

Indiana State Board of Health

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

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WHAT DOES IT MEAN? "I have just read," said a highly intelligent and well educated lady, "that the first condition of a successful life is to be a good animal and that a sick man is a rascal." "What does it mean?" "I think I understand the first declaration, but the second puzzles me. Is an old man a rascal because he has a cancer? Is a man a rascal because he develops a case of measles, not having had the disease, nor, as far as known, come in contact with one who has? Surely the statement needs qualification." The doctor to whom the whole matter was submitted wiped his glasses and said: "Yes, evidently the statement needs to be qualified, and I think the author referred only to such illness as proceeds from irrational living, such as overeating, overdrinking, failure to take exercise, failure to attend to the bowels and thus induce constipation; failure to ventilate one's bedroom or office and thus induce colds and catarrhs; in a word, failure to obey the physical laws of wellbeing." The lady said she was satisfied.

ABSTRACT OF MORTALITY STATISTICS FOR APRIL, 1907.

Total number of deaths, 2,813; rate, 15. In the corresponding month last year, 2,976 deaths; rate, 13.2. In the preceding month, 3,502 deaths; rate, 15.3. Deaths by important ages were: Under 1 year, 330, or 12.3 per cent. of the total; 1 to 5, 148; 5 to 10, 43; 10 to 15, 64; 15 to 20, 75; 65 and over, 864, or 32.3 per cent. of the total. Some important causes of death were: Consumption, all forms, 424, of which 363 were pulmonary; typhoid fever, 38; diphtheria, 25; scarlet fever, 6; measles, 42; whooping cough, 10; pneumonia, 284; diarrhoeal diseases, 18; cerebro-spinal meningitis, 28; influenza, 52; puerperal fever, 29; cancer, 121; violence, 149; smallpox, 1.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 899,960, reports 893 deaths; rate, 12.1. In the corresponding month last year, 954 deaths; rate, 13.

CENTRAL SANITARY SECTION, population 1,022,950, reports 1,213 deaths; rate, 13.1. In the corresponding month last year, 1,285 deaths; rate, 14.4.

SOUTHERN SANITARY SECTION, population 675,649, reports 707 deaths; rate, 12.7. In the corresponding month last year, 737 deaths; rate, 13.3.

REVIEW OF SECTIONS: The Northern Section, as usual, shows the lowest death rate. The highest death rate is found in the Central Section. The Southern Section shows a higher death rate than the average for the whole state and a higher rate than the other two sections in the following diseases: Consumption, typhoid fever, scarlet fever, whooping cough, pneumonia, influenza and puerperal fever.

CITIES: All cities, total population 1,082,376, report 1,270 deaths; rate, 15. In the corresponding month last year, 1,346 deaths; rate, 16.9. The city rate this month is 2.3 higher than the average for the whole state. The cities show a higher death rate than the average for the state in the following diseases: Consumption, typhoid fever, diphtheria, scarlet fever, measles, pneumonia, cerebro-spinal meningitis, puerperal fever and cancer. The death rates of the cities over 25,000 population were: In-

dianapolis, 15.4; Evansville, 13.5; Ft. Wayne, 14.1; Terre Haute, 17.3; Anderson, 8.9; Muncie, 14.3; South Bend, 14.4.

COUNTRY: The country, population 1,666,183, reports 1,443 deaths: rate, 11.2. In the corresponding month last year 1,401 deaths: rate, 9.8. In the preceding month 1,983 deaths: rate, 14.

SUMMARY OF MORBIDITY AND MORTALITY FOR APRIL, 1907.

Tonsilitis was reported as the most prevalent disease. In the preceding month, influenza occupied this position. In the corresponding month last year, rheumatism was reported to be the most prevalent. Measles, which existed in every county in the state, causing 42 deaths, and in some instances, appearing in extra epidemic form, was nevertheless, the fifth most prevalent malady. The order of prevalence as reported is as follows: Tonsilitis, bronchitis, rheumatism, influenza, measles, pneumonia, typhoid fever (enteric), pleuritis, intermittent fever, scarlet fever, diarrhea, diphtheria and membranous croup, whooping cough, smallpox, inflammation of bowels, erysipelas, typho-malaria fever, puerperal fever, dysentery, cholera morbus, cerebro-spinal meningitis, cholera infantum.

SMALLPOX: Ninety-one cases reported from 20 counties, with one death. The following counties reported the disease present: Cass, 2 cases; Clark, 1; Dearborn, 1; Dekalb, 9; Elkhart, 6; Floyd, 7; Grant, 9; Hendricks, 10; Howard, 4, with 1 death. Jackson, 15 cases; Jefferson, 4; Laporte, 1; Marion, 17; Marshall, 10; Miami, 10; Noble, 1; Shelby, 2; St Joseph, 4; Wabash, 2; White, 1. Again we must say that it is very likely that not one-half of the cases of smallpox which occur, are reported. Very nearly all of the very mild cases pass unrecognized. In the corresponding month last year, 97 cases were reported from 11 counties, with no deaths.

TUBERCULOSIS: The total number of deaths, all forms, 424, of which 363 were pulmonary and 61 other forms. In the corresponding month last year 376 deaths, 318 being pulmonary and 58 other forms. Of the tuberculosis deaths, 195 were males and 229 females. Of the males, 36 were married in the useful age period of 18-40, and they left 75 orphans under 12 years of age. Of the females 77 were married in the same age period as above and left 161 orphans under 12 years of age. Total orphans made in one month by this preventable disease, 236; homes invaded, 399.

PNEUMONIA: The disease was not as prevalent as in the corresponding month last year. Total number of deaths, 284. In the same month last year

386. In the preceding month, 575 deaths. By age periods, the deaths from pneumonia were: Under 1 year, 41; 1 to 5, 35; 5 to 20, 11; 20 to 50, 53; 50 to 80, 115; 80 and over, 29.

TYPHOID FEVER: 280 cases reported from 37 counties, with 38 deaths. In the corresponding month last year, 211 cases from 62 counties, with 34 deaths. The disease prevailed unusually, but was not epidemic, in the following counties: Clark, 7 cases; Dearborn, 8; Laporte, 11; Marion, 12; Vanderburgh, 16; Vigo, 10; Washington, 15.

DIPHTHERIA: 160 cases in 21 counties, with 25 deaths. Deaths in the corresponding month last year 11. The disease prevailed extensively, but was not epidemic, in the following counties: Cass, 8 cases; Marion, 22; Vanderburgh, 10; Vigo, 8.

VIOLENCE: Deaths by violence, 149. In the corresponding month last year, 124. Of the deaths by violence, 107 were males and 42 females. The murders numbered 6, 2 being by gunshots, 2 by sharp instruments, 1 by hanging and 1, an infant, by drowning. The suicides numbered 26, by gunshots 8, cutting throat 1, hanging 2, drowning 2, carbolic acid 6, morphine 5, strychnine 2. Accidental deaths, 117: by steam railroad 19, street cars and interurbans 6, automobiles 1, horses and vehicles 15, fractures and concussions 20, machinery 2, burns and scalds 28, falls 15, gunshots 1, poisons 4, electricity 2, lightning 1, suffocation 6, explosion 3, and the remainder in various ways.

REPORT OF BACTERIOLOGICAL AND PATHOLOGICAL LABORATORY FOR APRIL.

Total number of examinations made, 347.

Sputum samples examined, 228: Positive, 54; negative, 174.

