smallpox, whose duty is it to fumigate the residence?"

Second, "Who is responsible for the expense of fumigating?"

These questions were raised in Dr. Barwick's mind by the fact that the county commissioners of St. Joseph County paid the physician who attends smallpox cases, also paid expenses for a nurse when needed, and furnish

apparatus and material and pay a man to make fumigation. Dr. Barwick further says: "In our county nothing of the kind is allowed. Now, if the above is legal in St. Joseph County, why should it not be in Elkhart and in every county in the State?" The Doctor further says: "I paid \$2.40 out of my own pocket for formaldehyde necessary for fumigating a smallpox residence and have never been paid back by the town authorities. As the office only pays about \$12.00 per year, and as I feel certain I render the town a service worth more than \$12.00 per month, it seems I should be entitled to fair payment." The answer for the questions is very simple, and both questions can be met with one answer. The law says: "It shall be the duty of Boards of Health to take prompt action to arrest the spread of infectious and contagious diseases." The Appellate Court in interpreting this, declares that all expenses which can be shown necessary for the suppression of infectious and contagious diseases, shall be borne by the county, when the case is without the corporation of cities and towns, and be paid by the authorities of the cities and towns when the work done is within the corporation of the cities and towns. The rules of the State Board of Health also command what shall be done and these rules are issued under the provision of the law which says: "The State Board of Health shall have power to pass rules for the enforcement of this act."

Health officers will therefore understand that all expenses incident to the enforcement of the health law and the rules of the State Board of Health, shall be paid by their boards. It is not legal for health officers to employ physicians to attend cases. Their boards only can do this and boards of health may not employ health officers to treat the disease. The duty of health officers in regard to infectious diseases is simply to do all that is necessary to prevent the spread of infection.

* * *

AT BATESVILLE: Batesville is in the northern part of Ripley County and is a flourishing manufacturing town. A large proportion of the population is German. Smallpox in mild form has existed at this place for probably two years. A well-known physician remarked to the writer that he had seen patients with the disease on the streets very frequently. He further said: "It is a rare day when you can not see some one riding in from the country who has smallpox. I saw two men broken out with the disease on a load of hay very recently. Health officer Dr. Gibson has done his best to fight the disease, but the people were not alarmed and he found himself almost unable to enforce the health law and the rules. I presume it is at Batesville as everywhere else, necessary that deaths should appear before the people will arouse." This element in human nature is very interesting, we might perhaps say queer. Here at Indianapolis the people and the council would not vaccinate and very little indeed was done until the deaths reached such a number as to cause alarm. No warning of the health department received any notice; indeed, our warnings were simply ridiculed. It took death to bring the people to a realization of the conditions. We have been informed by

citizens of Batesville that most physicians of the town declare the disease is not smallpox. This has occurred at every point in the State, and it simply arouses the regret that so many physicians are in practice who are incompetent to diagnose variola. What an admirable thing it would be if it were possible to vaccinate physicians with diagnostic knowledge, like it is possible to vaccinate people against smallpox.

* * *

AT GREENFIELD: December witnessed a great commotion among the health authorities at Greenfield. Dr. Black, secretary of the city board of health, had been employed by the city to treat smallpox cases. It was his duty as town secretary to enforce the law and the rules intended for the prevention of disease, but medical treatment is not contemplated by the health law. When Dr. Black asked for his pay, it was found the city had no power under the statutes to contract with the city health officer as it had done, and so Dr. Black must go uncompensated. In the meantime his private practice was much interfered with and perhaps permanently injured. Dr. Black, finding his position uncomfortable and unprofitable, resigned, but no successor has been appointed. Dr. Selman, county health officer, has assumed the duties of the city health officer for the time being. He asks if it will be legal for the city to pay him for his services, and he has been answered in effect that it will not be legal, but that he will be compelled as county health officer to enforce the health law and the rules of health whenever and wherever in his county, a local health office may become vacant.

It will be well for all health officers to take notice that it is contrary to the law for them to contract with any public authorities for the treatment of disease.

* * *

INTERESTING SITUATION AT NEW ALBANY: Dr. Robt. W. Harris, county health officer of Floyd County, reported to the county board of health concerning certain unsanitary conditions existing in New Albany. It seems the city council had from time to time allowed citizens and various factories to empty sewage into various streams and drains flowing through the city. This had continued until the open streams and drains become filled with offensive matter, and a public nuisance had developed which was a menace to the health of the residents of New Albany. The Floyd County commissioners, on December 29, 1902, sitting as a board of health, condemned above conditions, and an order was made to the authorities of the city to abate the nuisance. At the regular meeting of the city council, held January 5, 1903, the city clerk was not even allowed to read the notification relating to this nuisance and the order has been treated with contempt. Dr. Harris wrote to the State Board of Health, asking what should be done in the premises. As the Attorney-General is yet new in his office and is buried under a heap of work for the Legislature, his opinion and advice could not be secured. Dr. Harris was therefore advised to consult with the county

attorney and, if possible, with the district prosecutor, and see if it was not possible to appeal to the court for a mandate, compelling the city council to listen to the official orders of the superior board, and also compelling the council to fulfill the requirements of the order. It is strange indeed that the representatives of the people of New Albany are not willing to do those things which are necessary to advance the health and other interests of the community.

* * *

HYDROPHOBIA IN JENNINGS COUNTY: Dr. W. J. Mitchell, health officer of Jennings County, writes: "On Sunday, January 11th, a little girl was bitten by a dog supposed to have the rabies. She was taken to Milton, Ky., to a madstone and it is reported the stone adhered for six hours. It was re-applied and it adhered for four hours, and at the last application it adhered for two hours. Several dogs were bitten and the owners refused to kill them." The question was whether or not the health department could be called upon to destroy the dogs. Dr. Mitchell was informed that this duty belongs to the police.

