

Indiana State Board of Health

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ABSTRACT OF MORTALITY STATISTICS FOR APRIL, 1909.

Total number of deaths, 3,212; annual rate, 14.3 per thousand. There was one smallpox death. In the same month last year, 2,954; annual rate, 13.2. In the preceding month, 3,444 deaths; rate, 14.8. Deaths by important ages were: Under one year, 424, or 13.9 per cent. of the total; 1 to 5, 165; 5 to 10, 52; 10 to 15, 40; 15 to 20, 81; 65 and over, 1,044, or 34.3 per cent. of the total.

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.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 920,585, reports 1,086 deaths; rate, 14.3. In the same month last year, 988 deaths; rate, 12.8. In the preceding month, 1,159 deaths; rate, 14.8.

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THE CENTRAL SANITARY SECTION, population 1,089,818, reports 1,346 deaths; annual rate, 15. In the same month last year, 1,233 deaths; rate, 14.4. In the preceding month, 1,470 deaths; rate, 15.9.

THE SOUTHERN SANITARY SECTION, population 722,146, reports 780 deaths; rate, 13.1. In the same month last year, 733 deaths; rate, 12.1. In the preceding month, 815 deaths; rate, 13.3.

REVIEW OF SECTIONS: The Central Sanitary Section shows the highest death rate. It is 6.7 higher than the average for the whole State. The Central Sanitary Section shows the highest death rate in consumption, diphtheria, measles, pneumonia and cerebrospinal meningitis. The Northern Sanitary Section has the highest death rate for violence, cancer, and diarrheal diseases. The Southern Sanitary Section shows the highest death rate for whooping cough and influenza.

CITIES: Total population 1,050,410, reports 1,463 deaths; rate, 16.9. In the same month last year, 1,383 deaths; rate, 16.5. In the preceding month, 1,600 deaths; rate, 17.9. The cities' death rate is 2.6 higher than the rate for the whole State, and 3.8 higher than the country rate. The death rates of cities having over 10,000 population are as follows: Indianapolis, 14.3; Evansville, 18.1; Fort Wayne, 14.3; Terre Haute, 19.5; South Bend, 17.3; Anderson, 13; Columbus, 24.4; East Chicago, 32.2; Elkhart, 14.9; Elwood, 12.3; Hammond, 14; Jeffersonville, 15.2; Kokomo, 23.7; Lafayette, 24.7; Laporte, 21.9; Logansport, 28.4; Marion, 16.6; Michigan City, 7.9; Muncie, 13.7; New Albany, 13.7; Peru, 13.9; Richmond, 20.5; Vincennes, 16.6.

MARCH BIRTHS.

The report of births is always a month late, because the law gives twenty days in which doctors and midwives may report.

Total births, 4,628. Males, 2,439; females, 2,189. Birth rate, 19.9 per 1,000 of population. Excess of birth over death rate, 5.1.

Whites—Males, 2,395; females, 2,145.

Negroes—Males, 44; females, 44.

The highest birth rate was in Lagrange County, 29.7; the lowest in Ohio County, 5.6.

SUMMARY OF MORTALITY AND MORBIDITY FOR APRIL, 1909.

Tonsillitis was reported as the most prevalent disease during the month. In the corresponding month last year, rheumatism and bronchitis were both more prevalent than tonsillitis. The order of disease prevalence was as follows: Tonsillitis, rheumatism, bronchitis, influenza, pneumonia, measles, pleuritis, scarlet fever, diarrhea, typhoid fever, intermittent and remittent fever, erysipelas, whooping cough, diphtheria and membranous croup, smallpox, inflammation of bowels, chickenpox, dysentery, cholera morbus, cerebro-spinal meningitis, puerperal fever, typho-malaria fever, cholera infantum.

SMALLPOX: 74 cases reported from 18 counties, with one death. In the same month last year, 324 cases in 35 counties, with 2 deaths. The following counties report the disease present: Allen, 10 cases; Carroll, 4; DeKalb, 1; Delaware, 1; Elkhart, 1; Fayette, 1; Gibson, 6; Henry, 1; Howard, 2; Johnson, 1; Montgomery, 2; Randolph, 1; Rush, 1; St. Joseph, 2; Tippecanoe, 6; Vermillion, 36; Wayne, 3, with 1 death; White, 1.

TUBERCULOSIS: 427 deaths, of which 350 were of the pulmonary form. In the corresponding month last year, 411 deaths, of which 346 were of the pulmonary form. Of the total number, 114 were males, and 313 females. Of the males, 33 were married in the age period 18 to 40 and left 66 orphans. Of the females, 75 were married in the same age period as above and left 150 orphans. Total number of orphans made in one month by this preventable disease, 216. Number of homes invaded, 296. How many of the 216 orphans will be taken care of by the State could not be told, but certainly some of them. As usual the majority of deaths occurred in the age period of 15 to 50, but it is remarkable that 52 deaths occurred in the age period of 50 to 60; 31 in the age period of 70 to 80; and 7 deaths in the age period of 80 to 90.

PNEUMONIA: 452 deaths. In the corresponding month last year, 332. The male pneumonia deaths numbered 235, and the females, 217. By age periods the deaths were: under 1 year, 112; 1 to 5, 51; 5 to 20, 23; 20 to 50, 60; 50 to 80, 173; 32 were over 80 years of age.

TYPHOID FEVER: 58 cases reported in 24 counties, with 33 deaths. In the corresponding month last year 198 cases, with 35 deaths in 36 counties. The disease prevailed unusually in the following counties: Clark, 5, and Delaware, 8.

DIPHThERIA: 60 cases reported in 21 counties, with 9 deaths. In the same month last year, 82 cases in 23 counties, with 10 deaths. Of course all cases of diphtheria were not reported, and many were doubtless diagnosed as tonsillitis or from mild angina.

VIOLENCE: 176 deaths from violence. In the same month last year, 154. Of the violence deaths, 8 were murders, 31 suicides and the remainder accidents. Of the murders all were males, 5 were killed by gun shots; 2 were homicides, kind not given, and one by cutting. Of the suicides, 19 were males and 12 females. The methods chosen were gun shots 11, 1 being a female and the remainder males; drowning, 3; hanging, 2; strangulation by cord, 1; carbolic acid, 4; opium and morphine, 4; strychnin, 2; lysol and chloroform, 2; and not named, 2. Of the accidental deaths, steam railroads killed 25; street cars, 4; crushing injuries, 22; burns and scalds, 21; drowning, 4; gun shots, 3; falls, 21; horses and vehicles, 27; suffocation and strangulation, 10; lightning and electricity, 5; poisons, 5; hanging, 1; and the remainder by various ways.

REPORT OF THE LABORATORY OF BACTERIOLOGY AND PATHOLOGY FOR APRIL, 1909.

Sputum for tubercle bacilli, positive 74, negative 241; throat cultures for diphtheria, positive 14, negative, 4, no growth 4; widal reactions, positive 10, negative 54; blood smears for malaria, negative 7, unsatisfactory 1; urine 19; for rabies, dogs' heads, positive 6, negative 4; hog's head, negative 1; blood 3; pleural fluids 2; pus 4; milk 4; ascites fluid 1; pus for gonococci, males, positive 9, negative 12; female positive 3, negative 4, unsatisfactory 1; carcinoma 1; sarcoma 2; other pathological tissues, 8. Total, 530.

Outfits sent out: Typhoid, 142; malaria, 39; sputum, 301; diphtheria, 76. Total, 558.

REPORT OF THE DEPARTMENT OF FOOD AND DRUGS, STATE BOARD OF HEALTH, FOR APRIL, 1909.

H. E. BARNARD, STATE FOOD AND DRUG COMMISSIONER.

One hundred seventy-one samples of food and drugs were analyzed during the month of April, and of this number 112 were found to be of good quality, containing no foreign ingredients and being properly labelled. The percentage of adulteration found during the month is 34, a higher figure than has been reported at any time during the past two years. This is due to the fact that special attention has been given to the analysis of catsup, pickles, pickled onions, etc., to determine whether or not the amount of benzoate of soda present was that stated on the label. In most instances it was found that the quantity used was much greater than the amount stated, and the goods were therefore classed as misbranded. Many samples of meat products were also examined to determine the presence of starch used as a filler or binder. While

the results on their face indicate a return to the unsatisfactory conditions obtaining before the pure food law went into effect, it must be remembered that the samples analyzed were collected because of some reason for suspecting that they were adulterated, and the percentage of illegal food products must not be considered to represent the entire supply of foods on the market.

MONTHLY REPORT OF ANALYSES OF FOODS AND DRUGS

The following summary presents the results of the examination of food and drugs made at the Food and Drug Laboratory of the State Board of Health during the month of April:

ARTICLE EXAMINED	Number Legal.	Number Illegal.	Total.
DRUGS.			
Linseed Oil	0	1	1
Lime Water	3	2	5
Tincture of Iodine	4	6	10
FOODS.			
Asparagus	1	0	1
Sweet Corn	2	0	2
Catsup	0	6	6
Pickles	6	13	19
Onions	0	4	4
Prepared Mustard	1	1	2
Lard	8	0	8
Maple Syrup	5	2	7
Hamburger	1	0	1
Pressed Ham	1	1	2
Sausage	1	8	9
Wienerwurst	0	2	2
Dried Beef	1	0	1
Corned Beef Hash	0	1	1
Butter	10	0	10
Cream	1	0	1
Milk	56	5	61
Ice Cream	7	4	11
Vinegar	2	3	5
Beer	1	0	1
Sauce	1	0	1
Total	112	59	171

The percentage of places rated as good is constantly increasing, and the number of places poorly kept is showing a proportionate decrease.

Of the ten dairies inspected, six were in fair condition and four were graded as poor. Not a single dairy was even in good condition.

Three of the one hundred and two hotels and restaurants visited were admirably kept; 48 were in good condition; 40 were rated as fair. Only 10 were unclean and unsanitary and were rated as poor, while one was condemned as being bad.

