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

BIRTHS FOR AUGUST, 1916.

Total births, 5,258 (stillbirths excluded); State rate, 21.7.

Males, 2,725; females, 2,533.

White males, 2,677; white females, 2,498.

Colored births, 83; males 48, females 35.

Stillbirths, 150; white 141, colored 9.

The Northern Sanitary Section, population 998,000, reports 2,005 births; rate 23.7.

The Central Sanitary Section, population 1,178,368, reports 2,044 births; rate 20.4.

The Southern Sanitary Section, population 684,552, reports 1,209 births; rate 20.8.

The highest rate, Monroe county, 37.7.

The lowest rate, Franklin county, 12.3.

Total births to date for 1916, 42,868.

ABSTRACT OF MORTALITY STATISTICS FOR AUGUST, 1916.

Total deaths reported, 3,023; State rate 12.4. In the preceding month, 3,118 deaths; rate 12.8. In the same month last year, 2,526 deaths; rate 10.5. Deaths by important ages were: Under 1 year of age, 563, or 18.7 per cent. of total; 1 to 4, 209; 5 to 9, 62; 10 to 14, 59; 15 to 19, 88; 65 and over, 901, or 29.8 per cent. of total.

SANITARY SECTIONS: The Northern Sanitary Section, population 998,000, reports 1,010 deaths; rate 11.9. In the preceding month, 1,084 deaths; rate 12.8. In the same month last year, 872 deaths; rate 10.4

The Central Sanitary Section, population 1,178,368, reports 1,351 deaths; rate 13.5. In the preceding month, 1,299 deaths; rate 13.0. In the same month last year, 1,104 deaths; rate 11.1.

The Southern Sanitary Section, population 648,552, reports 662 deaths; rate 11.4. In the preceding month, 735 deaths; rate 12.6. In the same month last year, 550 deaths; rate 9.5.

REVIEW OF SECTIONS: The Central Sanitary Section presents the highest death rate, which is 1.1 higher than that for the entire state. The Central Section also presents the highest death rate for tuberculosis, lobar and broncho-pneumonia, influenza and cancer. The Northern Section presents the highest death rate for diphtheria, scarlet fever, diarrhea and enteritis, cerebro-spinal fever, acute polio-myelitis, puerperal septicemia, and external causes. The Southern Section presents the highest death rate for typhoid fever, measles and whooping cough.

RURAL: Population 1,552,380, reports 1,364 deaths; rate 10.3. In the preceding month, 1,462 deaths; rate 11.1. In the same month last year, 1,292 deaths; rate 9.8.

URBAN: Population 1,308,540, reports 1,659 deaths; rate 14.9. In the preceding month, 1,656 deaths; rate 14.9. In the same month last year, 1,234 deaths; rate 11.4. The cities named present the following death rates: Indianapolis, 16.7; Evansville, 14.9; Fort Wayne, 11.7; Terre Haute, 12.9; South Bend, 14.2; Gary, 22.3; East Chicago, 16.2; Muncie, 13.3; Hammond, 18.2; Richmond, 13.5; Anderson, 13.9; Elkhart, 9.4; Michigan City, 12.2; Lafayette, 15.6; New Albany, 24.0; Logansport, 10.3; Marion, 20.2; Kokomo, 16.9.

SUMMARY OF MORBIDITY AND MORTALITY FOR AUGUST, 1916.

Typhoid fever was reported as the most prevalent infectious disease. The order of prevalence was as follows: Typhoid fever, tonsilitis, diarrhea and enteritis, dysentery, pulmonary tuberculosis, diphtheria and croup, cholera morbus, acute bronchitis, acute rheumatism, measles, whooping cough, scarlet fever, poliomyelitis, malaria fever, influenza, intermittent and remittent fever, bronchial pneumonia,

other forms of tuberculosis, smallpox, chickenpox, erysipelas, lobar pneumonia, rabies in animals, puerperal fever, rabies in human, cerebro-spinal fever, pellagra, trachoma.

