MONTHLY BULLETIN

Indiana State Board of Health

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

CONTENTS.

CANDID: The following letter received from a Terre Haute dairyman tells its own story:

"*Secretary State Board of Health:*

SIR—I am running a milk dairy here at this place, and I would ask you if you know of anything that can be put in milk to keep it sweet in warm weather. I don't want to violate any law, and if you can give me any information on the subject, or refer me where I can get anything for that purpose, I will appreciate it as a great favor."

The above dairyman is certainly very candid, but we were compelled to inform him, and did most emphatically state, that the law did not permit the addition of any chemical to milk to keep it sweet. Infants do not thrive on chemicals: no more do they keep well and healthy when they are given dirty milk. Milk that is not fresh (not to exceed twelve hours old), and which is not clean, and which is not free from chemicals is a food which is certain to cause disease and possibly death.

ABSTRACT OF MORTALITY STATISTICS FOR MARCH, 1906.

Total number of deaths, 3,230; annual rate, 14.3. In the corresponding month last year, 3,656; rate, 16.2. In the preceding month, 2,811 deaths; rate, 13.7. Deaths by important ages were: Under one, 442, or 14.5 per cent. of the total; 1 to 5, 177; 5 to 10, 71; 10 to 15, 42; 15 to 20, 134; 65 and over, 913, or 30 per cent. of the total. Some important causes of death were: Tuberculosis, 406 (of this number 343 were of the pulmonary form); typhoid fever, 37; diphtheria, 16; scarlet fever, 12; whooping cough, 27; pneumonia, 469; diarrhoeal diseases, 25; cerebro-spinal meningitis, 29; influenza, 46; puerperal fever, 4; cancer, 114; violence, 112.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 887,832, reports 1,006 deaths, rate 13.3. In the preceding month, 868 deaths, rate 12.7. In the corresponding month last year, 1,184 deaths, rate 15.7.

THE CENTRAL SANITARY SECTION, population 1,087,629, reports 1,374 deaths, rate 14.9. In the preceding month, 1,201 deaths, rate 14.3. In the corresponding month last year, 1,558 deaths, rate 16.9.

THE SOUTHERN SANITARY SECTION, population 087,620, reports 1,374 deaths, rate 14.9. In the preceding month, 742 deaths, rate 14.3. In the corresponding month last year, 914 deaths, rate 16.

REVIEW OF SECTIONS: The Northern Section presents a death rate lower than the average for the whole State, while the other two sections have a higher rate. The almost constant recurring fact each month that the Northern Section presents the lowest death rate is probably due to the northern part of the State being more healthful, and also because the inhabitants pay more attention to disease prevention.

CITIES: All cities, total population 977,812, report 1,440 deaths, rate 17.3. This is .3 higher than the rate for the whole State. In the preceding month, 1,292 deaths, rate 17.2. In the corresponding month last year, 1,483 deaths, rate 18.[illegible] The cities show a higher rate than the country in the following diseases: Tuberculosis, typhoid fever, diphtheria, scarlet fever, pneumonia, diarrhoeal diseases, cerebro-spinal meningitis, cancer and violence.

COUNTRY: Population 1,670,737, reports 1,790 deaths, rate 12.6. In the preceding month, 1,615 deaths, rate 11.7. In the corresponding month last year, 2,173 deaths, rate 15.2.

SUMMARY OF MORBIDITY AND MORTALITY IN MARCH.

The most prevalent malady was tonsilitis. Pneumonia was reported as the most prevalent in the preceding month. In the corresponding month last year influenza led as most prevalent. The order of prevalence was as follows: Tonsilitis, pneumonia, bronchitis, influenza, rheumatism, pleuritis, whooping cough, scarlet fever, typhoid fever (enteric), intermittent fever, diarrhoeal, erysipelas, measles, diphtheria and membranous croup, smallpox, puerperal fever, inflammation of bowels, typho-malaria fever, cerebro-spinal meningitis, dysentery, cholera morbus, cholera infantum.

SMALLPOX: One hundred and twenty-four cases were reported in 16 counties, with no deaths. In the corresponding month last year, 251 cases in 29 counties, with one death. In the preceding month, 152 cases in 15 counties, with no deaths. The disease continued epidemic from last month in Allen County, 38 cases being reported. It was also epidemic in Clark, 8 cases; Crawford, 16; Floyd, 13; Laporte, 14; Miami, 8; Whitley, 10. In other counties the cases were: Boone, 1; Clinton, 1; Fulton, 3; Greene, 1; Marion, 7; Martin, 1; Putnam, 1; Spencer, 1; Vigo, 1.

TUBERCULOSIS: The total number of deaths from tuberculosis was 406, and of these 343 were of the pulmonary form. Of the total number 195 were males and 211 females. Of the males 36 were fathers in the age period of 18 to 40, and left 77 orphans under 12 years of age. Of the females 87 were mothers in the age period of 18 to 40, and left 179 orphans under 12 years of age. The number of homes visited by the disease was 398. The total number of orphans produced was 256. There were 59 consumption deaths of persons over 60 years of age.

TYPHOID FEVER: Two hundred and fifty-eight cases were reported from 46 counties, with 37 deaths. In the corresponding month last year, 197 cases in 37 counties, with 30 deaths. In the preceding month, 117 cases in 38 counties, with 29 deaths.

PNEUMONIA: Pneumonia caused 469 deaths, rate 208.9 per 100,000. This is an increase over the preceding month of 66 deaths. In the corresponding month last year, 599 deaths. By this comparison, which is the right one, there is a decided improvement to be noted, as there is a difference of 130 deaths. Seventy-five of the deaths from pneumonia were under one year of age, 73 in the age period of 1 to 5, 70 between 5 and 30, 113 between 30 and 60, 54 in the age period of 60 to 70, 51 from 70 to 80, 44 from 80 to 90, and three over 90.

DEATHS BY VIOLENCE: The deaths by violence numbered 112, 20 females and 92 males. Of the violence deaths, 7 were murders, 20 suicides and 94 accidents. Of the suicides, 9 chose gun shots, 3 hanging, 5 carbolic acid, 3 poisons. Of the accidental deaths, railroads caused 18; street cars and interurbans, 3; crushing injuries, 21; burns and scalds, 12; drowning, 6; gun shots, 8; mine accidents, 6; falls, 7; poisons, 6; other methods, 7.

406 KILLED

TERRIBLE LOSS OF HUMAN LIFE

—IN—

INDIANA IN MARCH

—BY THE—

PHTHISIC FORCE.

No Property Destroyed. Only Human Lives Lost and Homes Filled with Sorrow.

(Special by Board of Health wire.)

INDIANAPOLIS, April 1, 1906.—Every county in the State experienced loss of life in March by the phthisic force. The total number of deaths in the State from this cause was 406. Judging from the number of deaths, Marion County was the center of disturbance. From this point the phthisic impulse seemed to extend to all parts of the State. In its attack the well-to-do were conspicuously spared by the destroyer, yet not all of the destruction was among the poor and weak. Among the victims killed were 87 young mothers, 36 young fathers, 33 infants under five years of age and 178 youths and misses. The homes invaded and filled with sorrow numbered 367, and the orphans created by this dire enemy of man numbered 256.

Unlike seismic force, the phthisic force can be controlled, and it acts in complete silence. It extends its operation over considerable periods of time, and thus avoids attracting attention to its awful work. In April the phthisic force will continue its killings, its making of orphans and widows, and its desolating of homes.

To date there have been no meetings of boards of trade and like organizations to give relief to the sufferers.

THE INTERPRETATION OF WATER ANALYSES.

(By H. E. BARNARD, Chemist.)

The problems of the water analyst are many and varied. Every new sample submitted for examination brings with it its own peculiar conditions, and must be considered not in relation to other analyses, but as an original study. The evidences of the mound builders are passed unnoticed by the casual observer, and an upturned flint bears no story, but the skilled eye and trained knowledge of the patient student gives to each a meaning that reveals the history of prehistoric days. Water, like clay and stone, bears evidence of its previous history no less intelligible to him who can read the records. To a chemist each determination in the course of a water analysis has its value, and the sum of these, when added to a knowledge of surroundings, reveals the purity or the pollution of the water, conditions which are so often falsely interpreted.