During the month ten cases were brought for the violation of the Pure Food and Drug Law. One case was dismissed because of a faulty affidavit. One defendant who stood trial for the sale of aqua ammonia far below the legal requirements, was found to be not guilty by the jury. In 8 other cases the defendants were found guilty and fined. Every case involved the sale of adulterated products. In two instances sausage manufacturers were using preservatives; two cases involved the sale of lard adulterated with cotton seed oil and beef stearin; in two other cases dealers were convicted for selling watered oysters. The fines and costs imposed during the month amounted to \$135.30.

SUMMARY OF INSPECTIONS DURING THE MONTH OF APRIL, 1909.

INSPECTIONS.	No. Inspected.	No. Excellent.	No. Good.	No. Fair.	No. Poor.	No. Bad.
Dairies	10	0	0	6	4	0
Grocery stores	501	4	265	211	20	0
Meat markets	292	5	172	102	13	0
Slaughter houses	2	0	1	1	0	0
Drug stores	86	2	59	25	1	0
Bakeries and confectioneries	122	1	65	52	4	0
Hotels and restaurants	102	3	48	40	10	1
Creameries	4	0	4	0	0	0
Fish markets	19	0	9	9	1	0
Poultry houses	4	0	1	1	1	1
Breweries	2	0	2	0	0	0
Ice plants	0	0	0	0	0	0
Pickle factories	1	0	0	0	0	0
Bottling works	1	0	1	0	0	0
Total number inspections	1,148	15	679	447	53	4

INSPECTORS' REPORTS FOR THE MONTH OF APRIL, 1909.

Eleven hundred forty-eight inspections of dairies, groceries, meat markets, bakeries, confectioneries, hotels, restaurants, etc., were made during the month of April. Of the total number of inspections made but 15 places were graded as in excellent condition. Six hundred twenty-nine were in good condition; 447 were fair; 53 were poor and four were bad.

LIST OF PROSECUTIONS BROUGHT UNDER THE NEW FOOD AND DRUG LAW DURING THE MONTH OF APRIL, 1909.

COUNTY.	Lab. No.	Name and Address of Defendant.	Illegal Sale of	Date of Trial.	Disposition of Case.	
					By the Court	Final.
Jasper	12606	J. A. Larsh, Rensselaer, Ind.	Aqua Ammonia, below standard	4-26-09	Verdict not guilty	
Jasper	12611	A. F. Long, Rensselaer, Ind.	Tincture Iodine, below standard	4-28-09		\$10 and costs.
Jasper	12615	B. F. Fendig, Rensselaer, Ind.	Aqua Ammonia, below standard	4-28-09		\$10 and costs.
Marion	1217C	S. E. Wollensneider, Virginia Ave., City	Lard	4-13-09		\$10 and costs.
Marion	1201C	W. E. Sayer, Indiana Ave., City	Sausage, containing Sulphites	4-16-09		\$10 and costs.
Marion	1378C	W. E. Sayer, Indiana Ave., City	Sausage, containing Sulphites	4-16-09		\$10 and costs.
Marion	1220C	Hammond & Pasquire, Virginia Ave., City	Lard	4-16-09		\$10 and costs.
Marion	1373C	Louis Jung, Mass. Ave., City	Hamburger	4-16-09	Dismissed, faulty affidavit	
Marion	4222B	Mrs. T. J. Egan, Market House, City	Oysters, Watered	4-16-09		\$10 and costs.
Marion	4220B	Geo. Sowder, Market House, City	Oysters, Watered	4-23-09		\$10 and costs.

\$135.30 amount of fines and costs.

INSPECTORS' REPORTS FOR THE MONTH OF APRIL, 1909.

AURORA, INDIANA—

Twenty nine inspections were made. Of 12 grocery stores visited, 7 were found good, 4 fair and one poor, the store being in an unclean and unsanitary condition. Two meat markets were found to be in good condition. Two drug stores were found good and 1 fair. Of 9 bakeries and confectioneries visited, 6 confectioneries and 1 bakery were found in good condition. Two confectioneries were found in fair shape. One restaurant was found to be in good shape, 1 hotel fair and 1 restaurant poor.

BLOOMINGTON, MONROE COUNTY—

Three dairies were visited. One was found in fair shape, and 2 poor. One of the dairies was condemned and the other was given thirty days to put in floors, windows, and separate horses from cows, remove manure and whitewash.

BORDEN, CLARK COUNTY—

Ten inspections were made. Five grocery stores were visited and found in good condition. One meat market was found in a very unclean and unsanitary condition. One drug store was found good and 1 fair. One confectionery and 1 hotel were visited and found to be in fair condition.

BRUCEVILLE, KNOX COUNTY—

One drug store was visited and found to be in an unclean condition. The goods were unclean and not up to date.

BUTLER, DEKALB COUNTY—

Three inspections were made. One grocery store was found to be in good condition. One meat market was rated fair. The rendering room was dirty and the place needed whitewashing. One restaurant was found to be very clean and was rated good.

CONVERSE, MIAMI COUNTY—

Seven inspections were made. Of 4 grocery stores visited, 2 were found good and 2 fair. One meat market and 2 drug stores were visited and found in good condition.

CORYDON, HARRISON COUNTY—

Twenty-three inspections were made. One creamery was visited and found in good condition. Two grocery stores owned by C. M. Miller and The W. H. Keller Company were visited and found in excellent condition. Two grocery stores were found good and 1 fair. Three meat markets were visited; 2 were found good and the meat market owned by The W. H. Keller Company was in excellent condition. Two drug stores were found good and 1 fair. Three confectioneries and 2 bakeries were visited and found in good condition. Three hotels and 2 restaurants were visited and found in good condition. One hotel was inspected and found in poor shape, being unclean and unsanitary. One creamery was visited and rated good.

CORYDON JUNCTION, HARRISON COUNTY—

Two inspections were made. One grocery store and 1 drug store were visited and found in good condition.

GALENA, FLOYD COUNTY—

One inspection was made of a grocery store, which was found to be in good condition.

HUNTINGBURG, DUBOIS COUNTY—

Forty-one inspections were made during the month. Two dairies were visited; 1 was found fair and 1 poor. Notice was given to build new milk house and barn at once. Of 11 grocery stores visited, 8 were found good, 2 fair and the grocery store owned by Mrs. G. C. Pretz was found to be in excellent condition. Three meat markets were visited and found in good shape. One drug store was found good, 1 fair and the one owned by A. H. Miller, Jr., excellent. One bakery and 3 confectioneries were found good and 1 bakery and 1 confectionery fair. Two restaurants and 2 hotels were visited and found in good condition. Two restaurants and 1 hotel were found fair. One restaurant was found to be in poor shape, being unclean and unsanitary. One creamery, 2 breweries, 2 ice plants, and 1 poultry house were visited and found in good condition. One poultry house and 1 slaughter house were visited and found in fair shape.

INDIANAPOLIS, MARION COUNTY—

Four hundred and one inspections were made for this month. One hundred fifty-nine groceries were inspected. Sixty-three were found in good condition and 96 were found fair. Of 107 meat markets visited, 53 were found good, and 54 fair. Of 53 drug stores visited, 38 were found good and 17 fair. Of 33 bakeries and confectioneries visited, 13 were found good and 20 fair. Of 36 restaurants visited, 12 were found good, 22 fair and 2 poor. One pickle factory was found in bad condition. One poultry house was found in poor shape. Of 9 fish markets visited, 3 were found good and 6 fair. Twenty pounds of meat were condemned.

JEFFERSONVILLE, CLARK COUNTY—

Twelve inspections were made. Three grocery stores were found good and 4 were found fair. Three meat markets were found in fair condition. One fish market and 1 restaurant were visited and found in fair shape.

LAWRENCEBURG, DEARBORN COUNTY—

Thirty-eight inspections were made. Of 10 grocery stores visited, 7 were found good and 3 fair. Four meat markets and 6 drug stores were visited and found in good condition. Of 14 bakeries and confectioneries visited, 7 confectioneries were found good and 3 fair. Two bakeries were found good and 2 poor. Of three hotels and restaurants visited, 1 restaurant and 1 hotel were found in good shape, and 1 hotel was found fair. One ice cream factory was found in good condition.

LOGANSPORT, CASS COUNTY—

Ten inspections were made. One grocery store was found good and 1 fair. Of 6 meat markets visited, 3 were found good, 2 fair and 1 poor, being condemned until made sanitary. One fish market was found fair and 1 poor.

MILAN, RIPLEY COUNTY—

Twelve inspections were made. Four grocery stores were found good and 2 fair. One meat market was found in good condition. One drug store was found good and 1 fair. Three hotels and 1 restaurant were visited and found in good condition.

MISHAWAKA, ST. JOSEPH COUNTY—

Sixteen inspections were made. Of 8 grocery stores visited, 7 were found good and 1 fair. One meat market was found good and 2 fair. Two drug stores were found good and 1 fair. Two confectioneries were found to be in fair condition.

MOORE'S HILL, DEARBORN COUNTY—

One creamery was visited and found in good condition. One grocery store was found good and 1 fair. One meat market was found good and 1 poor, no toilets being provided and the store was poorly lighted and ventilated. One drug store was found good. One confectionery was found to be in fair shape.

MOORESVILLE, MORGAN COUNTY—

Four inspections were made of grocery stores, 3 being in good condition and one poor. No toilets were provided and the shelves, counters and back room were unclean.

NEW ALBANY, FLOYD COUNTY—

Of 11 grocery stores visited, 8 were found good and 3 fair. Of 8 meat markets visited, 5 were found good and 3 fair. One bakery and 1 confectionery were visited and found in good condition.

NEW HAVEN, ALLEN COUNTY—

Of 3 grocery stores visited, 2 were found good and 1 fair. One meat market was found fair.

PERU, MIAMI COUNTY—

Two groceries and 1 meat market were visited and found in good condition.

SOUTH BEND, ST. JOSEPH COUNTY—

Thirty-nine inspections were made. Of 13 grocery stores visited, 5 were found good, 6 fair, 1 poor and the grocery store owned by John Broadbeck was found to be in excellent condition. Three meat markets were found good and 4 fair. One drug store was found in fair shape. Of 13 bakeries and confectioneries visited, 4 were found good, 7 fair and 2 poor. Two restaurants were found good and 1 fair. One bottling works and 1 tea store were inspected and found in good condition.

