

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 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 FEBRUARY, 1903.

The total number of deaths reported for the month was 2,677, which is an annual rate of 13.8. The deaths reported for the corresponding month last year were 2,874, making a rate of 14.8. There is accordingly an improvement to note of one in the death rate. The deaths during the month by ages were as follows: Under one year of age, 464, which is 18.4 per cent. of the total; between 1 and 5 years of age, 175, which is 6.9 per cent. of the total; between 5 and 10 years of age, 63, which is 2.5 per cent. of the total; between 10 and 15 years of age, 48, which is 27.7 per cent. of the total. Pneumonia heads the list as a cause of death, there being 399 deaths from this cause. Then come in the following order, consumption 305 deaths, cancer 92, violence 80, influenza 56, diphtheria 53, smallpox 50, typhoid fever 49, diarrhoeal diseases 23, cerebro-spinal meningitis 22, scarlet fever 14, whooping cough 12, measles 5. The smallpox deaths occurred as follows: Grant County 2, Laporte 2, Marion 39, Owen 1, Randolph 2, Vermillion 1, Greene 1, Ripley 1, Vanderburgh 1.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, having a population of 839,835, and numbering 31 counties, reported 839 deaths, a death rate of 12.9. The same section in the corresponding month last year reported 848 deaths, a rate of 13 1.

THE CENTRAL SANITARY SECTION, population 1,024,791, numbering 22 counties, reported 1,171 deaths, a rate of 14.8. In the corresponding month last year, this section reported 1,266 deaths, a rate of 16.

THE SOUTHERN SANITARY SECTION, population 651,836, and numbering 25 counties, reported 667 deaths, a rate of 13.2. This section in the corresponding month last year reported 760 deaths, a rate of 15.1. These figures show a decided improvement in all these sections as compared with February, 1902.

COMPARISON OF SANITARY DISTRICTS: The Northern Sanitary District as is usual, shows the lowest death rate, 12.9, and this rate is 0.9 less than the average for the whole State. The lowest death rate for children under 1 year of age, 15.8 per cent., was in the Central Sanitary Section. This section also shows the lowest rate 144.6 in the 100,000 for tuberculosis. The lowest rate for typhoid fever 23.9 per 100,000 is found in the Southern Section. The Central Section shows the lowest rate for diarrhoeal diseases, cerebro spinal meningitis, and puerperal fever. The smallpox deaths were distributed as follows: The Northern Section 4, Central Section 43, Southern Section 3.

CITIES: The cities of the State representing a population of 1,857,850, report 1,146 deaths, a rate of 17.3. In the corresponding month last year, the cities reported 1,148 deaths, a rate of 17.3. The rate for tuberculosis was 195.4 per cent. per 100,000, typhoid fever 34 8, diphtheria 33.3, pneumonia 236.4, diarrhoeal diseases 15.1, cerebro-spinal meningitis 12.1, influenza 25.7, puerperal fever 7.5, cancer 66.6, violence 60.7, smallpox 65.1.

COMPARISON OF CITIES AND COUNTRY: The country death rate is 5.4 less than the city rate. In the following diseases, the rate is lower than the city rate, namely: Consumption, typhoid fever, diphtheria, pneumonia, diarrhoeal diseases, cerebro-spinal meningitis, cancer, violence and smallpox. Influenza is the only disease showing a higher death rate in the country than in the city.

CITIES BY CLASSES: CLASS A, having more than 50,000 population, having a total population of 238,171, including Indianapolis and Evansville, reports 341 deaths, a rate of 19.4. This is an increase of 2.4, as compared with the corresponding month last year, and 5.6 higher than the average for the whole State.

CLASS B, having from 25,000 to 50,000 including Ft. Wayne, South Bend and Terre Haute, and representing a total population of 117,787, report 162 deaths, a rate of 17.8. This is 1.1 higher than for the corresponding month last year and 5 higher than the average for the whole State.

CLASS C, having from 10,000 to 25,000 population, including 14 cities, representing a total population of 216,823, reports 294 deaths, a rate of 17.4. This is exactly the same as for the corresponding month last year, and is 3.6 high than the average for the whole State.

CLASS D, cities having from 5,000 to 10,000 population, including 23 cities in all, and representing a total popula-

tion of 161,751, reports 189 deaths, a rate of 15.1. This is 4.2 less than for the corresponding month last year, and 1.3 higher than the average for the whole State. Under 5,000, numbering 36 cities, representing a total population of 131,508, reports 160 deaths, a rate of 15.8. This is 0.7 higher than for the corresponding month last year and 0.2 higher than the average for the whole State.

Comparison by sanitary districts is graphically shown by map on page 21.

DISEASE PREVALENCE IN FEBRUARY: Smallpox for the twenty-fourth consecutive month leads the list as the most prevalent disease. Influenza was reported as the second most prevalent disease. The order of disease prevalence was as follows: Smallpox, influenza, tonsillitis, bronchitis, pneumonia, rheumatism, scarlet fever, intermittent fever, diarrhoea, typhoid fever, pleuritis, diphtheria and croup, whooping cough, inflammation of bowels, erysipelas, measles, puerperal fever, dysentery, cholera morbus, cerebrospinal meningitis, cholera infantum.

During the month influenza existed to an extraordinary degree and has caused not a little of very serious sickness. The death rate was a little higher than that from smallpox. As was to be expected, diseases of the respiratory tract continued more prevalent than other disease classes, and we will again call attention to the fact that this is largely due to our shutting ourselves up in houses and using much foul air.

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SMALLPOX IN FEBRUARY: There were reported 889 cases of smallpox in 59 counties with 50 deaths. As compared with the corresponding month last year this is an increase in number of 49 per cent., in area of 19.5 per cent. and in deaths of 157 per cent. Compared with the preceding month, smallpox shows a decrease in cases of 3.5 per cent. The number of deaths are exactly the same for both months and there is an increase in smallpox area of 5.3 per cent. The severe epidemic centers were Cass, Marion, Brown, Ripley, Daviess, Fulton, Grant, Knox, Lawrence, Madison, Martin, Monroe, Ripley, Vanderburgh and Vigo counties. The distribution by counties in the month was as follows: Adams 15, Benton 2, Boone 1, Brown 50, Carroll 1, Cass 115 cases, 1 death; Clark 11, Clay 10, Clinton 1, Daviess 53, Dearborn 7, Decatur 13, Dekalb 19, Delaware 2, Dubois 25, Elkhart 2, Fayette 2, Floyd 1, Fulton 38, Gibson 4, Grant 30, Hancock 8, Howard 10, Huntington 1, Jackson 1, Jasper 1, Jefferson 1, Johnson 1, Knox 21, Laporte 2, Lawrence 20, Madison 27 cases, 2 deaths; Marion 181 cases, 39 deaths; Marshall 8, Martin 40, Monroe 69, Montgomery 7, Morgan 2, Noble 2, Owen 5, Parke 2, Posey 3, Pulaski 8, Putnam 2, Ripley 20, Rush 2, Shelby 1, Spencer 15 cases, 3 deaths; St. Joseph 2, Sullivan 5, Tippecanoe 7, Tipton 3, Vanderburgh 22 cases, 1 death; Vermillion 12, Vigo 20, Warren 6, Warrick 5, Wayne 3, White 19.