In the course of our work we frequently are asked to explain the results of our analyses and to tell why, in the case of two analyses apparently similar, we have classed one supply as pure and condemned the other as polluted. We also meet with prejudiced opinion, born of a mistrust of the chemist's ability to judge of a water's purity, a condition of mind unfortunately too often the result of experience with some dabbler with test tubes who has made snap judgments based upon imperfect analyses of unsuitable samples, or again with men who believe that the less an analyst knows about the sample at his hand the more free from prejudice will be his opinion concerning it. We even more frequently suffer because of that admiration for chemical knowledge and belief in chemical clairvoyance which expects us to decide from a sample, while you wait, if a certain water caused the death of a person a month since, in a distant town, under unknown conditions, a mark of appreciation very trying to a man who knows his own limitations. Hardly a day passes but we receive from some anxious person or a physician who should be better informed, a vest pocket sample of water or a perfume bottle containing traces of its original contents, whisky flasks, ketchup bottles, picalilli jars, marked sample 1 and sample 2, and a request for immediate examination. With a view of dispelling some of these illusions and placing the work of the Water Laboratory more clearly before its patrons it will be well to discuss in untechnical phrases just what we mean by water analysis and the conditions that make it necessary.

The correct interpretation of analytical results means a knowledge of the source of a water, its surroundings, geological horizon and past history. Every water has its own characteristics. The presence of any given element of its composition is interpreted according to the kind of water under consideration. Spring water is, of course, colorless; river water of equal purity is probably colored and turbid; pond water may contain considerable amounts of organic vegetable matter without becoming unusable, which, if present in a well water, would place it in the polluted class. Deep-well water normally may contain large amounts of chlorine, while an equal amount in a surface or dug well would be a mark of sewage pollution.

We classify waters, that we may more easily understand them, into three classes: First, cistern, pond, brook and river water, so-called *surface water;* second, spring and deep-well water; and third, shallow wells and sewage effluents. Water of the last two classes has been for some time in contact with the earth, taking up its soluble ingredients and becoming thereby modified in composition, hence it is designated *ground water.* Taking these up in the order given: Cistern water, or rain water collected in a suitable receptacle, is usually pure when collected. By pure water we mean water that contains no objectionable substances, mineral or organic, although in a strict sense there is no pure water outside of the laboratory. Rain water becomes well aerated by absorption of the air as it falls through it, but its supply of carbonic acid is small, and for that reason it is flat and tasteless. Another disadvantage in rain water is that it may contain carbon from smoke, ammonia, sulphur oxids and other soluble gases, and mineral and dust particles. Then, unless care be taken that the roof is well washed by the first portion of each rainfall before the stream is allowed to enter the cistern, the water may be fouled by matter which has collected on the roof. When cisterns are merely underground cemented vaults they are very liable to crack and leak, allowing the ingress of ground water, which, because of the location of the cistern in the back yard, is usually nothing but a partially filtered sewage. We have examined a large number of cistern waters recently, and have yet to find one which does not in some way betray pollution by ground water. Cistern water is unfit for domestic use unless the cistern is often cleaned, and unless protection against surface water is amply provided for.

Brook, pond and river waters are generally rain waters which collect from the surface of the ground of a natural watershed. Many of our supplies belong to this class, and the conditions which make such waters wholesome or dangerous should be considered with much care. The character of the water as it falls in rain is much modified when it reaches its ultimate goal in pond or river. In its race down steep hillsides, through the forests and over rocky wastes the universal solvent has been busy extracting material of all kinds—mineral matter from the rocks, organic substances from the dead leaves of the forest, and coloring matter from the peat and grasses of the meadows and lowlands. As the stream flows on it receives contributions of many kinds—the overflow of springs, the under-drainage from cultivated fields, the surface wash from pastures and meadows. Because of their usually secluded positions, the cleanliness of their watersheds, and from their action as settling basins for suspended matter, our lakes and rivers are the safest source of public water supply for cities and large towns.

The water of ponds, whether natural or artificial, is apt to be affected by the growth of fresh-water sponges, or the class of plants called algae. The former, by their decay, give to water a peculiar or disagreeable appearance and odor, but this is not proved injurious to health. The latter are often so fine as not to be distinguished in a glass of water, but in larger quantities they may impart a greenish hue, and the use of water so affected may be the cause of stomach trouble. They are really removed by filtration, but will speedily grow again in the filtered water. River waters are more liable to contamination than the waters of ponds, since they are usually utilized by cities and towns as mediums by which to dispose of their sewage and waste from manufacturing operations. It was long thought that running water would purify itself; that any sewage flowing into a river would be destroyed by oxidation in the course of several miles' flow. It is true that precipitation of suspended matter is constantly going on, and that much oxidation does take place, but most of the apparent purification is due to the great dilution. Poisonous matters may be so diluted as to be beyond the power of the chemist to detect, and yet should the germs of disease have entered the water they are still there and as powerful a factor for evil as ever. Dr. Frankland, the highest authority on this subject, says: "There is no process practicable on a large scale by which sewage can be removed from water once so contaminated, and, therefore, I am of the opinion that water which has once been contaminated by sewage is thenceforth unsuitable for domestic use."

We now come to the second class of waters, which includes spring and deep-well waters. Water falling on elevated ground is absorbed and finds its way into underground channels, through which it is carried, perhaps long distances, until it emerges upon the surface again as a spring. From its origin it generally enters the ground but little contaminated, and in its journey through the earth organic matter is destroyed and mineral substances dissolved, so that when it emerges we find it the best of our potable waters, pleasing to the eye and palatable to the taste. Unfortunately the number of springs is comparatively few, and it is only in sparsely settled communities that they can be called upon to furnish a water supply.

Deep-well waters are in much favor as supplies for both public and private systems. They should be sufficiently deep to pierce strata that are impervious to the waters lying above them. Water from true deep wells has long been confined in the earth, uninfluenced by light or air, and often subjected to great pressure. It is comparatively free from bacterial life, and aside from its varying mineral content, is soft and palatable. Deep-well waters, however, because of their long contact with rock and earth, are heavily impregnated with their mineral constituents. Iron and lime salts are abundant, and many otherwise acceptable waters contain such quantities of these ingredients that they are not suitable supplies. Deep-well waters are too hard for laundry or boiler use, two weighty objections sufficient to turn the scale in favor of surface waters if they are obtainable.

The third subdivision of waters, shallow wells and sewage effluents, is the one which most concerns the health of our citizens.

Pioneer settlers dug their wells as near their kitchen door or barnyard as they could find water, with a blind faith in the protecting power of Mother Earth,—a faith not wholly misplaced as long as the requirements of the household did not exceed two or three gallons a day, and the nearest neighbor was half a mile away. But generations have come and gone, and still the well is in daily use. Its water may be clear and sparkling, with, perchance, a slightly foul odor in the spring and fall, which is attributed to the presence of a few worms found on that rare occasion when the well is cleaned out. And yet, in the light of our present knowledge, a great proportion of these wells are but receptacles for effluents from vaults, sink drains and barnyards—pools of sewage, liable at any time to bring sickness to the user or an epidemic to the community.

It is usually thought that if a well is thirty feet from a contaminating source it is safe from pollution; that if, perchance, any seepage does take place, the effluents will have been made as pure as water from the skies, in the mysterious laboratory of the earth. Such reasoning has long been proved false. If a well is freely used, so the level of the water is below that of the water in the surrounding earth, inflow will take place for a distance of one hundred feet laterally, and in the direction from which the ground water flows for a much greater distance. Hence, ordinarily, a source of filth, in order to contaminate a well, must be within one hundred feet, or, in extreme cases, two hundred feet, except in the direction from which the ground water flows. But this is not the whole truth, for the original source of filth may be much further removed and have gradually defiled the soil in the direction of the well until it has extended within its influence. Cesspool filth has been known to seep through the soil for a distance of two hundred yards and poison wells.