Diphtheria cultures examined, 45: Positive, 20; negative, 25.

Blood sample for Widal reaction, 40: Positive, 8; negative, 32.

Miscellaneous specimens examined, 34: Sarcoma (round cell), 1; fibro-sarcoma, 1; metastasis of sarcoma, 1; adeno-carcinoma, 3; squamous carcinoma, 4; malignant adenoma, 2; uterine scrapings (neg.), 2; chronic endometritis, 1; fatty degeneration of voluntary muscle, 1; exostosis, 1; gonorrhoeal pus (gonococcus found), 1; urine for B. tuberculosis (neg.), 1; suspected malarial blood (neg.), 2; hydrophobia, 2; water, 5; milk, 6.

HYDROPHOBIA CASES: Negri bodies were found in both cases of suspected hydrophobia, and the confirmation of the specificity of these bodies in the causation of the disease was beautifully set forth in one of the cases sent by Dr. W. R. Hutcheson of Green-

castle. In his letter of March 29th he says, "I write to inform you that on last Friday night the hogs I had quarantined began to develop rabies and by yesterday some 14 of them had fully developed cases, and they were in all stages of development from dead ones to beginning irritability. It was a great sight. All in the pen, 17 head, were duly shot and bodies burned. The two cows and one other hog that were bitten at the same time (just 28 days yesterday) are still quarantined but do not show any symptoms as yet. I think it has been proven beyond doubt that the dog had rabies. Any further developments will be sent you."

The head of the dog of which Dr. Hutcheson speaks, was sent to the laboratory for examination of the brain; Negri bodies were found and a diagnosis of hydrophobia made.

REPORTING BIRTHS: For some time the Indianapolis health department has used a system for securing correct birth reports which has at times brought out some remarkable facts. The system requires that upon receipt of a birth report a copy of the same shall be made and forwarded to the parents with a circular letter making explanation and asking that any necessary corrections be made. It is the usual experience that parents become interested, and the corrections sometimes received show a carelessness on the part of the physician which would indicate that if like carelessness attends his parturient services then there are reasons in abundance why the prevalence of childbed fever does not diminish more rapidly. In the instance in mind a physician reported the child as a male, and the parents corrected this to female. A visit by a health officer and an examination satisfied the department the doctor was mistaken. We hope his diagnoses are more accurately made.

In another instance, the physician neglecting to give the name of the child, the parents were appealed to for the correct information, and the following letter was evoked:

Dear Sirs—Three or four days after the birth of a baby at our house I am notified by you that the attending physician in making a return of the certificate to you neglected to give the name of the child.

In extenuation of his omission I beg to say he did not know. Neither do I. I do not like to be hurried in this matter unless the State or county insists. We ask time to find a suitable name. From the facility with which she makes faces it looks as if she may be a great actress. At other times she gives indications of power that might make her a great singer. We can see in her at times the making of a strong advocate of woman's rights, and she may develop leadership in that line. Later on we may be

able to choose a name in harmony to some extent with her inclinations. She appears to have aristocratic notions, and a name like Gladys may fit. There are physical possibilities that Rose or Pearl would be about the right thing. "Maud" would not be inappropriate at this time. A friend has suggested Angelina, Clementina, Sarah Jane Marie, and there are good points about that. Then the horrible contingency faces us that "Biddy" may be good enough after all. As she is the eighth child in the family we are aware that the number of names available is limited, yet we would like to use unhurried discrimination as far as possible.

Please let me know if a time limit is fixed by law or ordinance before the legislature meets. I may be able to get through an amendment. Yours truly.

PEOPLE EAGER FOR INFORMATION: Dr. W. F. Shumaker of Butler is an efficient officer and a physician, who delights to help his community. The State Board of Health recently sent him two bundles of disease prevention circulars, and he has taken great interest in distributing said circulars to those who would probably be interested. In his report he says: "I take the circulars with me on my daily rounds and drop them into the mail boxes in the country. It is pleasing to notice how eager people are for information that pertains to the public health. Our folks are so in earnest in this matter that our public school children recently asked for the expulsion of a pupil suffering from tubercular adenitis. Their request was unreasonable, because at that time there was no danger of infection, but nevertheless, this illustrates the interest people have in disease prevention."

* * *

RABIES.

Twenty-two cases of "mad dog bite" have been reported since January 1, 1907, but no deaths. Five dogs' heads have been sent to the laboratory, and in every instance negri bodies were found, and presumably they had hydrophobia. We have reports of two cases of rabies in human beings, both recovering, but there seems to be some doubts about them. One story is told of a mad dog biting seven hogs and all "went mad" and were killed. Whether mad dogs have been existant or not, it seems wise to destroy homeless dogs and the muzzling, when necessary, of those having owners. Owners of dogs who object to muzzling and have no regard for the lives and peace of their fellow citizens, should remember that muzzling is also in the interest of the dogs.

There are two varieties of rabies, which are known as furious and dumb rabies, and it is important for every dog owner to familiarize himself with some

of the early symptoms. Among these symptoms are a difficulty in swallowing because of a paralysis of the pharynx, also a partial paralysis of the lower jaw which causes the jaw to drop and the mouth to remain open. Other symptoms are a staggering gait, snapping at imaginary flies, tendency to swallow foreign bodies, such as bits of wood, small stones, feathers, and the like. There is often a disposition to run away from home when the disease is coming on; the animal may be gone a day or two and then return, or may never come home. A change of disposition is another premonitory symptom, the animal becoming more affectionate or more morose than usual. These symptoms, however, are not all constant, but vary in different cases. When a dog acts strangely, a veterinary surgeon should be consulted.

The importance of verifying a diagnosis of rabies in the dog as early as possible, if it has bitten persons or other dogs, is self-evident, and can be promptly done by an examination of the brain of the dog for the negri bodies. It is a mistake, however, to call a dog mad because it has bitten some one and immediately kill it. In doubtful cases the dog should be confined and kept under observation for several days, and if at the end of a week it seems to be healthy no fear need be felt.

The Pasteur treatment is the only one for rabies. "Mad stones" are pure folly. Faith in such things does not belong to this century. If a person is bitten by a dog known to be mad we urge such to immediately go to take the Pasteur treatment at Chicago or Ann Arbor. Indiana has no Pasteur Institute, and this reminds us of the admirably equipped and well conducted institute in Mexico City. In the land of the "Greaser," unlike enlightened and superior Indiana, any person bitten by a mad dog can have scientific treatment for the asking. It is to be hoped that the State having "the best school system" will some day catch up with "the Greasers" in respect to having a free public Pasteur institute.

EVANSVILLE HEALTH WORK: The Department of Health and Charities of Evansville is certainly alive to its duties and the good it can do for the city. It is the only city in the State which publishes a monthly report. That this report is a credit is plain upon perusal. A head line of each issue is as follows: "Evansville is the second city in the State, possesses an unsurpassed location and is pushing to the front as one of the greatest manufacturing centers in the Middle West." This is undoubtedly true, and a most proper remark. It is a necessary remark, too, in this commercial day, when so much interest revolves about money making. But after all, commercial and population growth are secondary to public health. The excellent secretary, Dr.

James Y. Welborn, and his live board, know this perfectly well. But do a majority of the business men and other citizens know it?