At Indianapolis the greatest fatality is to be noted, where there were 39 deaths on account of smallpox with

181 cases, making a death rate of 21.4 per cent. Vaccination in Marion County and in Cass County has been very general and it is now believed that not less than 85 per cent. of the population has been vaccinated. It is now about time for the disease to disappear and it certainly will do so on account of this general vaccination.

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TUBERCULOSIS IN FEBRUARY: The total number of tuberculosis deaths was 337. Of this number 137 were males and 200 females. The death rate for the month was 157.5 per 100,000, which is 16.5 lower than for the the corresponding month last year. The city rate for tuberculosis was 195.4 per 100,000, and the country rate 137.8. Of the total number of deaths during the month 29 were married males between the ages of 18 and 40, and 72 were married females between the same ages, and they left 202 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 people of Indiana allow this tiger, called consumption, to tear and rend them?

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TYPHOID FEVER IN FEBRUARY: 192 cases of typhoid fever with 49 deaths were reported in 30 counties. The death rate per 100,000 was 25.3, which is 5.8 higher than in the corresponding month last year.

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DEATHS FROM VIOLENCE: There were 80 deaths from violence in February, 64 males and 16 females. There was 1 murder, 10 suicides and the rest, 69, were accidental. Of the 10 suicides, 2 were females and they chose cutting the throat as a mode of death. The 8 males chose the following methods: Strychnine 1, shooting 3, carbolic acid 2, hanging 2. Of the accidental deaths 15 were from railroad, 1 from street cars, 3 crushed, 10 burns and scalds, 5 bullet wounds, 1 asphyxiated by gas, 4 drowned, 2 wood alcohol, 2 morphine, 2 frozen, 4 machinery.

RECENT SANITARY LEGISLATION IN INDIANA.

The Sixty-third General Assembly, which adjourned March 7th, passed four bills which were presented by the State Board of Health. The first was an increased appropriation for health work. Six thousand dollars per annum, aside from the salary of the secretary and chief clerk, had been heretofore appropriated. Now ten thousand dollars is given. This makes an increase of four thousand dollars, available November 1, 1903. The State Board will strive hard to do good work with this money.

The second bill which became a law, and which the Board has twice before recommended, was for the purpose of ventilating the State House. Ventilation of the legislative chambers is so poor that at every session, coughs, colds, lagrippe, headaches, etc., have prevailed. Heretofore the Board has been laughed at for insisting that foul

air was the principal cause of the sickness, but not until this session could attention be gained to the matter, and probably nothing would have been done this time if there had not been many cases of acute diseases of the air passages, and two deaths among the members of the Assembly.

The third forward step gained was the passage of the quarantine law, which was published in full in our January number. This law leaves very little more to be desired in the way of power given to Boards of Health for the purpose of suppressing infectious diseases. It first provides that physicians and householders shall immediately report such diseases as are required to be reported in the rules of the State Board of Health. It then becomes the duty of the health officer in whose jurisdiction the disease is found to immediately establish a quarantine "so as effectually to isolate the case, or cases, and the family if necessary, in such manner and for such time as may be necessary to prevent transmission of the disease." The penalty for breaking quarantine or for physicians refusing or neglecting to "take such precaution as are directed in rules of the State Board of Health," when visiting cases of infectious disease is a "fine of ten to fifty dollars, to which may be added imprisonment in the county jail not exceeding six months." The law requires that all infected persons and premises shall be disinfected at the proper time, according to the rules of the State Board. School children, "if infected with any communicable disease, or if it or they have been exposed to any communicable disease," shall not attend school or appear in public, and all school teachers "shall exclude from the schools all such children, unless a written permit to attend is given by the health officer having jurisdiction."

Health officers must also attend "a meeting of the State Board of Health, when requested by the latter for consultation or conference concerning the restriction and prevention of contagious and infectious diseases, or for the consideration of important sanitary matters, and the expense of the delegate shall be paid by the board appointing him."

Power is given to remove cases of contagious diseases "to a proper place designated by such board," also to remove all infected "things and articles" and these may be destroyed at the option of the board but must be "paid for at their actual cash value."

Bodies, dead of cholera, bubonic plague, leprosy, typhus fever, yellow fever, smallpox, diphtheria, membranous croup, scarlet fever and cerebro-spinal meningitis, shall be buried within twenty-four hours after death, and the funeral shall be strictly private, and "buried human remains shall not be disinterred nor removed without permission from the State Board of Health."

Upon the order of health officers, if infection may reasonably be supposed to exist, steam and trolley cars and all conveyances must be disinfected at the owner's expense. Quarantine orders for the management of steam and trolley cars in a quarantined region shall be obeyed. Penalty for disobedience is a fine of one hundred dollars.

The expenses incident to disease prevention shall be paid by the cities and towns in which the work may become necessary, and when without the corporation of cities

and towns said expense shall be borne by the county. If at any time the authorities of any county, city or town fail, neglect or refuse to enforce the State statutes or rules of the State Board of Health for the restriction of dangerous, communicable diseases, then the State Board of Health, if in its opinion it becomes necessary, shall take charge and enforce the laws and the rules and all expenses shall be paid by the county, city or town in which such enforcement becomes necessary. Sheriffs, constables, marshals, police and all peace officers, shall, if called upon by health officers, aid in the enforcement of this act.

"Any person who violates any provision of this act, or any rules or regulations of the State Board of Health, for the enforcement of this act, shall be punished by a fine of not less than ten nor more than one hundred dollars, except as herein otherwise provided."

The law creating a State Laboratory of Hygiene, and which has twice before failed of passage, was passed this time in the Senate 44 to 6 and by the House 77 to 13. The Governor vetoed it. This bill appropriated \$5,000 for establishing the laboratory and \$10,000 per annum for conducting it.

AS TO VACCINATION: Dr. T. Henry Davis, for thirty-two years health officer of Richmond, Ind., and for eight years a member of the State Board of Health, and for two years president, says in a recent communication to the public prints:

There are two classes who object to vaccination: Those who deny its efficiency in preventing smallpox, and others who fear the results of vaccination.

As to its protective power, I desire to say, that for twenty-five years one man has driven the smallpox ambulance, associated with over one hundred patients. He has never had smallpox.

One physician has treated over eighty cases, and another thirty cases mingling with the patients in all stages of the disease. Neither physician ever had smallpox.

The nurse at present in charge of the smallpox hospital has never had smallpox.

The one who cares for the rooms after smallpox and washes the bedding has never had the disease.

Surely there is some protection in vaccination.