SPENCER, OWEN COUNTY—

Twenty-four inspections were made. One dairy was visited and found in fair condition. One creamery was found in good condition. Of 6 grocery stores visited, 3 were found good, 3 fair and 1 bad. Notice was given to close up until cleaned up or be prosecuted. One meat market was visited and found in fair shape. Two meat markets were rated poor, being very unclean. One slaughter house was found in good condition. One drug store was found good, 1 fair and the drug store owned by O. E. Dunn was found to be in excellent condition. One poultry house was condemned, being very unclean and unsanitary. Two bakeries and 1 confectionery were visited and found in fair shape. Five restaurants were visited. One was found good, 2 fair, 1 poor and 1 bad, being condemned until made sanitary.

TERRE HAUTE, VIGO COUNTY—

Four hundred twenty-five inspections were made. Four dairies were visited: 3 were found fair and 1 poor. Of 221 grocery stores visited, 126 were found good, 78 fair, and 17 poor. Of 128 inspections made of meat markets, 85 were found to be in good condition, 35 fair and 8 poor. Seven fish markets were inspected. Six were found good and 1 fair. Thirty-three bakeries and confec-

When simplicity and frugality of living is achieved, voluntary celibacy will become discreditable, and the premature deaths of the bread winners will disappear before sanctified cities and vanishing intemperance.—*Grey.*

tioneries were inspected. Twelve bakeries and 9 confectioneries were found in good condition. Seven bakeries and 4 confectioneries were found to be in fair shape. One confectionery owned by Peter Georgopoulos was visited and found to be in excellent condition. Thirty-two hotels and restaurants were inspected. Fourteen restaurants and 3 hotels were visited and found in good condition. Seven restaurants and 1 hotel were visited and found in fair condition. Three restaurants and 1 hotel were visited and found in poor condition, being unclean and unsanitary. Kable's restaurant and the hotel and restaurant owned by J. C. Kiethe were visited and found in excellent condition.

REPORT UPON THE ESTABLISHMENT OF A LABORATORY FOR THE CITY OF VINCENNES, INDIANA.

This report represents a new step in the educational work that the State Board of Health is endeavoring to develop for the improvement of local sanitary conditions in the cities and towns throughout the State.

The work consisted of the establishment of a chemical laboratory as a branch of the City Board of Health of Vincennes, and the instruction of the Secretary, Dr. P. H. Caney, who is to be in charge, in the methods and technique of making the sanitary analysis of water and the interpretations of the results. The laboratory is for the purpose of investigating the character of the city milk supply, the sanitary conditions of the domestic wells, which are used as a source of drinking water by a majority of the population, and also to determine and control by daily tests the quality of the city water supply.

In accordance with a request made by Dr. Caney, the State Board of Health ordered for him the necessary laboratory equipment, and on March 25th Mr. Brewster, of the Laboratory of Hygiene, visited Vincennes to install the apparatus and open the laboratory. The preparations of solutions and the manner of making a chemical analysis of water were immediately taken up, and later several samples of well water were analyzed and the results explained. Complete instruction in the preparation of media for bacteriological counts and the presumptive test for *B. Coli* was also given, and was followed by a four days' test of the filtration plant connected with the city water supply.

The milk supply of the city comes from a large number of venders living in the rural districts. There is also one milk condensing plant, which supplies a portion of the population. The milk peddled by the venders is carried in large cans and is drawn off at the bottom through a faucet, thus giving reason for the belief that in many cases the milk sold does not reach the required standard for a whole milk, because

of the cream rising to the top and not being thoroughly mixed when drawn. Examinations will be made for preservatives, and the per cent. of butter fat and, when desired, bacteriological examinations will also be carried out.

The city of Vincennes, at the present time, has no sewer system, the lack of which is responsible for a most deplorable condition of back yard sanitation. The customary manner for the disposal of domestic waste and human excrement is by use of out-houses and trenches dug in the sandy soil. As those become filled, or as the land is desired for building purposes, they are closed and new trenches dug. It was learned that as many as a dozen of these abandoned vaults have been found on an ordinary city lot.

The private well supplies of the city consist principally of shallow wells, which are dug in the sand and gravel to an average depth of thirty feet, without regard to the influence of these innumerable blind vaults, and from which it is clearly evident that these wells are receiving a greater or less amount of sewage infiltration. That this condition exists was shown in the few samples of well water that were analyzed for the purpose of instruction. Every shallow well examined showed the presence of large amounts of chlorine, nitrates and nitrites, although in most of the cases there was no evidence of bacteria of the colon type. This is due to the excellent quality of very fine sand and gravel which acts as a filtering material and so protects the water supplies. Without doubt the absence of typhoid fever and other intestinal diseases can be attributed to the exceptionally good quality of the pervious ground in which the wells are dug. But with the great increase in the amount of domestic waste, the land lying between the sources of pollution and the wells is becoming over-worked and unfiltered sewage will soon enter the well, and when this occurs these diseases will unquestionably be very prevalent. There are, however, a few deep wells in the city which undoubtedly provide a good quality of water.

The source of the city water supply is from the Wabash River, which is purified by the process of rapid sand filtration. The plant is of the Continental type and is owned and operated by the R. D. Wood Company of Philadelphia, and supplies water for both fire protection and domestic use. A description of this plant is given in the 1908 report of the State Board of Health. It is undoubtedly one of the best small water works stations now operating in the State of Indiana, and if properly handled, should at all

times produce a water which is entirely satisfactory for drinking and domestic purposes. It is to be questioned, however, whether or not such operation is at all times carried out, inasmuch as it has been stated by the Water Company that during the periods when the river water is clear in appearance, there is no coagulant used in the process of filtration. In this type of a plant, the water passes through the sand beds at a rate which is entirely too fast to produce a suitable bacterial efficiency without the aid of coagulant.

During the time of the investigation, the river water was very turbid and the Water Company was filtering the water with the aid of coagulant, so that the results were much different from what would have been obtained had they not been using the coagulant. The mere fact that coagulant is needed to remove the dirt, shows conclusively that it is also needed to a far greater extent to remove the bacteria which are much smaller than the particles of dirt that are carried by the water. The results obtained show the existence of a very peculiar condition, and it is necessary that a complete investigation be made in order to determine the cause of the conditions found. Samples of water were taken from the individual filters and also from the retaining reservoir and from the hydrant in the laboratory.

The bacterial reduction in the water, as shown in the accompanying table, is as good as could reasonably be expected from a plant of this type. The average efficiency was 99.1 per cent., with an average bacterial count of 200 in the filtered water. Of the seventeen samples analyzed, there were only three that did not answer exactly to the characteristic tests for B. Coli, and these three were very suspicious. There is a possibility that the beds were slightly fouled, a condition which could be readily removed by a thorough sterilization with steam and a good airing. This idea seems improbable in view of the large percentage of bacteria that were removed, and it also seems improbable that the river water, which contained during these tests an average of 26,500 bacteria per c. c., would contain such a large per cent. of B. Coli, or some other form of bacteria that so closely answers the test for B. Coli, that when an average count of 200 and with some tests showing 50 bacteria per c. c. was found in the effluent, this test should show positive results in every determination, unless the beds were foul. It was learned, however, that while the Wabash River at Vincennes during this period contained an average of 26,500 bacteria per c. c., at the same time the river at Terre Haute, according to the records kept at the filtration plant for the Terre Haute Water Works Company, averaged but 6,000 bacteria per c. c., and for the last month B. Coli was present in the water but 60 per cent. of the time.

It is known that there are large quantities of refuse matter and trade waste from breweries and distilleries

entering the river below the Water Works Station at Terre Haute. This trade waste contains great numbers of bacteria and there is a possibility, and indeed a reasonable certainty, that the sewage from the city of Terre Haute, and especially the brewery waste, is damaging the water supply of the city of Vincennes.

The establishment of the laboratory will enable the Board of Health of Vincennes to have full control of the milk supply and so to prevent its adulteration and improve its sanitary condition. It will also enable the health officers to learn what wells are receiving sewage and to determine the quality of the city water supply and the efficiency of operation of the filtration plant of the city water company.

The maintenance of health laboratories is no longer an experiment in municipal economy and Vincennes is to be congratulated upon the step in advance her health officers have taken, and which will prove so valuable in the protection and betterment of the health conditions of the city.

TABLE SHOWING BACTERIAL EFFICIENCY OF THE FILTRATION SYSTEM OF THE VINCENNES WATER SUPPLY COMPANY.

DATE.	Lab. No.	Source.	Bacteria per c. c.	B. Coli.	% Efficiency.
3-29-09	1481A	Raw.....	52,500	+	—
"	1482A	Fil. No. 2.....	90	+	99.8
"	1483A	Clear well.....	480	+	99.1
3-30-09	1484A	Raw.....	25,000	+	—
"	1485A	Fil. No. 2.....	300	+	98.8
"	1486A	Clear well.....	80	+	99.7
"	1487A	Hydrant.....	200	+	99.1
3-31-09	1488A	Raw.....	13,000	+	—
"	1489A	Fil. No. 2.....	65	Susp.....	99.6
"	1490A	Clear well.....	200	+	98.5
"	1491A	Hydrant.....	300	+	97.7
4-1-09	1492A	Raw.....	16,000	+	—
"	1493A	Fil. No. 1.....	50	+	99.7
"	1494A	Fil. No. 2.....	150	+	98.1
"	1495A	Fil. No. 3.....	400	Susp.....	97.8
"	1496A	Fil. No. 4.....	100	Susp.....	98.4
"	1497A	Clear well.....	200	+	98.8
Average Efficiency.....					99.1

Judge Fellman, of South Bend, had the honor of sitting on the first case brought under the new Sanitary Food Law, and Max Baskind, a grocer, was the first man to be taught by the heavy hand of the law that the statute is now in force and must be obeyed. He was convicted of maintaining an unsanitary food producing establishment, and it is highly probable that hereafter this place of business will be more cleanly than before he learned his lesson in court.