* * *

WALL PAPER: R. M. Brewer, colored, who is engaged in wall papering, has this suggestion to make in regard to repeated coats of paper upon walls. He says he finds in instances that as high as eight or even ten layers of paper have been put upon walls. Finally the coats must be removed and Mr. Brewer observes that men engaged in this work are very frequently made sick. As the paper is always wetted before it is scraped from the walls, sickness can not be caused by dust, but probably is caused by the odors arising from the paper. Mr. Brewer further says that he has observed this sickness to attend paper scrapers very frequently. It is not a single occurrence as might be inferred. He further suggests that very likely the peculiar odors which we sometimes discover in closed rooms, especially hotels, may be caused by the decomposition attendant upon the many coats of paper which are upon the walls.

* * *

AN INTERESTING COMPLICATION: The trustee of the township in which is situated Montpelier, Blackford County, telephoned the State Secretary in regard to a case of smallpox. He reported that a man who had arrived at Montpelier about three months ago and who was employed as a "hauler of dynamite" was taken down with smallpox. He lived with his wife, there being no children. He was reported to the trustee as a pauper and the latter official was requested to furnish food, fuel, medicines and medical attendance. As is well known, the trustees of Indiana are not permitted to spend more than \$15 for the relief of the poor without a special appropriation from the township advisory board. This small amount had been exhausted in other directions and the trustee was therefore helpless. He telephoned to know what could be done under such circumstances, and he also reported that the town authorities refused any assistance whatever.

It is plainly the law that cities and towns shall "take prompt action to arrest the spread of contagious and infectious diseases," and it was, therefore, plainly the duty of Montpelier to care for this man. Why the Montpelier authorities refused to perform their duty could not be told by the trustee. Taking the case in all its phases it presents some most interesting facts. The town board did not, of course, want to spend money if it could help it, for it desires to make a reputation for economy. This might also be said of the trustee, but in this instance he was entirely helpless. It has been remarked that "Man's inhumanity to man makes countless millions mourn."

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SCARLET FEVER AT ROME CITY: Dr. G. A. Stroup, health officer at Rome City, sends an interesting report in regard to scarlet fever within his jurisdiction. Fortunately no deaths occurred but fully two score of cases are reported. Some of the cases were severe but most of them were mild. The trouble seems to have been that quarantine was not observed, and the disease therefore was widely spread.

* * *

KNEE-POX: On this subject Dr. Stroup, health officer at Rome City, has this to say: "When a boy on the Western Reserve near Cleveland, Ohio, I had some experiences which I remember vividly to this date. My father was a farmer, and one year there appeared an eruptive disease among the milk cows. There would appear on their udders a round yellow scab without any pus. The scab could be easily removed and a round red spot remain. If the milkers had a sore or scratch on their hands, they would have a like scab without pus. The cows that were affected we always milked last, as otherwise the disease would be carried to the well ones. One of the remedies used was to wash the udders with copperas water and the eruption soon disappeared.

"In the case I called knee-pox which occurred here at Rome City, the lady was vaccinated and had a scab which reminded me of that I saw in my boyhood days and which I have described above. The lady milked her cow and must have transferred the disease to the animal, for the cow's udder became caked and all scabbed over. The husband milked the cow and he very shortly afterward developed sore hands. The infection must also have been transferred to his eyes, for they were badly swollen. He had fever, and I gave him some medicine to relieve it, and afterward administered iodide of potassium in good doses. He recovered very rapidly. Before he was entirely well his two children, aged 7 and 13, developed sores on their fingers, faces and legs, and indeed, wherever they could scratch. The whole family are now quite well."

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DR WILLEFORD'S REPORT: Dr. George W. Willeford, health officer of Daviess County, reports for December as follows:

"There were 38 cases of smallpox in 14 families during the month. Thirty-five of these were in school district in Harrison Township. The young lady teacher contracted

the disease in mild form and innocently continued to teach. All of the pupils quickly acquired the disease and now are immune and do not need to be vaccinated. Fortunately the mild form has existed and thus far no deaths have been reported. The 'impetigo doctor' is still with us. He has not yet learned to diagnose smallpox. There were ten cases of typhoid in eight families during December."

* * *

EVANSVILLE BOARD OF HEALTH: Good sanitary work is being done in Evansville, as shown by the following facts taken for the printed monthly report of the Evansville Board of Health, for December, 1902. Number of nuisances abated, 41; dairy inspections, 46; slaughter house inspections, 7; samples of milk analyzed, 48; diphtheria quarantines established, 9; scarlet fever quarantines, 10; smallpox quarantine, 1; rooms fumigated, 10. Total number of deaths, 42. The members and officers of the Evansville Board of Health are: Joseph W. Jerome, M. D., president; John E. Owen, M. D., vice-president; Wm. H. Gilbert, M. D. secretary; John J. Casey, sanitary officer; W. E. McCool, M. D., food and milk inspector.

* * *

A PAINT BREAKFAST: An actual breakfast in a working-man's family in Indianapolis.

FRIED SAUSAGE: This sausage, like the greater proportion of sausages on the market, was colored with aniline-red and was adulterated with about 10 per cent. of flaked corn grits.

APPLE BUTTER: Colored with aniline-red and loaded with glucose.

BUTTER: Colored with azo-dye, and adulterated with water. This butter contained 27 per cent. of water; the legal standard is not to exceed 15 per cent. of water.