To the second class who fear untoward results, I would say that aside from any scientific reasons that might be produced, vaccine virus is a commercial product. There are quite a number of competing firms who have large investments; each is exceedingly jealous of the other and none of these firms who distribute the product could afford to put upon the market a virus that was either inert or dangerous, as the reaction would ruin their business prospects. Aside from any medical view, this alone is a protection to the public. Eight hundred thousand were vaccinated in Porto Rico and six hundred thousand in Philadelphia last year. No disaster followed in any instance.

Of five hundred cases of smallpox occurring at Indianapolis there were fifty deaths and of twenty-nine cases in adjoining towns there were seven deaths.

These statements are offered without comment for the consideration of the Richmond public.

* * *

MR. HINSHAW'S WELL: Mr. James T. Hinshaw, of Westfield, Ind., writes us as follows in regard to his well:

"My well, which is twenty feet deep, was dug years ago on the north side of my house. The slope of the ground was toward the well. In 1889 the house was moved just west of the well, and the ground under the house was on a level with it. The first case of typhoid was in the fall of 1890, and was very mild. In 1897 the well was cleaned out and walled. In the spring of 1902 the house was moved clear away, and then in the fall following came the second case of typhoid fever. This case was a mild one. Several families have lived here. There is now no building close to the well. It is on a hill higher than the ground around, and is fed by a three-inch vein of water, which can not be pumped lower than the vein, which is eighteen inches from the bottom of the well. If you find typhoid germs, please tell me how to kill them, as it would be quite a loss to me to lose such a good well if I do not have to."

The analysis of the sample of water sent failed to discover any suspicious bacteria, and the chemical analysis gave such figures as to class the water as passable. It is well known that one bird does not make a summer, and one analysis does not prove the quality of a water. Mr. Hinshaw does not describe the location of vaults or sinks, which is a great omission in any sanitary survey. We advised Mr. Hinshaw to boil all the water that is taken from this well.

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MILK ANALYSIS: Here is an illustration of the value of milk analyses: A physician sent in a sample of mothers' milk with the statement that, while the mother was in good health the babies—twins, do not thrive. Instead of filling up their little stomachs with medicines, the doctor very wisely sought the aid of the laboratory.

The analysis showed the following conditions:

Proteids (casein, etc.).....	1.22 per cent.
Fat.....	1.56 per cent.
Ash.....	.50 per cent.
Sugar.....	7.22 per cent.
Total solids.....	10.50 per cent.

The milk was thus found far below the standard in its most essential constituents, proteids and fat.

Normal mothers' milk is of the following composition:

Proteids.....	2.00 per cent.
Fat.....	3.40 per cent.
Ash.....	.23 per cent.
Sugar.....	5.70 per cent.
Total solids.....	11.33 per cent.

Composition will plainly show how the first sample had a wrong composition and therefore caused sickness.

Another instance of the value of milk analysis is shown by the following: A woman was placed upon a milk diet, and bought milk of a local Wilmington dealer. Confidence in the quality of the product was naturally engendered by the presumptuous label on the bottle, which read: "Warranted absolutely pure milk." An analysis showed 1.98 per cent. of fat and 8.38 per cent of solids not fat. This milk had either had about one-half of its cream removed by skimming, or it had been both skimmed

and watered. At any rate it was so impoverished as to make poor diet for a patient dependent upon it as a food.

Furthermore the milk contained formaldehyde, certainly not an advisable mixture for an invalid stomach. It is hoped that physicians will make more use of the laboratory for the examination of milk.—Bulletin N. J. Hygiene Laboratory.

RULES FOR BARBERS.

1. Mugs and shaving brushes will be sterilized after every separate use thereof.
2. Razors shall be wiped with alcohol before and after being used.
3. Hair brushes known as "sanitary brushes," shall be used after being sterilized.
4. Razor strops shall be kept clean, and never wiped off with the hand or blown upon with the breath.
5. A separate clean towel shall be used for each person.
6. Barbers shall not blow away with the breath any hairs after cutting, but use a towel or bulb or hair brush.
7. Barbers shall keep their finger nails cut short and clean. Alum and other material used to stop the flow of blood shall be so used only in powdered form and applied on a towel.
8. Powder, when used, will be applied by means of a towel, and sponges are not to be used at all.
9. No person is allowed to sleep in this shop. It is open night and day.
10. All instruments shall be disinfected after each using.
11. No person shall be allowed to use any barber shop as a dormitory.
12. All barbers' instruments must be disinfected after using.
13. These rules shall be placed in a conspicuous place in the shops.

—Philadelphia Medical Journal, September 20.

THE TRUTH ABOUT VACCINATION.

Dr. Bizzozziro, in a recent lecture delivered at Rome, recalled strikingly to his audience the success of vaccination in Germany. He said: "Germany stands alone in fulfilling, in a great measure, the demands of hygiene, having in consequence of the calamitous smallpox epidemic of 1870-71 enacted the law of 1874, which makes vaccination obligatory in the first year of life, and re-vaccination obligatory at the tenth year. What was the result? With a population of 50,000,000 having in 1871 lost 143,000 lives by smallpox, she found, by the law of 1874, the mortality diminished so rapidly that today the disease numbers only 116 victims a year.

"These cases, moreover, occur almost exclusively in towns on her frontier. If it were true that a good vaccination does not protect from smallpox, we ought to find in smallpox epidemics that the disease diffuses itself in the well-vaccinated no less than in non-vaccinated countries. But it is not so. In 1870-71, during the Franco-

German war the two people interpenetrated each other, the German having its civil population vaccinated compulsorily, while the French (population and army alike) were vaccinated perfunctorily. Both were attacked by smallpox.

"The French army numbered 23,000 deaths by it, while the German army had only 278; and in the same tent, breathing the same air, the French wounded were heavily visited by the disease, while the German wounded, having been vaccinated, had not a single case."

PROTECTIVE POWER OF VACCINATION.

Dr. Wm. M. Welch, the eminent pathologist writer and teacher of medicine, in a recent paper before the Philadelphia Medical Society, said: "Not a single person has been admitted to the Municipal Hospital suffering from smallpox during the present epidemics in Philadelphia, who had recently been successfully vaccinated. The number of cases admitted to date exceeds 800. As a positive proof of the efficacy of recent vaccination, the Doctor mentioned several instances in which recently vaccinated persons have been exposed to the disease continuously for several weeks and remained immune therefrom. Notably among these is the case of a child one year old who was sent to the hospital supposed to be suffering from smallpox, but who was actually affected with the rose eruption which sometimes attends vaccination, having been successfully vaccinated about ten days previously. This child remained in the smallpox wards for about three weeks and continued perfectly well.—Journal of American Medical Association.

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MICHIGAN CITY: The Michigan City Evening News of Saturday, January 31st, contains the following item:

THE CITY WATER AGAIN.—The intake of the waterworks in the lake half a mile from shore became clogged with ice again last night and as a consequence it is unsafe to drink the water from the city supply until the mains shall have been again flushed. Waterworks Superintendent A. W. Freshe and a force of men were at work all day at the fire hydrants and the water will be usable by Monday. The water supply stopped at 11 o'clock last night and water had to be pumped from the harbor until 3 a. m.

