

## 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 JANUARY, 1904.

The total number of deaths reported for the month was 3,177, rate 14.8. In the corresponding month last year, the deaths numbered 2,910, rate 13.6. This comparison shows quite an increase for this month. In December there were 2,848, rate 13.3. The deaths by important ages were: Under one year of age, 493, or 16.4 per cent. of the total; 1 to 5 years of age, 226; 5 to 10 years of age, 93; 10 to 15 years of age, 61; 15 to 20 years of age, 108; 65 and over, 930, or 30.9 per cent. of the total.

Some important causes of death were: Pulmonary tuberculosis 361, other forms of tuberculosis 37, typhoid fever 38, diphtheria 45, scarlet fever 25, measles 38, whoopingcough 7, pneumonia 540, diarrhoeal diseases 23, cerebro-spinal meningitis 41, influenza 50, puerperal fever 15, cancer 103, violence 132, smallpox 8.

**SANITARY SECTIONS:** THE NORTHERN SANITARY SECTION, population 839,835, reports 984 deaths, rate 13.8. This is 1 lower than the State rate, and compares favorably with the rate (13.6) last year.

THE CENTRAL SANITARY SECTION, population 1,024,729, reports 1,383 deaths, a rate of 15.9, which is 1.1 higher than the rate for the whole State, and 1.8 higher than the rate for the corresponding month last year.

SOUTHERN SANITARY SECTION, population 651,836, reports 810 deaths, a rate of 14.6, which is .2 lower than the State rate, and 1.8 higher than in the corresponding month last year.

**COMPARISON OF SANITARY SECTIONS:** The lowest death rate appears in the Northern Section, which is usually the case. The highest appears in the Central Section. The consumption death rate is highest in the Southern Section and lowest in the Northern. In typhoid fever the Central section shows the lowest rate, 17.2 per 100,000. The Central Section shows the highest pneumonia rate; also the highest violence rate.

**COUNTIES:** Fifty counties out of the 92 show a lower death rate than the average. The lowest death rate (6.1) occurred in Lagrange county.

**COUNTRY:** The deaths reported in the country number 1,808, rate 12.8. In the corresponding month last year the country reported 1,684 deaths, rate 11.9. The death rate among the old people in the country was greater than in the cities. The measles rate in the country was higher than in the cities, but in the other named infectious diseases the rate was lower. It is to be remarked that while the cities show a death rate of 10.3 per 100,000 for puerperal fever, the country shows a rate of 4.9. Cancer, too, especially deserves to be mentioned because of the very great difference (12.2) in the favor of the country.

**CITIES BY CLASSES:** CLASS A, having 50,000 population, total population 228,171, including Indianapolis and Evansville, reports 393 deaths, a rate of 20.3. In the corresponding month last year these cities reported 344 deaths, a rate of 17.7. The Indianapolis death rate was 22.1, and Evansville 14.9.

CLASS B, having from 25,000 to 50,000 population, total population 117,787, reports 179 deaths, rate 17.6. In the corresponding month last year this class reported 161 deaths, a rate of 16.1.

CLASS C, having under 10,000 population, total population of 293,259, reports 800 deaths, a rate of 15.7. This class in the corresponding month last year reported 691 deaths, a rate of 16.5.

A chart showing deaths by sanitary sections will be found on page 9.

### THE MONTHLY STATISTICS FURNISH THE FOLLOWING SUMMARIES FOR JANUARY:

Tonsillitis, as in the previous month, was reported as the most prevalent disease; then follows bronchitis, measles, pneumonia, rheumatism, influenza, typhoid fever, scarlet fever, diphtheria. In many counties measles has been unusually prevalent, and officers report difficulty in controlling the disease. Many physicians are still contending that every child should have measles, which, of course, is an error; but this contention is an obstruction which will finally be removed through education.

**SMALLPOX:** Four hundred and eighty cases of smallpox were reported, with 8 deaths, from 38 counties. In the corresponding month last year 921 cases were reported, with 50 deaths, in 56 counties. In the preceding

month 533 cases were reported, with 2 deaths, in 40 counties. It appears, therefore, that by comparison of the preceding month, there is an increase, while by comparison with the corresponding month last year, there is a decided decrease. The counties reporting smallpox this month were: Allen 8 cases, Benton 6 cases, Blackford 17, Carroll 3, Clark 16, Clay 142, Clinton 7, Daviess 6, Dearborn 1, Dekalb 2, Dubois 15, Floyd 2, Grant 11, Hamilton 1, Hancock 1, Huntington 4, Jasper 8, Kosciusko 1, Madison 5, Marion 2, Marshall 25, 1 death; Martin 10 cases, 1 death; Orange 2 cases, 1 death; Parke 11 cases, Perry 4, Pike 2, Putnam 5, Spencer 7, Starke 4, Tippecanoe 22, Vanderburgh 26, Vigo 45, 4 deaths; Wabash 3 cases, Warren 1, Warrick 23, 1 death; Washington 11 cases, Wells 1.

We are compelled to again make the remark that smallpox is still frequently unrecognized, even when it is in typical form, and it also remains true that in many instances it is so mild that the case is not suspected to be smallpox until the disease breaks out in twelve or fifteen days after exposure to such cases.

**TUBERCULOSIS:** The total number of deaths from pulmonary tuberculosis was 361, a rate of 169.2. In the corresponding month last year there were 337 tuberculosis deaths, a rate of 158. The preceding month (December) showed an increase over the same month in the preceding year, and now we have to report a further increase for January as compared with the same month last year. By age periods, the deaths were: Under one year, 7; from 1 to 5, 11; from 5 to 10, 7; from 10 to 15, 11; from 15 to 20, 38; from 20 to 30, 105; from 30 to 40, 78; from 40 to 50, 51; from 50 to 60, 35; from 60 to 70, 34; from 70 to 80, 19; from 80 to 90, 4. Of the total deaths 236 were females and 125 males. Of the females 31 were between the ages of 18 and 40, and they left 61 orphans; and of the males, 81 were married and between the ages of 18 and 40, and they left 167 orphans. The total number of orphans under 12 years of age was 228. The homes invaded by this disease and left desolate numbered 361. In the preceding month this disease made 209 orphans under 12 years of age, and invaded 371 homes. How many of these orphans will find their way into Orphan Asylums can not be told, but certainly a few of them will land there. It is also true that a percentage of the 31 widows will be given public aid.