A review of Evansville's health report shows 46 sanitary visits, 45 milk analyses, 45 disinfections made, and 265 notices to clean up and to abate unsanitary conditions. The total number of deaths was 71, making a rate of 13.5, which is only 0.8 higher than the rate in the same month for the whole State. This is better than Indianapolis, the sister city in the same class, which had a death rate of 15.4 or 2.7 above the State rate. Evansville has a special sanitary officer and a food and milk inspector, and conducts a modest laboratory. We note that 11 cases of diphtheria were reported in April and no deaths. This is as it should be, for diphtheria deaths are no longer necessary, their occurrence meaning the non or the late use of anti-toxin. The cases of scarlet fever numbered 8, no deaths; measles cases 356, no deaths; typhoid fever 14 cases, 2 deaths, and tuberculosis 9 deaths.

The members of the Evansville Board of Health are: E. P. Busse, M. D., president; Geo. W. Varner, M. D., vice-president, and James Y. Welborn, M. D., secretary.

* * *

THIRD ANNUAL MEETING OF THE NATIONAL ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS.

The third annual meeting of the above named association was held in Washington, D. C., May 6-7-8. The New Willard Hotel was headquarters, and all sessions were held in the hotel, which has a number of public rooms for such purposes. About 400 members attended, prominent among them were Lindau, Biggs, Osler, Flick, Abbott, Sternberg, Bowditch, Ravenel, Vaughn, Welch, Wyman, Janeway, Foster and others.

The general meeting opening the conference was held at 11 a. m. Monday, May 6. President Biggs delivered his annual address and Dr. Flick made his report on the "International Congress on Tuberculosis." The association is divided into five sections: Tuberculosis in children, sociological, surgical, pathological and bacteriological, and clinical and climatological.

The absorbing subject was the opsonins, about which there were three papers. The discussions were lively and interesting, and the general conclusion that as yet the opsonic index and opsonic work were not as useful in treating tuberculosis as had been hoped for. This, of course, does not mean that full or partial expectations will never be met.

Vaughn's paper upon the "Split Products of the Tubercle Bacilli and Their Effects Upon Animals" was fascinating, but the conclusions were valuable

chiefly for the negative results obtained. In the sociological section was given a most practical paper by Dr. Oscar H. Rogers, Yonkers, N. Y., entitled "A Working Program for a Small City." Dr. Rogers told of the organization of the anti-tuberculosis society in his town, how public illustrated lectures were given in the parks, how home cases of tuberculosis were visited and ministered unto, and instructions for prevention given, and he exhibited anti-spitting signs printed on tin which were, by special permission, fastened to telephone poles, no other notices being allowed upon said poles. The result of the work in Yonkers was an appreciable reduction of the disease in three years.

The reports of the committees upon medication and upon mixed infection attracted large audiences. The general sum up concerning medication was—don't.

Concerning mixed infection it was shown that streptococci must be gotten rid of before improvement began. President Roosevelt and Vice-President Fairbanks are both members of the association. The President gave a special reception to the members.

TO CAMBRIDGE CITY.

It was 6:30 a. m. in the first week in December, and I was on my way to the Traction Terminal Station to take a car to Cambridge City. The air was highly "sootified," of a blackish gray color, thick and heavy, and the grit it contained scratched the surfaces of the eye balls as the lids vainly endeavored to keep them lubricated. As time permitted, the Illinois Street trolley cars closed as tight as jugs, filled with odor-emanating humanity and with air much thicker than required for ordinary city breathing, were allowed to pass unpatronized.

The walk was stimulating. It stimulated my indignation that so fair a city as Indianapolis should so befoul itself with the products of the combustion of soft coal, and do it, too, in the name of economy. Colored men were mopping the floor of the waiting-room at the station when I arrived. The odor of the hot suds in a degree overcame the odors left by the crowd of the preceding day, and I did not linger. The car was not entered until the conductor signaled it to go, for there, too, washed and unwashed humanity had sweltered, sweated and soaked, and the air held by the car's walls had made numerous journeys between termini. I was rejoiced to find only one man in the forward section where the plush trimmed rattan chairs and saliva soaked carpet furnish luxury for which the trolley company charged fifteen cents extra fare. I recognized the air to be the same that had traveled with me in the same car from Richmond three weeks before. I knew my fellow

passengers would glare disapproval and inwardly say crank, if I opened the ventilators, but I was brave, and after much manual and digital effort, two small openings appeared in the skylight above. When the conductor came in five minutes later he promptly closed the ventilators and then demanded fares. His position, except when other duties demand, is on the back platform, and he was quickly gone. The golden opportunity was seized, and slap bang, open went the shutters again. Before the minute hand had passed once round its path, the citizen inhabiting the compartment with me protested that he had a cold and could not stand the cold air. Here was a chance to teach a little physiology, to disseminate the truth, and the truth would make him free. But alas, he did not want to know the truth, he longed not for freedom. We compromised on leaving our ventilator open.

Finally we passed Mr. Brown's beautiful home at Irvington. The specific gravity of the outside air was plainly less than west of the Belt railroad, and in the east the sun could be seen. It was a round glowing ball, no shooting rays yet filled the space around. But ten minutes, and what a change. Now the air was clear as crystal and sunbeams glinted from the unnumbered frost gems which beautified the landscape. A red barn with a bunch of red pigs in the foreground appeared. Men husking corn were in the field on the left-hand side, and as they thrust their hands into the shock to seize and unwrap the long white ears of corn, the clinging frost was disturbed, and diamonds filled the surrounding air. Further on was a large crib, diamond mounted, filled with yellow corn. For a moment my pleasure was dampened, for I remembered an occasion when I was a boy on a farm and serving a Methodist deacon, that he in anger threw an ear of yellow corn at a fractious pig and knocked senseless a young calf. The blood streamed from the animal's mouth, and its mother with soft, wide-open, innocent eyes softly moaned as she licked her offspring. Down the track appeared a vista. The rails came together beyond the blue house on the right, and the piece of rail fence brought up momentary reflections of the short time ago when wire fences were unknown.

A snorting locomotive, hauling a long New York train on the Pennsy, made up of Pullmans with window curtains drawn down to give the sleeping passengers privacy, passed our trolley going in the opposite direction. How quickly the scenes changed. The long train and its noise were gone. Before me was a young girl, bare headed, dress not completely fastened, shoes not laced, laying pieces of linen on the grass in the sun to bleach.

A field of corn shocks, the northern boundary touching the horizon, attracted attention. Only the north sides of the shocks now were frosted, the

bright sun was destroying the exquisite crystals, and huskers were tearing down the shocks. Things must move. Motion and matter make change. Our car passed over a new concrete bridge spanning a small branch, and side by side on the banks of the stream stood two sycamores, one straight and beautiful and the other crooked and unwholesome. Both had the same environment.

The sycamores and the stream with its slight troughs in the earth's surface were gone, and in a fallow field in the distance stood a beautiful symmetrical maple. Why had the ax not been laid to its trunk? Had the artistic sense of the farmer preserved it, or was he waiting for the tree buyer to advance his bid a few cents? Near a board fence two cows were browsing on scattered grass blades, which the frost had left untouched because of the shadows upon them. They had survived the shriveling kiss of the tiny ice crystals to become milk for babes. The comfortable homes of Greenfield were good to look upon, but the car passed through the business street and past the ugly court house none too quickly. The trees, marking the lines of Brandywine Creek which enfolds Riley's "Ole Swimmin' Hole," were soon before us. On the south were the now dry ponds which once held rotting strawboard refuse, which furnished offense to eyes and nose. The strawboard mill was a ruin, not unpicturesque, and of deep interest to me, because of hard work done to stop its depredations upon the land, its spoliation of the landscape and its evolution of offensive odors. This abandoned strawboard works, which was induced to locate at Greenfield by a bonus, is now mourned by a few, but most of the citizens now know that straw is worth about \$2.33 a ton as a mulch and a manure on the land, and therefore, when sold to strawboard works at \$1.50 a ton, the farmer experiences a distinct loss. And then the ruination of the beautiful Brandywine, the stinking ponds of rotting refuse, and the annoyance of the owners with thin evasion of taxes, were unpleasant.