SMALLPOX: 29 cases reported from 8 counties with no deaths. The counties reporting smallpox present were Dekalb, 3; Knox, 1; Kosciusko, 3; Owen, 10; St. Joseph, 1; Tipton, 8; Vanderburg, 2; Vigo, 1.

TUBERCULOSIS: 270 deaths, of which 211 were of the pulmonary form and 59 other forms. Male tuberculosis deaths numbered 140; females 130. Of the males, 21 were married in the age period 18 to 40 and left 42 orphans under 12 years of age. Of the females, 36 were married in the same age period as above and left 72 orphans under 12 years of age. Total orphans made in one month by this preventable disease, 114. Number of homes invaded, 256.

PNEUMONIA: 56 deaths; rate 23.1 per 100,000. In the preceding month, 65 deaths; rate 26.8. In the same month last year, 42 deaths; rate 17.5.

TYPHOID FEVER: 940 cases in 69 counties with 81 deaths. In the preceding month, 223 cases in 53 counties with 37 deaths. In the same month last year, 241 cases in 54 counties with 46 deaths.

DIPHTHERIA: 155 cases in 32 counties with 18 deaths. In the preceding month 81 cases reported in 28 counties with 5 deaths. In the same month last year, 124 cases in 31 counties with 8 deaths.

SCARLET FEVER: 74 cases in 25 counties with 2 deaths. In the preceding month, 114 cases reported in 27 counties with 1 death. In the same month last year, 124 cases in 34 counties with 1 death.

MEASLES: 134 cases reported in 28 counties with 1 death. In the preceding month 781 cases reported in 48 counties with 13 deaths. In the same month last year, 54 cases in 16 counties with 1 death.

POLIOMYELITIS: 39 cases reported in 26 counties with 6 deaths. The deaths occurred in Cass county, female, 3 years; Dearborn county, female, 23 years, and male, 15 years; Lake county, male, 1 year; Wabash county, male, 9 months; Whitley county, male, 12 years.

PELLAGRA: 1 death reported from Allen county, female, 41 years.

RABIES: 4 persons bitten by rabid animals and treated by the State Board of Health during the month. There were no deaths.

EXTERNAL CAUSES: Total 311; males 254, females 57. *Suicide:* Total 46; males 34, females 12. Suicide by poison, 18; by asphyxia, 2; by hanging or strangulation, 9; by drowning, 2; by firearms, 13; by cutting or piercing instruments, 2. *Accidental or undefined:* Total 256; males 212, females 44. Poisoning by food, 4; other acute poisonings, 2; burns (conflagration excepted), 9; absorption of deleterious gases (conflagration excepted), 6; accidental drowning, 33; traumatism by firearms, 3; traumatism by cutting or piercing instruments, 1; traumatism by fall, 33; traumatism in mines, 7; traumatism by machines, 6; railroad accidents and injuries, 35; street-car accidents and injuries, 17; automobile accidents and injuries, 29; motor-cycle accidents and injuries, 3; injuries by other vehicles, 7; other crushing, 2; injuries by animals, 9; effects of heat, 31; lightning, 5; electricity (lightning excepted), 2; fractures (without specified cause), 3; other external violence, 9. *Homicide:* Total 9; males 8, females 1. Homicide by firearms, 9.

HEALTH OFFICERS, ATTENTION.

Delayed Birth and Death Certificates.

Each month the statistical department receives certificates for births and deaths that have occurred during the preceding months, which are not sent to this department in time to be tabulated with the report for the current month. With the report for August the following counties named below were delinquent in this matter.

BIRTHS.