**TYPHOID FEVER:** This disease was reported from 53 counties, the number of cases being given as 182, and the total deaths reported was 38. In the corresponding month last year typhoid fever caused 64 deaths; we therefore have decided improvement to record.

**PNEUMONIA:** The pneumonia deaths numbered 540. In the corresponding month last year there were 410 deaths from this cause. The rate in the cities was 297 per 100,000, while in the country it was 230. The oldest person dying from the disease was a man, and he was 102 years old. A singular fact appears in that the sexes were almost evenly divided, 248 being females and 292 being males. It is also further to be remarked that in January, as in December, the pneumonia deaths outnumbered those from tuberculosis.

**VIOLENCE:** One hundred and thirty one deaths were reported, which is a rate of 61.8 per 100,000. In the corresponding month last year the violent deaths numbered 126, a rate of 59. Of the violent deaths, 91 were males and 40 females, and one of them was a murder, the victim being a woman, who was killed by a fracture of the skull. There were 12 suicides, 3 being females and 9 males. The females chose, 1 morphine, 1 cutting throat, and 1 drowning; the males chose, 1 morphine, 1 strychnine, 6 pistol shots, 1 hanging.

The accidental deaths numbered 95, 36 being females and the remainder males. Among the accidental deaths were 10 by railroad accidents, 23 burns and scalds, 17 of these being females. Nineteen were fractures of the skull or great bones, 7 mine accidents, 5 gunshots, 3 by horses, and there were 2 accidental deaths from strychnine poison and four by exposure and freezing.

#### STATE AND MUNICIPAL SANATORIA IN THE COMBAT OF TUBERCULOSIS.

Dr. Knopf, of New York, one of the best known writers on tuberculosis, says of hospitals for consumptives:

"State and Municipal Sanatoria are most essential factors in the combat of tuberculosis.

"It would seem to me that every statesman, physician, and philanthropist who has the welfare of the people at heart, should consider it a sacred duty to do his best toward the creation of such institutions. Pulmonary tuberculosis is a preventable and curable disease, and it is a sad, and I might almost say a humiliating and disgraceful fact that thousands of our fellow citizens must die every year, not because their disease is incurable, but because there are not enough places to cure it.

"Modern phthisiotherapy has demonstrated that the sanatorium can accomplish most satisfactory results in nearly all climes, and surely any State can offer enough suitable sites for the establishment of a well-conducted State Sanatorium for the treatment of its consumptive poor. Through the sanatorium, which, when properly conducted, is not a danger to the neighborhood but a blessing, people within and outside of the institution will become practically educated and familiar with the best means of preventing the disease. From 50 to 75 per cent. of patients will be cured after a sojourn of eight or ten months in a sanatorium. They return to their respective communities not only as breadwinners but also as educators in the prevention of consumption and in hygiene in general. Instead of great economic loss which is now the result of the uncared-for consumptive, the commonwealth will be the financial gainer. In short, a sanatorium established by a State for the treatment of its consumptive poor, if well equipped and well conducted, will prove an educational, hygienic, moral and economic factor, adding to the health and prosperity of the community at large."

### SMALLPOX NOT ADMITTED TO THE "BLACHERNE."

The "Blacherne," the largest apartment house in Indianapolis, and owned by Gen. Lew Wallace, has served notice on smallpox to keep out. This is done by simply refusing to rent to persons who are not protected against smallpox, either by having had the disease or by being vaccinated.

The clause attached to every rental contract reads as follows:

"In view of the advice of the Board of Health of the City of Indianapolis, that all persons be vaccinated, the lessee will, if so requested by the lessor, vaccinate or revaccinate all the occupants of the apartment leased, and such of his servants or employes as may have occasion to enter the building."

This is the practical, business-like way for not having smallpox.

### THE SMALLPOX SITUATION AS VIEWED BY THE INDIANAPOLIS NEWS.

Indianapolis is now entirely free from smallpox. There is comparatively little of the disease in the State, and such as there is should be stamped out. The State Board of Health has made a systematic and consistent attack on this disease since its first appearance in Indiana four years ago. It was then of a mild type, but it grew worse with each year. There were the usual number of cranks to fight—cranks who thought it was nothing but the chicken-pox, and cranks who would not accept of vaccination. This interfered with effective work, but finally science and common-sense prevailed. The lesson of it is that vaccination should not be omitted in the bringing up of children. In Germany there is no smallpox, because there is compulsory and repeated vaccination of the young. Nobody advocates vaccination as a pleasant and beautiful operation, but it is the only known way to prevent smallpox, and if people are not wise enough to accept the substitute, the authorities, in the interests of the common good, should step in and enforce it.—News, Jan. 26, 1904.

**WANTS TO WARM AND VENTILATE HIS HOUSE PROPERLY:** A gentleman living in Martinsville, Ind., writes to us as follows: "I will build a residence this spring, and I want to heat and ventilate it properly. Please give me your advice as to how to do this. I will have a large open fireplace in the hall below, but I am undecided as to which I will use—hot water, steam, or a hot-air furnace."

It is encouraging that the laity are at last arousing to a realization of the fact that they do well to surround themselves with conditions conducive to health. Thoughtful people will not build their houses flat upon the ground, and will adopt proper heating and ventilating. We recommended to our correspondent that he should not think of heating his house by direct steam or hot-water radiation, but should put in an efficient hot-air furnace of ample size—a furnace which would take pure air from the outside, warm it and introduce it into the rooms. We

also advised that ventilating ducts be put in the walls, so that the foul air could be readily conducted away. A further point dwelt upon was the importance of having an apparatus in conjunction with the furnace which would secure proper humidity. Many people do not understand that they are living under adverse conditions when the relative humidity of the atmosphere of their house is less than 40 or more than 70. Direct steam or hot-water radiation is bad for homes, because the same air is heated over and over, and ventilation is not forced. A furnace, on the contrary, forces pure, warm air into the house, and a water pan supplies moisture.