I liked Concord and Lexington, Mass., for there were no factories, and the people just led thoughtful, cheerful and simple lives. Our car was way past the creek and the ruins of the strawboard mill before I finished my musings, but I awoke at last, and saw an elevator with an enormous pile of red corn cobs at one end, and more cobs dropping from the end of the endless belt carrier which projected over the pile. The shelled corn was the article desired. It would be necessary to shell it finally, and why pay the railroad for carrying the cobs? Besides the cobs would burn and furnish the steam to shell more corn and supply more cobs. Then, too, there were the ashes, rich in potash, the very chemical needed to keep the land productive, but did the man in the elevator know the fact? Probably not, and I would

wager a hat he threw corn cob ashes away, or spoiled them by mixing with coal ashes, and then bought potash from the kainite mines of Germany for his land.

A stalled log wagon with two big logs on it was passed. The horses stood patiently in the harness and the boy driver was in despair. We dashed through an old covered wooden bridge, built thirty or forty years ago, and now smiled at by the graduates in the mechanical course at Purdue. However, it has served the people well for a long time, and still serves, bearing up modern trolley cars, and lending beauty to the landscape. Now on the left were the new frame buildings of the Holiness Association. One was a pavilion for holding meetings in, and the other for living purposes. The pavilion had a sign in large letters upon it reading "Holiness Association," and that is how I knew what they were. No one was near. It was winter and the worshipers found the church in the town with its closer walls and stoves, more comfortable. In either place they are sure they are right.

Four school boys standing in the road when the train crossed, hailed us with cheer and one threw a clod at the car. If boys and men did not throw clods, one less reason for living would be in the catalogue. As to destructiveness; I remember one summer at Lake Wawasee, I sat with Mr. Fishback on the porch of the hotel enjoying the air, the rippling waters of the lake and the woods beyond it. Only an occasional word passed between us, for it was afternoon, we were lazy and most of the people were in their rooms resting, but the children played everywhere. One little Jewess with red hair and a nose which betrayed here race, had been commanded by her mother not to go to the water's edge nor to go beyond the ends of the porch. She was restless within the limited orbit, and as she could not join the other children, her humor was far from pleasant. The group of children she longed to play with disappeared around a bend in the shore of the lake—and now what could she do? A bed of lilies was near and she proceeded to destroy it. A dozen of the plants had been uprooted and cast upon the grass and I made motion to stop the destruction. "Don't stop her," said Mr. Fishback, "it's no worse for her to destroy the flowers than for her mother to destroy the child's pleasure. Besides, she enjoys it and so do we, and the lilies can be planted again."

The boys and their hurtling clod and their yells were a mile behind us. A rural mail carrier with his mail cart, now stood in front of schoolhouse number five, the cart surrounded with school children. He was handing a letter to the pretty schoolmarm, and pleasure shone upon her face. Perhaps in another year she will be the mistress of a home and hold an infant to her breast. The next farm we passed had

two yellow barns, and a silo of the same color between. One of the barns had a steeple rising from the center of the ridge of the roof. It was the older barn that was steepleless, and I asked, was the steeple on the new barn for ornament or for use? If meant for ornament, I would advise its abolition. The coal black colt that kicked up its heels at our car was of my mind, for after all is said, the trolley is a good thing to kick at. Presently we stopped at a post and the motorman talked into a box to Smith. I hear him say, "Number 11 at 102," and then we were off again.

At Knightstown I saw a wagon load of bananas. Tropical fruit in the winter, in a small Indiana town, a thousand miles from the place where it was grown. Two years before Dr. Brayton and I rode into Knightstown in a buggy from the west. Smallpox had the place in its grip, surrounding towns had quarantined against the place, business was dead, the town was stagnant, not a soul had registered at the Hotel Arno for thirty days, and by the side of a corn stalk three feet high in the middle of the street car track some one had placed a sign reading—"Hunting not allowed on this farm." About six months before our visit I had been there and at a public meeting urged all to vaccinate, for the town was in the path of the epidemic and vaccination only would protect them against smallpox. The biggest merchant in the place, a man who was practical, for he said so himself, said I made him smile. He loudly advised the town trustees not to buy fresh vaccine and offer free vaccination. It would be a foolish expenditure of money and would alarm the country people and hurt trade. When smallpox struck Knightstown, stopped trade entirely, and cost the place in excess of \$10,000, this man was the first to telephone to the State Board of Health for help. The vaccination which should have been done months before, was permitted now, for the successful, practical business man was silent. He had learned something.

At Cambridge City, typhoid fever was taking the town. So long as no one died, the inhabitants thought little of it, but one day two cases terminated fatally and they looked at each other. Then a prominent business man died, and the minister at the crowded church funeral kept up the blasphemy of—"the Lord in his infinite wisdom had carried our brother to the great beyond." Of course, it was failure to care for all human sewage in a sanitary way, all of the time, that had done the business. Only three deaths were required to wake up Cambridge City. A decade ago it would have taken ten deaths. A few of the citizens had heard that typhoid could be controlled, and it occurred to them—Why not control it? The proposition of the State Board of Health a year before to clean up and re-

move conditions conducive to typhoid fever had been rejected as cranky. Taxes were high enough, and why plunge into the extravagance of sewer building when they had got on so nicely for seventy years? One man said he "had lived there for over half a century and wasn't dead yet." In his ignorance and conceit he took no note of the scores of others who had died there of preventable diseases, but this fact made no impression, and the invitation to typhoid to pay its visit was continued. Its coming was only a question of time, and now the time had come. Thirty-two premises were inspected; every one had pronounced typhoid conditions, and the wonder was that every person living on them was not affected. Attention was called to the conditions, advice was given, prevention circulars distributed, a town meeting was held, a big audience was instructed and warned, and I came away and the town went on as before.

WHAT A WATER ANALYSIS IS.

The question of the sanitary condition of a water supply, whether public or private, is one the importance of which can not be overestimated. It becomes the duty of the water analyst to decide as to the safety or danger attending the use of a supply, basing his judgment upon as extended knowledge as it is possible for him to obtain of the location of the river, lake, reservoir, well, or spring, and the conditions which exist on the watershed of the same, and upon the results which he obtains in the laboratory after submitting the sample of water to a series of chemical and bacteriological tests. If he sends to the layman a report of the water analysis, simply giving the figures obtained from his tests, he is very apt to receive a reply asking for the result of the analysis in "plain English," and it is with the idea of making a water analysis a little less mysterious that this article is written.

A sanitary water analysis is usually made up of the following tests: an inspection of the sample for its appearance as to turbidity, sediment, and color as read upon a definite standard; the odor of the water, cold and after heating nearly to boiling; a determination of the total solids; the matter volatile from this residue when heated to dull redness, and by subtracting this from the total solids, the fixed solids, so-called; a determination of the soap-hardness as measured by shaking a definite volume of the water with a standard soap solution; and a determination of the alkalinity of the water by titration with standard acid.