We think it opportune to make a few remarks in regard to the above. There is a peculiar arrangement of the waterworks system at Michigan City. The plant has two intakes, one reaches out into the lake and the other into the harbor. The harbor receives all the sewage of the city, and the water therefrom is poisonous and absolutely unfit for drinking. Two winters ago "needle-ice" stopped up the intake from the lake, and the engineer of the waterworks opened the valve of the intake leading into the harbor. No notice was given to the people, and thousands of them drank the water, with the result that an epidemic of diarrhoeal diseases appeared. Locally it was termed "winter cholera." Many people were severely prostrated, and

the epidemic undoubtedly injured the city materially. Following this epidemic was a number of cases of typhoid fever, with some deaths. It seems the authorities of Michigan City did not learn anything from this severe lesson, for now the same thing has happened again. We wonder how long the people of Michigan City will stand quietly and allow their peace, health and life to be threatened.

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SMALLPOX AT MATTHEWS: Matthews is a town in Grant County, which is a manufacturing center. Smallpox broke out there about the third week in January. As usual, physicians were found in the place who were not able to diagnose the disease, and called it chickenpox. The disease has continued to spread, but there have been no fatalities. A few deaths will probably bring the people and the physicians to their senses. Dr. Spickerman, the efficient health officer of Muncie, writes us as follows in regard to the smallpox outbreak at Matthews:

"I was in Matthews this afternoon (February 23d) and found, as usual, there are several physicians who declare they have no smallpox, and that the eruptive disease that is prevailing among the adults is chickenpox. Mild cases are running at large, and I found one here at Muncie today. The man had also been to Hartford City. He asked his physicians, Drs. Noble and Thompson, if it was safe to visit other places, and they assured him it was. I held the man in my office and both Drs. Cowing and Vinton declared he had smallpox. I personally conveyed him back to Matthews, and there the authorities let him go and mingle with other persons. I do not believe that harmony exists among the physicians at Matthews, and I believe they are neglecting to report the cases, and are not keeping a record. I feel that it is a little hard on Muncie for her officers to work night and day fighting smallpox, and then be subject to an invasion such as I have described."

Dr. Atkinson, of Eaton, under date of February 20th, writes as follows:

"At Matthews, eight miles west of Eaton, there are a number of cases of smallpox, about thirty in all. Some of the infected persons are glassworkers, and are coming and going between Eaton and Matthews at will. Is this not wrong? Is there no way to compel them to quarantine their city? We dislike to quarantine against them, and it appears to us they should look after their own smallpox. Can you help us?"

In regard to all of this we will say: There is no law in Indiana which can compel ignorant doctors to know smallpox from chickenpox. When doctors dispute with each other, the authorities know not what to do. This thing of mild cases of smallpox traveling over the State at will is going on everywhere. We know it exists in Illinois, Ohio, Kentucky and other States. The facts are that quarantine is not competent to deal with

smallpox under such circumstances, and that the people must depend upon vaccination. The infection is widespread, and those who will not be vaccinated, or who are not protected by having had the disease, will certainly be found out sooner or later, and be attacked by the disease. We have written the Matthews authorities, telling them the disease is certainly smallpox, and urging that they offer free vaccination to all. We presume, however, in Matthews, as in other communities, the authorities will wait for a few deaths before they act.

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RESULTS OF THE VACCINATION OF THE POLICE AND FIREMEN OF INDIANAPOLIS: City Police Surgeon Garstang, assisted by Leonard A. Ensminger and H. Clay Meek, in accordance with an order of the Board of Public Safety, vaccinated all the police and firemen of the city. The work was commenced January 7th and finished in two days. Mulford's tube vaccine was used. One hundred and seventy-five firemen and 181 policemen, 356 in all, were vaccinated. Of this number 53 were never vaccinated before and 13 had had smallpox. Not one of those who had had the disease responded to vaccination, and of the 53 unvaccinated all but 3, 94.3 per cent. took finely. These 3, though repeatedly vaccinated, could not be made to respond. Two hundred and ninety had been vaccinated previously at periods varying from four to forty years. Twenty-eight of these did not take after repeated trials. All of these 28 had good scars, and had been operated on within the last ten years. Of the 262 secondary successful vaccinations, 231 had pronounced takes.

One of the policemen, 38 years old, a neurotic, was very sick with his vaccination and lost fourteen days from duty. Outside of this case only 21 were off duty, the total time lost being 46 days. Some of this lost time was due to coincident attacks of lagrippe. Every precaution was taken against infection, and while there were ten severe takes, there was not a case of ulceration or sloughing. Although the duties of firemen and policemen bring extraordinary exposure, still not a case of smallpox has appeared among them.

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JOINT RESOLUTION: The following joint resolution, drawn up by the State Board of Health, was introduced into the Senate of the Sixty-third General Assembly by Senator Benj. Starr, failed of passage:

WHEREAS, Tuberculosis (consumption) is a preventable disease, and is known to annually destroy in Indiana between 4,500 5,000 persons, thus creating scores of fatherless and motherless homes, causing unnecessary sorrow and suffering, and bringing great monetary losses to the citizens of Indiana; therefore, be it

Resolved, By the Senate and House Representatives of the Sixty-third General Assembly of Indiana, That a commission to be composed of five members and known as the Tuberculosis Commission is hereby created, the Governor to be chairman and he to appoint the other four members. It shall be the duty of the Tuberculosis Commission to examine into the facts concerning consumption in the State of Indiana, and report its findings, conclusions and recommendations to the Sixty-fourth General

Assembly, and any expense incident to performing the duties herein set forth shall be paid by the Governor from any funds in the State treasury not otherwise appropriated.

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ILLINOIS JOINS THE BULLETIN STATES: The Illinois State Board of Health will hereafter publish a bimonthly bulletin. The first number was issued March 1st, and an excellent number it is. We learn from it there is some danger of the repeal of the State's registration law. We earnestly hope this will not occur. Sometimes, and under unusual circumstances, citizens may find that it is more or less onerous to have to report deaths and births, but the public benefits so far outweigh any individual inconveniences that the only thought which should appear in regard to a registration law is its improvement. The State which does not gather vital statistics is simply behind the times in a matter which concerns civilization.

* * *

A FRANKFORT SCHOOLHOUSE: Frankfort is one of the fair and flourishing cities of the State. Yet in this city there exists conditions which are described by a citizen as follows:

"I am a resident of the first ward, city of Frankfort, and I write to tell you of the unsanitary conditions of what is known as the First Ward School in this city. My child attends this school. Occasionally she comes home in an exhausted condition, complaining of headache, dullness and languor. Sometimes she is unable to attend afternoon sessions. Other children have been subject to lassitude, nausea and vomiting, and it is my understanding that more serious cases of sickness have been traced by physicians to that building. The closets are in the basement and at times the rooms above are repulsive on account of bad odors. The rooms are overcrowded. One room, 12x30, contains thirty-seven pupils. By competent authority the schoolhouse is reported unsafe on account of the heating apparatus. It has been on fire once or twice. I suggest that an examination of the building be made by the State Board of Health and that it take action according to its findings."