One of our inspectors recently, in one day, closed four restaurants and confectioneries, in which barber shops were being conducted. It is indeed strange that any business man would undertake to combine two businesses so incompatible, and stranger still that any one should care to eat confections handled and kept in such a manner. These places, however, are out of the regular routes of the inspectors and are not to be taken as representing average conditions. We are glad to say that such instances are now rare.

ANTI-TUBERCULOSIS WORK IN INDIANAPOLIS.

BY DR. EUGENE BUEHLER, HEALTH OFFICER AND SECRETARY.

An appropriation of \$2,000 was made in 1908 for a free tuberculosis clinic at the Indianapolis City Dispensary. A nurse and a physician were employed, but little headway was made.

At the beginning of this year, the Board of Health decided that in order to stimulate interest in the tuberculosis clinic, active measures were necessary.

They first moved the clinic to the Bobbs Free Dispensary, because there they would be in touch with better clinical facilities and the staff would take a personal interest.

Dr. Dodds was appointed superintendent of the clinic. We then began a campaign of publicity. Large placards were printed and were posted in a conspicuous place in every drug store in the city. All public buildings were placarded.

We next got a concession from the Petry-Ambrose Co., car advertisers, to run our ad for 60 days in the street cars, stating the object of the clinic and its location.

We began to get results almost immediately from this advertising. Our clinic from the very first month was twice as large as it was for the entire year in 1908.

We then decided to further stimulate interest by posting every grocery and meat market in the city with the following certificate of merit:

Certificate of Merit

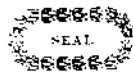
To Whom it May Concern:

INASMUCH as the sale of food products of an inferior quality and unsanitary methods in handling the same are often factors in producing tuberculosis, and especially this being true of milk coming from tuberculous cows,

The Board of Health of the City of Indianapolis

has employed this method of informing the public of the danger from this source, and to certify that the premises of...

..... have been inspected, and the quality of the food products on sale here and the methods of handling the same have been approved by the Department of Public Health.



For the benefit of those who have been so unfortunate as to contract tuberculosis, and are unable to pay for the proper treatment, the City of Indianapolis is maintaining a free Tuberculosis Clinic, located on the northwest corner of Senate Avenue and Market Street.

Hereunto is attached the SEAL OF THE BOARD OF PUBLIC HEALTH AND CHARITIES.

We had a double object in this. Primarily, it was to advertise our clinic; but equally important was to raise these groceries and meat markets to a better sanitary standard. This method has met with considerable favor.

We soon found that in order to successfully combat tuberculosis and really benefit those who were attending the clinic, that it was essential to surround these unfortunates with better hygienic conditions.

The report of the nurse who visited in the homes of the sick, reported conditions in some of them, that made it impossible to hope for much benefit to the patients, unless they were taken away from their surroundings. In some instances whole families were found living in two rooms, with other persons sleeping in the same bed with the one affected.

It was then suggested that we endeavor to establish a colony for the treatment and isolation of these cases. Inasmuch as our appropriation had been cut down to \$1,500, because in the first year more than \$500 had been returned to the city treasury, we found that it was hardly possible for us to construct cottages or even to buy tents.

We then thought of the possibility of interesting the Indiana Division of the National Red Cross Association which had money collected from the sale of stamps during the holidays.

A meeting was had with the committee in charge of the appropriations and they decided to build four cottages immediately. As soon as this became known, we had offers from citizens and from two churches to construct additional cottages.

These were constructed similar to those of the Rockwood Sanitarium near Danville, in charge of Dr. Beasley. We were very fortunate in getting an extremely low price for these; \$62.00 for a 10 x 12 cottage and \$80.00 for a 10 x 16 double cottage. These were constructed of drop siding with hip roof covered with rubberoid roofing; all floored with matched material. They are built on a 6-inch concrete foundation, have a porch 6 feet wide, with railing; have seven canvas window openings and a glass door. They are painted two coats inside and outside.

In addition to this, we were able through the kindness of the Red Cross Association to connect a cottage to be used in connection with the colony with sewer, hot and cold water and sanitary plumbing. This cottage is to be used for dining-room and kitchen to prepare the food for the patients, and the sleeping quarters for the nurse and the cook. Each cottage is connected with this building with a twenty point switch, so that the patients can at all times be in touch with the nurse. Each cottage is wired for electric lights supplied by the Hospital.

Our intention is to treat only incipient cases.

In order to create a further interest in the cottage plan, we addressed the following letter to every Trade Union in the city, especially to those who by nature of their occupation were more subject to this disease:

Dear Sir—I desire to inform you that we are conducting a free Tuberculosis Clinic at the N. W. corner of Market and Senate avenue, and further, that we are erecting small cottages for the benefit of those who are compelled to live in crowded quarters and do not have the proper care and food.

We are accepting only such cases that we believe

can be cured, in other words, incipient cases of tuberculosis.

If you have any members in your union who require the necessary treatment and care and are unable to pay for the same, we will be glad to help them if they will report to Dr. Dodds, who is in charge of the clinic.

If you so desire, you can erect one or more of these cottages on the Hospital grounds for the care of any member that may be afflicted. Of course, if the patients can perform their daily work, and are able to pay part of their expenses, we shall expect them to do so. However, those who are unable to pay will receive just as good attention.

The Anti-Tuberculosis League of the Red Cross Society have erected a few cottages on the grounds of the City Hospital, as also has the Second Presbyterian Church and a few private citizens, but these are not sufficient to take care of all the patients that should receive proper attention.

The cost for the erection of these cottages for a 10 x 12 is \$62.00, for a 10 x 16 double house, \$80.00.

This movement was inaugurated as one of the means of stamping out tuberculosis and to teach those who have incipient cases the proper way to live so that they can be cured and prevent them from infecting others.

VACCINATION THE ONLY PROPHYLAXIS OF VARIOLA.

DR. A. G. COYNER, KENDALLVILLE. READ AT THE STATE HEALTH OFFICER'S CONFERENCE, MAY, 1908.

The prevalence of variola within our state, and especially in our locality, no doubt caused our secretary to request the composition of this article, as well as to burden our brothers with its hearing, and understand me. I do not claim to present a solution for all the troubles with which we meet when handling these cases, but to put before you for discussion, all phases of the troubles with which we come in contact as physicians, health officers and citizens. And in your discussions of this subject, to bring out our individual ideas, both good and bad, endeavoring to eliminate the bad ones—condense the good ones, and learn the best possible manner of doing justice to the unafflicted and the taxpayer,—sympathy and justice not to be considered with the afflicted, as he deserves none—but we as physicians must treat these undesirables, as health officers meet all the turmoil and trouble connected with our ineffective and unwise quarantine law, and as citizens suffer the nuisance and unjust taxation. As vaccination is the only prophylaxis of variola, and as we cannot compel vaccination, our only preventative measure is lost. We are leading a forlorn hope from the beginning, but like true soldiers and physicians, we accept the measures meted out to us and do the best we can.

Now as to our present law.

True, when a case presents itself in a family, we possibly get the consent to vaccinate the remainder and those of the immediate vicinity who have been exposed, but in the course of two weeks, if the patient does not die or the exposed come down with the disease, the vaccinated, with a candor that would blush the Sphinx and a judgment far supreme and far beyond the knowledge of the attending physician, tell us they do not believe he had the smallpox and are sorry they were vaccinated and were compelled a few days indisposition from a sore arm.

Our quarantine law, as regards this disease, we all know is a farce. Domiciliary quarantine is a failure, unless in scattered cases and complete vaccination of all exposed. A day guard is a farce and guards night and day soon bankrupt your treasury. What can we do? Can we ever compel vaccination? If we have such laws enacted next year, how much strife, turmoil, war, litigation and how much precious time wasted until our supreme court declares such law unconstitutional, and then we are worse off than now because the moral effect of such decision on the anti's, would only cheer them up, encourage them, and make their opposition the greater obstacle to meet. We must still fondle, flatter and feed and worry ourselves wretched, trying in vain to put out a fire in a manner opposed to all laws of common sense, i. e., putting combustible material in its pathway instead of by vaccinating, removing the material and letting the fire burn itself out.

With compulsory vaccination, you must have a penalty for non-vaccination and a penalty for any disregard of the quarantine law. Must guard the patient night and day for he will surely jump when nearly well to evade the penalty he knows is surely coming. You must have isolation hospitals to care for and protect the patient who is not susceptible to vaccine virus but is susceptible to this disease, for he is the unfortunate who must be cared for in every way.

In my judgment, such law puts us almost where we are at present and would take years for general vaccination to become effectual. Can we enact a compulsory vaccination law

We cannot compel vaccination, so why should we pay expenses of quarantine for the utter foolishness and carelessness of these people who do not fear this preventable disease? We find persons who say such laws interfere with his rights as an American citizen; I say no—It interferes with his individual belief as to this disease. His belief should not permit him to jeopardize the life of others or maintain a nuisance: Suits in court are decided on the character and preponderance of evidence. That being true, do you want stronger or better evidence of vaccination than the work it has done to prevent this disease or make

its character mild. I will cite you to but one example of it. Germauy compels vaccination. France did not at that time, but at present has a compulsory vaccination law. During the Franco-Prussian War, of all the hundreds of thousands of men in line and in reserve, the German Army had but 300 cases of smallpox and but very few deaths: The French Army had 50,000 cases and hundreds of deaths. Can the ontis (right of American citizenship) his individual belief, his utter disregard for the welfare of his fellow beings, overcome such evidence. Does our compulsory educational law deprive him of any of his rights as an American citizen? They say that is different, that is a matter of education: I would ask you if we can be instrumental in giving any body a better, nobler, or more useful education than to teach them the prevention of smallpox. A thief (in his own mind) has a right to steal, do we let him go unpunished? An anarhist (in his individual belief) has a right to own or destroy your property—Do you believe he is right—Do you let him go unpunished? Will we permit a nuisance to remain and he who maintains the same to go unpunished. Do you as citizens and parents want a more vicious nuisance near you than a case of smallpox. What is a nuisance? Anything inimical to public health. Is smallpox conducive to good health?