In a small rural village the supply of water may have been of unexceptionable quality for an indefinite time, but as the place grows, population becomes more dense, the ground water is drawn on in excess of the supply, the drainage area of the well is increased and the water becomes less pure, both from this cause and from the increased amount of sewage returned to the soil, which is sure to be saturated with organic matter beyond its power of oxidation, and pollution of the wells is inevitable.

They should be abandoned as a source of water supply for household uses whenever there are over two houses to the acre, unless in exceptional cases an analysis has shown them to be pure.

In the examination of a water we classify the substances found in it as mineral and organic. This distinction is not altogether a permanent one, for the mineral and organic conditions are dependent on one another, and in part pass into each other.

The mineral constituents are usually potash, soda, lime, magnesia, iron and alumina, in combination with chlorine and sulphuric, silicic, nitric and carbonic acids. The organic constituents are, first, living organisms,—animal and vegetable; second, the products of organic life, such as albumen, urea, tissue, etc.; third, products of the decomposition of organic matter.

The ordinary methods of analysis determine the form and amount of these constituents at the time the water is analyzed.

It is not usually necessary to determine the mineral constituents, but only those factors which are influenced by the presence of sewage or contaminating material. Sewage is very rich in organic matter, chlorine and solids, and so a determination of these components will give us the information we desire. The organic matter contains large amounts of nitrogen, which analytical processes enable us to determine with great accuracy in four forms, namely, as organic nitrogen, as ammonia, as nitrous acid, and as nitric acid. This order represents the order of change from organic nitrogen to its most highly oxidized condition.

If we find ammonia present in the last form, that is, as nitric acid, we know that whatever organic matter was present has been oxidized or destroyed, and the source of danger removed; but if we find much ammonia or nitrous acid present we see that oxidation is not complete, a proof that the source of pollution is not far from the supply, and that the water must be regarded as unwholesome.

It must be understood that the various constituents determined in a water analysis are not of themselves injurious; they are but indexes of pollution, and the factors found are valuable only as they are comparable with factors predetermined on a water of known purity of the same class. That this important fact may be perfectly understood, below are given detailed analyses of both good and bad waters of several classes.

SPRING WATERS.

	POTABLE.	POLLUTED.
Odor	Slight vegetable.	None.
Color	0.0	0.0
Turbidity	Slight.	Very slight.
Sediment	White flocculent.	Very slight.
Free ammonia	.0010	.0016
Albuminoid ammonia	.0014	.0260
Nitrates	.0500	2.4000
Nitrites	.0001	.0003
Chlorine	.3000	5.0000
Total solids	30.00	35.00
Fixed solids	25.40	31.20
Hardness	13.80	13.80
Iron	.0000	.0000

DEEP WELL WATERS.

	POTABLE.	POLLUTED.
Odor	None.	None.
Color	10.00	0.0
Turbidity	None.	Very slight.
Sediment	None.	Much red.
Free ammonia	.0056	.0310
Albuminoid ammonia	.0000	.0046
Nitrates	.0000	1.0000
Nitrites	.0001	.0040
Chlorine	.2000	8.5000
Total solids	37.60	131.80
Fixed solids	32.50	104.60
Hardness	11.80	27.20
Iron	.0140	.0400

DUG WELL WATERS.

	POTABLE.	POLLUTED.
Odor	None.	None.
Color	0.0	0.0
Turbidity	Slight.	Slight.
Sediment	Much Red.	None.
Free ammonia	.0010	.0030
Albuminoid ammonia	.0000	.0560
Nitrates	.0100	.0300
Nitrites	.0000	.0800
Chlorine	.2000	12.8000
Total solids	35.00	98.10
Fixed solids	31.40	75.50
Hardness	15.50	22.50
Iron	.0500	.0000

CISTERN WATERS.

	POTABLE.	POLLUTED.
Odor	Vegetable.	None.
Color	5.0	5.0
Turbidity	Very slight.	None.
Sediment	None.	Very slight.
Free ammonia	.0060	.0050
Albuminoid ammonia	.0100	.0126
Nitrates	.0000	.1200
Nitrites	.0000	.0020
Chlorine	.1000	3.6000
Total solids	2.60	54.00
Fixed solids	1.10	45.00
Hardness	1.00	9.40
Iron	.0000	.0000

In every analysis given above the polluted samples were of better appearance than the pure waters, and when subjected to ordinary physical examination would have been accepted as pure. The high ammonia, nitrate, nitrite and chlorine factors obtained showed that on the contrary the supplies were heavily polluted with sewage and absolutely unfit for drinking or domestic use.

Bacteriological examination, that is, the determination of the number and kind of bacteria present in water, are necessary in many cases, but a single bacterial analysis is so subject to experimental error that results so obtained are of small value. For the purpose of judging the efficiency of filter beds and water purification systems, bacterial tests are of great value; the filtered water may be changed but little from raw water so far as chemical analysis can determine, and yet bacterial tests may show that a source of danger is largely or entirely removed. Clark & Gage *say: "In the examination of samples of spring water collected in the proper manner the degree of purity is shown almost absolutely by chemical analyses. The complete analyses of samples from a large number of domestic wells show that polluted waters that might become unfit for consumption at any moment are more plainly indicated by a single chemical analysis than by a single determination of B. Coli. The presence of B. Coli at the time of the examination may indicate actual danger of health, and its absence even in the most polluted of these waters, chemically, may indicate lack of imminent danger, but the chemical analyses are certainly the most decisive."

Water analyses are desirable whenever the supply is subjected to probable pollution because of an unfavorable location, or when sickness occurs of a type usually communicated in the water supply. We receive many samples for analysis collected from sources known to be polluted. Such examinations are unnecessary. It does not need extensive chemical analyses and a dozen plate cultures to prove the presence of filth in a stream that is used as a sewer for a city, nor is it necessary to waste time over a water from a dug well that by reason of its location must be a cesspool for household wastes or barnyard washings.

There are 300,000 wells in Indiana that are today the sole source of water supply for nearly 2,000,000 people, and without doubt thousands of these wells are but receptacles for filtered sewage. The sentiment in favor of the old barnyard well is very pronounced. The water may have been in constant use for generations without producing illness, and it is hard to convince a person brought up, so to speak, on the effluents from barnyards and privy vaults that he is drinking anything but the purest water. The time will surely come, however, when the well will reveal its true character and typhoid will enter the family of the boasted immune.

We are just entering upon the campaign for pure water. The work before us is never ending. New supplies are being opened constantly; old supplies always growing more polluted. An examination of all waters is impossible, but much that is valuable can be done, and with the eradication of polluted supplies and the arousing of a more positive sentiment for the purest water, and nothing else, we shall be doing much to secure for the people of the State safe and wholesome water, the substance of all substances which is nature's most intimate minister to life, comfort and health.

*Am. Pub. Health Ann. Report, vol. xxix.

THE STATE HYGIENE LABORATORY.

(Report of Bacteriological Division for March.)

BLOOD EXAMINATIONS for typhoid fever, 21; positive, 20; negative, 1. Physicians applying, 18, from Rossville, Frankfort, Wallace, Noblesville, North Vernon, Westville, Michigan City, Indianapolis, Terre Haute, Cambridge City, Hagerstown.

DIPHTHERIA CULTURES EXAMINED, 8; positive, 4; negative, 4. Physicians applying, 7, from Fort Wayne, Rensselaer, Madison, Michigan City, Indianapolis, Culver, Battle Ground.

SPUTUM EXAMINATIONS, 142; positive, 51; negative, 91. Physicians applying, 112, from 97 towns and cities.

SUPPLIES SENT OUT: Sputum outfits, 228; diphtheria outfits, 103; blood outfits, 150.

A HORSE STORY: Mrs. X, of Avilla, writes the State Board of Health about a dead horse. She says:

> L. L. Bixler living 1 mile south and 2 miles west of Avilla, he has an old dead mare out in the woods that is not burried and he says he will not bury her, he bred her and worked her untill she became so diseased he had to take her out in the woods and shoot her, she had bunches on her full of matter, and one had tape worms in it to, it had commenced to decay and to stink, dogs from all over the country are going there and eat of it, and roll in it. Please see to this immediately.