COFFEE: The coffee had been glazed with a glazing mixture composed of dextrine and starch, colored with brown aniline dye.

BREAD: Cheap baker's bread. Soggy, not sufficiently baked, and containing glucose and malt extract.

POTATOES: These were normal

GRAVY: Made of flour, milk, and drip from the colored and adulterated sausage.

The breakfast consisted of seven articles, of which, only one was normal. Five articles, or 71 per cent contained artificial coloring matter. This last fact warrants the designation of a paint breakfast.

* * *

CONSUMPTIVE SANATORIA: Another great need is the provision by statute for the erection and maintenance of a State Sanatorium for the care and treatment of consumption. It is now generally recognized that under proper care and treatment at least 25 per cent. of the cases of consumption can be cured, and this can be accomplished in almost any State in the Union under proper regulations and provisions. It has been fully demonstrated that this can be done in the State of Massachusetts, where this disease is much more prevalent than in some other States, and where the climate certainly is not as favorable as in Wisconsin. Moreover, a patient recovering in Wisconsin can continue to live at home, a matter of great ad-

vantage to many, while those who go from Wisconsin to Colorado or South Carolina or Florida and recover are compelled to live there after recovery in order to prevent a relapse of the disease. The one secret in this somewhat new and startling method of treatment consists in having cases live out-of-doors, night and day, and through all seasons, but in order to carry this method into effect it is necessary to have proper Sanatoria and proper management for the care, comfort and safety of the patient. Within the past five years the government has established two Sanatoria of this kind, one, the Army Hospital and Sanatorium for the treatment of pulmonary tuberculosis at Fort Bayard, New Mexico; the other, the United States Marine Hospital Service Sanatorium at Fort Stanton, New Mexico, and five States have five special state institutions, namely, Maryland, State Hospital; Massachusetts, State Sanatorium; Minnesota, Hospital for Tuberculous Prisoners; Mississippi, Hospital for Tuberculous Insane; Texas, Agricultural Colony for Tuberculous Prisoners; and nine States have projected State Sanatoria, namely, Connecticut, Louisiana, Maryland, Minnesota, New Hampshire, New York, Ohio, Rhode Island, and Wisconsin. Tent colonies for tuberculous patients are reported to exist in Massachusetts and Pennsylvania, and three cities, New York, Chicago and Buffalo have special municipal consumptive hospitals. Besides these there are a number of private Sanatoria in several of the States where cases of consumption are treated. An institution of this kind under state management, on grounds of sufficient size, it is believed can be made nearly self-supporting, for a large proportion of these patients in the early stages of the disease can be engaged in out-of-door employment, not only with profit but with benefit to themselves as a part of the treatment. All cases of tuberculosis should be removed from our county and other institutions to the State Sanatorium for the Tuberculous, thereby being properly classified and treated, and not only the lives of their families and friends and the inmates of other institutions can be saved from infection, but in many instances a cure can be accomplished, and the head of many a family returned to his home, self-sustaining and in a fair prospect to live his allotted time. No greater good can come from any public work than by establishing a Sanatorium of this kind, for in the majority of cases the disease attacks the young and middle aged at a period in life when their existence is of the most importance, and the knowledge recently promulgated concerning this disease renders the work of treatment and care under proper circumstances almost if not quite absolutely scientific.—Dr. U. O. B. Wingate, in *The Municipality*.

WHITE HAVEN COLONY FOR TUBERCULOSIS PATIENTS: At the last session (1901) of the Pennsylvania State Legislature \$100,000 was appropriated to the Free Hospital for Poor Consumptives of Philadelphia for the furnishing of hospital buildings at White Haven, to be used exclusively for the treatment of incipient stages of tuberculosis.

AN OPINION FROM THE ATTORNEY-GENERAL.

DECEMBER 17, 1901.

Secretary State Board of Health:

DEAR SIR—You state that the health law of 1899 requires that all health boards “shall take prompt action to arrest the spread of infectious and contagious diseases,” and that it also empowers the State Board of Health to pass rules for the enforcement of the act. You say that the present rules require that infectious diseases like smallpox shall be quarantined by health officers, and that the quarantine is obviously for the benefit of the people, not for the afflicted person, and you ask: “When a person is quarantined on account of smallpox or other dangerous transmissible diseases, is not respectively the town, if in a town, the city, if in a city, the county, if without city and town boundaries, liable for all reasonable expenses necessary for maintaining the quarantine?”

As a general proposition, wherever a municipal officer is required by law to discharge a particular duty on behalf of the municipality he represents, that corporation is liable for the expense necessarily incurred in the performance of the act.

It would be idle to empower a county, city or town board of health to establish quarantine for the purpose of the protection of the public health, were not some provision made for bearing the necessary expense of the quarantine.

It is undoubtedly the duty of the public to provide for the indigent, as well as to protect itself from contagious diseases, and the fact that a person who is not a pauper is afflicted with a contagious disease does not cast upon the public the entire charge and expense of the treatment of the disease. Only so much of this expense is cast upon the public as is necessary for its own protection. Beyond this, whatever is required for the patient should be borne by himself, if his circumstances justify it.

Generally, only the expenses necessary for the protection of the public, where a quarantine is enforced, should be borne by the public, and inasmuch as it is extremely difficult to establish any general rule as to what expenses are required solely for the protection of the public, and what are solely for the protection and benefit of the patient, it would be, in all cases, wise for the health officers in establishing and enforcing quarantine to arrange, in the case of other municipalities, with the proper fiscal officers, in advance of the expenditures as to what funds might be required for the protection of the public.

I refer you to the case of Board of Commissioners of Jay County v. Fertich, 18 Ind. App. 1, which discusses this proposition at some length.