These determinations are in a measure general, or pertain principally to the mineral contents of the water. The tests which are about to be named are of more value in studying the sanitary condition of the water, and are as follows: Oxygen consumed, a chlo-

rine determination, free and albuminoid ammonia, and nitrites and nitrates. The oxygen consumed figure is a measure of the organic contents of the water and, as the name implies, represents the oxygen consuming power of the water. The chlorine determination is of value as an index of pollution, inasmuch as a water from any given locality should naturally contain a certain amount of chlorine for that district. Chlorine is one constituent of common salt and this figure increases with proximity to the sea, and for certain sections of the country has been pretty definitely determined, so that the chlorine result as obtained from any analysis can be compared with a rather definite figure, and if much higher than this figure tends to arouse suspicion in the mind of the analyst.

The other four determinations mentioned are for substances containing nitrogen, and are in a way a history of any sewage contamination which may have reached the water at any time.

The albuminoid ammonia is a measure (representing from forty to fifty per cent.) of the organic nitrogen, and in sewage is very high. If sewage is finding its way through the ground for a greater or less distance a natural oxidation of this nitrogen takes place and free ammonia is formed as one of the first products of this change. If there is distance enough between the polluting source and the pond, or well, or supply, whatever it may be, this change may go further and the nitrogen pass into the form of nitrites; or even further to nitrates; which is the final state of oxidation; and any polluting matter which has passed through sufficient soil to become completely changed to nitrates has then become a harmless mineral constituent instead of the dangerous organic matter accompanied by large numbers of bacteria as it originally started. Thus it will be seen that the most satisfactory condition for a water which may unfortunately be subjected to possible pollution is a high nitrate figure and low albuminoid ammonia, free ammonia, and nitrites. In fact, the presence of any considerable amount of either of the last two shows that the water is not completely purified by natural filtration in the case of a well water, or that pollution is entering a pond, reservoir, or stream. The albuminoid figure must be judged from the nature of the water. A well water should contain little or no albuminoid ammonia, and the figure for surface waters, such as ponds, reservoirs, and streams, should not be exceedingly high, but would in nearly every case be higher than that for a well, due to nitrogenous matters taken up in the passage of the water over the ground. The same is true of the oxygen consumed determination, it being high in the case of surface waters for the same reason.

In connection with the above tests, which are known as the chemical analysis, the total number of bacteria in each cubic centimeter of the water is determined

by growing the bacteria at a definite temperature in a gelatin media which has been specially prepared. This count is reported, showing the actual number of water bacteria which will develop under these definite conditions. The bacteriologist goes further than this in some cases, however, and makes special tests to isolate the typical sewage bacterium known as *B. Coli* communis. If this bacterium is found in a water it can be pretty definitely classed as dangerous, and in the majority of cases the chemical analysis will show pretty definite indications of pollution. The water, however, may be in an unsatisfactory condition, showing incomplete purification of polluting matters, and yet not show the presence of this sewage bacterium. This later condition is apt to be true in the case of a well where the soil between the polluting sources and the well is almost but not quite able to take care of the pollution satisfactorily.

Below are given typical analyses of waters which may be classed as follows:

1. A pure ground water.
2. A polluted ground water.
3. A good water from a safe surface water supply.
4. An unsatisfactory polluted surface water.

	No. 1.	No. 2.	No. 3.	No. 4.
Date of—				
Collection	April 16, 1906.	June 1, 1906.	May 8, 1906.	June 5, 1906.
Examination	April 17, 1906.	June 1, 1906.	May 9, 1906.	June 6, 1906.
Appearance—				
Turbidity.....	none.	none.	none.	very slight.
Sediment.....	none.	very slight.	very slight.	considerable.
Color .....	.60	.02	.81	1.85
Odor—				
Cold	none.	very faintly unpleasant.	distinctly vegetable.	faintly vegetable.
Hot	none.	very faintly unpleasant.	distinctly vegetable.	decidedly vegetable.
Residue on Evaporation—				
Total	4.35	40.0	4.00	6.90
Loss on Ignition	1.15	15.3	1.75	3.60
Fixed	3.80	24.7	2.25	3.30
Ammonia—				
Free .....	.0004	.0220	.0008	.0084
Albuminoid—				
Total .....	.0006	.0040	.0134	.0388
In Solution .....	.....	.0096	.0122	.0324
In Suspension .....	.....	.0004	.0012	.0064
Chlorine .....	.53	3.98	.35	.50
Nitrogen as—				
Nitrates	0.60	1.63	.011	.006
Nitrites .....	.0000	.0140	.0000	.0001
Oxygen Consumed .....	.01	.07	.63	1.71
Hardness	1.70	15.4	0.65	1.35
Alkalinity	1.40	6.10	0.55	0.50
Bacteria per c. c.	1	904	9	2.653

Some waters, principally those which have been stored in reservoirs, occasionally have very disagreeable tastes and odors develop in them. By examining such a water under the microscope the analyst finds that in a great many cases this is due to a growth of small microscopic plants or animals known as diatoms, alga, protozoa, etc., and these are classified into smaller groups and each different form has a name of its own. These growths are not known to be injurious to health, but are frequently the cause of complaints heard about public water supplies.

It is hoped that the above remarks, although perhaps a little technical for the layman, may serve to show with some clearness the lines upon which a water analyst works in passing upon a sample of water from a sanitary standpoint.—Rhode Island Bulletin.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES FOR APRIL, 1907.

NORTHERN SANITARY SECTION.

Total population	899,960
Total deaths	893
Death rate per 1,000	12.1
Consumption, rate per 100,000	139.6
Typhoid, rate per 100,000	16.2
Diphtheria, rate per 100,000	10.8
Scarlet fever, rate per 100,000	2.7
Diarrheal diseases, rate per 100,000	13.5

CENTRAL SANITARY SECTION.

Total population	1,022,950
Total deaths	1,213
Death rate per 1,000	13.1
Consumption, rate per 100,000	161.8
Typhoid, rate per 100,000	14.1
Diphtheria, rate per 100,000	14.1
Scarlet fever, rate per 100,000	1.0
Diarrheal diseases, rate per 100,000	6.5

SOUTHERN SANITARY SECTION.

Total population	675,649
Total deaths	707
Death rate per 1,000	12.7
Consumption, rate per 100,000	200.4
Typhoid, rate per 100,000	23.4
Diphtheria, rate per 100,000	7.2
Scarlet fever, rate per 100,000	5.4
Diarrheal diseases, rate per 100,000	3.6