Another citizen informs us as follows:

> Mr. L. L. Bixler had an old horse who had been sick for a year and this winter January he had her shot and scun and the carcas is laying back in ihis woods, Where his hogs have eaten the meat off the bones, four of the said hogs, he is fatting for market. It will be wise for you to investagate, this matter.

Such cases are nuisances and can be abated summarily by the Board of Health having jurisdiction. The health officer can hire men, abate the conditions and then prosecute the responsible person or persons, and in the complaint demand that the expenses of abatement be adjudged against the offender. If the offender can not be found then the Board of Health shall pay costs of abatement.

PULMONARY TUBERCULOSIS IN SCHOOLS.

The fact that phthisis is frequently spread in places where large bodies of people are gathered is too well known to require much emphasis. Schools are undoubtedly prominent in disseminating consumption, and consequently school buildings should always be as well ventilated as possible. There is at all times a considerable amount of tubercular disease among school children. The medical officer of Blackburn, Lancashire, England, in a recent report stated that he found that nearly 10 per cent. of the children examined in some of the schools had pulmonary consumption. In the Paris schools the state of affairs in this respect was even worse, the figures being from 11 to 14 per cent. among boys and from 17 to 20 per cent. among girls. At the International Tuberculosis Congress held in Paris last year the statement was made that one of the most fruitful sources of consumption among school children was the use of school buildings by adults for public meetings. It goes without saying that school rooms require plentiful ventilation, and that if they be filled with people in the evening, as well as in the daytime, that this desideratum is impossible of attainment. A speaker at a meeting of an educational society said that he thought that public meetings should not be permitted in school buildings except in rare cases, and that in order to lessen the dangers after such meetings the school room should be washed with a weak solution of formaldehyde.—The Journal of the American Medical Association.

NOT DIAGNOSED UNTIL TOO LATE: Dr. John Edward White, Superintendent of Nordrach Ranch, Colorado Springs, Colo., writes us as follows in regard to a patient recently received from Indianapolis:

Mr. A. died at our institution three weeks after arrival. Our examination disclosed that he was in an advanced stage of tuberculosis. His right lung was entirely out of use, as was apparent from auscultation and percussion. His left lung was also much involved. He was hopeful, however, which hope we did not share. One evening after supper, when in his room, he lay down upon his bed and passed away within three minutes. He had been unusually well all day. We telegraphed for permission to hold an autopsy, which was fortunately granted. The right lung was found to be a mass of tubercles from top to bottom—on the left side was a mass as large as an orange. At the base of the right lung were two old, healed cavities. There was no pus in the chest, for the tubercles had not ruptured. The patient had no cough, nor any expectoration. His temperature was very high, running oftentimes 103, indicating the virulence of the disease. Mr. A. had certainly been tuberculous for ten years, and had been examined by several different physicians, his condition not being recognized until shortly before he came to our place. Think of it! Ten years' suffering from pulmonary tuberculosis, the most common disease that we have, and still not positively recognized. It is the same old story. Mr. A. had been in New York very recently, and had been examined by several physicians. One of them said he had a bend in his stomach, and was trying to rub it out! Will the time ever come when tuberculosis will be recognized in its incipiency by all physicians? Sanatoria can not perform miracles. Results depend upon the class of cases. We regret to say we have found it very unsatisfactory trying to classify cases by writing to physicians who have been employed. Mr. A.'s case was called "incipient" by one of the physicians who diagnosed it in its last stages.

* * *

HEREDITARY TUBERCULOSIS: A sputum sent in to the State Laboratory of Hygiene for examination from a town in the northern part of the State had with it the usual set of questions, and some of the answers were quite remarkable. Under "date of earliest symptoms" the answer was, "About four years ago." To the question, "Where was disease contracted?" the answer was, "Not known, unless hereditary." The clinical diagnosis was given as "hereditary tuberculosis," and the patient was 68 years of age. This speaks very well for longevity in the presence of tuberculosis.

It seems strange that any practicing physician of this date should speak thus of hereditary tuberculosis.

VENTILATION.

The horde of agents who are at present trying to sell the good people of Fort Wayne all sorts of patented weather strips or contrivances for keeping the air and dust out of houses, reminds us that there are always fish that will bite almost any kind of bait.

We are willing to admit that some houses are so poorly constructed that great gaps exist under doors and window sashes, though which the cold, frosty air of winter and no small amount of dirt finds entrance to the house, to the discomfort of the inmates and a decided drain upon the winter supply of fuel if the temperature of the living rooms of the house are to be kept to a comfortable degree of warmth. But the majority of houses, and especially the houses of those who are able to afford the expensive contrivances that are now devised to hermetically seal all the openings under doors and window sashes, are so well constructed that when the windows and doors are properly closed no great amount of either air or dust can enter for want of sufficient opening. The absurdity of the argument that contrivances for keeping out the air and dust which comes in from under doors and window sashes will keep the house clean is apparent when we take into consideration the fact that every time a door or window is opened a current of air ladened with dust comes in and practically does as much ill effect as is produced by the very limited quantity of air and dust which comes in from under the doors and window sashes.

But the worst feature of this mania for contrivances to keep out air and dust is the tendency to educate people to avoid ventilation. We venture to say that some of the houses of the poor, where the air, the dust and even the rain and snow comes in through large cracks under the doors and windows, and perhaps occasionally a knot hole or broken pane of glass, are far better ventilated, the air much purer and the inmates far more healthy than in the houses of the rich, where frequently but little attention is paid to ventilation, and where pure, fresh air, so much of a necessity in the promotion of good health, is kept out by having every opening closed and the cracks under windows and doors, which might afford some slight ventilation, hermetically sealed by some expensive contrivance invented by some enterprising person to prey upon the credulity of mankind.

Too often the good housewife shuts out the pure air so necessary for the health and comfort of her family because she is afraid that a little dust will get on her clean furniture or floors, and the male head of the house is equally willing to put up with a lack of ventilation because he thinks that the entrance of cold air to the house necessarily increases his fuel bill. Too often, as well, the good housewife darkens her house with huge awnings or heavy window shades on the plea that the bright light fades her carpets or makes streaks on the wall paper. Is it any wonder that the children reared in such houses are like hothouse plants which require constant attention in order to keep them alive, and that many of them suffer from diseases or actually die for the want of a sufficient amount of fresh air and sunshine?

We believe in cleanliness, but we think that a little more labor should be expended in removing the dust or dirt which comes in under a window sill or door, or through a window that has been opened for ventilation than to keep clean at the expense of ventilation. We believe in keeping warm and comfortable in the winter time or any other time, but we think that a little more coal had better be burned in warming fresh air than to economize at the expense of breathing vitiated air. It is cheaper to pay for a little extra help to clean the house of dust that comes in through an open window, and cheaper to pay a little larger fuel bill than it is to pay the bills of the doctor, the druggist, the undertaker and the cemetery association. And it is not only economical, but it makes for the actual comfort and happiness of those who practice it.

With the advocacy of the open air treatment of consumption, and the beneficial effects that have been known to occur in connection with such treatment, has come a change of ideas regarding the effects of open air or draughts in the household. At present there are many who not only believe in living in houses through which the pure air from out doors comes into the house in large quantities through a window or other opening, but they have seen the beneficial effects of following such a practice. But more people should be encouraged to adopt an effective system of ventilation for their houses, and physicians in particular should advise their patients to avoid vitiated atmosphere, even at the expense of a little dirt which may come in through an open window and an increase in the fuel bill brought about in warming the circulation of fresh air. If our patients can only be taught that more ventilation means better health, and that there is no occasion to be afraid of a little draught of air, there will not be quite so many contrivances for keeping the air out of houses sold to susceptible individuals, and perhaps physicians will not have quite so much to do in caring for those who have become ill indirectly through the breathing of vitiated atmosphere, but the community as a whole will be benefited.—Dr. Bulson in the Fort Wayne Medical Journal-Magazine.