Adams 3 (Decatur 1); Allen 11 (Ft. Wayne 3); Bartholomew 1 (Edinburg); Benton 4 (Oxford 1, Earl Park 1); Boone 11 (Lebanon 6—1 for December, 1915); Brown 3—1 for December, 1908; Carroll 3 (Delphi 1); Clark 1 (Borden); Clay 3; Clinton 1 (Frankfort); Crawford 1 (Leavenworth); Dearborn 1 (Aurora); Decatur 4—1 for September, 1 for November, 1 for December, 1915; Delaware 3 (Muncie); Dubois 2; Fayette 2 (Connersville); Floyd 3 (New Albany); Fountain 3 (Kingman 1, Veedersburg 1—for October, 1915); Franklin 2; Fulton 1 (Rochester); Gibson 1; Grant 5 (Fairmount 1); Green 5 (Linton 2—1 for May, 1915); Hamilton 1 (Arcadia for November, 1908); Harrison 10 (Corydon 2); Hendricks 1; Henry 2; Jackson 2 (Seymour); Jay 3 (Portland 1, Bryant 2); Jefferson 9 (Madison 2); Jennings 2; Johnson 2; Knox 5 (Bicknell 1, Vincennes 1—for January, 1910; Kosciusko 3—1 for June, 1915; Lagrange 3 (Town 1); Lake 17 (Crown Point 1, East Chicago 1, Hammond 15—1 for July, 1908, 1 for December, 1908, 1 for January, 1909, 1 for March, 1910, 1 for May, 1911, 2 for July, 1914, 1 for December, 1914, 1 for January, 1915, 2 for December, 1915, 1 for January, 1916, 3 for April, 1916); Laporte 2 (Michigan City); Lawrence 1 (Bedford); Madison 4 (Anderson 1, Alexandria 1); Marion 3 (Indianapolis); Marshall 1; Miami 3 (Peru 2); Monroe 2; Morgan 3; Noble 3; Orange 2; Parke 1; Perry 1; Pike 2; Porter 3 (Valparaiso 1); Posey 3; Pulaski 3; Putnam 1; Ripley 2; Shelby 1 (Shelbyville); Spencer 1 (Dale); Steuben 2; St. Joseph 2 (Mishawaka 1); Sullivan 3; Tippecanoe 7 (Lafayette 6); Union 1; Vanderburgh 13 (Evansville); Vermillion 14 (Clinton 12); Vigo 11 (Terre Haute 2, West Terre Haute 2); Wabash 3; Warrick 2; Washington 6 (Little York 1); Wayne 2 (Centerville 1, Spring Grove 1); Wells 18 (Bluffton 2); White 1; Whitley 1; Total 262.

DEATHS.

Blackford 1; Carroll 3; Cass 1; Clay 1; Crawford 2 (Leavenworth 1); Dearborn 1; Delaware 1 (Muncie); Grant 6 (Gas City 3); Greene 2; Henry 1; Jefferson 5; Jennings 1; Knox 1; Kosciusko 2—for June, 1915; Lake 2 (East Chicago 1, Crown Point 1); Madison 1; Marion 1 (Indianapolis); Martin 1; Morgan 1 (Martinsville); Newton 1 (Kentland); Noble 1; Orange 1; Ripley 1; Spencer 1 (Grandview); Starke 1 (Hamlet); Switzerland 1; Union 1; Warrick 4 (Boonville 1); Washington 2; Wells 1 (Uniondale); Total 49.

REPORT OF BACTERIOLOGICAL LABORATORY, INDIANA STATE BOARD OF HEALTH, FOR AUGUST, 1916.

Will Shimer, M.D., Superintendent.