I have the honor to be

Very truly yours,

(Signed) WILLIAM L. TAYLOR,
Attorney-General.

ROYAL VICTORIA MEMORIAL SANATORIUM: The National Association for the Prevention of Consumption, of England, has purchased fifty acres of land near Linpley Stoke for a sanatorium.

THE PREVENTION OF HYDROPHOBIA.

The Secretary of the State Board of Health says:

"The recent death from rabies (hydrophobia) in Saginaw seems to prove that new and faster methods of work must be planned and adopted if deaths from this dreadful disease are to be prevented. And in order to do this, there must be a perfect understanding between the local health officials and the State Laboratory of Hygiene. Under past conditions it was best to keep the suspected dog, and if he died within eight days act on the belief that he had rabies. Then verify this by having the spinal cord tested by an expert. But in the Saginaw case for some reason action was not sufficiently prompt and one of the children bitten is already dead.

"In the light of the following letter from Doctor Vaughan, possibly there is a better way than waiting for the dog to die. Many such important questions can be gone over and decided by a conference of local and state health officials, which is to be held at Ann Arbor, January 15 and 16, 1903. Dr. Vaughan's letter should be read by every member of a local board of health, it is as follows:"

ANN ARBOR, Dec. 12, 1902.

Dr. Henry B. Baker, State Board of Health, Lansing, Mich.:

Dear Doctor—The facts about the material from the rabid dog sent from Saginaw to the Hygienic Laboratory are as follows:

The material was received at the laboratory late in the afternoon of November 19th. Immediate preparations were made to inoculate animals with this material, and two of my assistants worked until nearly midnight on the night of October 19th trephining and inoculating guinea pigs with this material and with another batch that came at the same time from Howard City. The first animal to die from inoculation with the Saginaw material died eighteen days later, and the health officer was immediately notified. I see from the papers that the children were bitten on October 13th. I do not know when the dog was killed. But supposing that the dog was killed November 13th, then the long period of incubation in the guinea pigs was due to the fact that the cord of the dead dog largely lost its virulence. Had the fresh material been sent me immediately, it would have reached me in a much more virulent condition and the guinea pigs would have responded much more promptly. I fail to see how it could have been possible for the work at the Hygienic Laboratory to have been carried out more expeditiously than it was. We could not inoculate with the material until it was received, and it was no fault of ours that six days elapsed between the time when the children were bitten and the material was received at the laboratory; nor was it any fault of ours that on account of this delay the material had grown less virulent and it required a longer time to induce the symptoms of the disease in the guinea pigs. If health officers throughout the State would attend the Annual Conference of Health Officers and make themselves familiar with the proceedings necessary in such a case, such an unfortunate accident as this could not occur. While many of the health officers in the State of Michigan are well posted, there are many others unfortunately who are wholly at sea when the necessity comes upon them for the investigation of an outbreak of disease. Not long ago I received from a certain health officer the brain of a dog which had bitten children and which was supposed to be rabid, and this brain was sent to me in alcohol. Another brain reached me hardened with formaldehyde. Of course it was impossible in either of these cases to do anything with such material. In other instances the material is directed to the Pathological Laboratory or simply to the University, and days elapse before it is brought to the Hygienic Labora-

tory. About one-third of the material which is sent to me for examination for diphtheria reaches me in such a condition that it is impossible for me to do anything with it, and some samples come in such a state that everybody who touches them during their transportation or after their arrival has his life endangered. I have the following suggestions to make in this connection:

1. That all the health officers in the State be required by the localities, which they represent, to attend the next Annual Conference which is to be held here in January and that the localities pay these men's expenses in attending this Conference.

2. That the State Board of Health furnish each health officer in the State with a special label to be attached to express packages sent to the Hygienic Laboratory for examination.

3. That the different express companies be requested to rush through to their destination all packages bearing this label.

4. That when a community secures a good health officer, he should be kept in that position and not turned down because he does not belong to the party which wins at the next election.

5. That each locality pay its health officer sufficiently to enable him to attend to his business.

All of which is respectfully submitted.—V. C. Vaughan, Director of the State Laboratory of Hygiene.

—Bulletin Michigan State Board of Health.

DR. TAYLOR'S SUGGESTIONS: Dr. J. N. Taylor, ex-president of the State Board and now city health officer of Crawfordsville, writes us as follows:

It seems to me very desirable to have a definite plan for dealing with epidemics all over the State, such as might be well understood and worked up to. To make my meaning plain I will illustrate: Here we are working all the ordinary means to get rid of our smallpox epidemic, the cost per day being so much as to drive chairman of finance distracted. Lafayette is doing nothing, and apparently the State Board of Health does not intend to compel her to do anything. This makes our labor and expenditures in vain, for we will have it right back again before we have had breathing time. Now we are doing more than the circumstances warrant, or Lafayette very much less than they warrant. If we are right they should be made to even up to us, if they are right we should come down to their level. Should there be a mean ground between the two or should all come up to the standard we are maintaining? It seems to me that to settle this question we should know what they are doing in the States immediately adjacent to our own. If they are in as much uncertainty as are we, then this uncertainty should be resolved. My suggestion is, call a conference with Ohio, Kentucky, Illinois and Michigan to meet at Indianapolis at a very early date. Call to meet there some of the best county and city health officers, and let the purpose be to adopt a joint plan of action in dealing with the present epidemic. We had several of these conferences in the past and they were always found profitable. I wrote Probst several days since to know what he was doing with smallpox in Ohio. He is usually very prompt in replying—this time he is slow. I think that his reason is that he does not yet know. At this time we have nine infected houses and twenty-two cases. I will vaccinate Wabash College tomorrow. Pest house in process of building.