PROBABLE PTOMAIN POISONING AT THE SCHOOL FOR FEEBLE-MINDED YOUTH: Head-cheese was served for supper at the School for Feeble-Minded Youth at Fort Wayne at 5 p. m., April 22d. Of the 560 inmates who partook of the head-cheese 132 were suddenly affected with gastro-intestinal irritation.

"The first symptoms were pain and tenderness in the abdomen, nausea and vomiting, all coming on in three to six hours after the injestion of the meat. The number of stools varied from three to eight in twelve hours. The temperature was not elevated in any case; the pulse was rapid and weak, running as high as 120 in some of the smaller children (8 to 10 years of age). By morning (April 23d) all but thirty of these children were able to be up and were fairly well except for some pain in the abdomen and slight weakness. A few of the thirty children that remained in bed vomited once or twice and had a little diarrhoea. The patients' ages varied from eight to thirty years. They were high and middle-grade imbeciles of both sexes.

"The head-cheese was prepared from three hogs' heads which had been dry salted two weeks before using, three which had been dry salted one week before using and three which were one day old. This meat had been kept in the cooler in an average temperature of 46 degrees until it was put in the boiling pot on April 19th and boiled five hours. After cooking it was returned to the cooler until the morning of April 22d and then kept at room temperature until used. The first half was used by males, the second half by females. There was no difference in the severity of the symptoms of the two sexes. The bodies of the hogs from which the heads were taken had been used (fresh) and produced no untoward symptoms."

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES FOR MARCH, 1906.

NORTHERN SANITARY SECTION.

Total population	887,832
Total deaths	1,006
Death rate per 1,000	13.3
Consumption, rate per 100,000	114.3
Typhoid, rate per 100,000	7.9
Diphtheria, rate per 100,000	3.9
Scarlet fever, rate per 100,000	10.6
Diarrheal diseases, rate per 100,000	11.9

CENTRAL SANITARY SECTION.

Total population	1,087,620
Total deaths	1,374
Death rate per 1,000	14.9
Consumption, rate per 100,000	159.4
Typhoid, rate per 100,000	20.6
Diphtheria, rate per 100,000	5.4
Scarlet fever, rate per 100,000	4.3
Diarrheal diseases, rate per 100,000	9.7

SOUTHERN SANITARY SECTION.

Total population	673,097
Total deaths	850
Death rate per 1,000	14.9
Consumption, rate per 100,000	192.8
Typhoid, rate per 100,000	21.0
Diphtheria, rate per 100,000	12.2
Scarlet fever, rate per 100,000	0.0
Diarrheal diseases, rate per 100,000	12.2

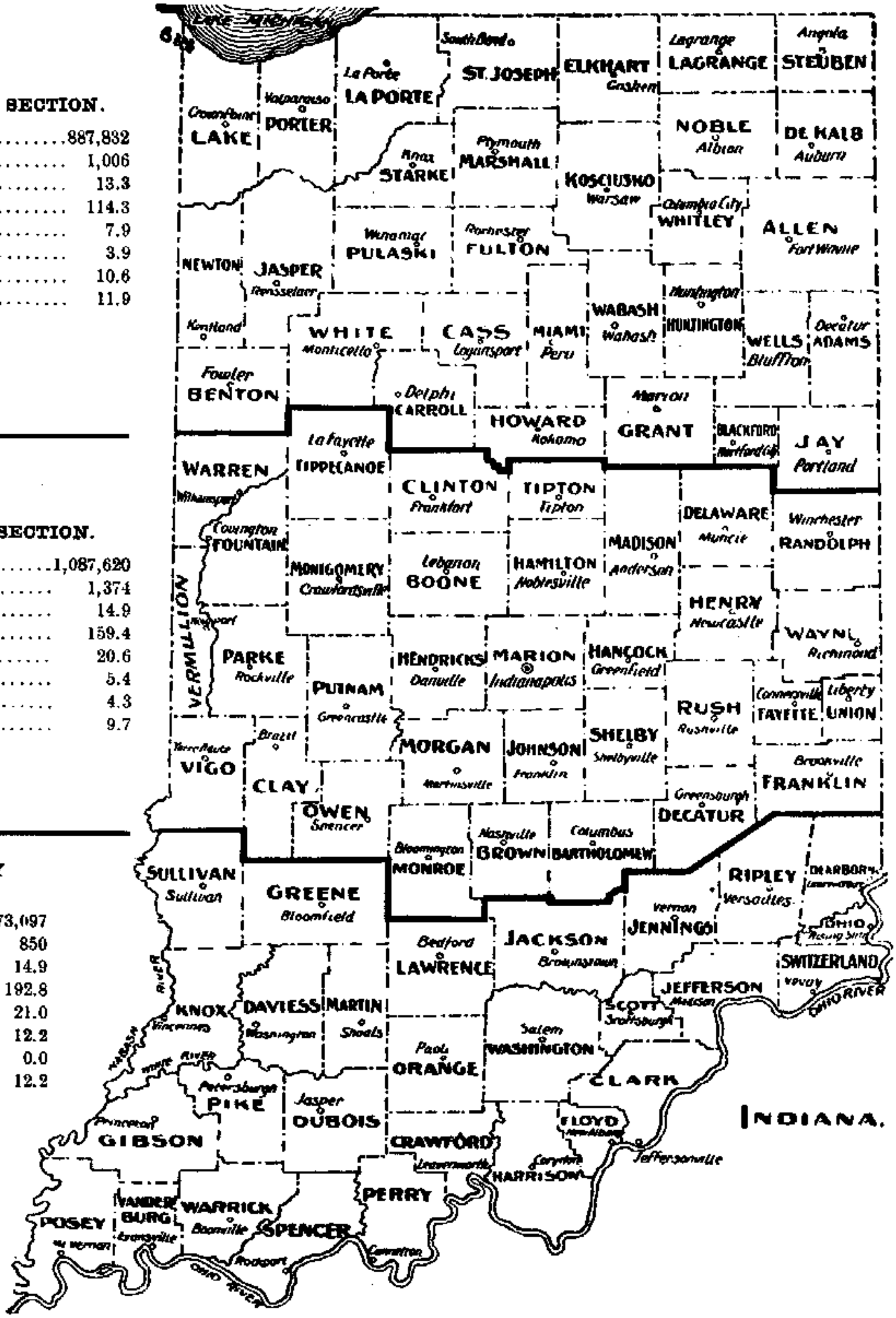

TABLE No. 1. Deaths in Indiana by Counties During the Month of March, 1906.