If we had a similar remedy for the prevention of consumption, would we find any opposition to vaccination? No. Why? Because they know consumption, by a large per cent., is the hand writing on the wall, that they are neither warmed, clothed or fed when sick from it and will take any chance to try to live, and if they were as sure of death from smallpox as from consumption, they would be vaccinated as soon as possible after seeing God's sunshine. In my mind, the two factors against vaccination are these: They know few die from the disease if they do contract it, and above all, if they come down with the sickness, they are assured the best of care by you taxpayers. To them "sufficient unto the day is the evil thereof," how many of us, assured of being fed and clothed, would work incessantly from day to day. And let me say here, the strongest argument in favor of vaccination, is the fact of the mild character of the disease at present, proving that your children and grand-children to a certain extent, have the effects of the virus in their system, if you were vaccinated.

As we have no penalty for non-vaccination, what will we do with a patient who pays no regard to our quarantine laws: you say the law provides a penalty, —Arrest him and fine him. Can you imagine any justice sitting in the court room while we hold a trial of a man in the pustular stage of smallpox—Then he says "I won't pay the fine, I'll lay it out in jail." Where will we take him, have you a smallpox

jail in your county? Others say "Wait until after he is well and fumigated and then have his trial." That is still better for the patient. We have sustained him for five or six weeks through this disease, now we will feed him five or six weeks more, until he "works out" his fine. Do you see the justice of this quarantine law? Did you ever think of how utterly foolish we are to quarantine this preventable disease. Why not quarantine tuberculosis, syphilis, typhoid fever. When a person contracts these last named diseases, does he expect the authorities to sustain him? No—Then why this injustice in a preventable disease? Our law cares for the poor people in every way, whether the disease be contagious or otherwise. If a man takes chances with anything, we say he must suffer the consequences, why not let him suffer the consequences if he will not be vaccinated?

Admitting the fact that our present quarantine law, in regard to this disease, is unwise, unjust and a farce, what is our remedy?

To me there is but one solution—That is complete vaccination. Now how will we bring that about?

By repealing our health law as regards smallpox. Neither quarantine, sustain or fumigate. If he will not protect you physically why should you protect him financially? He has nothing to lose and all to gain by having this disease and you have everything to lose under our present law by having the disease in any locality. Repeal this law, when a person knows he must lose his time, wages, pay all his cost of living, his doctor bills, etc., be shunned by his friends and humanity in general, refused admittance into their homes and places of business, when he is completely ostracized—He will begin to think,—He will inquire for a remedy—He will ask for a preventative that his family may not suffer similar treatment. They will be vaccinated, and I implicitly believe a repeal of this law would send everybody voluntarily to be vaccinated.

Then all our troubles and worry are over and we will reach the same end we are endeavoring to prescribe by compulsory law and reach it without any trouble or litigation—In fact none—That we will meet under a compulsory law.

FOOD DISEASES.

"A man is what he eats," is an old saying. Obviously if he ate much arsenic he wouldn't last long. "But arsenic isn't a food," you say. Neither are vinegar, spices, pickles, alcohol, tea, coffee, and Worcestershire sauce foods. They are all drugs, the same as arsenic. All drugs, long continued are certain to disturb health.

But food diseases, not drug diseases is our subject. Yes, foods and good foods, too, cause disease when improperly prepared, when taken in excessive quan-

tity and when not well masticated. Osler says—
 "Many authors attribute an important part of the cause of the very common arterio-sclerosis (hardening of the arteries) to the overfilling of the blood-vessels which occurs when a person is gorged with food and drink. Solomon declares against "the riotous eating of flesh," and the poet Shelly says that until men cease to devour—

"bird or beast.
 Avenging nature shall not cease,
 To feed disease and fear and madness."

Now come the scientists and after years of study with thousands of experiments, and say meats do not give us strength, but actually cause disease and weakness. How did Solomon and other wise men, and Shelley and other poets, know that eating flesh was bad for us? And now the scientists sustain them. There are many troubles, a number of them very minor in the beginning, but all growing finally into major maladies, the cause of which, until recently, was not known. Some of these are—yellow or dingy skin, dry and scaly skin, giddiness, palpitation of the heart, itching, certain emptiness, clamminess, asthmatic symptoms, coated tongue, constipation, rheumatism, headache, sleepiness when erect and wakefulness when lying down, mental irritability, enlargement of the liver, neurasthenia, migraine, loss of memory, premature whiteness of the hair and premature old age. Any one having any of the above symptoms can get rid of them, if not of too long standing, by simply stopping the eating of any and all flesh, eat more abstemiously and chew the food extra well. The proof of the pudding is in the eating. Just try this prescription once, you blotchy faced, sallow skinned, peaky women. Just try it, also, you grouchy men with rheumatism, shortness of breath, rapidly hardening arteries, vertigo and kidney disease. If you will not faithfully try the experiment for a year, don't in your ignorance and conceit hurl the epithet crank against Solomon, Shelley, Isaac Newton, Charles Darwin, and the many scientists who know. Professors Fisher and Chittenden of Yale University have demonstrated over and over by experiments upon students, that those who quit flesh foods and alcohol, grow in health, strength, endurance and mental advancement. In all these points they distance every time the eaters of dead animals. And what did the rice eating Japs do to the meat fed Russians? The Japs had twice the strength, weight for weight, and twice the endurance, man for man. They did not get sick, either, like the Russians. When twenty per cent. of the Russians at one time were sick, the Japs under the same conditions only had ten per cent. on the sick list.

The reason flesh foods do harm is explained by Metchnikoff. He says meats do not thoroughly digest in us, for we really are not carnivorous naturally,

and although the human race has been eating flesh for thousands of years it seems it just cannot become naturally carnivorous. Flesh, not digesting well, ferments and putrefies in the bowels and thus poisons are made which are absorbed and gradually bring about the diseases which have above been classified as food diseases. And so science explains why, if we continue to eat dead animals—

"Avenging nature shall not cease,
 To feed disease and fear and madness."

SOME SANITARY NOTES OF MADISON COUNTY, IND.

BY W. J. FAIRFIELD, M. D., DELTA, COLO.

The value of birth, disease and death statistics is greatly underestimated by the average citizen, and I am sorry truth compels me to add that I have met physicians not fifty miles away from Indianapolis, who pass acceptably in the professional rank and file, and yet openly state that it is all fol-de-rol and senseless for the state and boards of health to spend time and money to collect vital statistics; and furthermore that it is inflicting a hardship upon the physician that he be compelled to report deaths, births and cases of disease.

Does not every intelligent physician recognize that such statistics if made complete are of vital worth, are indeed the foundation of sanitary work, and therefore should have the intelligent and conscientious effort of every physician to make them as accurate and reliable as possible? And yet what a travesty upon accuracy and reliability are some of the statistics we are making. Take my last annual health report of my old home city submitted to the Secretary of the Indiana State Board of Health. Among other diseases it gave a total of 34 cases of typhoid fever, 13 of which were fatal. Why is this? Are the physicians of this city so far below other physicians in skill and ability to cope with this disease as such a report would infer? If they are, then it should be published far and wide that while the modern treatment of typhoid fever gives the low mortality of 3 to 5 per cent., this city's treatment gives the appalling mortality of 38 and 4-17 per cent., so that people would receive fair warning that if they came to such a place and the Eberth bacillus got a bite at them they would stand an excellent chance to soon help populate its suburban Maplewood cemetery.

In the state of Colorado where the writer has been engaged in the general practice of medicine for the last two years, he has yet to file his first birth report. Why? Because the state has failed to furnish the funds to pay for printed blanks which the law requires. The death reports, however, continue to go into the health department just as regularly as a

burial occurs. How crippled the value of such lopsided statistics!

It is certainly most imperative for our state sanitary department, in order to attain a high degree of efficiency in prophylactic work, to know the increase and decrease, who are dying, where and when they are dying, and the cause of it all. Only with such knowledge can the science of state medicine bless the people with its full function of extending life and promoting happiness. Who can stop the leak in the ship before the leak is recognized and located? "A civilized state which knows how many hogs it has, and how many dollars worth of taxable property, is doing very well indeed, but if it does not know how many people it has, and how they are living, and about the diseases from which they suffer, then that civilized state is a poor one indeed."

We are well aware that the medical profession, generally, is in full and hearty accord with state, county and municipal sanitary work, giving unselfishly and generously, most valuable assistance to this great, growing and vastly important life field. But there are some goats in the best flocks. One variety in particular we had in close range for a time, but not under control, a thing of evil, of slime and mildew to the healing art. This variety would call Smallpox by any other name in order to court notoriety; would rush into print from his dung-hill pedestal, and denounce our highest medical authorities as numbskulls joined in a graft to work the dear people; would denounce vaccination, and then from an old multiple germ-breeding scab vaccinate as much of the public as would give heed to him, at fifteen cents per, claiming that he used the best and the only proper virus.

Examine him, push back his hirsute covering. In place of the classic brow, high and well rounded, you feel the horny bi-papilomatous growths which tell you where to class him. He is an old offender. He ignores all the regulations and health laws he can, in his contact with patients and the public. He defies the health authorities in screening and failing to report infectious diseases, and reports deaths due sometimes to heart failure, jaundice, dropsy, chronic congestion of the spinal cord, etc.

Do we know of the dug and open backyard country well, handy to pig-pen, hen-house, barn-yard and privy? Of course we do. Its cold, pellucid, sparkling water has a record which all the doctors in town stuffed with science, facts, and figures, cannot down. Its owner from way back and his family have always drank from this well, and "never had no use for a doctor." Squirting his mixture of tobacco juice and saliva, and calmly looking you in the eye, he remarks that "if what you say is true Doc., why is it we aint sick or dead?"