We have repeatedly given communications like this to the public and we hope it is having some effect. It is strange indeed, that the people of the State, as expressed in their laws, are so jealous of human life, and yet in the name of economy will surround children with school-room conditions which gradually undermine their health, and not infrequently cause death. The proposition of the State Board to mend the awful unsanitary schoolhouse conditions which exist all over the State, have been met by certain parties with the cry of "crank." This, however, will not in any degree dampen the ardor of the health authorities of Indiana. They will continue to cry out against this wrong until the people hear and action is taken.

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SMALLPOX AT WINCHESTER: Dr. F. A. Chenoweth, health officer at Winchester, sends the following report in regard to the smallpox epidemic which broke out in his town the last week in December, 1902:

"Since you were here on the 3d day of January, we have had a very strenuous time. As you know, we had twenty-one cases of smallpox. Thirteen had never had a successful vaccination, and seven of the thirteen died. The six of the thirteen had the partially confluent form and two of them very nearly died. All those who had had successful vaccinations had the disease very mildly. I believe there have been over two thousand persons vaccinated in the town. We vaccinated a woman who had an acne, and whose skin was rough with pimples over various parts of the body. The vaccination was successful and the patient was sick for two or three days, but recovered, and when the arm was well she was surprised to find that her skin was very nearly clear of all roughness and acne. She returned to the office and was revaccinated with the hope that she would again have a successful vaccination and complete the cure.

"There is not an unvaccinated pupil in the schools, nor will there be any while I am health officer of Winchester.

"We checked the smallpox on the first round and none developed outside of those who had been first exposed. We quarantined all cats and dogs of all ages. Many will remain in quarantine forever. We bought a house at the outskirts of the town, where we took the families of the smallpox victims, and the victims themselves, and kept the exposed there until we had most thoroughly cleansed and disinfected the houses where the disease existed. We did not burn anything, but we had everything buried in boxes. We used probably, fifty gallons of formaldehyde and three thousand tablets of bichloride in our cleansing. We caught the scourge by the forelock and stamped it 'Not Wanted in Winchester,' and I believe that if all communities would do likewise we could rid ourselves of the pest."

* * *

FALLACY OF INSUSCEPTIBILITY: The Chief Medical Inspector, Dr. Spaulding, of the Chicago Board of Health, says: "Several times recently attention has been called to a false impression concerning insusceptibility to vaccination held by many persons and even by some medical men. They argue that because a child has had six or seven attempts at vaccination without its 'taking,' that the child is insusceptible to the operation, and have asked permission for such child to enter school without the required certificate. They have even come with letters from family physicians stating that a given child is insusceptible. It should be clearly understood that no one is insusceptible to vaccinia or vaccination any more than to smallpox. One successful vaccination can be secured in every person; to this there is no exception.

"A few weeks ago a reputable physician wrote to the Department that he and two other doctors had vaccinated his little girl seven times without result, and asked that the child be permitted to enter school without a certificate, as he believed she was not susceptible to vaccination. He was advised to try again with vaccine lymph furnished by the Department. He did so, and has since written that the child has a typical vaccination, which insures her immunity from smallpox. If this eighth trial had not been

made, the story would have gone out that it was a case of insusceptibility—a condition that does not exist—and if she had been subsequently attacked with smallpox it would be claimed that she had been vaccinated, and the case cited by the anti-vaccinists as proof of the inutility of vaccination as a preventive of smallpox.

"A striking and hideous illustration of the evils of teaching insusceptibility to vaccination was furnished during the week in the neighboring town of Hammond, Indiana, in which a cashier in the bank was stricken with smallpox in its worst form. He died on the seventh day of the attack with hemorrhagic smallpox. He had four attempts at vaccination and because it did not 'take' was told he was insusceptible to vaccination—a bit of medical advice which cost him his life at the age of 33—an utterly needless loss of a life useful to the community and of priceless value to his family. Stop prating about insusceptibility to vaccination.

* * *

VARICELLA VARIOLIFORMIS: Varicella and variola in adults may resemble one another very much in their clinical course. Varicella may cause marked symptoms, and is often mistaken for variola. Morphologically there is no difference between these diseases; clinically they are generally very different. Lesions may be exactly similar. Yet the ætiology always goes back to contagion from one of the two diseases. The many cases reported to show the identity of the two affections prove the existence of a varicella varioliformis.—Dr. Norbert Swoboda, Wiener Klin. Wochen.

* * *

CHICAGO AND TUBERCULOSIS: The ways of Providence are said to be past finding out. What shall be said, then, of the ways of men? Here we have in Chicago a disease called tuberculosis. No other disease, except, perhaps, pneumonia, which is often complicated with tuberculosis, claims so many victims. Yet, as was shown in yesterday's Tribune, a tubercular patient has the utmost difficulty in securing hospital accommodations in this city. Six hospitals, at most, are willing to receive him, but even they receive him usually with reluctance. Is this a comprehensive and far-sighted way of handling a disease which demands especially serious attention?

The State conference of charities said that Illinois ought to have a State Sanatorium. No doubt the conference was right. In Germany, under compulsory insurance laws, millions of marks have been spent in the establishment of sanatoria under state supervision. Illinois, without compulsory insurance laws, will have to establish sanatoria at its own expense. Tuberculosis is injuring society in its most vital part. It is taking men and women in their prime. Thirty-five per cent. of the people who die of tuberculosis are from 15 to 34 years old. Twenty per cent. are from 35 to 54. We can not afford to have our fellow citizens dying off at an age when they are most useful to us. Further than that, leaving our dear fellow citizens altogether out of consideration, we can not afford to allow ourselves to be exposed to daily danger from a disease which is as insinuating as it is re-

lentless. Chicago must have hospital accommodations for consumptives. Illinois must have sanatorial accommodations for them. Tuberculosis must be fought, checked and finally eradicated. Here is the great medical and sanitary duty of the near future.—Tribune, Chicago.