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**A PUBLIC FUNERAL WAS NOT HELD:** Dr. Loehr, the active and efficient health officer of Hamilton county, is not generally popular in a certain part of his jurisdiction. He lost some popularity because he insisted upon protecting the people against disease. A lady 42 years old died, and the burial permit gave as cause of death "measles, pneumonia and valvular disease of the heart." There were three cases of measles in the house where the woman died. Dr. Loehr entertained the very reasonable opinion that a public funeral, under such circumstances, would very probably succeed in diffusing measles throughout the neighborhood. He therefore forbade a public funeral, and many in the community were displeased. Dr. Loehr did what was right, and the people of the neighborhood will eventually recognize he knows how to protect them and that he will do it.

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**CROWD POISON:** Wherever a crowd exists, poison in perceivable quantities exists. "Crowd poison" is a product of the life processes of all animals. We must be separated from the poisons which we elaborate, otherwise they cause us to sicken and to die. Shut up ten men in a tight room, of say, one thousand cubic feet capacity, and they will all be dead or dangerously sick within five hours. The poison which they generate and which they throw out into the air from their lungs will sicken or kill them. Crowded cars always contain "crowd poison." The foetid air which fills the cars is laden with the effete products of respiration. It is hard to persuade people of the existence of "crowd poison." The occupants of an unventilated work room enter it in the morning and remain all day, and do not notice the gradual withdrawal of the oxygen in the air. They do not notice the bad smell which fills the room, yet they feel languor, have headaches, suffer from indigestion and are otherwise ill. The illness produced by the foul air (crowd poison) is frequently ascribed to the fatigue of long continued labor. The long breathing of "crowd poison" produces impoverishment of the blood. The blood does not receive sufficient oxygen, it does not therefore properly nourish the tissues. The lungs are enfeebled and the germs of pneumonia, consumption and grippe are thus invited to enter. Coughs, colds, pneumonia and consumption are all induced by "crowd poison." As impure air is the inducing cause of tuberculosis, pneumonia, coughs, colds and grippe—why breathe it?

**A LAYMAN ON SMALLPOX:** From a town in Marshall county the following letter was received: "I write to you in behalf of our town. Smallpox is spreading here so rapidly that I am almost afraid to go on the street. The doctors do not take pains to prevent it. There have been no deaths but smallpox is not very pleasant to have, and besides it leaves such ugly scars. Of course an epidemic is a harvest for the doctors, and as long as it is not serious they will let it go. Very few quarantines are established over those who have smallpox and many quarantines have no guards. The schools have not been closed and the children break out in school with it. Now you know that is not the right way for the doctors to do. If you write to them, they will undoubtedly smooth it over and make out that conditions are not very bad and so on. I hope that the State Board of Health will interfere."

The writer of this letter has been thoroughly informed in regard to how he may easily protect himself and family against smallpox. He has also been told that those who are not protected by having had the disease or by vaccination, may expect to be attacked sooner or later. The proper health officer has also been informed in regard to the letter and a report demanded.

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**THE SCHOOLHOUSE AT HOPE:** The laity everywhere seem to be deeply interested in disease prevention. In regard to the schoolhouse at Hope, a citizen of that place writes: "I address you in behalf of our school-children, asking that you please send an inspector to look over our school building. The said building is very unsanitary, the attendance is not what it should be, and coughs, colds and general indisposition constantly prevail among the pupils. In addition to this, the school building is in constant danger of being burned down. Under the only stairway and beneath the floor of the central lower hall, has been placed a furnace in a narrow excavation. There was no cellar, originally, under the building. The floor above the furnace sometimes becomes so hot that it is very uncomfortable to hold one's hand upon it. The floor above the furnace has become absolutely dry, and when sprinkled with water, steam arises. The stairway has a short turn in it, and is narrow and steep. If the schoolhouse ever catches on fire, and it will be a miracle if it does not, there will certainly be considerable loss of life. Please give this your attention."

In reply, our correspondent was assured that an early inspection would be made of the schoolhouse, and such relief given as lay in the power of the State Board of Health.

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**CONSUMPTION AND MEASLES:** A citizen writes the State Board of Health from Patricksburg, as follows: "Measles prevails in the public schools at this place, and I think that it is best to keep my grandchildren out. I am commanded by the truant officer to send them to school. Two of these children have weak lungs, which they inherited from their mother, for she died of consump-

tion. I have weak lungs, and I am afraid if the children have measles the disease will go hard with them, and they will end up with consumption. They are all right now, and I want to keep them all right."

This is truly interesting. Here is a grandfather who has his daughter's children on his hands, for they were made orphans by the great white plague. He seems to be aware that tuberculosis sometimes follows measles. He has been written fully in regard to the matter, and circulars on consumption have been sent him.

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**AN ENLIGHTENED CORONER:** G. Henri Bogart, whose literary ability and taste are widely known, serves Franklin county as coroner. He recently had occasion to hold an inquest on the body of a dead pauper, and upon finding that nothing was known of the dead woman's ancestry or previous history, and the poor-house records being almost nothing, he added the following to his verdict: "In view of the present enlightened system of securing full and proper vital statistics, and recording the same, I would recommend to the honorable Board of County Commissioners, that they cause a system of records for the asylum, commensurate with the modern statistical system, to be adopted for that institution, and that a book be provided suitable for such record, so as to render this record conformable to the present legal requirements. I wish to commend the superintendent for his laudable effort to untangle the medley of the present so-called record, nor do I disparage any previous superintendent. But I do condemn fully the present system, or rather total absence of system in the records."

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**LAGRO:** Smallpox has prevailed for probably a year at Lagro, Wabash county. The doctors at that point seemed not to have been able to diagnose the disease for cases were not reported. The inspection of the State health officer discovered that the local health officer has not kept records as the law commands, had not collected the statistics of births and contagious diseases, and has also failed to establish quarantine when typical cases of smallpox appeared. At this date, Feb. 1st, we are beginning to hear of the results of this neglect. Dr. Cronin, health officer of Blackford county, writes:

"My attention was called to a case of eruptive disease in Washington township, which was called chickenpox by the attending physician. Upon investigation I found a well developed case of smallpox. I then made a house to house inspection and found 14 cases of smallpox in four different families. Investigation shows the disease was brought to this county by Milton Strine, who visited at his sister's family in Dubois county, and his sister was exposed to said disease while visiting at Lagro, Wabash county. This is the way with our inability to diagnose smallpox, and neglect to take the proper precautions, that the disease is spread.