But inexorable Nature, retributive, undeviating, masterful, has no human time limit to gage her work,

and demonstrates on her own running schedule that the owner of the well and his family are not immune nor germ-proof against pathogenic micro-organisms which his place invites. Hot weather and fly time come on apace. Conditions favor virulency of germ progeny. The well owner, unawares, passes through the "Incubatio Typhosis" stage. He chills, he aches, he burns. The fever rages. He pours down the whisky for himself and the quinine for the malaria, but of no avail. His Peyer's patches grow angry, swell, pustulate and slough, and general sepsis attacks the integrity of the whole body. Three of his children soon come down with the same disease, all sick in one room. The family dog, poor brute, hanging around the sick beds picking up crumbs and what not, soon sickens and dies. Two of the children die. The father and his remaining sick child, after a long seige, finally successfully pull through.

Of the three classes of people in the world, the happy who profit from the experience of others, the wise who profit from their own experience, and the foolish who profit neither from their own experience or the experience of others, this old farmer not being eligible to class happy, took the next; and today he and his family have a driven well fifty feet or more in the belly of mother earth, with a nice closed top and tightly fitted pump, to dispense them water fit for the Gods to drink.

HEALTH IN THE SCHOOLS.

If the health of school children is not built up in our schools, where and when shall it be built up? Leave it to parents? Then leave education to parents. They will attend to the education about as well as they attend to the health of their children. What a wicked thing an unhealthful schoolhouse is. Unhealthful surroundings for hogs and chickens would be counted foolish and extravagant. Then what is it to have unhealthful surroundings for school children? Does some one say, "Our schoolhouses are not unhealthful?" Then, why did 1,339 school children die in Indiana in 1908? Why were there over 20,000 cases of sickness among our school children in the same year? Why were 429 schools closed for longer or shorter periods on account of sickness?

"Caught their sickness at home," did they? Then why did the 20,000 sick children get well when they were kept out of school and stayed at home? We now thoroughly understand that the foundations of knowledge and morals must be laid in childhood. How about the foundations of health? Shall they be laid in adult life? If they are to be laid in adult life, how solid will be the sub-foundations of ill-health laid in school life? Why insanity? Why ruffianism? Why crime? Are they solely in the blood, or is it possible that a percentage is started in school

life? Is it not likely that children with defective eyesight, defective hearing, defective respiratory apparatus, who are forced to struggle against these defects, and who are scolded, set back, and punished because they cannot keep up with normal children, are forced into insanity, crime, and ruffianism?

We are, indeed, a wasteful and extravagant people: for to force children into unsanitary schoolhouses and thus force upon them sickness and death, and thus to cultivate physical defects, and thus to produce not a little insanity, crime, and ruffianism, is, indeed, wasteful and extravagant. It is wicked, too.

Why do not teachers refuse to teach in unsanitary schoolhouses? Such schoolhouses are slow poison. In general life in Indiana, one in eight persons die from consumption; among teachers one in 5.3. The annual death rate in the whole State was 13.26 in 1,000 in 1908. The death rate among teachers was 16.7. Surely, teachers should look more carefully after their health. To teach in an unsanitary schoolhouse is to daily take small doses of poison. Of course, some will survive the poison, and again, many will be made invalids, and others will die early. Teachers have a right to life, liberty, and the pursuit of happiness. Unsanitary schoolhouses take life, abridge liberty, and destroy happiness. Fully seventy per cent. of the schoolhouses in Indiana are unsanitary. The kidnapping of Willie Whittle excited the nation. The killing of the 1,339 school children in Indiana in 1908 made not a ripple, even in Indiana.

HYGIENE VS. SEXUAL PLAGUES: Some months ago the Indiana State Board of Health printed a circular having the title, Hygiene vs. The Sexual Plagues. This circular was distributed among the newspapers of the State, but we have received no notice from them so far as we have been able to determine. It was then sent to many of the great leading dailies of the United States and a few of them noticed the circular and made editorial comments. Finally, four monthly magazines mentioned the circular, commended it, and announced that it would be sent to whoever applied, enclosing stamp. The applications have numbered, some days, 100 and over, and one day 182 applications were received. The average daily applications number 30.

We greatly regret the Indiana newspapers did not find it possible for them to tell their readers of this circular. It tells the story of the sexual plagues in a plain, straightforward manner, the object being to warn the young against their dangers. Most of the letters simply ask that the circular be sent, while some make various comments. In many instances, second letters have been received, commending the circular. We give two examples below:

Indiana State Board of Health:

Gentlemen—I am in receipt of your pamphlet, "Hygiene vs. Social Plagues," and have read the same with much interest and profit. I am a young man of 23 years of age and have learned much by reading your pamphlet. I wish its lessons were taught in every high school.

Thanking you very much, and hoping that the State of Indiana may have many states to follow her in this great undertaking, I am,

Very truly yours,

CHAS. ANDERSON.

Waco, Texas, April 10, 1909.

Indiana State Board of Health:

Gentlemen—I received two copies of the Social Hygiene pamphlet issued by you and have placed one of them in the hands of our Board of Health. The Board is to take the matter up with the Board of Education. The circular should be in the hands of every parent and educator in the land. In my work as director of athletics, I come upon conditions sometimes that are appalling. The first steps leading to such conditions are taken in ignorance. I am sure most parents would be glad to have their children instructed in the important matters treated of in your circular, but do not know how to approach the subject. I should like to bring the matter before the Board of Trade of this city.

Will you send me a few more copies? If there is any charge to non-residents of Indiana, please let me know and I will remit.

Very truly yours,

FRANK MCLEES.

Rutherford, New Jersey, April 12, 1909.

* * *

FOR YOUR HEALTH'S SAKE—CASH VALUE OF AIR.

It is possible for a man to live three weeks without food, three days without water, and three minutes without air.

This simple statement of a well known fact should make it clear that air, fresh, pure air, is the most important element in the world for the sustaining of life. It is also equally important that in order to perform the best labor, to do the best work in any occupation, human beings must be plentifully supplied with pure air.

There are shops, stores, and factories in every city where the conditions as to ventilation and light are bad. It would be economy on the part of the owners to spend money liberally to improve these conditions. The returns on the investment would come in more and better work from the employes. No employer of labor can afford to overlook these important considerations.—Hartford City Gazette.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM CERTAIN COMMUNICABLE DISEASES FOR APRIL, 1909.

NORTHERN SANITARY SECTION.

Total population	920,586
Total deaths	1,086
Death rate per 1,000	14.3
Consumption, rate per 100,000	136.5
Typhoid, rate per 100,000	17.2
Diphtheria, rate per 100,000	3.9
Scarlet fever, rate per 100,000	6.6
Diarrheal diseases, rate per 100,000	30.4

CENTRAL SANITARY SECTION.

Total population	1,089,818
Total deaths	1,346
Death rate per 1,000	15.0
Consumption, rate per 100,000	170.1
Typhoid, rate per 100,000	12.3
Diphtheria, rate per 100,000	5.5
Scarlet fever, rate per 100,000	4.4
Diarrheal diseases, rate per 100,000	8.9

SOUTHERN SANITARY SECTION.

Total population	722,146
Total deaths	780
Death rate per 1,000	13.1
Consumption, rate per 100,000	160.4
Typhoid, rate per 100,000	15.2
Diphtheria, rate per 100,000	1.6
Scarlet fever, rate per 100,000	.0
Diarrheal diseases, rate per 100,000	25.3

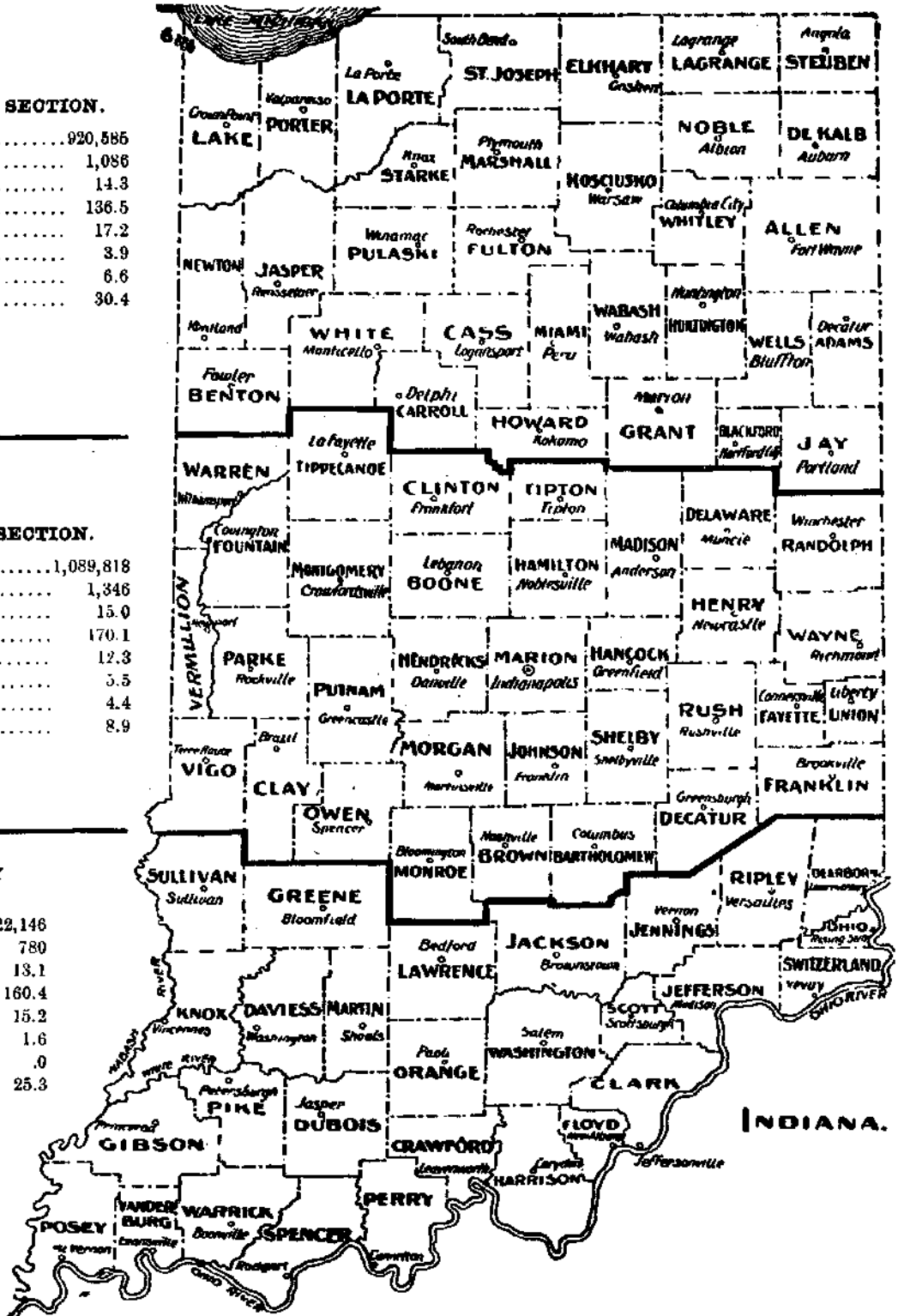


TABLE 1. Deaths in Indiana by Counties During the Month of April, 1909.