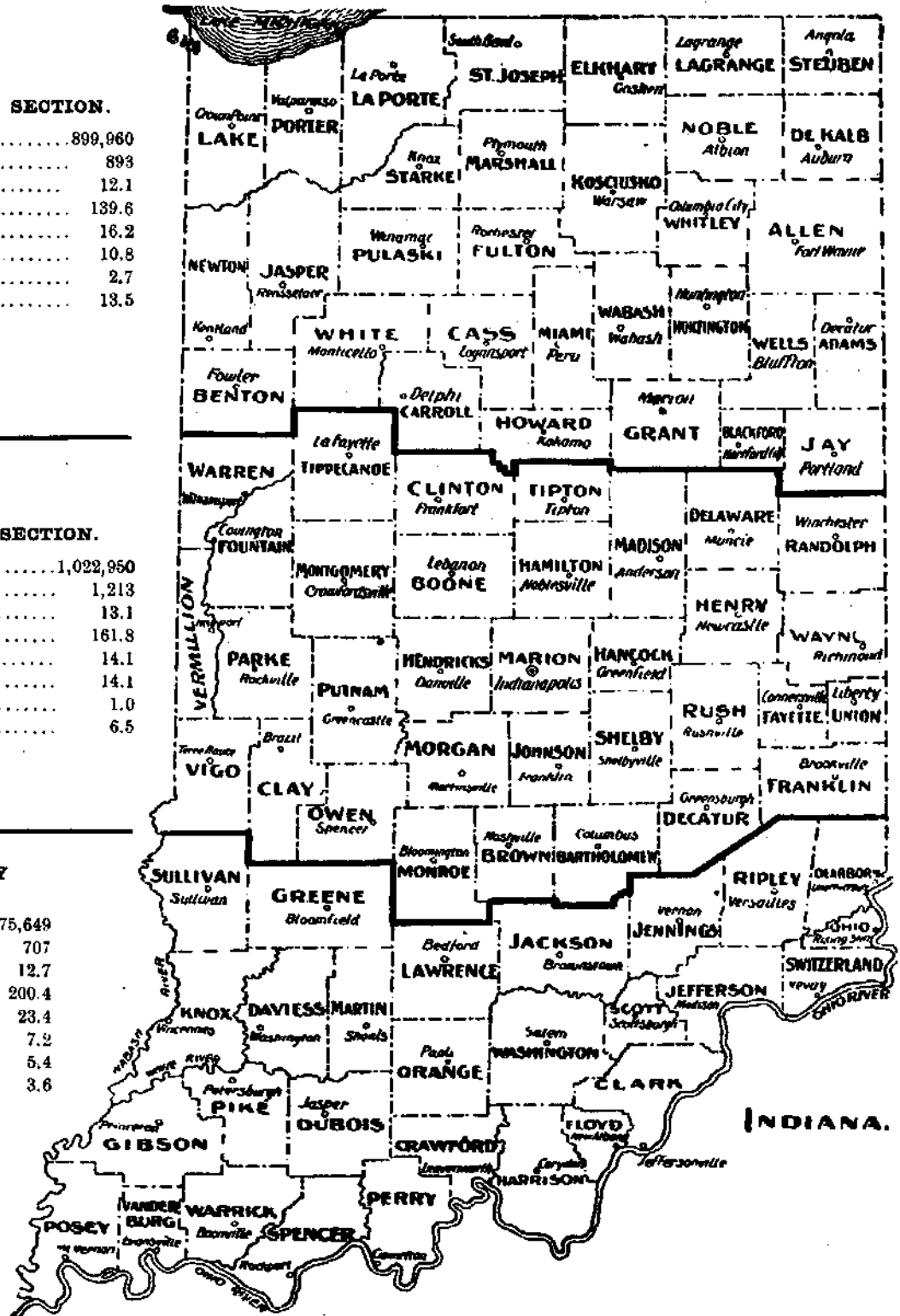


TABLE No. 1. Deaths in Indiana by Counties During the Month of April, 1907.

STATE AND COUNTIES.	Population Estimated According to U. S. Census Bureau.	Total Deaths Reported for April, 1907.	Annual Death Rate per 1,000 Population.	Stillbirths.	IMPORTANT AGES.						DEATHS FROM IMPORTANT CAUSES.																
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	65 Years and over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Group.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Diseases, under 6.	Cerebro-spinal Meningitis.	Influenza.	Puero-peral Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.
State of Indiana	2,698,559	2,812	12.7	148	330	148	48	64	75	864	368	61	38	25	6	42	10	284	18	28	52	29	121	149	1	150	
Northern Co's	899,960	893	12.1	36	110	46	16	21	23	298	103	19	12	8	2	12	8	88	10	7	11	8	40	58	1	51	
Adams	23,052	23	12.1	1	1	1			2	8	4	1						2					1	1			
Allen	83,446	76	11.1	10	1		2		2	25	4	2				1		2				1	1	7		12	
Benton	13,611	9	8.0							2	1							2					1	1			
Blackford	19,914	19	11.6	1	1		2			5	2	1						1				1	1	2			
Carroll	19,553	17	10.3							8	1							1									
Cass	38,478	39	10.3		5		3		1	10	5							4		1			2	2	2	8	
DeKalb	26,272	23	10.6							10	4	2						4									
Elkhart	48,181	44	11.1		2		1		1	17	4	1					6					1	2	1	1	1	
Fulton	17,736	12	8.2							4	2							4									
Grant	65,921	76	14.0	4	6				1	28	9	1	2		1		4	3				1	2	1	1	20	
Howard	30,001	40	16.2	4	2		1		1	11	3	1					6	3			1				3		
Huntington	30,125	27	10.9	3	1		2		1	11	2		1				8	3			1						
Jasper	15,535	23	18.0						1	4	4							4				1	1	1	1		
Jay	28,184	30	13.0					1	1	4	3	2					2	4			1	1	1	1	1		
Kosciusko	29,295	22	9.1					1	1	3	3							1									
Lagrange	15,294	23	16.3		2					9	1		2					1									
Lake	44,554	57	15.6	3			1		1	11	1						4	7			2					3	
Laporte	40,776	49	14.6		4					13	1	1					3	3					2			4	
Marshall	25,639	23	10.9		5					11	1		1				1	1				1	1	1	1		
Miami	29,838	23	9.4		2				1	9	1	1						3							3		
Newton	11,106	9	9.8		4		1			6	6		1					1							1		
Noble	23,603	27	13.9		4					13	3						3	2				1	1	1	1		
Porter	19,624	15	9.3		3		1			5	5							1				1	1	1	1		
Pulaski	15,153	17	15.6							11	2							1			2						
Stark	11,668	11	11.5						2	1	1							4				1	1	1	1		
Stauben	15,515	12	9.4							3	3		1														
St. Joseph	68,328	70	12.1	6			2		3	21	10	2	1		1	1		5		1		1	6	5	3	3	
Wabash	28,121	20	8.3							11	1							4					1	1	2	1	
Wells	24,223	29	14.6		7		5			9	2		1					1				2	2	2	1		
White	20,525	9	6.3							6	2																
Whitley	17,328	19	13.3		2		1		1	6	1	1						1					1				
Central Co's	1,122,950	1,213	13.1	69	145	59	18	25	29	360	149	26	13	13	1	22	6	120	6	15	25	13	51	61	1	72	
Bartholomew	25,167	31	15.0	1	9				1	8	5		2					3				1	2	1			
Boone	26,321	25	11.5	3	3				2	9	6		1					4				1					
Brown	9,727	14	17.5		1					5	3							1				1					
Clay	35,785	31	10.5		4		1			7	2							6				1					
Clinton	28,535	33	14.1	2	4		2			14	1		4					4				1					
Decatur	19,614	16	9.9		3					7	2							2									
Delaware	59,405	56	11.9		6		1		4	10	10		1					5		2		1		1			
Fayette	13,841	16	14.1		1					7	1							4				1	1	2			
Fountain	22,201	21	11.5		2					5	6		1					1			1						
Franklin	16,388	12	8.9		1					5	5							1				1					
Hamilton	31,430	32	12.4		3		1			13	5							2				2	1	1		1	
Hancock	19,735	21	12.9		2					11	4		1					1				1	1	1	1		
Handricks	21,292	19	10.8		2				1	9	1							2				1	1	1	1	1	
Henry	25,572	26	12.4		3		2		2	8	1							3				3	3	3	3		
Johnson	20,488	23	13.6		6					8	4							1				1	1	1	1		
Madison	89,045	57	7.8	6	6				1	13	2				1			3				3	3	3	3		
Marion	234,087	324	16.8	35	19		5	6	11	72	43		4				14	36		2	5	5	20	20	20	56	
Monroe	22,153	18	9.9		4					6	3							2				1	1	1	1		
Montgomery	29,933	28	11.4		4		1			13	6							4				1	1	1	1		
Morgan	21,183	13	7.4		1				2	3	4		1					1				1	1	1	1		
Owen	15,193	17	13.6		2					9	2							3			1		1	1	1	1	
Parke	24,082	19	9.8		3				1	7	2		1					5				2	1	2	1		
Putnam	21,478	23	13.0		2			2		8	3							5			1	2	1	1	2	1	
Randolph	28,880	31	13.0		4		1			12	3		4					2				1	4	1	1	3	
Rush	20,594	24	14.2							9	5							1				1	1	1	1		
Shelby	28,506	24	10.8		2		1			9	2							1				1	1	1	1		
Tipton	40,463	37	17.1		2					15	2							1				1	1	1	1	4	
Union	19,500	18	10.0		1					8	1							5				1	1	1	1		
Vermillion	16,091	25	18.9		7		1			2	2							3			2	1	1	1	1	9	
Vigo	80,319	66	13.0		4		1		1	15	14		1														