**THE ANTI-TUBERCULOSIS EXPOSITION  
HELD UNDER THE AUSPICES OF THE  
TUBERCULOSIS COMMISSION OF MARY-  
LAND, IN BALTIMORE, DURING THE  
WEEK COMMENCING JANUARY 25, 1904.\***

Recently the Maryland legislature passed a law making an appropriation to pay the expenses of investigating tuberculosis in the State of Maryland. A commission of six was appointed with Dr. Wm. S. Thayer as President and Mr. John M. Glenn, Secretary. The duty of this commission was to make a report concerning tuberculosis in the State of Maryland and append it to any recommendations which might be proper. This Tuberculosis Commission immediately associated itself with the Maryland State Board of Health and the Maryland Public Health Association. It was finally decided to hold a tuberculosis exposition, which, as said, opened January 25th for one week.

This exposition was entitled: "An Objective Presentation to the people of Maryland of the History, Distribution, Varieties, Causes, Cost, Prevention and Cure of Tuberculosis." The program was carried out exactly. On Monday evening, January 25th, the exposition opened in McCoy Hall of Johns Hopkins University. This hall has a seating capacity of 1,200. Every seat was occupied and the standing room in the rear was entirely taken up. It is estimated that probably 200 people were turned away.

Dr. Thayer first introduced Governor Warfield, who evidently had informed himself thoroughly upon the importance of combating the public enemy, known as tuberculosis. He expressed himself as favoring any reasonable measure which could be advanced, having for its object the suppression of tuberculosis, spreading destruction on every hand. Mayor McClain was also evidently well informed in regard to the importance of fighting the common enemy, for he, too, declared that he would gladly support any reasonable measure which might be proposed.

A notable speech was made by Dr. Osler, who described in vivid terms, the horrors of tuberculosis, and its awful destruction. He said, however, a worse disease existed in Baltimore and Maryland and it also prevailed throughout the United States. This disease was apathy. Until apathy could be overcome, it would be impossible to effectively fight the monster, consumption. Mr. Frederick Hoffman, of Newark, N. J., the well-known insurance statistician, closed the evening with an address, entitled, "The Statistical Laws of Tuberculosis." This address was notable, being a careful compilation of insurance statistics and setting forth fully the chances in life caused by tuberculosis. At the close of this meeting the exposition was formally opened.

Upon entering the hall, the first thing to direct attention was a "Fisher Tent," invented by Prof. Fisher, Professor of Political Economy at Yale University. This gentleman had acquired tuberculosis and cured himself by outdoor life. He devised several tents, improved them

from time to time, and now has a perfect invention. There is no patent on the tent and any one is free to construct it. A fine collection of old publications upon tuberculosis, dating back to the views of Hippocrates, the father of medicine, and some valuable old engravings of famous investigators of the disease, were on exhibition. These books and portraits belong to Dr. Wm. Osler, Dr. H. Barton Jacobs, Dr. D. R. Lyman and Dr. Lewis V. Hamman. There were over 100 volumes in all. Among them was "The Pathology of Phthisis," by Anderson, who was the first to give a correct description of the pathology of tubercle. Still another work was by Lannec. Lannec's own stethoscope, now owned by Dr. Osler, was on exhibition.

Many of the American and European sanatoria were exhibited. This was accomplished by photographs, elevations of buildings, plans of grounds, charts, maps and diagrams. A most striking sanatorium was the one established and maintained by the Invalidity Insurance Company of Germany, this company finding it more profitable to cure consumptive patients at its own expense, than to pay their life insurance.

We may especially mention the Adirondack Sanatorium at Saranac Lake, New York, under the superintendency of the well-known Dr. Trudeau. Dr. Trudeau when a young man, smitten with tuberculosis, determined to adopt the outdoor treatment for consumption. He found his way to Saranac Lake, a point 42 miles from any railroad. Here he lived out of doors for many months and recovered his health. He graduated in medicine and established the now famous Saranac Lake Sanatorium, which is a property valued at \$350,000. Dr. Trudeau has not made one cent for his own pocket out of this, but has given the work of 30 years for the humanitarian purpose of saving human life from tuberculosis. Such knowledge, persistence, intelligence and tact as is possessed by this man, would have made him a captain of industry had he chosen to devote his life to self rather than to the benefits of others.

The Muskoka Sanatorium at Gravenhurst, Canada, was represented by Dr. J. H. Elliott, superintendent. Many things exhibited had been made by patients. The exhibits consisted of models of shingle-roof tents for outdoor life, photographs, plans, typewritten bills of fare, and a book full of names of patients who had studied the rich flora of the region in the spring time, cataloguing the flowers and plants they found. The sanatorium is situated at the southeast end of Muskoka Lake, a body of water 20 miles long and 10 wide.

The Millett Sanatorium at East Bridgewater, Mass., was represented by its founder, Dr. Millett. He exhibited a model of the frame sleeping shack which bears his name. This shack must always face to the south and is entirely open on that side. It is raised six feet above the ground, has windows on the side and in the rear, thus furnishing absolutely perfect ventilation. The person who sleeps in this shack virtually sleeps out of doors.

The Sanatorium at Oderburg, Germany, was represented by photographs, plans and statistics. One of the

\* This report of the Maryland Tuberculosis Exposition was read by Dr. Hurty, before the Indianapolis Medical Society on "Case Night," February 2, 1904.

largest exhibits was made by the Massachusetts State Sanatorium, Dr. W. E. Marckley, superintendent. As we know, this is the only State Sanatorium for consumptives in the United States, but the one in Rhode Island is rapidly approaching completion. Stony Wold Sanatorium at Kushaqua Lake, N. Y.; the Hospital for Diseases of Lungs, Chestnut Hill, Phila.; White Haven Sanatorium, Connecticut; The Bedford Sanatorium for Consumptives, West Chester county, New York, were all represented.

The tuberculosis statistics for the last ten years of Michigan and Minnesota were exhibited in attractive popular form. The tuberculosis statistics of Indiana for the last four years, the entire period of collection of the same, were exhibited by graphic charts. In the Baltimore exhibit were photographs of houses where tuberculosis had prevailed for a number of years, giving exact facts in regard to the same, thus bringing forward prominently, the truth that houses must be disinfected in which this disease occurs if the combat against it is to be successful. Photographs of tenements and sweatshops were also presented, together with statistics and plans and specifications of the proposed Maryland State Hospital. It will be noticed that the name proposed does not contain the word consumption, this being left out on purpose, as is also the case in Massachusetts. Rhode Island will also simply call her institution, "The State Hospital."