STATE AND COUNTIES.	Population Estimated since School Census 1908.	Total Deaths Reported for April, 1909.	Annual Death Rate per 1,000 Population.	IMPORTANT AGES.						DEATHS FROM IMPORTANT CAUSES.																		
				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.	Futeral Septicemia.	Cancer.	Violence.	Smallpox.	Deaths in Institutions.	
State of Indiana.....	2,732,548	3,212	14.3	171	624	185	52	40	81	1,044	350	77	33	9		9	99	48	452	46	8	141	6	134	178	1	224	
Northern Counties.....	920,585	1,086	14.3	55	162	55	20	11	28	372	103	16	13	3		5	9	16	142	23	1	37		55	64		82	
Adams.....	25,452	27	12.9	1	2	3	1	1	1	10	2	2						1	4	1	3				1			
Allen.....	69,578	87	11.8	5	13	3	1		2	25	8	1	1					10	1	1	1				5	7		
Benton.....	12,320	2	7.9		3					3	1																	
Bischoff.....	16,322	21	16.5	5	11	1	1	1		11	3							5	1	1	2					1		
Carroll.....	18,868	25	16.1	1	3					4	1									1	1							
Case.....	35,231	63	23.8	3	3	3	1	1	1	19	6							12	1	1	4				4	6	10	
Dekalb.....	24,503	33	16.4	2	2	2			1	28	3			2		3		1	1	1	1					4	4	
Elkhart.....	47,697	50	12.7	1	1	1	1	1	1	24	2		2	1					2		1				3	3	1	
Fulton.....	17,689	21	14.4	1	1	1	1	1	1	10	1										1					2	2	
Grant.....	37,239	68	14.4	5	6	6	1	1	1	25	9							9	9	1	1				3	3	17	
Howard.....	29,537	42	17.1	4	6	6	1	1	1	11	1		1					4	4	1	3				3	3	3	
Huntington.....	30,697	42	16.7	3	4	4	1	1	1	16	3							5	5	3	3				3	3	3	
Jasper.....	14,469	10	8.4	1	2	2				3	2								2		1					1	1	
Jay.....	27,124	30	13.4	2	3	3	2			9	1							7	7		1					1	1	
Kosciusko.....	28,189	32	13.8	1	3	3	1	1	1	15	3							4	4		2					1	1	
Lagrange.....	15,449	31	18.5	1	3	3	1			9	1							3	3		2					1	1	
Lake.....	63,444	90	17.3	8	26	5	1	2	2	14	6		2					18	9	1	1					6	5	
Laporte.....	56,097	50	10.8	2	12	12	2	2	2	16	6							3	3		2					6	4	
Marshall.....	25,067	42	20.4	1	6	6	1	3	1	14	1		1					3	3		3					1	1	
Miami.....	29,543	32	9.0	2	4	4	1	1	1	8	1		2					2	2		2					1	1	
Newton.....	19,612	6	6.8		2	2				2	1										1					1	1	
Noble.....	22,627	29	15.6	2	1	1	1	1	1	6	6							3	3		4					2	2	
Porter.....	20,965	21	12.2	1	1	1	1	1	1	7	1							4	4		2					1	1	
Pulaski.....	15,928	19	14.5	1	3	3	1	1	1	12	1							4	4		1					4	4	
Starke.....	12,404	19	18.6	6	6	6	1	1	1	8	1							4	4		4					4	4	
Steuben.....	13,339	33	21.0	1	1	1	1	1	1	14	1							3	3		3					3	3	
St. Joseph.....	72,387	99	16.6	7	17	5	2	2	2	24	11		2	1	1	1	3	11	3		3					2	10	
Wabash.....	28,119	32	9.5	1	3	3	1	1	1	8	1							3	3		1					3	1	
Wells.....	24,334	28	14.0	1	4	4	2	1	2	7	7		2					5	5		1					2	1	
White.....	18,490	15	9.8	1	1	1	1	1	1	5	1							3	3		1					2		
Whitley.....	16,922	14	10.0	1	1	1	1	1	1	4	4							1	1		1					2	4	
Central Counties.....	1,089,816	1,348	15.0	77	156	59	18	17	32	436	152	40	11	5		4	24	14	193	8	4	57	4	58	70	1	113	
Bartholomew.....	26,338	31	14.3	1	2	1	1			13	2							4	4		4					3	3	
Boone.....	24,475	23	11.4	1	3	3				5	1		1					1	1							3	1	
Brown.....	10,034	15	18.2	1	1	1	1	1	1	8	1							2	2		3					3		
Clay.....	37,118	32	10.5	1	2	4	1	1	1	11	1			1				5	5		2					1	1	
Clinton.....	27,478	34	15.0	2	6	6	3			10	6							6	6		1						2	
Decatur.....	18,147	31	20.8	3	6	6	2	2	2	12	1							5	5		3					1	3	
Delaware.....	50,859	45	11.5	8	4	3	1	3	3	10	5		3	1				12	12		2					1	1	
Fayette.....	12,271	14	13.9	1	1	1	1	1	1	3	3							2	2		2					2	2	
Fountain.....	19,274	39	18.3	4	2	2	1	1	1	8	1							2	2		3					1	1	
Franklin.....	15,743	14	10.8	1	1	1	1	1	1	7	3							3	3		1					1	1	
Hamilton.....	28,591	26	11.0	2	4	4	1	1	1	12	6							4	4		1					1	1	
Hancock.....	19,211	19	12.0	3	3	3	1	1	1	6	4							3	3		1					1	1	
Handricks.....	20,447	25	14.9	3	3	3	1	1	1	5	5							8	8		8					1	1	
Henry.....	23,589	32	16.5	2	10	10	1	1	2	12	5							2	2		4					3	3	
Johnson.....	19,733	34	14.8	4	4	4	1	1	2	8	1							4	4		2					1	1	
Madison.....	71,141	89	15.2	4	12	9	5	3	2	23	13							4	4		1					3	3	
Marion.....	256,773	320	15.0	13	43	5	3	8	7	87	36		3	3				55	1		14					16	62	
Monroe.....	23,234	27	14.1	3	3	3	1	1	1	10	2							2	2		4					4	3	
Montgomery.....	27,146	31	13.9	4	6	6	1	1	1	5	5							2	2		2					2	1	
Morgan.....	22,421	37	20.1	1	2	2	1	1	1	15	5							3	3		1					2	3	
Owen.....	15,372	14	11.1	1	1	1	1	1	1	4	2							2	2		1					2	1	
Parks.....	22,876	18	9.5	2	2	2				3	3							1	1		1					1	1	
Putnam.....	20,037	22	19.4	2	2	2				19	1							5	5		1					2	2	
Randolph.....	28,238	35	15.1	2	4	4	1	1	1	6	6							1	1		6					2	2	
Ross.....	17,615	27	18.7	4	4	4	1	1	1	12	1							4	4		1					2	2	
Shelby.....	25,347	31	14.9	3	4	4	1	2	1	15	3							3	3		1					1	1	
Tippecanoe.....	39,522	62	19.1	5	5	5	1	1	1	4	4							6	6		2					3	3	
Tipton.....	19,609																											

TABLE 2. Deaths in Indiana by Cities During the Month of April, 1909.