					Important Ages.						Deaths from Important Causes.																
STATE AND COUNTIES.	Population Estimated According to U. S. Census Bureau.	Total Deaths Reported for March, 1906.	Annual Death Rate per 1,000 Population.	Stillbirths.	Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	65 Years and over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Diseases, under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.
State of Indiana	**2,648,549**	**3,230**	**14.3**	**196**	**442**	**177**	**71**	**42**	**134**	**913**	**343**	**63**	**37**	**15**	**1**	**12**	...	**27**	**469**	**25**	**29**	**46**	**4**	**114**	**112**	...	**143**
Northern Co's	**887,832**	**1,006**	**13.3**	**72**	**136**	**55**	**28**	**14**	**42**	**308**	**86**	**9**	**6**	**3**	...	**8**	...	**5**	**137**	**9**	**14**	**12**	**1**	**38**	**34**	...	**39**
Adams	23,052	33	16.8	5	4	2	1			8	4					1			4						1		
Allen	81,502	93	13.4	4	13	9	4	2	17	23	12							2	17		4	1		4	2		10
Benton	13,611	17	14.7	2	2	1			1	6	1								1								
Blackford	19,914	8	4.7		1	1			1	1									1								1
Carroll	19,953	25	14.7	4	3	1				8	2	1							4					1			
Cass	35,902	54	17.7	1	6			1	1	17	1	1	1						13		1	1		2	1		15
Dekalb	26,272	21	9.4		4			1		12	3	1							1					1			
Elkhart	47,392	62	15.4	3	6	2	2	2		16	8	1		1					4					3	3		
Fulton	17,736	22	14.6	4	3	1			1	4	3								5		1						2
Grant	63,973	75	13.8	11	8	3	1		4	26	8								16			2		2	1		1
Howard	29,531	41	16.3	4	2	2	2		3	11	4		1						6			1		5	2		
Huntington	29,404	28	11.2		4	2	2	2		12	3					1			7		1			1	1		1
Jasper	15,535	8	6.0		3		1	2		1	1								4				1	1			
Jay	28,154	28	11.7	2	5		1		2	9	5								5		1						
Kosciusko	29,295	30	12.0		7	2			3	9	4	1							3	2		2		1			1
Lagrange	15,284	17	13.1	2				1		8	2		1														
Lake	43,494	69	18.7	7	18	7	5			10	4		2			2		1	7	3		1		3	4		2
Laporte	39,962	48	14.1	1	9	2	1	1	3	17			1			1			3	1		1		2	4		
Marshall	25,639	24	11.0	1	4	1	1			8	1								1					4	2		
Miami	29,352	39	15.6	3	4	3			2	12	4	1							5		4	1			1		
Newton	11,106	8	8.4	1						3		1							1								
Noble	23,603	17	8.4	2	1					7									1								
Porter	19,624	23	13.8		2	1	1		1	9	1								2	1	1				4		
Pulaski	15,153	10	7.7		2	1				8								1	3								1
Starke	11,668	5	5.0				1			2				1											2		
Steuben	15,515	18	13.6		1	1	1			11	1								1								
St. Joseph	65,451	88	15.8	9	13	8	1	1	1	19	6	1							13	1	1	1		2	5		5
Wabash	28,679	26	10.6	1	2	1		1	1	13	1								4			1		3			
Wells	24,223	27	13.1	5	4					9	4	1							1								
White	20,525	24	13.7		3	3	2		1	8	1			1		3		1	2					1	1		
Whitley	17,328	18	12.2			1	1			6	2								2	1				2			
Central Co's	**1,087,620**	**1,374**	**14.9**	**66**	**185**	**65**	**24**	**24**	**57**	**393**	**147**	**35**	**19**	**5**	...	**4**	...	**12**	**215**	**9**	**10**	**18**	...	**48**	**54**	...	**85**
Bartholomew	24,885	34	16.1	3	4	1		2		11	7	1	1						5			1		3			
Boone	26,321	32	14.3	2	4	2	1	1		13	2	2						1	3	1	1				1		
Brown	9,727	6	7.2			1				3	1								1								
Clay	35,785	36	11.8	2	7	1		1	4	7	3		3						6	1		2		2	4		
Clinton	28,535	39	16.1		7	3	1		1	14	4	1							7		2	1			1		
Decatur	19,614	30	18.0	2	2	1	2	1		8	4					1			7					1	1		1
Delaware	57,421	61	12.5	2	16					19	7	4							6	1	1				3		
Fayette	13,841	20	17.0			2				12	2								1			1			1		
Fountain	22,201	23	12.2	1	2	3	1		1	6	6		1						7			1		2			
Franklin	16,388	16	11.5			1	2			6	2	2										1		1			
Hamilton	31,430	36	14.2	3	7	2	1	1	1	13	3							2	3			1	1	1	1		
Hancock	19,755	29	17.3	4	4	3		1	1	8	6								5					1			
Hendricks	21,292	22	12.1		4	3	2		3	6									8					1	2		
Henry	25,572	29	13.3	1	5	3	1		2	7	3			1					3	1	1	1		2	1		
Johnson	20,488	15	8.6		2		1			6	4	1							1						1		
Madison	84,063	61	8.5	5	6	5			2	16	7		1						8					3	1		
Marion	219,655	364	19.5	18	47	18	5	7	16	79	32	12	8	3		1		5	66	3	1	2		15	13		68
Monroe	22,153	24	12.7		5	1	1	1		11	2								4		1						
Montgomery	29,933	38	14.9	1	5	2	1	1	1	14	2		1					1	8			1			1		
Morgan	21,183	35	19.4	1	6	1		1	1	12	5	1							4				1				
Owen	15,193	11	8.4	1	1					6	3							1	1								
Parke	24,082	28	13.7	2	5				4	9	5							1	6	1			1	1			
Putnam	21,478	21	11.5		1		1		3	12	3	2							2					3			
Randolph	28,880	23	9.3	2	3	1				9	2								5					1	1		
Rush	20,594	25	14.3		2	1		1	1	7	2	1		1					2	1		2		1	3		
Shelby	26,906	35	15.3	1	6	1		1	1	12	4							1	7		1			1			
Tippecanoe	40,091	45	13.2	4	4			2	1	11	3	1	2			1			1		1	1		3	2		
Tipton	19,500	17	10.2	1	5			1	1	6	2	1											1				
Union	6,748	4	6.9							3												1					
Vermillion	16,091	27	19.7	1	7	1				10	1	1							5					1	2		
Vigo	66,771	114	20.1	7	8	7	3	1	9	27	14	4	1			1			24					4	11		14
Warren	11,537	7	7.1		2	1	1			1									2		1			1			
Wayne	39,507	65	19.4	2	8			1	4	20	6	1	1						7			2			4		2
Southern Co's	**673,097**	**850**	**14.9**	**58**	**121**	**56**	**19**	**6**	**35**	**212**	**110**	**19**	**12**	**7**	**1**	...	...	**10**	**117**	**7**	**5**	**16**	**3**	**28**	**24**	...	**19**
Clark	32,465	35	12.7	2	6				3	8	4							1	5			1		1			1
Crawford	13,476	12	10.5		3					4	2		1					1	1	1							
Daviess	31,389	34	12.7	5	1	1		1	3	8	8	1	2						3					1	2		
Dearborn	22,194	25	13.2	2	3	2				10	3	1							3			1		1			
Dubois	20,399	17	9.8	2	1	3			1	7		1							3			2		1	1		
Floyd	30,382	43	16.7	6	5	2			1	10	4								2						3		
Gibson	32,171	39	14.3	1	4	5	3		1	10	4		1	1				1	6			1		3			
Greene	30,190	41	16.0	2	7	2	2			9	5								6					1	2		
Harrison	22,068	25	13.3		7	1				11	8							2	7		1	2					
Jackson	27,631	38	16.2	2	6	1	1			14	4								2	1	1						
Jefferson	22,913	33	16.9	1	2	3	1		1	13	5	3	1	1					1		1	2		1	2		
Jennings	16,217	17	12.3	1	1	3			1	8	3	2							1		1	1		1			
Knox	34,627	52	17.7	11	6	1		1	3	9	5								10			1		3			
Lawrence	28,104	34	14.2	4	10	2	1		1	4	4								4		1			1	1		
Martin	15,006	17	13.3	1	1		1		5	3									5								
Ohio	4,724	5	12.4		1					4																	
Orange	17,724	21	13.9	1	2		2			5	8	1							4					1			
Perry	18,993	18	11.1		1	4			1	6	3	3							2	1							
Pike	21,263	36	19.9	1	11	2	2	2		6	5	2	1						2					2	5		1
Posey	22,655	37	19.2	5	6	2	1		1	7	4								6			1					1
Ripley	20,093	24	14.0	1	7		1		1	6		1	1					1	3				1	2			
Scott	8,497	13	18.0		1					2	4								5				1				
Spencer	22,546	23	12.0	2	2	1	1		1	9	3				1				5						1		
Sullivan	26,456	46	20.5	3	7	5			3	8	4		2						7	1				2	3		
Switzerland	11,840	17	16.9			1				9	2								3			1		3			
Vanderburgh	76,553	105	16.1	5	11	12	3	1	5	13	13	3	2	5				3	11	2		1	1	3	4		16
Warrick	22,736	23	11.9		5	2		1	1	3	4	1						1	5			2					
Washington	19,725	20	11.9		4	1			2	6	6		1						5	1				1			

TABLE No. II. Deaths in Indiana by Cities During the Month of March, 1906.