* * *

STATE CARE OF CONSUMPTIVES: The Governor of Illinois in his message to the Legislature took up the important matter of tuberculosis prevention and recommended that a State Sanatorium for Consumptives be established. We quote from his message:

1. "Tuberculosis, an infectious disease, is the cause of one-seventh of all deaths, and that its widespread prevalence, especially among the poor who are unable to procure proper treatment, has been and continues to be a decided menace to the public health. 2. It is estimated that over 8,500 persons die annually in Illinois from tuberculosis. 3. Tuberculosis is a preventable disease; and while there is no infectious disease which causes such disaster in the human family, there is none which is more easily prevented. 4. Tuberculosis is a curable disease, especially in its earlier stages. 5. Patients suffering from tuberculosis, especially those of the poorer classes, can not be properly cared for at their homes; general hospitals are ill adapted for the treatment of consumptives, and, since tuberculosis has been recognized as a communicable disease, the doors of nearly all hospitals, public and private, have been closed to consumptives. 6. An im- properly cared for consumptive daily jeopardizes the health of the community in which he lives. 7. The State, for both humanitarian and economical reasons, should care for the consumptive, and should prevent him from endangering the lives of those about him. 8. The successful treatment of tuberculosis requires the segregation, in properly constructed hospitals, of those patients who can not receive the needful care at home. The value of sanatorium treatment as a center of education, a means of prevention, and as a method of cure, has been successfully demonstrated at home and abroad. 9. The importance of a special climate, altitude or atmosphere in the treatment of consumptives has been exaggerated; the treatment and cure of pulmonary tuberculosis is as feasible in the State of Illinois as in any State of the Union, and cures effected in the ordinary home climate, in which the patient must remain, are more lasting and more assured than cures obtained in other climates apparently more favorable."

* * *

SELECTIONS FROM AN ADDRESS: "Sanitation and Progress," by Walter Wyman, Surgeon-General Marine Hospital Service, delivered before Pan-American Medical Congress, Havana, Cuba.

It is, therefore, necessary to cultivate among the people a demand for municipal sanitary excellence; and as great an abhorrence of municipal filth, or neglect of sanitary engineering, as there is of unclean dwellings or of uncleanness of person.

A good water supply, perfect sewerage and disposal of garbage, good street paving and street cleaning, should be the first boast of every municipality.

The chief attention should be centered upon the worst parts of the city. The sewerage, paving, light and ventilation of the worst sections should receive the first and most constant attention.

A very considerable part of the excess of death rates in a city is due to the poverty of the inhabitants of certain sections of it.

The problem of how to improve the sanitary condition of slums to prevent the increase of foul, damp, dark, and overcrowded dwellings and thus lessen the burden of the community without still further pauperizing the people and attracting to the place other vagrants and criminals, is one of the most serious that confronts modern civilization and municipal government.

It is easy to prove to any intelligent business man that high death and sickness rates in a city imply heavy demands on the public purse in the maintenance of hospitals and other charities, and also to show that an abundant and pure water supply, clean streets, good sewerage and good and well-enforced building regulations are among the best means of lowering these death and sickness rates.

In our municipalities we build large public hospitals and establish other charitable institutions for the reception of people whose unfortunate condition is attributable in large measure to the unsanitary conditions which our municipal governments allow to persist

As an economic measure it will, in the long run, be profitable to spend more upon sanitation; and, from a sociologic standpoint, the advantages of this policy will be no less marked, for it must have occurred to all observing and thinking men that the greater the number of charity hospitals that are founded, the greater will be the number of people who are willing to become the recipients of charity; and that while charity is to be commended the zeal manifested therefor may, after all, bring unfortunate results, for "zeal without judgment is a fault, even though it be zeal unto good."

A strong appeal for sanitation lies in the promise which it would give of getting rid of quarantine.

It is an interesting matter for conjecture, what would be the effect upon the prevalence of contagious diseases if there could be a complete wiping out of all the slums and low tenement house districts in all our cities. It matters not that an epidemic once started may prevail as violently, or more violently, in the better portions of the city, and that cleanliness and sanitation may then have but little effect upon its progress. The fact remains that for the perpetuation of these diseases among the people filth and bad environments are essential, and when we reflect how easy and natural is the upward gradation of infection, how readily, through successive grades, it may ascend the social scale from the lowest to the highest, the direct and personal interest of the wealthy and more intelligent classes of a community in the condition of the poor and ignorant becomes manifest.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES IN FEBRUARY, 1903.

NORTHERN SANITARY SECTION.

Total population	839,835
Total deaths	839
Death rate per 1,000	12.9
Consumption, rate per 100,000	148.6
Typhoid, rate per 100,000	24.7
Diphtheria, rate per 100,000	17.0
Scarlet fever, rate per 100,000	7.7
Diarrhoeal diseases, rate per 100,000	17.0

CENTRAL SANITARY SECTION.

Total population	1,024,791
Total deaths	1,171
Death rate per 1,000	14.8
Consumption, rate per 100,000	144.6
Typhoid, rate per 100,000	26.6
Diphtheria, rate per 100,000	36.7
Scarlet fever, rate per 100,000	10.1
Diarrhoeal diseases, rate per 100,000	3.8

SOUTHERN SANITARY SECTION.

Total population	651,836
Total deaths	667
Death rate per 1,000	13.2
Consumption, rate per 100,000	189.4
Typhoid, rate per 100,000	23.9
Diphtheria, rate per 100,000	25.9
Scarlet fever, rate per 100,000	1.9
Diarrhoeal diseases, rate per 100,000	17.9