CITIES	Population Estimated 31 Times School Census, 1906.	Total Deaths Reported for April, 1909.	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.	25 Years and over.	Pulmonary Consumption.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Pneumonia.	Diarrheal Disease, under 5.	Cerebrospinal Meningitis.	Influenza.	Puerperal Septicemia.	Cancer.
Cities over 50,000 Population	405,031	518	15.6	26	67	19	7	9	11	137	84	17	8	1	2	2	75	9	15	27	39	108		
Anderson	233,150	271	14.3	39	11	5	3	7	7	76	31	3	1				49	1	12	14	19	54		
Evansville	64,142	66	18.1	10	5	1	1	1	1	24	11	3					1	1	5	7	19	18		
Ft. Wayne	56,304	66	14.3	10	3		2	2	2	14	6	1					8		4	4	8	23		
Terre Haute	51,135	82	19.5	6		1	3		1	23	16	5					1		3	4	7	13		
Cities from 25,000 to 50,000 Population	43,599	62	17.3	4	10	4	1	1	1	10	6	1	1	1	1	1	7	2	1	6	6	5		
South Bend	43,599	62	17.3	4	10	4	1	1	1	10	6	1	1	1	1	1	7	2	1	6	6	5		
Cities from 10,000 to 25,000 Population	300,545	431	17.4	20	59	19	6	2	10	111	47	7	13	1	2	1	58	14	13	16	33	40		
Anderson	22,505	24	13.0	2	19	2			4	4	3						1	1	2	2	2	2		
Columbus	10,000	20	34.4				1		9	9	2										3			
East Chicago	10,979	29	32.2	2	13	4											6		4		3			
Elkhart	17,094	21	14.9	1	3				1	9	2						2		1		1	1		
Elwood	13,821	14	12.3		4	4				2							2							
Hammond	19,995	23	14.0		5	1			1	2	3						4				3	2		
Jeffersonville	12,000	15	15.2		4	4				6	1						3		1		1			
Kokomo	12,834	25	33.7		4	4				7	5						1		3		1			
Lafayette	20,223	41	34.7		1	1			1	12	5						4		1		3	3		
Laporte	10,004	18	21.9		5	1				7	2						2				3	1		
Logansport	16,730	39	28.4		2	2			1	15	5						8		1		4	3		
Marion	24,181	33	16.6	3	3	3			1	8	8						7		2		2	2		
Michigan City	20,000	33	7.9		6	6			3	3	1						1		1		1	1		
Muncie	23,118	26	13.7	4	2	2			1	3	1						3		1		5	3		
New Albany	23,005	26	13.7	1	1	1			1	7	1						1		1		1	1		
Peru	10,517	12	13.9		1	1			1	7	1						3		1		1	1		
Richmond	19,892	33	20.5		3	3			3	13	2						1		1		5	5		
Vincennes	13,947	19	16.6		4	1			1	2	1						1				1	5		
Cities from 5,000 to 10,000 Population	169,859	248	16.1	11	38	9	5	4	12	66	24	4	1	1	2	5	33	2	1	7	11	13		
Alexandria	6,030	9	18.2	1	1	1			2	3	1						3							
Aurora	5,215	8	18.7							3	2						1							
Bedford	7,672	7	11.1		1					3	2						3							
Bloomington	7,829	11	17.1		1					3	3						3							
Brazill	8,827	12	16.5		1				1	5	3						1				1	1		
Connersville	6,114	11	21.9		1					3	3						2							
Crawfordsville	6,492	14	26.3		3				2	3	3						2				2	1		
Frankfort	8,645	12	16.9		3					3	3						2							
Goshen	8,711	9	12.6		6				1	3	3						2							
Greensburg	5,511	8	14.5		6					6	6						4					3		
Hartford City	5,733	10	24.5		1				2	6	8						4				1	1		
Huntington	9,936	20	24.5		1				1	6	3						1				1	1		
Huntington	9,936	20	24.5		1				1	6	3						1				1	1		
Linton	7,915	6	21.4		1				1	6	3						1				2			
Madison	9,989	13	15.8		4					5	5						1				2	2		
Mishawaka	7,915	13	15.8		4					5	5						1				2	2		
Mt. Vernon	6,072	5	10.0		1					1	1						2				1	1		
Princeton	6,384	13	34.8		2				1	2	1						2							
Seymour	5,233	9	20.7		3				1	2	2						3							
Shelbyville	8,246	11	16.2		3				1	5	3						3				1	1		
Valparaiso	5,771	8	16.9		1				1	1	1						2				1	1		
Wabash	8,592	11	15.6		1				1	3	3						1				1	1		
Washington	8,932	16	21.8		2				1	4	1						1				1	1		
Whiting	6,037	6	12.1		1				1	1	1						1				1	1		
Cities under 5,000 Population	134,376	204	18.5	7	14	28	3	2	5	83	20	3	2	2	7	28	4	1	11	10	8	8		
Angola	2,042	1	41.8		1					4	1						1				1	1		
Attica	2,989	1	20.4		1					1	5						1					1		
Auburn	3,171	1	30.7							1	5						1					1		
Bluffton	4,375	2	22.3							2	3													
Butler City	1,547	1	15.7							1	1													
Cannelton	2,033	3	18.8						1	1	1													
Clinton	4,508	3	24.3							1	1										2	1		
Columbia City	3,066	3	3.9							1	1						2							
Covington	1,974	1	30.9							3	3						1							
Decatur	4,385	3	22.2		1					3	3						1							
Delphi	1,725	3	21.2		1					2	2													
Dunkirk	3,874	6	18.8		1					1	1						1				1	1		
Franklin	3,909	6	18.7		1				1	3	3													
Garrett	4,273	5	14.2		2					2	2						1							
Gas City	3,465	1	3.5		1					1	1													
Greencastle	3,174	5	30.7		1					5	5						2							
Greenfield	4,697	1	12.9		1					1	1						1							
Huntingburg	2,838	3	12.8							1	1						2							
Kendallville	3,906	2	6.2							1	1													
Lawrenceburg	4,249	4	17.2							2	1						2				1	1		
Lebanon	4,949	4	9.8		1																			
Ligonier	2,366	3	10.5							2	2													

Mortality of Indiana for April, 1909.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated 31: June School Census 1908	Total Deaths Reported for April, 1909	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	2,732,549	3,212	14.3	171	424	15.9	165	5.4	52	1.7	40	1.3	81	2.6	1,044	34.3	350	156.2	77	34.3	53	14.7	8	4.0
Northern Counties	920,585	1,088	14.3	55	162	15.7	55	5.3	20	1.9	11	1.0	28	2.7	372	36.0	103	136.5	16	21.2	13	17.3	3	3.9
Central Counties	1,089,818	1,346	15.0	77	158	12.4	50	4.6	19	1.5	17	1.3	32	2.5	436	34.3	132	170.1	40	44.7	11	12.3	5	5.5
Southern Counties	722,146	780	13.1	39	104	14.0	51	6.8	13	1.7	12	1.6	21	2.8	236	31.8	95	160.4	21	35.4	9	15.2	1	1.8
All Cities	1,050,410	1,463	16.9	68	188	13.4	77	6.5	22	1.6	18	1.2	39	2.6	407	29.1	161	188.9	32	37.1	24	27.8	5	8.8
Over 50,000	405,031	518	15.6	26	67	13.6	19	3.8	7	1.4	9	1.8	11	2.2	137	27.8	64	192.7	17	51.2	8	24.0	1	3.0
25,000 to 50,000	43,599	62	12.3	4	10	17.2	4	6.9	1	1.7	1	1.7	1	1.7	10	17.2	6	187.8	1	27.9	1	27.9		
10,000 to 25,000	300,545	431	17.4	20	59	14.2	19	4.6	6	1.4	2	4	10	2.4	111	27.0	47	190.7	7	28.4	13	52.7	1	4.0
5,000 to 10,000	166,859	248	18.1	11	32	16.0	9	3.6	5	2.1	4	1.6	12	5.0	66	27.8	24	175.4	4	29.3	1	7.3	1	7.3
Under 5,000	134,376	204	18.5	7	14	7.1	26	13.2	3	1.5	2	1.0	5	2.5	83	42.1	20	181.5	3	27.2	2	18.1	2	18.1
Country	1,682,139	1,749	12.6	103	236	14.3	88	5.3	30	1.8	22	1.3	42	2.5	637	38.7	189	137.0	45	32.6	9	6.3	4	2.9

Deaths and Annual Death Rates per 100,000 Population from Important Causes.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Croup.		Scarlet Fever.		Measles.		Whooping-Cough.		Pneumonia.		Diarrheal Diseases, Under Five.		Cerebro-Spinal Meningitis.		Influenza.		Puerperal Septicemia.		Cancer.		Violence.		Smallpox.	
	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
	State	9	4.0	36	16.0	48	21.4	452	201.8	48	20.5	8	2.6	141	62.9	8	2.8	134	59.8	178	78.5	1	4	
Northern Counties	5	6.6	9	11.9	16	21.2	142	188.1	23	30.4	1	1.3	37	49.0			55	72.8	64	84.9				
Central Counties	4	4.4	24	28.8	14	15.6	193	218.0	8	8.9	4	4.4	37	63.8	4	4.4	59	66.0	76	78.3	1	1.1		
Southern Counties	3	5.0	3	5.0	18	30.4	117	197.6	15	25.3	1	1.6	47	78.4	2	3.3	20	33.7	42	17.9				
All Cities	7	8.1	14	16.2	9	10.4	197	228.8	25	29.0	3	3.4	47	54.5	1	1.1	68	76.8	99	114.9	1	1.1		
Over 50,000	2	6.0	3	9.0	3	9.0	75	225.9	3	9.0			15	45.1			27	81.3	39	117.4				
25,000 to 50,000	1	27.9					7	195.8	2	55.9			1	27.9					6	167.5				
10,000 to 25,000	2	8.1	1	4.0	3	12.1	56	227.3	14	56.8	1	4.0	13	52.7			18	73.0	33	133.9	1	4.0		
5,000 to 10,000	2	14.6	3	21.9	3	21.9	33	241.3	2	14.6	1	7.3	7	51.1			11	50.4	13	95.0				
Under 5,000			7	63.3	7	63.3	26	236.0	4	36.3			11	99.5	1	9.0	10	90.7	8	73.6				
Country	2	1.4	22	15.9	39	28.2	255	184.9	21	15.2	3	2.1	91	68.1	5	3.6	62	49.3	77	55.8				

Meteorological Summary, Indiana Section, Climatological Service, U. S. Weather Bureau, for April, 1909. Furnished by W. T. Blythe, Section Director, Indianapolis, Ind.

INDIANA.	TEMPERATURE.										PRECIPITATION.				CONDITION OF SKY.			Wind.		
	Mean.	Departure from Normal.	Highest.					Lowest.					In Inches.				Number of Days.			
			Degrees.	Date.	Place.	Degrees.	Date.	Place.	Average.	Departure from Normal.	Snowfall, Unmelted.	Days with .01 inch or more.	Clear.	Partly Cloudy.	Cloudy.	Prevailing Direction.				
																	Inches.			Number of Days.
Northern Section	47.2	-2.7	83	15	Ft. Wayne	12	10	Knox	5.19	+2.69	7	12	7	8	15	S.W.				
Central Section	51.0	-0.9	83	15	Cambridge City	16	11	Farmland, Heltonville	4.91	+1.07	2	10	9	10	11	S.				
Southern Section	54.2	-0.7	86	15	Madison, Rome	20	10	Paoli, Seymour	5.28	+1.60	T	10	12	9	9	S.W.				
State	50.8	-1.4	86	15	Madison, Rome	12	10	Knox	5.16	+2.05	.3	11	9	9	12	S.W.				