TABLE No. 2. Deaths in Indiana by Cities During the Month of April, 1907.

CITIES.	Population, Estimated According to U. S. Census Bureau.	Total Deaths Reported for April, 1907.	Annual Death Rate per 1,000 Population	Stillbirths.	IMPORTANT AGES.							DEATHS FROM IMPORTANT CAUSES.													
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	20 Years and Over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Dis-eases, Under 6.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicæmia.	Cancer.	Violence.	Smallpox.	Deaths in In-situations.
Cities over 50,000 Pop-ulation	386,863	483	15.2	30	60	21	6	12	17	106	60	15	7	4	3	16	1	61	3	6	2	4	27	33	66
Indianapolis	219,351	278	15.4	15	30	16	5	11	55	35	7	10	4	3	14	1	51	3	5	4	4	19	18	59	
Evansville	83,457	71	13.5	5	8	4	3	4	21	7	3	2			2		18	1	1	2		3	4	10	
Ft. Wayne	56,947	59	14.1	2	9	2	2	1	20	5	2						8	1	2	1		4	3	10	
Terre Haute	52,805	75	17.3	6	13	2	1	7	10	13		1					6	1	2	1		1	6	9	
Cities from 25,000 to 50,000 Population	97,740	104	12.9	8	18	6	2	1	6	24	13	1	1	1	1	1	5	1	2	1	1	4	4	3	
Anderson	25,842	19	8.9	2	5	1	1	1	5	5							1	1	1	1					
Muncie	27,293	32	14.3	2	6	4		3	3	5							1	1	1	1		4			
South Bend	41,605	53	14.4	4	7	1		2	16	8							1	1	1	1		4		3	
Cities from 10,000 to 25,000 Population	238,403	302	15.4	15	29	19	3	9	11	70	34	5	8	5	3	2	1	27	2	1	3	5	14	21	12
Elkhart	17,501	26	18.1	2	4			1	9	9							5	5		1		2	2	1	
Elwood	19,332	7	4.4	1	3	2		1	3	3							3					1	1		
Hammond	15,856	22	16.8	1	3			1	2	5							1						3		
Huntington	11,847	10	11.0	1	1	1		1	4	4							1					1	1	2	
Jeffersonville	19,840	21	23.6	1	3	1		2	1	5							1					1	1	2	
Kokomo	12,019	20	20.3	2	3			1	4	2							3					1	1	2	
Lafayette	19,238	30	19.0	1	5	1		1	2	7							1					2	4	4	
Logansport	17,932	25	17.0	1	4	1		2	3	3							1					1	1	1	
Marion	24,030	32	16.2	2	5	2		2	10	4							1					2	1	4	
Michigan City	17,282	14	9.8	1	3			1	1	1							4					1	1	1	
New Albany	20,828	41	21.2	3	7	2		1	2	13							1					4	4	1	
Peru	11,618	7	7.3	1	3			1	1	1							1					1	1	1	
Richmond	19,602	23	14.3	1	4	1		1	9	5							1					1	1	1	
Vincennes	11,393	13	13.9	2	2				3	1							1					1	1	1	
Washington	10,045	11	13.3	2	2				2	3							1					1	1	1	
Cities from 5,000 to 10,000 Population	179,439	216	14.6	16	24	13	5	4	3	58	34	2	3	5	2	21	3	2	2	12	18	13	18	13	
Alexandria	8,823	3	4.1		1	1			1	2						1	1	1	1	1	1	1	1	1	
Bedford	7,221	8	13.5						1	1						1	1	1	1	1	1	1	1	1	
Bloomington	7,437	8	13.1			1			2	1						1	1	1	1	1	1	1	1	1	
Brazil	8,538	12	17.1	2	2				4	2						1	1	1	1	1	1	1	1	1	
Columbus	9,976	11	14.9		2				2	2		2				1	1	1	1	1	1	1	1	1	
Connersville	7,751	9	14.1		1				4	4						1	1	1	1	1	1	1	1	1	
Crawfordsville	6,873	13	23.0	1	2	1			7	4						1	1	1	1	1	1	1	1	1	
East Chicago	7,500	8	13.0	2	1	1			2	1						1	1	1	1	1	1	1	1	1	
Frankfort	7,572	10	16.1	1	1	1			4	2						1	1	1	1	1	1	1	1	1	
Goshen	8,521	4	5.7	1	1	1			1	1						1	1	1	1	1	1	1	1	1	
Greensburg	6,609	3	6.5		1	1			2	1						1	1	1	1	1	1	1	1	1	
Hartford City	7,362	5	8.2		1	1			1	1						1	1	1	1	1	1	1	1	1	
Laporte	7,136	15	25.6			1			3	3						2	1	1	1	1	1	1	1	1	
Linton	9,787	7	8.7	1	2	1			1	1						2	1	1	1	1	1	1	1	1	
Madison	8,938	15	20.4	1	2	1			5	2						1	1	1	1	1	1	1	1	1	
Mishawaka	6,436	9	17.0	2	1	1			5	1						1	1	1	1	1	1	1	1	1	
Mt. Vernon	5,303	10	23.0	1	1	1			1	5						1	1	1	1	1	1	1	1	1	
Portland	5,507	9	19.9	1	1	1			2	2						3	1	1	1	1	1	1	1	1	
Princeton	7,227	14	23.6	2	1	1			2	2						3	1	1	1	1	1	1	1	1	
Seymour	6,888	13	23.0	1	1	2			1	3						2	1	1	1	1	1	1	1	1	
Shelbyville	7,256	8	12.4		1	1			3	2						1	1	1	1	1	1	1	1	1	
Valparaiso	6,756	4	7.2						2	2						1	1	1	1	1	1	1	1	1	
Wabash	9,944	11	13.4	1	3				5	2						1	1	1	1	1	1	1	1	1	
Whiting	5,500	7	15.5	4	1	1			5	1						2	1	1	1	1	1	1	1	1	
Cities under 5,000 Popu-lation	129,031	165	15.4	4	23	2	3	3	55	16	5	2	1	16	1	1	4	9	8	8	8	8	8	8	
Attica	3,279	3	11.1		1	1			2	3						1	1	1	1	1	1	1	1	1	
Anuburn	3,788	5	16.1		1	1			3	1						1	1	1	1	1	1	1	1	1	
Aurora	3,929	5	15.5		3	1			1	1						1	1	1	1	1	1	1	1	1	
Bluffton	4,835	8	20.1		1				1	3						1	1	1	1	1	1	1	1	1	
Cannelton	2,267	11	16.1						1	1						1	1	1	1	1	1	1	1	1	
Clinton	3,539	9	37.9		4				1	1						2	1	1	1	1	1	1	1	1	
Columbia City	3,027	2	8.0						1	1						2	1	1	1	1	1	1	1	1	
Covington	2,342	3	15.6						1	1						1	1	1	1	1	1	1	1	1	
Decatur	4,542	3	8.0						1	1						1	1	1	1	1	1	1	1	1	
Delphi	2,220	No deaths							1	1						1	1	1	1	1	1	1	1	1	
Dunkirk	4,055	3	9.0						1	1						1	1	1	1	1	1	1	1	1	
Franklin	4,095	5	26.8						3	1						1	1	1	1	1	1	1	1	1	
Garrett	4,267	5	13.9		1				1	1						1	1	1	1	1	1	1	1	1	
Gas City	4,222	3	2.9		1				1	1															