Dr. Taylor's suggestions are certainly excellent and we wish greatly they could be carried out. It takes money to visit cities like Lafayette and compel them to obey the law, and it also takes money to pay the expenses of conferences. For these purposes we can't use the general health fund, for it is barely sufficient to enable us to do the work of collecting vital statistics and the health work already laid out.

PROPHYLAXIS OF GLANDERS AND TUBERCULOSIS IN HAVANA: In the public health report of the Marine Hospital Service of April 12, 1901, we find rules to prevent glanders and tuberculosis and herewith quote them. They are good reading and plainly show how our military authorities have so materially reduced the sick and death rates in Havana.

GENERAL RULES FOR THE PROPHYLAXIS OF THE GLANDERS AND TUBERCULOSIS IN THE CITY AND PROVINCE OF HAVANA.

First. From the publication of these regulations in the Official Gazette, the commission appointed by Order No. 52, from these headquarters, dated February 11, of the present year, shall be the competent authority to finally decide, without appeal, all cases and questions relating to glanders and tuberculosis in cattle; and the boards of health, sanitary employes, and organizations of Havana, municipal as well as provincial, shall be under the direction of the afore-mentioned special commission.

Second. The inspection of the stables for all kinds of cattle existing in the city of Havana, and of the ranches situated in the province of the same name, shall be made by order and under the direction of the commission; said commission shall name the necessary personnel for the strict compliance with these duties.

Third. Stables for all kinds of cattle and industrial establishments using horses or mules shall be obliged to employ a veterinary surgeon, who shall be accountable for the sanitary condition of the cattle.

Fourth. All horses having nasal discharges or cutaneous ulcers shall be considered as being glander suspects, and shall be placed at the disposal of the commission or its delegates, until the disease is properly diagnosed.

Fifth. The same method shall be observed with the milk cows which may be suspected to be suffering from tuberculosis.

Sixth. On the confirmation of the diagnosis made by the veterinary surgeons appointed by the commission, of the existence of glanders or tuberculosis in an animal, the same shall be immediately killed and cremated.

Seventh. In the case mentioned in the preceding article, the owners shall be paid one-half of the amount at which the commission or its delegates may have valued the animal killed, it being understood that only those willingly presenting animals which may be suspects or are actually suffering from those diseases shall be entitled to said indemnity.

Eighth. Those persons having in their stables, industrial establishments, rural properties, or private residences animals suspected or actually suffering from the said diseases shall be fined from \$10 to \$100, United States currency, at the discretion of the commission. These fines shall be paid by the owners of the animals and the veterinary surgeons professionally in charge of said animals, each paying one-half the amount of the fine.

Ninth. A period of eight days from the publication of these rules and regulations, will be granted to those

owning or having horses, mules or neat cattle of any kind or goats in the city of Havana within which to report the sanitary condition of their animals, said report to be certified to by a veterinary surgeon. At the end of said period a register will be opened at the offices of the commission, where such animals as may be considered to be in good healthy condition shall be registered.

Tenth. The owners of stables of all kinds shall not bring into their places any new animal without first announcing the fact to the commission for the purpose of the proper inscription of such animal, under a penalty of from \$10 to \$100, at the discretion of the commission, the owners being obliged, under the same penalty, to report the deaths and removal of the animals.

Eleventh. The owners of stables of all kinds shall also be obliged to report the number of animals they may have at pasture, as well as to state the causes of their being pastured, giving the name of the property at which the animals may be found.

Twelfth. The same penalty specified in the tenth rule shall be imposed upon the owners of country property who may take to pasture therein horses suffering from glanders and cows suffering from tuberculosis, unless, within eight days from the publication of this rule, they give notice to the commission of animals suspected of, and actually suffering from, said diseases, and within twenty-four hours of diseases or suspected cases that may occur thereafter.

Thirteenth. It shall be the duty of the rural guards to demand the sanitary certificate of any animal whatsoever that may be sent to pasture, which certificate shall be issued by the commission.

Fourteenth. All persons giving notice to this board of the existence of an animal suffering from glanders or of any cow suffering from tuberculosis, shall receive a compensation of \$5, United States currency, provided that said cases be confirmed.

Fifteenth. All expenses whatsoever incurred by this commission shall be charged to the State, and the services thereof shall be absolutely free to the owners of animals.

Sixteenth. The maximum price to be paid for such animals as may be killed shall be \$200 United States currency for each horse, and \$75 for each cow.

Seventeenth. All owners of stables having horses or cows shall conspicuously post these rules in their establishment.

OPEN AIR TREATMENT OF TUBERCULOSIS:

This treatment consists in living and sleeping in the open air, the taking of exercise according to strength under the directions of a physician, and the eating of plain nutritious foods. Almost no medicines are given. German reports show that this method has at one public sanatorium in Saxony cured 60 out of 98 patients. At Hanover, of 142 cases, 121 were cured, and at Baden 205 cases were cured out of 240. No advanced cases were accepted and these figures are of beginning cases.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES IN DECEMBER, 1902.

NORTHERN SANITARY SECTION.