CITIES.	Population, Estimated According to U. S. Census Bureau.	Total Deaths Reported for March, 1906.	Annual Death Rate per 1,000 Population.	Stillbirths	Important Ages.						Deaths from Important Causes.																
					Under 1 Year.	1 to 4, inclusive.	5 to 9, inclusive.	10 to 14, inclusive.	15 to 19, inclusive.	65 Years and Over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping-Cough.	Pneumonia.	Diarrheal Diseases, Under 5.	Cerebro-spinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.
Cities over 50,000 Population	**260,046**	**404**	**18.3**	**22**	**54**	**30**	**8**	**15**	**69**	**38**	**23**	**9**	**5**	**5**	**1**			**8**	**66**	**5**	**1**	**3**	**1**	**16**	**16**		**56**
Indianapolis	196,914	316	18.9	17	45	18	5	14	64	29	11	6	3		1			5	57	3	1	2		14	12		45
Evansville	63,132	88	16.4	5	9	12	3	1	5	9	12	3	2	5				3	9	2		1	1	2	4		11
Cities from 25,000 to 50,000 Population	**159,349**	**243**	**17.9**	**18**	**36**	**14**	**5**	**2**	**10**	**55**	**30**	**8**	**1**			**1**		**2**	**43**	**2**	**4**	**1**		**8**	**16**		**23**
Ft. Wayne	49,975	68	18.0	3	12	4	2	2	2	16	12							2	14		2	1		3	2		7
Muncie	26,310	34	15.2	1	11	1				8	3								2	1	1				2		
South Bend	43,163	50	13.6	8	6	4	1			10	4								8	1	1			1	3		5
Terre Haute	39,901	91	26.9	6	7	5	2		8	21	11	8	1			1			19					4	9		11
Cities from 10,000 to 25,000 Population	**231,707**	**325**	**16.5**	**23**	**37**	**13**	**5**	**3**	**12**	**76**	**28**	**8**	**6**			**3**			**42**	**1**		**6**		**14**	**10**		**6**
Anderson	24,998	25	11.8	1	1	4			2	6	2		1						5					1	1		
Elkhart	17,094	17	11.7			1		2		4	2	1													1		
Elwood	15,529	8	6.0			1				2	1													1			
Hammond	15,648	27	20.3	4	3	3	3			2	2		1			2			3					1	2		2
Huntington	10,356	5	5.6		1	1	1	1		1						1			2								
Jeffersonville	10,828	22	23.9	1	3				1	5	1	1							4					1			
Kokomo	11,782	24	24.0	4	2	1	1		1	6	1		1						5			1		2			
Lafayette	19,041	26	16.1	2	3				1	6			1						1			1		2	1		
Logansport	17,642	27	18.0		3				1	10	1		1						8			1		2			3
Marion	21,620	23	12.5	2	3				2	6	2								3			2					1
Michigan City	16,885	26	18.1	1	6	1			2	8			1						2	1				2	2		
New Albany	20,403	32	18.5	4	2	1				9	3								2						2		
Richmond	19,034	42	26.0	2	7				2	6	11	1							4			1			1		
Vincennes	10,949	21	22.6	2	3					5	2								3					2			
Cities from 5,000 to 10,000 Population	**196,779**	**295**	**17.6**	**8**	**37**	**24**	**14**	**6**	**7**	**79**	**32**	**5**	**5**	**4**		**2**		**1**	**29**	**4**	**10**	**4**		**9**	**18**		**1**
Alexandria	8,823	3	4.0	1						1									1								
Bedford	7,221	10	16.3		2	1				1	2										1			1	1		
Bloomington	7,437	11	17.4		1		1	1		6									1		1				1		
Brazil	8,538	11	15.2		2				1	2	2								2			2		1	2		
Columbus	8,694	15	20.3	1	3	1		1		5	2								4					1			
Connersville	7,751	14	21.3			2				7	1														1		
Crawfordsville	6,873	11	18.8		3					7	1								1						1		
East Chicago	7,500	14	22.0	1	5	2	1	1			1			1					2	2				1			
Frankfort	7,572	21	32.7		2	2	1			7									3		2				1		
Goshen	8,621	25	34.8	1	1	1	1			6	4			1					2					3	2		
Greensburg	5,609	13	27.3		1	1	2			7	1					1			3								1
Hartford City	7,362	4	6.4		1	1				1																	
Laporte	7,136	10	16.5		2		1	1		4						1						1			1		
Linton	9,767	10	12.0		1	1	1			1	1														1		
Madison	8,936	14	18.4		2	2			1	3	3	2	1								1				2		
Mishawaka	6,436	9	16.5		1	2				3	1	1							1								
Mt. Vernon	5,303	8	17.8		1	1	1			3									2			1					
Peru	8,997	16	20.9	1	1	3			1	5	1	1									4						
Portland	5,507	10	21.4	1	2						2								1								
Princeton	7,227	8	13.0			2	3						1	1				1	1						2		
Seymour	6,888	12	20.5	1	2		1			1	3														1		
Shelbyville	7,856	9	13.5					1		4	1								1								
Valparaiso	6,756	7	12.2			1			1	1									2	1	1						
Wabash	9,023	7	9.1							4									1					1			
Washington	9,546	15	18.5		1			1	3	1	6	1	2						1						1		
Whiting	5,500	8	17.1	1	3	1	1						1	1						1				1	1		
Cities under 5,000 Population	**129,931**	**172**	**15.7**	**8**	**21**	**14**	**2**	**2**	**4**	**55**	**20**	**5**		**1**				**1**	**19**	**2**	**1**	**1**		**9**	**5**		**1**
Attica	3,279	6	21.5							3	1								3								
Auburn	3,788	6	18.6		2			1		2												1		1			
Aurora	3,929	9	27.0			2				5	1																
Bluffton	4,835	7	17.0	2						2	2								1					1			
Cannelton	2,267	4	20.8			1				3									1								
Clinton	3,539	7	23.3		4	1																			1		
Columbia City	3,027	3	11.6							1									1					1			
Covington	2,342	1	5.0							1																	
Decatur	4,542	8	20.7		1		1			3	2														1		
Delphi	2,220	3	15.9	1						1														1			
Dunkirk	4,052	2	5.8	1	1																1						
Franklin	4,095	7	20.1		1					2	1								1						1		
Garrett	4,367	1	2.7									1															
Gas City	4,222	7	19.5			2			1	1	1								1								
Greencastle	3,661	5	16.1		1		1			1	1	2							1								
Greenfield	4,945	9	21.4		1	1				1	3													1			
Huntingburg	2,527	6	28.0		1	1			1	1									1					1			
Kendallville	3,512	2	6.7	1						1																	
Lawrenceburg	4,343	3	8.1		1					1																	
Lebanon	4,778	3	7.4							1	1	1															
Ligonier	2,245	2	10.5							1																	
Martinsville	4,581	5	12.8	1	1	1					1																
Montpelier	3,844	4	12.2						1	1	1								1								1
Noblesville	4,987	3	7.0	1						1	1																
North Vernon	3,147	4	14.9			2			1	1	1	1															
Plymouth	4,029	5	14.6		1	1				2										1				1			
Rensselaer	2,575	1	4.5		1														1								
Rising Sun	1,548	4	30.4		1					3																	
Rockville	2,157	3	16.1		2					1								1	1								
Rushville	4,967	12	28.5		1	1		1		3	1			1					1	1				1	1		
Spencer	2,089	No Deaths																									
Tell City	2,914	4	16.1							3	1								1								
Tipton	4,191	3	8.4							1																	
Union City	2,730	3	12.9							3															1		
Vevay	1,494	3	23.6			1				2									2								
Warsaw	4,152	8	22.7		1					1	1																
Winchester	3,981	6	17.7	1						2									2					1			
Total Urban Population	**977,812**	**1,140**	**17.3**	**79**	**185**	**95**	**34**	**28**	**102**	**303**	**133**	**25**	**17**	**10**	**1**	**6**		**12**	**199**	**14**	**16**	**15**	**1**	**56**	**65**		**87**
Total Rural Population	**1,670,737**	**1,790**	**12.6**	**117**	**257**	**82**	**37**	**14**	**32**	**610**	**210**	**38**	**20**	**5**		**6**		**18**	**270**	**11**	**13**	**31**	**3**	**58**	**47**		**56**

Mortality of Indiana for March, 1906.