The Loomis Sanatorium presented some interesting features which the other institutions omitted. One was the classification which was as follows:

1. Early cases with mild symptoms.
2. Early cases with severe symptoms.
3. Advanced cases with favorable symptoms.
4. Advanced, with unfavorable symptoms.
5. Long-standing cases; fibrosis predominating.
6. Long-standing cases; ulceration predominating.

The classification of discharged patients was as follows:

1. Apparently cured.
2. Disease arrested.

A large placard on the wall, signed by Osler, was headed:

"How shall we combat bad sanitary conditions in homes?" This question was answered:

1. By an educational campaign in the homes carried out by the Board of Health and a staff of trained visitors.
2. By compulsory notification.
3. By enlarging the powers of health boards so as to deal efficiently with the question of disinfection.
4. By attention to housing of the poor, proper control of tenements and regulation as to number of persons in each room.
5. All vacated homes to be made sanitary before re-occupation.
6. By condemning all that are unsanitary.

Various mottoes were placed high upon the wall on canvas and artistically painted. One was in rhyme as follows:

"Whilst meagre phthisis gives a silent blow,  
Her strokes are sure, but her advances slow.  
No loud alarms, nor fierce assaults are shown;  
She storms the fortress first, then takes the town."

One exhibit was devoted to placards and bulletins prohibiting spitting as prescribed in the cities of New York, Boston, Omaha, Denver, and other places. Of these Boston seemed to outdo all other cities with a placard two feet long. It read as follows:

"You are violating the law against spitting. You are subject to imprisonment or fine, or both. By order of the Board of Health."

"Sputistics." This was the title under which Dr. Fulton, the able Secretary of the Maryland Board of Health, gave certain counts of sputum defacements around the City Hall. In these statistics ordinary tobacco spits were not counted; only those that had the forbidding appearance which resembles the consumptive sputum. Bacteriological examination disclosed the tubercle bacilli quite frequently. The counts ran into thousands and were presented in a most interesting way.

On Tuesday evening Dr. Lawrence F. Flick, of Philadelphia, superintendent of the Henry Phipps Institute for the Investigation, Cure and Prevention of Tuberculosis, delivered an address entitled "House Infection of Tuberculosis." On the stage were Henry Phipps, the multimillionaire, who had made the institute possible. He will give in all five million dollars for this institute. Five hundred thousand are immediately available. Other gentlemen upon the stage were Drs. Welch, Osler, Jacobs, Abel, Ravenel, Salmon, Potter and President Remsen, of Johns Hopkins University; Richet, Klebs, Babcock, Bowditch, Elliott, and Kenyon. It was Dr. Flick's endeavor to show in his address the great part which houses take in propagating tuberculosis. His message was: "No one need get tuberculosis, and, having gotten it, one need not die of it." He pointed out that the principal essential condition for its contraction is an enclosure, and without it contagion is unlikely. The house is the granary of tuberculosis outside of the patient or "host," as he is called. Sunlight, air and water are its enemies, for the bacillus has a short life in the air. Even when not killed by the elements the bacillus is weakened and often rendered powerless. Within the house, where no sunlight or air can get to them, the bacilli remain dry and their vital force is unimpaired, even when ground to powder. It is a helpless organism, except under certain conditions, and a striking scientific fact in the economy of nature that the germ to a large extent aids in making its own favorable conditions by the chilliness, malaise and general helplessness which make the victim seek cover, feeling that his condition will be improved, when it is the fresh air which he really needs to kill the germ. The disease comes upon the victim through such house contagion generally, malnutrition or a "run-down condition" opening the way.

The address of Dr. Flick was delivered at 5 P. M. That evening at a dinner given by Dr. Osler, Mr. Phipps presented the host a check for twenty thousand dollars, without conditions, simply taking the word of Dr. Osler that it would be applied to outdoor consumptive patients, patients at the Johns Hopkins Hospital.

Wednesday evening two notable addresses were given. The first by Dr. Ravenel, of Philadelphia, entitled "Bovine Tuberculosis a Factor in Human Tuberculosis." The

second was by Dr. Salmon, "Some Observations on the Tuberculosis of Animals." The researches and publications of these two gentlemen have completely overthrown the contention of Dr. Koch, which he advanced in the International Tuberculosis Congress of 1901. Dr. Ravenel showed that even when infection takes place through the intestine, the first and oldest lesion shows in the lung, and in ten animals which he experimented upon tubercle bacilli were found in eight, showing that the tubercle bacilli can pass through the perfectly healthy intestine without leaving any trace or mark of its passage, and this takes place in a short space of time. "When we remember," said Dr. Ravenel, "that the chyle goes directly into the thoracic tract and is thrown into the circulation near the heart, from which it passes to the lungs immediately, we can understand that infection from the intestine may readily show itself first in the lung." He showed a photograph of the remains of a guinea pig inoculated with tuberculous material which, says he, "I think justifies me in saying that tubercle bacilli pass through the intestines in large numbers." He said that he would strongly indorse the statement of Villemi that cattle perpetuate tuberculosis.

Dr. Salmon's article was carefully written and very conservative. He reviewed the classical experiments which he has conducted, and agreed with Ravenel that it is now positively proven that human beings may be infected with tuberculosis by drinking milk from animals infected with the disease and eating tuberculosis flesh which is not thoroughly cooked. These two addresses were somewhat technical, yet the lay audience remained and heard them through with quiet and courteous interest.

A truly popular address was delivered by the famous Dr. Knopf, of New York, entitled "Pulmonary Consumption and the Possibility of its Eradication, Through the Combined Action of a Wise Government, Well-Trained Physicians, and an Intelligent People." Dr. Knopf evidently caught his audience, for they became very enthusiastic, and when he sat down he was made to appear to the front of the platform and bow his acknowledgments.