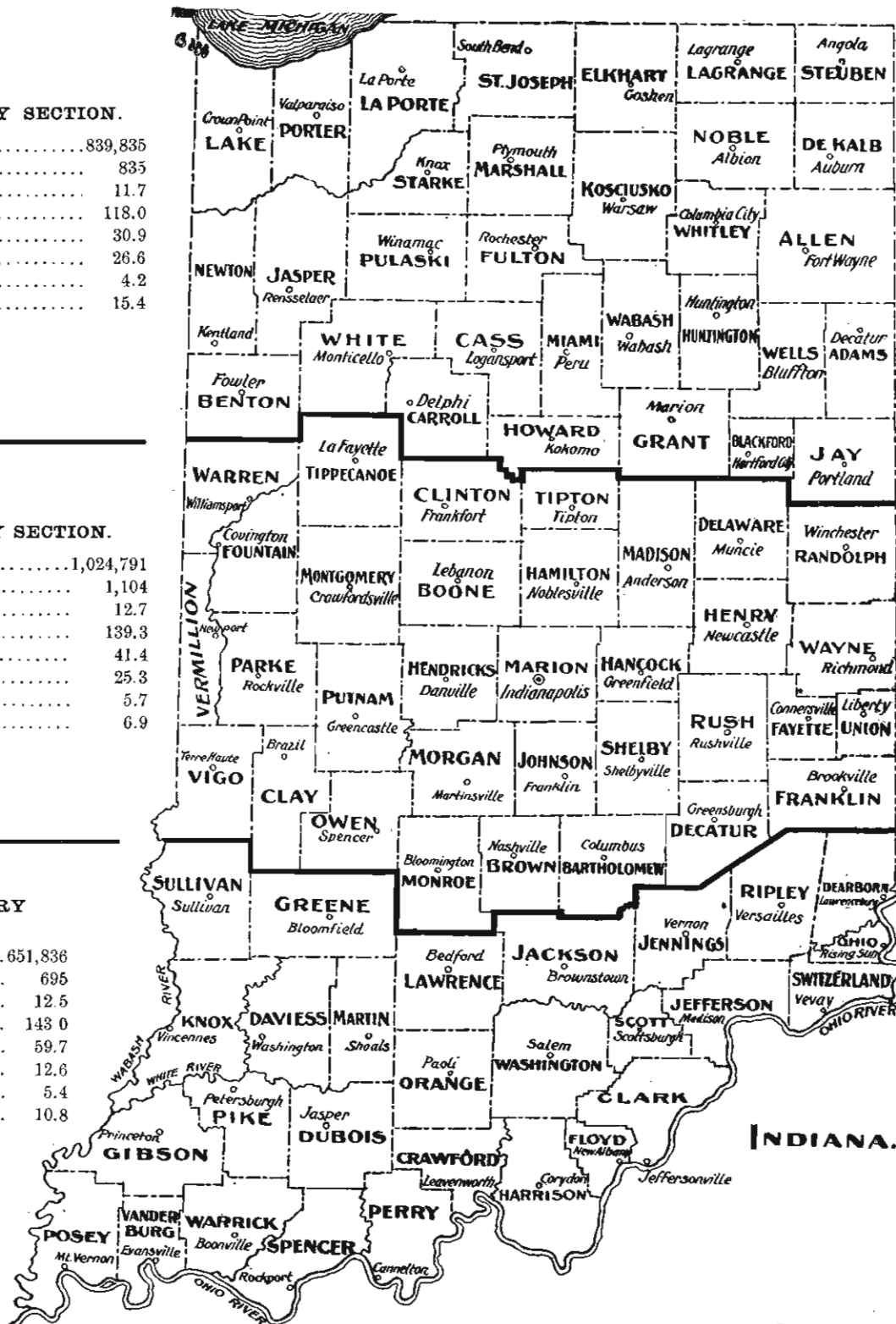
Total population	839,835
Total deaths	835
Death rate per 1,000	11.7
Consumption, rate per 100,000	118.0
Typhoid, rate per 100,000	30.9
Diphtheria, rate per 100,000	26.6
Scarlet fever, rate per 100,000	4.2
Diarrhoeal diseases, rate per 100,000	15.4

CENTRAL SANITARY SECTION.

Total population	1,024,791
Total deaths	1,104
Death rate per 1,000	12.7
Consumption, rate per 100,000	139.3
Typhoid, rate per 100,000	41.4
Diphtheria, rate per 100,000	25.3
Scarlet fever, rate per 100,000	5.7
Diarrhoeal diseases, rate per 100,000	6.9

SOUTHERN SANITARY SECTION.

Total population	651,836
Total deaths	695
Death rate per 1,000	12.5
Consumption, rate per 100,000	143.0
Typhoid, rate per 100,000	59.7
Diphtheria, rate per 100,000	12.6
Scarlet fever, rate per 100,000	5.4
Diarrhoeal diseases, rate per 100,000	10.8



Wm. B. Burford, Ind. J. H.

TABLE No. II. Deaths in Indiana by Cities During the Month of December, 1902.