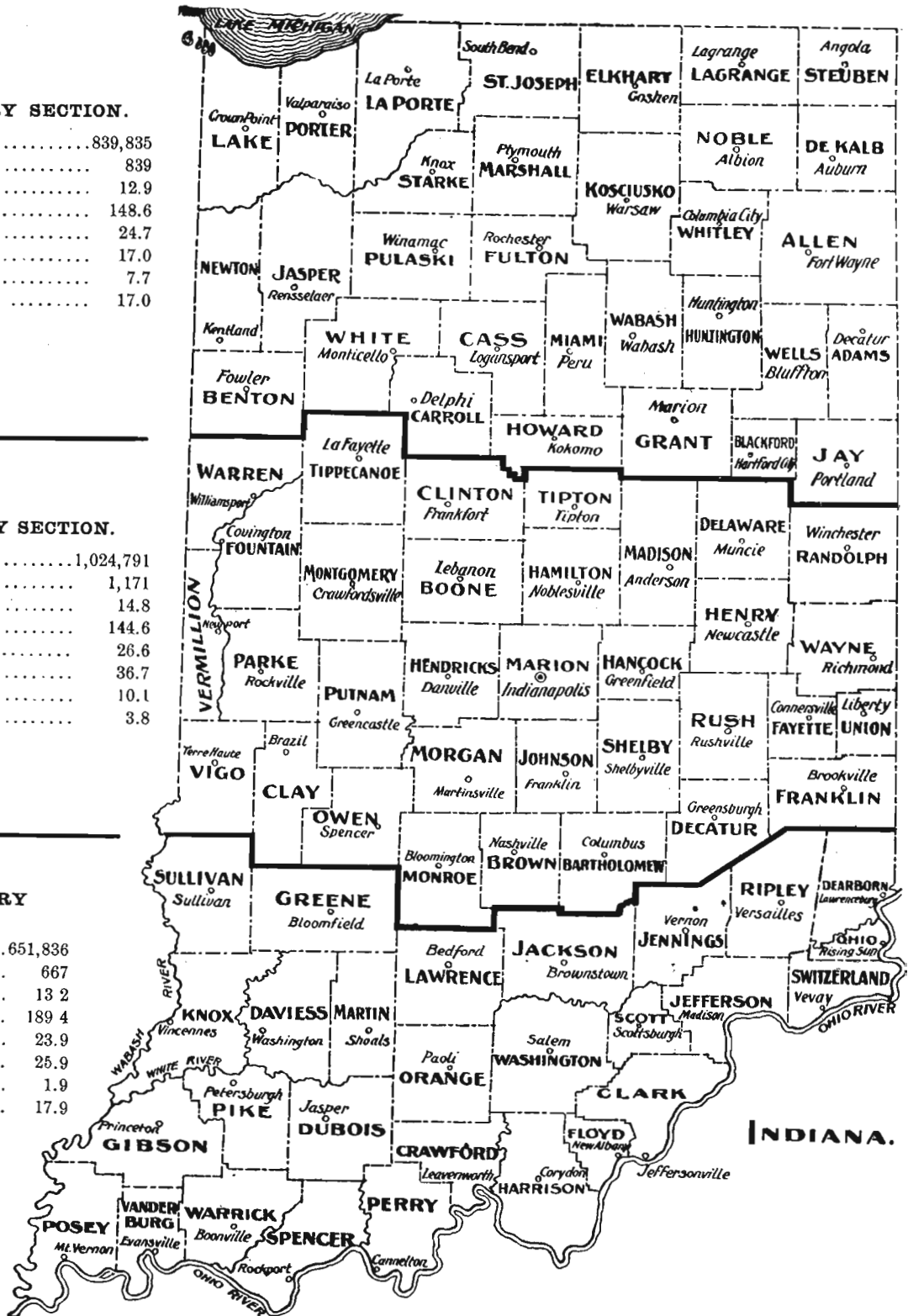


TABLE No. 1. Deaths in Indiana by Counties, During the Month of February, 1903.

STATE AND COUNTIES.	Population, based on Census 1900.	Total Deaths Reported for February, 1903.	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.	Group.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Diarrheal Diseases, Under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Deaths in Institutions.	Smallpox.	
																											164
State of Indiana.	2,516,462	2,677	13.8	164	464	175	63	48	693	305	37	49	53	1	14	5	12	399	23	22	56	12	92	80	118	50	
Northern Co's....	839,835	839	12.9	46	175	50	20	15	213	96	12	16	11		5	5	2	126	11	7	14	7	28	23	19	4	
Adams.....	22,232	19	11.1	1	4	1	1	1	4	4	1	1	3					3			1						
Allen.....	77,270	71	11.9	1	15	4	1	1	19	6	1				1			10					4	3	6		
Benton.....	13,123	7	6.9	1	1	1	1	1	2	1								2									
Blackford.....	17,213	18	13.5	1	3	1	1	1	6	3	1							3			1			1	3	3	
Carroll.....	19,953	13	8.4	2	3	1	1	1	6	3								3									
Cass.....	34,545	41	15.4	2	7	2	2	1	14	3								10			1	1	2	1	3	3	
Dekalb.....	25,711	26	13.1	2	4	2	2	1	10	3								3			1	1	1	1	1	1	
Elkhart.....	45,052	46	13.2	3	7	4	4	1	11	5		1	1					6	1	1	1	3	3	1	1	1	
Fulton.....	17,453	18	13.4	1	1	1	1	1	5	3								1			1	1	1	1	1	1	
Grant.....	54,693	54	12.8	3	6	6	6	1	12	6								3		2	1	2	1	1	3	2	
Howard.....	28,575	32	14.5	4	7	2	2	1	8	3	3							1		2	1	1	1	1	1	1	
Huntington.....	28,901	29	13.0	2	3	1	1	1	3	5	1	1						5					1	1	1	1	
Jasper.....	14,292	11	10.0	1	1	1	1	1	3	3								4									
Jay.....	26,818	37	17.9	4	12	2	1	1	4	4	1	1						10	1				2	1	1	1	
Kosciusko.....	29,109	28	12.5	3	6	1	1	1	9	7								5			1		2	1	1	1	
Lagrange.....	15,284	24	20.4	2	2	1	1	1	6	8	1							10	1				2	1	1	1	
Lake.....	37,892	51	17.1	1	12	4	6	1	9	6	4	4						4	1		1	2	1	1	1	2	2
Laporte.....	38,386	38	12.8	1	9	4	1	1	10	4	1	1						7					1	1	1	3	
Marshall.....	25,119	25	12.9	1	1	1	1	1	10	4			1		1			2				1	2	1	1	1	
Miami.....	28,344	34	15.5	1	6	3	2	1	10	6	1	1						3	1		1	1	1	1	1	1	
Newton.....	10,448	15	18.6	1	4	1	1	1	6	1								5									
Noble.....	23,533	15	8.2	2	1	1	1	1	5	2	2	1						2		1		1	1	1	1	1	
Porter.....	19,175	17	11.5	2	2	1	1	1	3	3								3									
Pulaski.....	14,033	10	9.2	1	1	1	1	1	2	2								2									
Starke.....	10,431	9	11.2	1	2	1	1	1	3	2								1									
Steuben.....	15,219	14	11.9	1	1	1	1	1	2	2								3									
St. Joseph.....	58,881	68	15.0	6	18	5	2	1	11	7	1		3					10	2		1	1	2	1	2	1	
Wabash.....	28,235	20	9.2	2	2	1	1	1	2	4	1				1			3	1					2	1	1	
Wells.....	23,449	15	8.3	1	1	1	1	1	3	2								1						2	1	1	
White.....	19,138	15	10.1	4	3	1	1	1	2	7								4					2	2	1	1	
Whitley.....	17,228	19	14.3	2	2	1	1	1	7	1								4	1		1		2	2	1	1	
Central Co's.....	1,024,791	1,171	14.8	82	173	76	29	20	298	114	17	21	29		8		9	167	3	7	24	2	43	46	87	43	
Bartholomew.....	24,594	26	13.7	1	4	2	1	1	9	2			2					1	4		1	2	1	2	2	1	
Boone.....	26,321	25	12.3	3	3	1	1	1	8	2								2			1		1	1	1	1	
Brown.....	9,727	9	12.0	3	3	2	2	1	7	1			2					4							1	1	
Clay.....	34,285	30	11.3	5	2	2	2	1	7	5			1					4			3		1	2	1	1	
Clinton.....	28,202	41	18.8	1	7	2	2	1	12	5			1					12			2		4	2	2	1	
Decatur.....	19,518	17	11.3	1	2	1	1	1	5	1	1							3	1				4	1	1	1	
Delaware.....	49,624	51	13.3	3	8	6	2	1	8	3			1					10						3	1	1	
Fayette.....	13,495	13	12.5	2	2	1	1	1	6	6								2			1						
Fountain.....	21,446	23	13.9	6	4	1	1	1	6	2								4							1	2	1
Franklin.....	16,388	23	18.2	1	2	2	1	1	10	1	1							6			1	1	1	1	2	1	
Hamilton.....	29,914	23	9.9	3	4	2	2	1	6	4			3					2			1	1	1	2	2	1	
Hancock.....	19,189	21	14.2	1	5	1	1	1	4	4								3			1			1	1	1	
Hendricks.....	21,292	24	14.6	1	1	1	1	1	13	1	1	1						6			1	1	2	1	1	1	
Henry.....	25,088	32	16.5	3	10	1	1	1	8	3								1			1	1	1	1	1	1	
Johnson.....	20,223	33	21.2	2	4	5	1	1	8	7			3		1			5					1	3	2	1	
Madison.....	70,470	70	12.9	6	13	5	1	3	15	7	1							6	2	1	3		1	3	2	1	
Marion.....	197,227	308	20.3	29	37	11	9	7	57	35	3	9	2		2		3	36					7	10	64	39	
Monroe.....	20,873	15	9.3	1	2	1	1	1	4	4								1									
Montgomery.....	29,388	34	15.0	2	5	1	1	1	15	5								1			1		4	1	1	1	
Morgan.....	20,457	23	14.6	4	2	2	1	1	4	3								1				1					
Owen.....	15,149	13	11.1	1	3	1	1	1	3	3								3					1	1	1	1	
Parke.....	23,000	17	9.6	1	4	2	1	1	2	1								4			1	1		1	2	1	
Putnam.....	21,478	18	10.8	2	4	1	1	1	5	2								6			1	1			1	1	2
Randolph.....	28,653	26	11.7	4	5	1	1	1	10	3								4			1			2	2	1	2
Rush.....	20,148	20	12.9	1	3	3	3	1	8	2																	