On Friday evening the address was by Dr. Geo. Adami, Professor of Pathology, McGill University, Montreal. His subject was: "Facts, Half-Truths, and the Truth About Tuberculosis." Dr. Welch introduced him as one of the most eminent pathologists of the world. This is certainly a high compliment, when we remember that Dr. Welch never uses extravagant language in expressing himself. Dr. Adami's lecture was of necessity somewhat technical. He made a brief historical review of the history of tuberculosis, to make possible a consideration of the principal theories which he wished to correlate and view in the light of the wonderful and almost iconoclastic discoveries of the last few years. He advanced rapidly through the half-truths of the older clinicians and led his audience up to the most important ideas about tuberculosis, but insisting that the truth itself was even yet to be devoutly wished for and seriously and laboriously worked for. "The unity of the tubercle bacillus throughout the animal kingdom is one of the great themes in which medi-

cal men are engaged at present. To-day so fast is the accumulation of facts that have been garnered in every department of human interest, that to keep abreast of all the advances being recorded in any large branch of science is a vain dream." Continuing, he said: "This is eminently true of medicine. We have reached with a vengeance the days of specialism, and so great is the outpouring of facts and of new articles regarding the one subject of tuberculosis that it is impossible for any one to pose as an authority upon this subject, unless his whole time is devoted to it. I do not come to you as an authority upon tuberculosis. Indeed, but for the insistence of our friend, Dr. Osler, I would not be upon this platform. I have no new facts to bring before you, no record of personal observations that I am prepared to announce. I still remember the old warning of Hippocrates, a warning that appeals especially to medical men, coming as it does from the father of medicine himself, that 'experience is fallacious and judgment difficult.' I will try to point out how in the past, and in the very recent past, in this subject of tuberculosis, experience has proved fallacious; how during the last twenty years conclusions which appeared to be absolute and sure, based upon exact observations, have been proved to be faulty, or at least imperfect; and now, therefore, it is the part of a wise man to have an open mind and to be prepared to find that which he had regarded as settled, may, through fuller knowledge, be found unsettled; to find we must weigh evidence with the greatest care and be most cautious in arriving at conclusions." \* \* \* "Only a comparatively short time ago the infectious nature of tuberculosis was strenuously denied by most medical men. In 1880 and 1881 the communicability of the disease was being fought over at the meetings of medical associations."

The great achievement of establishing the fact of the communicability of tuberculosis Dr. Adami gave in some detail. He reviewed the fact that Behring is strongly of the opinion that the principal source of tuberculosis is the milk on which infants are fed. Dr. Adami used this as a potent argument for legislation about the proper inspection of cattle, for as Behring holds, there is a greater liability for infection by bovine tuberculosis than by human. The speaker, however, expressed himself as inclined to believe that Behring's position on this point was somewhat insecure in that it is not now believed that bovine tubercle bacilli are any more readily implanted in the system than human bacilli. In passing, it may be remarked that Salmon and Ravenel agreed heartily with Behring, for, in general, as already related, the experiments of these gentlemen and recent studies by Theobald Smith plainly prove that bovine tubercular bacilli readily pass through the intestine without leaving a scar, appearing in the fluids of the thoracic duct, and readily producing lesions in the lung tissue. In illustration of the value of recognizing half-truths, Dr. Adami said: "But why, it may be asked, trouble so much about arriving at the exact truth? We admit that bovine tuberculosis is transmissible to man; that is sufficient, and once this is recognized, the duty of the government and of the people is obvious. What is more, all advances so far have been made by the recogni-

tion of half-truths, even in biology. No one will grant more freely than I do that if the legislation regarding bovine tuberculosis was based upon an imperfect conception regarding the relative frequency of the conveyance of the disease from cattle to man, that legislation has constituted a very distinct advance. From a purely commercial aspect, whatever be the result of this active controversy, it is the duty of the government, as well as a pecuniary advantage to the farmer, to see that tuberculosis be, if possible, eradicated from our herds, and present legislation might go much further toward accomplishing this end." In regard to full-truths, Dr. Adami said: "I use this term merely for convenience, confessing its inaccuracy, hoping in this connection it is fully understood. If half-truths are useful, and if we have to be, in main, content with them, it is the duty of the man of science to seek ever after a nearer realization of the whole truth. He must not expect to attain it. The whole truth in anything mundane seems almost beyond our power. But if we can not attain thereunto, it is for the man of science to strive ever to approach near to it, to be dissatisfied with half-truths. He must neither accept them as adequate nor get into the habit of regarding them as fixed. His new facts lead to the demonstration of the imperfection of those half-truths. He must ever be prepared to modify his views. Facts are not truths; true in themselves, they may, if insufficient, or if they do not bear upon all the factors concerned, lead away from the truth, and in medical problems so many factors are involved that the half-truth is ever to be guarded against."

The social features of the tuberculosis exposition were simply delightful. Dinners were given by Drs. Osler, Welch, Jacobs, Thayer and Fulton, and every night, after the lecture, a social gathering was held at one of the clubs. Those from abroad who were specially invited, attended luncheons and teas in elegant homes, provided with art galleries and conservatories. Tea was served in halls where the portraits of Rubens and other great artists looked down upon the company, and where the statues of great sculptors furnished decoration, enlightenment and pleasure. In one instance, a dinner was given in a home having a conservatory where bananas and oranges were growing and where roses and orchids were in bloom; where spring prevailed, while outside the winter king ruled boisterously. It was, indeed, encouraging to know and fully realize that men who live amidst such surroundings had not lost the instinct of charity, and could leave them to add individual effort to pecuniary gifts, for the purpose of rescuing the poor and miserable from the grip of tuberculosis.

\* \* \*

**SCARLET FEVER AT NEWTOWN:** A farmer near Newtown, Fountain county, writes us as follows:

"Scarlet fever has been in and around Newtown for nearly six months, and the sanitary care of the same, seems to be a mere farce. One family was quarantined 17 days and another 26 days and still other families not at all. Another family took it yesterday and I saw the child's father in town, mingling with the crowd. It is reported

that the disease has been carelessly carried by one of the doctors to a case of confinement. We ask you to investigate and appeal to you for protection."

An answer was immediately returned to this farmer, thanking him for his letter and giving assurance that an immediate investigation would be made of the situation, and full protection accorded to the community.

\* \* \*

**DR. GRANT'S CIRCULAR:** Dr. Grant, health officer of Wayne county, has sent out the following circular. The example is recommended to other officers:

"Dear Doctor: Twice within the last two weeks there appeared in the Richmond Sun-Telegram and Palladium the revised rules of the State Board of Health. These new rules may not have attracted your attention, and as they are of importance, a portion of them is herewith repeated:

"Rule 12. The infectious and contagious diseases which shall be immediately reported to the health officer having jurisdiction, are hereby declared to be yellow fever, smallpox, diphtheria, membranous croup, scarlet fever, measles, typhus fever, typhoid fever, bubonic plague, leprosy, and pulmonary consumption. Pulmonary consumption and typhoid fever shall not be quarantined, as they are reported for record only.