CITIES.	Population, based on Census, 1900.	Total Deaths Reported for December, 1902.	Annual Death Rate per 1,000 Population.	Stillbirths.	IMPORTANT AGES.					DEATHS FROM IMPORTANT CAUSES.																	
					Under 1 Year.	1 to 5, inclusive.	5 to 10, inclusive.	10 to 15, inclusive.	65 Years and Over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Diarrhoeal Diseases, Under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Deaths in Institutions.	Smallpox.	
Cities over 50,000 Population	228,171	301	15.5	20	37	17	10	10	74	27	4	2	5					2	24	1	1		1	12	14	32	15
Indianapolis	169,164	257	17.9	18	30	14	9	9	85	22	3	1	5					2	19	1	1		1	9	13	28	15
Evansville	59,007	44	8.7	2	7	3	1	1	9	5	1	1							3					3	1	4	
Cities from 25,000 to 50,000 Population	117,787	166	16.6	15	31	14	6	6	34	15	4	3	12		1				13	3				5	7	15	6
Ft. Wayne	45,115	58	15.1	5	9	6	2	1	15	9	2	1	5						5	3				2	2	6	9
South Bend	35,999	50	16.3	7	13	4	1	3	10	3	1	1	3						3	2				1	2	3	6
Terre Haute	36,673	58	18.6	3	9	4	3	2	9	3	1	1	4						5	1				2	3	3	6
Cities from 10,000 to 25,000 Population	218,623	255	13.7	17	42	19	6	7	66	24	2	2	5		2		2	22	4	2	5		8	13	4		
Anderson	20,178	25	14.6	3	4	2	3	1	3	3	1	1	2					4	3				3	2	2		
Elkhart	15,184	21	16.3	1	2	1	1	2	7	7								4	1				1	2			
Elwood	12,950	10	9.1	1	2	1	2	2	2	3								1	1				1	1			
Hammond	12,376	13	12.3	2	2	2	1	2	3	2								1	1				1	2			
Jeffersonville	10,774	22	24.0	1	4	1	1	1	6	5								1	1				1	1			
Kokomo	10,609	5	5.5	1	1	1	1	1	2	2								1	1				1	1			
Lafayette	18,116	18	11.7	2	2	1	1	1	7	1								1	1				1	2			
Logansport	16,204	18	13.1	1	2	4			5	1								2	1		2			1	1		
Marion	17,337	17	11.5	3	3	3	1	1	6	6								1	2				1	1			
Michigan City	14,850	18	14.3	1	7	2			4	2								1	1				1	1			
Muncie	20,942	34	19.1	3	10	3			5	3			1		1			2	3				1	3			
New Albany	20,628	27	15.4	2	5	5			11	3								3	3				1	1			
Richmond	18,226	15	9.7	1	1	1			3	2								1	1				1	1			
Vincennes	10,249	12	13.8	1	1	1	1	1	3	1									1				1	1			
Cities from 5,000 to 10,000 Population	161,751	192	14.0	10	31	15	8	6	37	21	4	11	6	1	1			17	1	3			12	11			
Alexandria	7,221	9	14.7	1	1	3			1	2								1	1				1	2			
Bedford	6,115	9	17.3	1	3	1			3	2								4	1				1	1			
Bloomington	6,460	10	18.3	2	2	1			1	3								1	1				1	1			
Brazil	7,786	9	13.6	2	2	1			4	1								1	1				1	1			
Columbus	8,130	11	15.9	1	1	1			2	1								1	1				1	1			
Connorsville	6,836	8	13.8	1	1	1			2	1								1	1				1	1			
Crawfordsville	6,649	4	7.0	1	1				1	1								1	1				1	1			
Frankfort	7,100	5	8.3						1									1	1				1	1			
Goshen	7,810	11	16.6						3	3								1	1				1	2			
Greensburg	5,033	7	16.4		2				2	2								1	1				1	1			
Hartford City	5,912	7	13.9	2	2			1	2	1								1	1				1	1			
Huntington	9,491	7	8.7	1	2				2	1								1	1				1	1			
Laporte	7,113	7	11.6	3	3				2	1								1	1				1	1			
Madison	7,835	10	15.0	2	2	1			1	1								1	1				1	1			
Mishawaka	5,560	12	25.4	1	3	1	1	1	2	1			2					2	1				1	1			
Mt. Vernon	5,132	11	25.2	1	1	2		1	2	2			5					1	1				1	1			
Peru	8,463	9	12.5	1	1	1			4	1								1	1				1	1			
Princeton	6,041	8	15.6	1	1	1	1	1	1	1								3	1				1	1			
Seymour	6,445	8	14.6	1	1	1			1	1								1	1				1	1			
Shelbyville	7,169	9	14.8	2	2	1	1	1	2	3								1	1				1	1			
Valparaiso	6,280	2	3.7	1	1	1			1	1								1	1				1	1			
Wabash	8,618	11	15.0	1	1	1	1	1	2	1								1	1				3	1			
Washington	8,551	8	11.0	2	2	1	1	1	2	2								1	1				1	1			
Cities under 5,000 Population	131,508	147	13.1	10	32	9	4	2	41	15	2	3	3				2	21	1		1		8	2			1
Attica	3,005	4	15.7						1	1								2	2								
Auburn	3,396	4	13.8		2				2	1								1	1								
Aurora	3,645	2	6.4						1	2								1	1								
Bluffton	4,479	3	7.9						1	2								1	1								
Cannelton	2,188	4	21.5		1				1	2								1	1								
Clinton	2,918	No de	aths.						1	1								1	1								
Columbia City	2,875	2	7.9		1				1	1								1	1								
Covington	2,213	3	15.9						2	3								1	1				1	1			
Decatur	4,142	3	8.5		1				1	1								1	1								
Delphi	2,135	No de	aths.						1	1								1	1								
Dunkirk	3,187	5	18.5	1	2	1			2				1						1					1			
East Chicago	3,411	10	34.5		5	1			2										1								1
Franklin	4,005	3	8.8		1				2	1									1								
Garrett	3,910	7	21.1		1	1			2	1									1				1				
Gas City	3,622	6	19.5	1	2	1																					