Population by Geographical Sections and as Urban and Rural.	Population, Estimated by U. S. Method.	Total Deaths Reported for March, 1906.	Annual Death Rate per 1,000 Population.	Stillbirths.	Important Ages. Under 1. Number.	Under 1. Per Cent.	1 to 5. Number.	1 to 5. Per Cent.	5 to 10. Number.	5 to 10. Per Cent.	10 to 15. Number.	10 to 15. Per Cent.	15 to 20. Number.	15 to 20. Per Cent.	65 and Over. Number.	65 and Over. Per Cent.	Deaths and Annual Death Rates per 100,000 Population from Important Causes. Consumption. Number.	Consumption. Death Rate.	Other Forms Tuberculosis. Number.	Other Forms Tuberculosis. Death Rate.	Typhoid Fever. Number.	Typhoid Fever. Death Rate.	Diphtheria. Number.	Diphtheria. Death Rate.
State	**2,618,549**	**3,230**	**14.3**	**196**	**442**	**14.5**	**177**	**5.8**	**71**	**2.3**	**42**	**1.3**	**134**	**4.4**	**913**	**30.0**	**343**	**152.8**	**63**	**28.0**	**37**	**16.4**	**15**	**6.6**
Northern Co's	887,832	1,106	13.3	72	136	14.5	55	5.8	28	2.9	14	1.4	42	4.4	308	32.9	86	114.3	9	11.9	6	7.9	3	3.9
Central Co's	1,087,620	1,374	14.9	66	185	14.1	65	4.9	24	1.8	24	1.8	57	4.3	393	30.0	147	159.4	35	37.9	19	20.6	5	5.4
Southern Co's	673,097	850	14.9	58	121	15.2	56	7.0	19	2.3	6	.7	35	4.4	212	26.7	110	192.8	19	33.3	12	21.0	7	12.2
All cities	**977,812**	**1,440**	**17.3**	**79**	**185**	**13.5**	**95**	**6.9**	**34**	**2.4**	**28**	**2.0**	**102**	**7.4**	**303**	**22.2**	**133**	**160.5**	**25**	**30.1**	**17**	**20.5**	**10**	**12.0**
Over 50,000	260,046	404	18.3	22	54	14.1	30	7.8	8	2.0	15	3.9	69	18.0	38	9.9	23	104.3	9	40.8	5	22.6	5	22.6
25,000 to 50,000	159,349	243	17.9	18	36	16.0	14	6.2	5	2.2	2	.8	10	4.4	55	24.4	30	222.1	3	22.2	1	7.4	......	......
10,000 to 25,000	231,707	325	16.5	23	37	12.2	13	4.3	5	1.6	3	.9	12	3.9	76	25.1	28	142.5	3	15.2	6	30.5	......	......
5,000 to 10,000	196,779	295	17.6	8	37	12.8	24	8.3	14	4.8	6	2.0	7	2.4	79	27.5	32	191.8	5	29.9	5	29.9	4	23.9
Under 5,000	129,931	173	15.7	8	21	12.7	14	8.4	2	1.2	2	2.1	4	2.4	55	33.3	20	181.6	5	45.4	......	......	1	9.0
Country	1,670,737	1,790	12.6	117	257	15.3	82	4.9	37	2.2	14	.8	52	1.9	610	36.4	210	148.3	38	26.8	20	14.1	5	3.5

Population by Geographical Sections and as Urban and Rural.	Deaths and Annual Death Rates per 100,000 Population from Important Causes. Croup. Number.	Croup. Death Rate.	Scarlet Fever. Number.	Scarlet Fever. Death Rate.	Measles. Number.	Measles. Death Rate.	Whooping-Cough. Number.	Whooping-Cough. Death Rate.	Pneumonia. Number.	Pneumonia. Death Rate.	Diarrheal Diseases, Under 5 Yrs. Number.	Diarrheal Diseases, Under 5 Yrs. Death Rate.	Cerebro-Spinal Meningitis. Number.	Cerebro-Spinal Meningitis. Death Rate.	Influenza. Number.	Influenza. Death Rate.	Puerperal Septicæmia. Number.	Puerperal Septicæmia. Death Rate.	Cancer. Number.	Cancer. Death Rate.	Violence. Number.	Violence. Death Rate.	Smallpox. Number.	Smallpox. Death Rate.
State	**1**	**.4**	**12**	**5.3**	......	......	**27**	**12.0**	**469**	**208.9**	**25**	**11.1**	**29**	**12.9**	**46**	**20.4**	**4**	**1.7**	**114**	**50.7**	**112**	**49.8**	......	......
Northern Co's	......	......	8	10.6	......	......	5	6.6	137	182.0	9	11.9	14	18.6	12	15.9	1	1.3	38	50.5	34	45.1	......	......
Central Co's	......	......	4	4.3	......	......	12	13.0	215	233.2	9	9.7	10	10.8	18	19.5	......	......	48	52.0	54	58.5	......	......
Southern Co's	1	1.7	......	......	......	......	10	17.5	117	205.1	7	12.2	5	8.7	16	28.0	3	5.2	28	49.0	24	42.0	......	......
All cities	**1**	**1.2**	**6**	**7.2**	......	......	**12**	**14.4**	**199**	**240.1**	**14**	**16.8**	**16**	**19.3**	**15**	**18.1**	**1**	**1.2**	**56**	**67.5**	**65**	**78.4**	......	......
Over 50,000	1	4.5	......	......	......	......	8	36.3	66	299.4	5	22.6	1	4.5	3	13.6	1	4.5	16	72.6	16	72.6	......	......
25,000 to 50,000	......	......	1	7.4	......	......	2	14.8	43	318.4	2	14.8	4	29.6	1	7.4	......	......	8	59.2	16	118.4	......	......
10,000 to 25,000	......	......	3	15.2	......	......	......	......	42	213.8	1	5.0	......	......	6	30.5	......	......	14	71.2	10	50.9	......	......
5,000 to 10,000	......	......	2	11.9	......	......	1	5.9	29	173.9	4	23.9	10	59.0	4	23.9	......	......	9	53.9	18	107.9	......	......
Under 5,000	......	......	......	......	......	......	1	9.0	19	172.5	2	18.1	1	9.0	1	9.0	......	......	9	81.7	5	45.4	......	......
Country	......	......	6	4.2	......	......	15	10.5	270	190.6	11	7.7	13	9.1	31	21.8	3	2.1	58	40.9	47	33.1	......	......

Meteorological Summary for March, 1906. Furnished by the Central Office, Indiana Section, Climatological Service, U. S. Weather Bureau, Indianapolis, Ind.

W. T. BLYTHE, Section Director.

Sections.	Temperature. Mean.	Departure from Normal.	Highest. Degrees.	Highest. Date.	Highest. Place.	Lowest. Degrees.	Lowest. Date.	Lowest. Place.	Precipitation. In Inches. Average.	Departure from Normal.	Snowfall Unmelted.	Days with .01 Inch or more.	Conditions of Sky. Number of Days. Clear.	Partly Cloudy.	Cloudy.	Wind. Prevailing Direction.
Northern Section	29.4	−7.5	59	27	Plymouth	−1 −1	18 17	Kokomo Valparaiso	3.05	+0.00	16.7	12	7	7	17	NE.
Central Section	31.1	−7.8	65	11	Veedersburg	−8	18	Northfield	5.71	+1.91	24.6	14	7	5	19	NE.
Southern Section	35.3	−7.6	67	26	Madison	4	17	Greensburg	6.73	+2.33	6.6	16	5	6	20	NE
State	31.9	−7.6	67	26	Madison	−8	18	Northfield	5.16	+1.41	16.0	14	6	6	19	NE.