"Rule 14. (Strict observance of this rule will be required.) When visiting patients known to be sick with smallpox, scarlet fever or diphtheria, health officers and attending physicians shall clothe themselves in a specially-provided clean linen duster, oil-cloth or rubber coat, and a close-fitting cap made of silk, linen or oil-cloth or rubber; and take all other reasonable precautions."

"The penalty for violating any of the rules of the State Board of Health is a fine of from \$10 to \$100.

"The State Board recommends that the coat and cap thus worn be carried in a glazed traveling-bag, or cheap satchel, containing also a pad of absorbent cotton wet with formaldehyde. This will disinfect the garments in the interval between the times they are in use. It is also recommended to carry in the valise a cake of soap, some bi-chlorid of mercury tablets, or a 5 per cent. solution of carbolic acid, to disinfect the hands, face and hair after the visit; and to carry and use a supply of paper napkins, instead of towels, burning them on the premises. Flat pieces of wood are suggested instead of tongue-depressors, as they, too, can be burned after using. The flat sticks that florists use for labels, costing 70 cents a thousand, are suggested.

"It is useless to deny that doctors and health officers have carried contagious diseases from house to house. Observance of the foregoing simple and common-sense suggestions will surely minimize this risk, will keep disease out of your own families, will permit you conscientiously to attend obstetric cases or do surgical work, and your careful methods will gain the approbation of your patrons and the public. When the disease subsides, your local health officer will promptly, on your notification, have the house disinfected.

"If your case be outside of an incorporated town, even in the most remote part of the county, send word to the County Health Officer and the same service will be given you. Particular attention is asked to this paragraph of this letter. The County Board of Health has secured the services of a competent and trustworthy inspector, who has had several years' experience in this work; and it has provided him with a powerful formaldehyde-gas generator, thoroughly modern in construction. Within twenty-four hours of your notification, the County Health Officer will send this service anywhere in the county, without expense to you or your patient's family. Respectfully yours,

"G. H. GRANT,  
Health Officer Wayne County."



CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES IN JANUARY, 1904.

**NORTHERN SANITARY SECTION.**

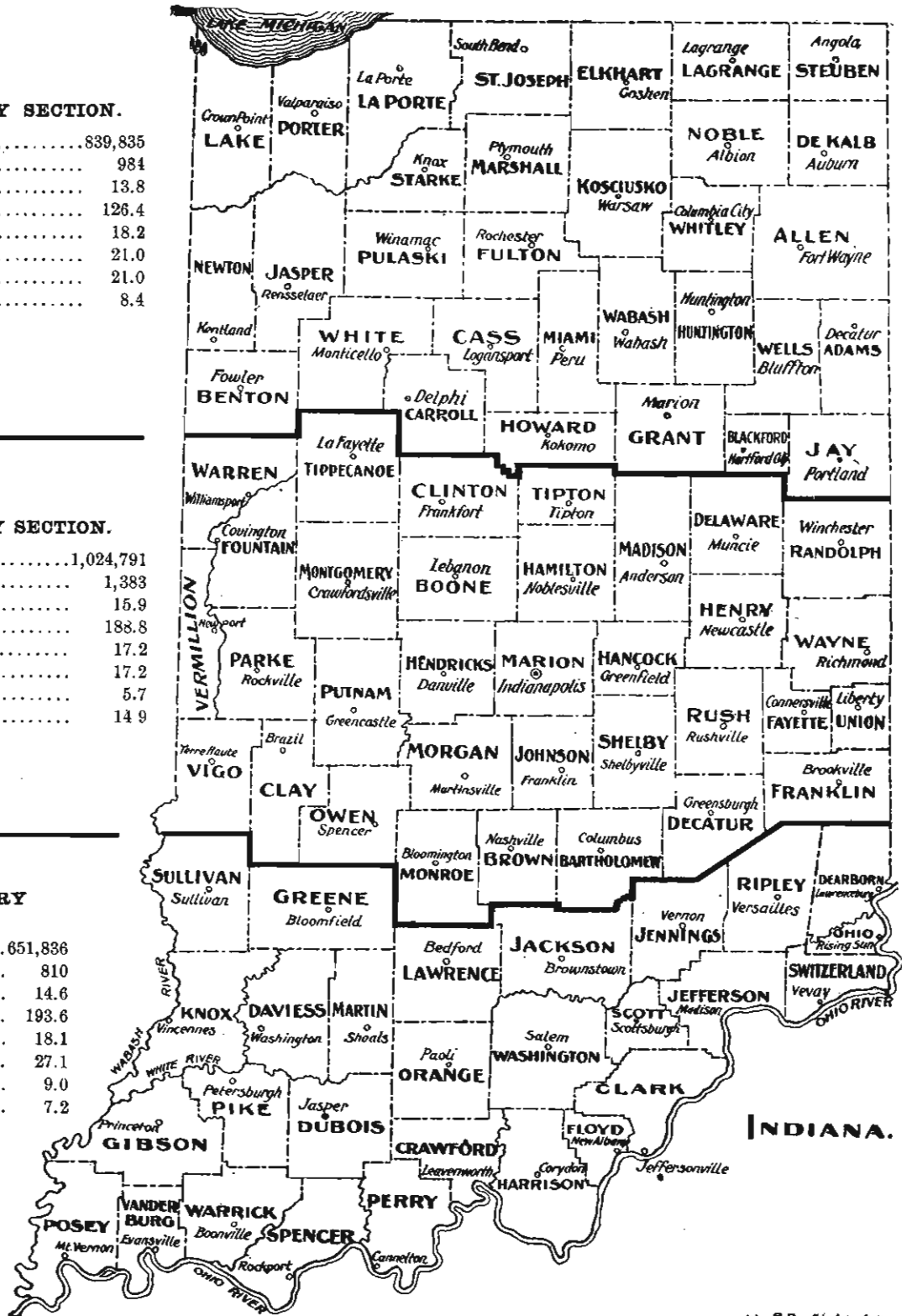
Total population	839,835
Total deaths	984
Death rate per 1,000	13.8
Consumption, rate per 100,000	126.4
Typhoid, rate per 100,000	18.2
Diphtheria, rate per 100,000	21.0
Scarlet fever, rate per 100,000	21.0
Diarrhoeal diseases, rate per 100,000	8.4