Mortality of Indiana for December, 1902.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Census 1900.	Total Deaths Reported for December, 1902.	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.		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.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
					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	2,516,462	2,634	12.3	165	431	17.4	166	6.7	74	2.9	56	2.2	703	28.1	284	133.1	35	16.4	91	42.6	48	22.5
Northern Co's....	839,835	835	11.7	56	145	18.6	54	6.9	20	2.5	17	2.1	246	31.5	84	118.0	7	9.8	23	30.9	19	26.6
Central Co's....	1,024,791	1,104	12.7	76	170	16.5	62	6.0	33	3.2	17	1.6	294	28.5	121	139.3	11	12.6	36	41.4	22	25.3
Southern Co's....	651,836	695	12.5	33	116	17.5	50	7.5	21	3.1	22	3.3	163	24.6	79	143.0	17	30.7	33	69.7	7	12.6
All cities	857,840	1,061	14.5	72	173	17.4	74	7.4	34	3.4	31	3.1	252	25.4	102	140.3	16	22.0	27	37.1	31	42.6
Over 50,000.....	228,171	301	15.5	20	37	13.1	17	6.0	10	3.5	10	3.5	74	26.3	27	139.6	4	20.6	8	41.3	5	25.8
25,000 to 50,000.....	117,787	166	16.6	15	31	20.5	14	9.2	6	3.9	6	3.9	34	22.5	15	150.2	4	40.0	5	30.0	12	120.2
10,000 to 25,000.....	218,623	255	13.7	17	42	17.6	19	7.9	6	2.3	6	2.9	66	27.7	24	129.5	2	10.7	3	10.7	5	26.9
5,000 to 10,000.....	161,751	192	14.0	10	31	17.0	15	8.2	3	4.3	3	3.2	37	20.3	21	153.1	3	29.1	1	80.2	3	43.7
Under 5,000.....	131,508	147	13.1	10	32	23.3	3	6.5	4	2.9	4	1.4	41	29.9	15	134.5	2	17.9	3	26.9	3	26.9
Country.....	1,558,622	1,573	11.1	93	258	17.4	92	6.2	40	2.7	25	1.6	451	30.4	132	129.4	19	13.5	64	45.4	17	12.0

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates per 100,000 Population from Important Causes.																							
	Group.		Scarlet Fever.		Measles.		Whooping Cough.		Pneumonia.		Diarrhoeal Diseases, Under 5 Yrs.		Cerebro-Spinal Meningitis.		Influenza.		Puerperal Septicæmia.		Cancer.		Violence.		Small-pox.	
	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.
	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	9	4.2	11	5.1	1	.4	18	8.4	267	125.1	23	10.7	14	6.5	19	8.9	8	3.7	96	45.0	120	56.2	17	7.9
Northern Co's....	3	3.4	3	4.2	1	1.4	5	7.0	77	108.1	11	15.4	3	11.2	5	7.0	1	1.4	36	50.5	33	46.3	2	2.8
Central Co's....	3	3.4	3	5.7	1	1.4	12	13.8	100	115.1	6	6.3	3	7.3	5	5.7	2	2.3	33	43.7	53	66.7	15	17.2
Southern Co's....	6	10.3	3	5.4	1	1.8	1	1.8	90	129.9	6	10.8	4	7.2	9	16.2	5	9.0	22	39.8	29	52.4	.....	.....
All cities	1	1.3	4	5.5	.....	.....	6	8.2	97	133.4	8	11.0	9	12.3	1	1.3	1	1.3	45	61.8	47	64.6	16	22.0
Over 50,000.....	.....	.....	.....	.....	.....	.....	2	10.3	24	124.1	1	5.1	1	5.1	.....	.....	1	5.1	12	62.0	14	72.4	15	77.5
25,000 to 50,000.....	.....	.....	1	10.0	.....	.....	.....	.....	13	130.2	3	30.0	.....	.....	.....	.....	.....	.....	5	50.0	7	70.1	.....	.....
10,000 to 25,000.....	.....	.....	2	10.7	.....	.....	2	10.7	22	118.7	.....	10.7	.....	.....	.....	.....	.....	.....	8	43.1	13	70.1	.....	.....
5,000 to 10,000.....	1	7.2	1	7.2	.....	.....	.....	.....	17	124.0	1	7.2	3	21.8	.....	.....	.....	.....	12	87.5	11	80.2	.....	.....
Under 5,000.....	.....	.....	.....	.....	.....	.....	2	17.9	21	188.4	1	8.9	.....	.....	.....	.....	.....	.....	8	71.7	2	17.9	.....	.....
Country.....	8	5.6	7	4.9	1	.7	12	8.5	170	120.9	15	10.6	5	3.5	18	12.8	7	4.9	51	38.2	73	51.9	1	8.9

Meteorological Summary for December, 1902, Furnished by the Central Office, Indiana Section, Climate and Crop Service, U. S. Weather Bureau, Indianapolis, Ind., January 16, 1903.

W. T. BLYTHE, SECTION DIRECTOR.

SECTIONS.	TEMPERATURE.												PRECIPITATION.				CONDITION OF SKY.			Wind.		
	Mean.	Departure from Normal.	Highest.						Lowest.						In Inches.				Number of Days.			
			Degree.	Date.	Place.	Degree.	Date.	Place.	Average.	Departure from Normal.	Snowfall Unmelted.	Days with 0.1 inch or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing Direction.						
																
Northern Section.....	26.0	-3.0	51	1	Laporte.....	-4	9	Valparaiso...	2.94	+0.64	13.0	12	8	7	15	W.						
Central Section.....	29.7	-2.2	59	1	Veedersburg.	-8	31	Northfield...	3.81	+1.14	5.1	11	6	7	18	SW.*						
Southern Section.....	33.5	-1.2	62	11 3	Madison... Mt. Vernon... Salem.....	-7	31 31	Avoca..... Columbus..	5.40	+2.25	2.8	12	6	6	19	NW.						
State.....	29.7	-2.1	62	11 3	Madison... Mt. Vernon... Salem.....	-8	31	Northfield...	4.05	+1.34	7.0	12	7	7	17	SW.						

*Also other directions.