Mortality of Indiana for April, 1907.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated According to U. S. Census Method.	Total Deaths Reported for April, 1907.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages.												Deaths and Annual Death Rates per 100,000 Population from Important Causes.							
					Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		65 and Over.		Consumption.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria.	
					Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2,698,559	2,813	12.7	146	330	12.3	148	5.5	43	1.6	64	2.4	75	2.8	364	32.3	368	164.1	61	27.5	38	17.1	25	11.3
Northern Co's	899,960	891	12.1	36	110	12.8	46	5.3	18	1.8	21	2.4	23	2.6	298	34.7	103	139.6	19	25.7	12	16.2	8	10.8
Central Co's	1,022,850	1,213	13.1	69	145	12.6	59	5.1	18	1.5	25	2.1	29	2.5	360	31.4	149	161.8	28	28.2	13	14.1	15	14.1
Southern Co's	875,849	707	12.7	41	75	11.2	43	6.4	9	1.3	18	2.7	23	3.4	206	30.9	111	200.4	16	28.8	13	23.4	4	7.2
All cities	1,082,376	1,270	15.0	73	154	12.8	64	6.3	18	1.5	29	2.4	39	3.2	313	26.1	157	165.5	28	33.0	19	22.4	12	14.4
Over 50,000	386,863	483	15.2	30	60	13.2	24	5.3	8	1.3	12	2.6	17	3.7	106	23.4	60	189.2	15	47.3	7	22.0	3	9.4
25,000 to 50,000	97,740	104	12.9	8	18	18.7	6	6.2	2	2.0	1	1.0	5	5.2	24	25.0	15	162.3	1	12.4	1	12.4	1	12.4
10,000 to 25,000	238,403	302	15.4	15	29	10.1	19	6.6	6	1.0	9	3.1	11	3.8	70	24.3	34	173.9	8	25.5	5	40.9	2	25.5
5,000 to 10,000	179,439	216	14.5	16	24	12.0	13	6.5	4	2.0	4	2.0	3	1.5	58	29.0	34	251.1	13	13.5	10	18.5	1	20.3
Under 5,000	129,931	165	15.4	4	23	14.2	3	1.3	1	1.3	1	1.3	3	1.8	53	34.1	16	150.2	4	48.9	1	18.4	1	18.4
Country	1,666,188	1,549	11.2	73	176	12.0	84	5.7	25	1.7	35	2.3	32	2.4	551	37.4	206	150.5	33	24.1	19	13.9	13	9.5

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates per 100,000 Population from Important Causes.																							
	Croup.		Scarlet Fever.		Measles.		Whooping-Cough.		Pneumonia.		Diarrheal Diseases, Under 5 Yrs.		Cerebro-Spinal Meningitis.		Influenza.		Puerperal Septicemia.		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	6	2.7	42	18.9	10	4.5	284	128.3	18	8.1	28	12.6	52	23.5	29	13.1	121	54.7	149	67.8	1	.4		
Northern Co's	2	2.7	13	17.6	5	5.5	88	119.2	10	13.5	7	9.4	11	14.9	8	10.8	40	54.2	58	78.6	1	1.3		
Central Co's	1	1.0	22	23.9	5	7.2	129	130.3	2	2.5	15	16.2	25	27.1	13	14.1	51	65.4	61	67.3	1	1.3		
Southern Co's	3	3.4	7	12.6	4	7.2	76	137.2	6	7.5	6	10.6	16	28.8	8	14.4	30	54.1	30	54.1	1	1.3		
All cities	4	4.7	25	29.5	5	5.9	130	153.6	7	8.2	12	14.1	15	17.7	16	18.9	65	77.9	79	94.5	1	1.1		
Over 50,000	1	1.4	16	50.4	1	3.1	61	192.3	3	9.4	6	18.9	8	25.2	4	12.6	27	85.1	33	107.2	1	1.1		
25,000 to 50,000	1	12.4	1	12.4	1	12.4	5	62.4	1	12.4	1	24.9	1	12.4	1	12.4	4	49.9	4	49.9	1	1.1		
10,000 to 25,000	3	15.3	2	10.2	1	5.1	27	138.1	2	10.2	3	5.1	3	15.3	5	25.6	14	71.6	21	107.4	1	5.1		
5,000 to 10,000	5	33.9	2	33.9	2	13.5	21	142.7	1	13.5	3	20.3	2	13.5	2	13.5	12	81.5	13	83.3	1	5.1		
Under 5,000	1	9.3	1	9.3	1	9.3	16	150.2	1	9.3	1	9.3	1	9.3	4	37.5	9	81.5	6	75.1	1	5.1		
Country	2	1.4	17	12.4	5	3.6	154	112.7	11	8.0	16	11.7	37	27.0	13	9.5	55	40.2	70	51.2	1	1.1		

Meteorological Summary for April, 1907. Furnished by the Central Office, Indiana Section, Climatological Service, U. S. Weather Bureau, Indianapolis, Ind., May 1, 1907.

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.					
			Degrees.	Date.	Place.	Degrees.	Date.	Place.	Average.	Departure from Normal.	Snowfall Un-visited.	Days with .01 inch or more.	Clear.	Partly Cloudy.	Cloudy.					
																Clear.	Partly Cloudy.	Cloudy.		
Northern Section	41.0	-8.8	86	28	Delphi	17	1	15-16	South Bend Auburn	2.74	-0.43	2.0	10	10	6	14	NW.			
Central Section	43.1	-8.9	79	28	Franklin Richmond	18	1-14			2.56	-0.56	1.3	10	8	8	14	NW.			
Southern Section	46.1	-8.6	85	29	Rome	21	21	14-21	Columbus Greensburg Moore Hill Paoli Salem	3.10	-0.33	0.5	10	9	8	13	NW.			
State	43.4	-8.8	86	29	Rome	17	1-14	15-16	Worthington South Bend Auburn	2.60	-0.48	1.3	10	9	7	14	NW.			