**CENTRAL SANITARY SECTION.**

Total population	1,024,791
Total deaths	1,383
Death rate per 1,000	15.9
Consumption, rate per 100,000	188.8
Typhoid, rate per 100,000	17.2
Diphtheria, rate per 100,000	17.2
Scarlet fever, rate per 100,000	5.7
Diarrhoeal diseases, rate per 100,000	14.9

**SOUTHERN SANITARY SECTION.**

Total population	651,836
Total deaths	810
Death rate per 1,000	14.6
Consumption, rate per 100,000	193.6
Typhoid, rate per 100,000	18.1
Diphtheria, rate per 100,000	27.1
Scarlet fever, rate per 100,000	9.0
Diarrhoeal diseases, rate per 100,000	7.2







Mortality of Indiana for January, 1904.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Census 1900.	Total Deaths Reported for January, 1904.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.												Deaths and Annual Death Rates per 100,000 Population from Important Causes.							
					Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		65 and Over.		Consumption.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria.	
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2,516,462	3,177	14.8	176	493	16.4	226	7.5	93	3.0	61	2.0	108	3.5	930	30.9	361	169.2	37	17.3	38	17.8	45	21.1
Northern Co's	839,835	984	13.8	45	154	16.4	61	6.5	35	3.7	17	1.8	35	3.7	306	32.5	90	126.4	13	18.2	13	18.2	15	21.0
Central Co's	1,024,791	1,333	15.9	88	203	15.6	103	7.9	43	3.3	27	2.0	40	3.0	387	29.8	164	188.8	14	16.1	15	17.2	15	17.2
Southern Co's	651,836	810	14.6	43	136	17.7	62	8.0	15	1.9	17	2.2	33	4.3	237	30.9	107	193.6	10	18.1	10	18.1	15	27.1
All cities	857,840	1,369	18.8	87	218	17.0	106	8.2	43	3.3	19	1.4	38	2.9	340	26.5	143	196.7	20	27.5	16	22.0	23	31.6
Over 50,000	228,171	393	20.3	30	56	15.4	39	10.7	10	2.7	8	2.2	14	3.8	88	24.2	43	222.3	7	36.2	6	31.0	5	25.8
25,000 to 50,000	117,787	175	17.6	9	29	17.3	7	4.1	9	5.3	1	.6	4	3.8	41	24.5	18	180.3	2	20.0	1	10.0	4	40.0
10,000 to 25,000	218,623	360	19.4	17	51	14.8	27	7.8	7	2.0	9	2.6	7	2.0	108	31.4	41	221.2	4	21.5	6	32.3	7	37.7
5,000 to 10,000	161,751	247	18.0	18	46	20.0	16	6.9	6	2.6	1	.4	7	3.6	60	26.2	20	145.9	4	29.1	1	7.2	3	21.8
Under 5,000	131,508	193	9.7	13	36	20.0	17	9.4	11	6.1	.....	.....	6	3.3	43	23.8	21	188.4	3	26.9	2	17.9	4	35.8
Country	1,658,622	1,808	12.8	89	275	15.9	120	6.9	50	2.9	42	2.4	70	4.0	590	34.3	218	155.0	17	12.0	22	15.6	22	15.6

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	5	2.2	25	11.7	38	17.8	7	3.2	540	253.2	23	10.7	11	19.2	50	23.4	15	7.0	103	48.2	132	61.8	8	3.7
Northern Co's	2	2.8	15	21.0	6	8.4	1	1.4	161	226.2	6	8.4	13	18.2	17	23.8	5	7.0	42	59.0	36	50.5	1	1.4
Central Co's	5	5.7	18	20.7	4	4.6	250	287.8	13	14.9	20	23.0	20	23.0	7	8.0	42	48.3	70	80.6	4	4.6	4	4.6
Southern Co's	3	5.4	5	9.0	14	25.3	2	3.6	129	233.5	4	7.2	8	14.4	13	23.5	3	5.4	19	34.3	26	47.0	3	5.4
All cities	10	13.7	9	12.3	1	1.3	216	297.1	12	16.5	20	27.5	15	20.6	8	11.0	33	45.3	65	89.4	3	4.1		
Over 50,000	2	20.0	6	31.0	1	5.1	69	366.8	4	20.6	7	36.2	3	15.5	2	10.3	12	62.0	15	77.5	.....	.....	.....	.....
25,000 to 50,000	4	21.5	2	10.7	.....	.....	26	260.4	1	10.0	1	10.0	1	10.0	.....	.....	8	80.1	11	110.1	3	30.0		
10,000 to 25,000	4	21.5	2	10.7	.....	.....	51	275.2	6	32.3	5	26.9	6	32.3	4	21.5	8	43.1	26	107.9	.....	.....		
5,000 to 10,000	2	14.5	.....	.....	.....	.....	38	277.2	.....	.....	4	29.1	4	29.1	2	14.5	3	21.8	9	65.6	.....	.....		
Under 5,000	2	17.9	1	8.9	.....	.....	32	287.1	1	8.9	3	26.9	1	8.9	.....	.....	2	17.9	10	19.7	.....	.....		
Country	5	3.5	15	10.6	29	20.6	324	230.5	11	7.8	21	14.9	35	24.9	7	4.9	70	49.8	67	47.6	5	3.5		

Meteorological Summary for January, 1904. Furnished by the Central Office, Indiana Section, Climate and Crop Service, U. S. Weather Bureau, Indianapolis, Ind.

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.			
																Place.	Place.	
Northern Section	17.1	-7.8	50	20	Lafayette	-23	23	Bluffton	4.35	+2.08	21.2	11	12	6	13	W.		
Central Section	20.8	-5.5	64	19	Crawf'sdsville	-26	3	Hector Richmond	4.06	+1.26	16.5	10	11	6	14	NW.		
Southern Section	27.2	-3.8	61	15	Seymour	-19	27	Salem	4.03	+0.44	10.9	10	12	6	13	SW.		
State	21.7	-5.7	.....	.....	.....	.....	.....	.....	4.15	+1.26	16.2	10	12	6	13	SW, W. & NW.		