Mortality of Indiana for February, 1903.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Census 1900.	Total Deaths Reported for February, 1903.	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.
State	2,516,462	2,677	13.8	164	464	18.4	175	6.9	63	2.5	48	1.9	693	27.7	305	157.5	37	19.1	49	25.3	53	27.3
Northern Co's....	839,835	839	12.9	46	175	22.0	50	6.3	20	2.5	15	1.8	213	26.8	96	148.6	12	18.5	16	24.7	11	17.0
Central Co's....	1,024,791	1,171	14.8	82	173	15.8	76	6.9	29	2.6	20	1.8	298	27.3	114	144.6	17	21.5	21	26.6	29	36.7
Southern Co's....	651,836	667	13.2	36	116	18.3	49	7.7	14	2.2	13	2.0	182	28.8	95	189.4	8	15.9	12	23.9	13	25.9
All cities	857,840	1,146	17.3	76	185	17.2	70	6.5	32	2.9	21	1.9	250	23.3	129	195.4	11	16.6	23	34.8	22	33.3
Over 50,000	228,171	341	19.4	34	44	14.3	13	4.2	10	3.2	7	2.2	60	19.5	45	256.3	2	11.3	9	51.2	2	11.3
25,000 to 50,000	117,787	162	17.8	9	34	22.2	9	5.8	4	2.6	3	1.3	30	19.6	17	187.6	4	14.1	4	23.7	7	77.2
10,000 to 25,000	218,623	294	17.4	13	47	16.7	23	8.1	10	3.5	8	2.8	70	24.9	30	178.3	1	8.0	4	40.1	4	47.5
5,000 to 10,000	161,751	189	15.1	7	38	20.8	15	8.8	5	2.7	4	2.1	44	24.1	20	160.7	1	8.0	5	49.4	3	16.0
Under 5,000	131,508	160	15.6	13	32	14.9	10	6.8	3	2.0	3	1.3	46	31.2	17	168.0	1	8.0	5	49.4	3	29.6
Country	1,558,622	1,531	11.9	88	279	19.3	105	7.2	31	2.1	27	1.8	443	30.7	176	137.8	26	20.3	26	20.3	31	24.3

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.		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.
State	1	.5	14	7.2	5	2.5	12	6.1	399	206.1	23	11.8	22	11.3	56	28.9	12	6.1	92	47.5	80	41.3	50	25.8
Northern Co's....			5	7.7	5	7.7	2	3.0	126	195.0	11	17.0	7	10.8	14	21.6	7	10.8	28	43.3	23	35.6	4	6.1
Central Co's....			8	10.1			9	11.4	167	211.8	3	3.8	7	8.8	24	30.4	2	2.5	43	54.5	46	59.3	4	5.4
Southern Co's....	1	1.9	1	1.9			1	1.9	108	211.4	9	17.9	8	15.9	18	35.8	3	5.9	21	41.8	11	21.9	3	5.3
All cities			5	7.5	2	3.0	5	7.5	156	236.4	10	15.1	8	12.1	17	25.7	5	7.5	44	66.6	40	60.6	43	65.1
Over 50,000			2	11.3			3	17.0	38	216.5	1	5.6	1	5.6	2	11.3	1	5.6	7	39.8	11	62.6	39	222.2
25,000 to 50,000			1	11.0					20	220.7	2	22.0			2	22.0			10	110.3	8	88.2		
10,000 to 25,000					1	5.9	43	255.6	20	11.8	5	29.7	5	29.7	5	29.7	2	11.8	14	83.2	12	71.3	2	11.8
5,000 to 10,000			2	16.0	2	16.0	30	241.1	4	32.1	1	8.0	4	32.1	1	8.0	4	32.1	4	32.1	4	32.1	1	8.0
Under 5,000					1	9.8	25	217.1	1	9.8	1	9.8	4	39.5	1	9.8	9	88.9	9	88.9	5	49.4	1	9.8
Country	1	.7	9	7.0	3	2.3	7	5.4	243	190.4	13	10.1	14	10.9	39	30.5	7	5.4	48	37.6	40	31.3	7	5.4

Meteorological Summary for February, 1903, Furnished by the Central Office, Indiana Section, Climate and Crop Service, U. S. Weather Bureau, Indianapolis, Ind., March 11, 1903.

W. T. BLYTHE, SECTION DIRECTOR.

SECTIONS.	TEMPERATURE.										PRECIPITATION.				CONDITION OF SKY.			Wind. Prevailing Direction.
	Mean.	Departure from Normal.	Highest.				Lowest.				In Inches.				Number of Days.			
			Degree.	Date.	Place.	Degree.	Date.	Place.	Average.	Departure from Normal.	Snowfall Un-melted.	Days with .01 inch or more.	Clear.	Partly Cloudy.	Cloudy.			
Northern Section	25.6	+1.3	55	2	Kokomo.....	-14	17	Rensselaer...	3.47	+1.27	15.2	10	10	6	12	W.		
Central Section	29.9	+1.7	63	4	Greencastle..	-14	19	Veedsburg..	3.84	+1.15	8.3	11	9	6	13	SW.		
Southern Section	34.0	+2.6	67	2	Vevay.....	-17	19	Marengo.....	5.88	+2.65	5.4	12	11	5	12	SW.		
State	29.8	+1.9	67	2	Vevay.....	-17	19	Marengo.....	4.40	+1.69	10.0	11	10	6	12	W.		