Sputum for tubercle bacilli—		
Positive	175	
Negative	346	
	—	521
Pus for tubercle bacilli—		
Negative		3
Cerebro-spinal fluid for tubercle bacilli—		
Negative		3
Pleural fluid for tubercle bacilli—		
Negative		2
Urine for tubercle bacilli—		
Negative		2
Feces for tubercle bacilli—		
Negative		1
Widal tests for typhoid fever—		
Positive	77	
Negative	372	
	—	449
Widal tests for paratyphoid fever—		
Positive	9	
Negative	440	
	—	449
Throat cultures for diphtheria bacilli—		
Positive	43	
Suspicious	12	
Negative	68	
No growth	3	
	—	126
Brains for rabies—		
Dogs—		
Positive	7	
Negative	8	
Cow—		
Positive	1	
Horse—		
Positive	1	
Cat—		
Negative	1	
Blood counts		18
		15
Blood for malaria plasmodia—		
Negative		2
Pus for gonococci—		
Females—		
Positive	15	
Suspicious	6	
Negative	21	
Males—		
Positive	19	
Negative	20	
Sex not given—		
Negative	2	
	—	83
Pus, miscellaneous		6
Pathological tissues—		
Carcinoma—		
Carcinoma of lip	1	
Carcinoma of nose	1	
Carcinoma of gland	1	
Carcinoma of hand	1	
Carcinoma of uterus	1	
Carcinoma, location not given	1	
Sarcoma—		
Sarcoma of gum	1	
Miscellaneous tissues	13	
Gasserian ganglions	15	
	—	35
Urine for chemical analysis		44
Urine for typhoid bacilli—		
Negative		1
Feces for typhoid bacilli—		
Negative		8
Feces, miscellaneous		3
Spinal fluid for meningococci—		
Negative		3
Blood, miscellaneous		2
Stomach contents		1
Worm for identification		1
Ice cream		2
Water		1
Total number examinations made		1781
Doses of antityphoid vaccine prepared and sent out		5089
Guinea pig inoculated for rabies—		
Negative		6
Guinea pig inoculated for tubercle bacilli—		
Negative		2
Total number guinea pigs inoculated		8

OUTFITS PREPARED AND SENT OUT DURING AUGUST, 1916.

Tuberculosis	547
Diphtheria	256
Widals	695
Gonococci	35
Blood count	10
Bile media	16
Total number sent out	1,559

PATIENTS STARTING "PASTEUR" TREATENT, AUGUST, 1916.

Name.	Town.	County.	Age.	Sex.	Treatment began.	Treatment finished
1. Frank Bland	Indianapolis	Marion	40	M	8-21-16	8-28-16
2. Lawrence Woodward	Mt. Vernon	Posey	15	M	8-30-16	9-12-16
3. Lulu Dixon	Mt. Vernon	Posey	6	F	8-31-16	9-13-16
4. Mrs. Jessie Dye	Mt. Vernon	Posey	21	F	8-31-16	9-13-16

THINGS OF INTEREST FROM THE LABORATORY.

For a number of years the laboratory has made parallel tests with typhoid bacilli and paratyphoid B. bacilli on all specimens of blood sent in for widal examinations.

Ten per cent. of the blood samples sent in agglutinated the paratyphoid bacilli in higher dilution than the typhoid. Thus it seems that 10 per cent. of all cases diagnosed as typhoid are really infections with the B. paratyphosus B. With these facts in mind we have prepared a vaccine which is composed of two parts typhoid bacilli and one part paratyphoid B. This vaccine has been used for two years.

Some very interesting things with reference to typhoid have appeared during the present European war.

Of those developing typhoid, 87.8 per cent. had never been vaccinated, and of those who had been vaccinated 50 per cent. had received only one injection. Only 3 per cent. of those vaccinated three times contracted the disease.

Of the persons developing infection with B. paratyphoid B., 10.9 per cent. had never been vaccinated with typhoid bacilli; 50 per cent. had received one dose, 90.5 per cent. two doses and 91.5 three doses.

From this fact it seems possible that typhoid vaccination prevents typhoid and may favor the development of paratyphoid A. or B. infection. A percentage of typhoid cases prevented, are replaced by paratyphoid infections. It is now believed that most cases of typhoid are really mixed infections and that antityphoid vaccination prevents the development of typhoid but not of paratyphoid.

A most interesting situation closer to home is the development of paratyphoid among the soldiers in Texas who had received only the antityphoid vaccine.

Most cases of so-called ptomaine poisoning are really due to the paratyphoid bacillus so that the mixed vaccine protects against a much greater number of the sources of infection than does the antityphoid alone.

REPORT OF THE DEPARTMENT OF FOOD AND DRUGS, INDIANA STATE BOARD OF HEALTH, FOR AUGUST, 1916.

H. E. Barnard, State Food and Drug Commissioner.

During the month of August 77 food samples were analyzed, of which 64 were listed as legal and 13 illegal. Twenty-three samples of milk were analyzed. Of this number 5 were below standard or dirty and were classed as illegal. Of the 34 ice cream samples submitted for analysis 28 were found legal and 6 illegal. One sample of vinegar was sent in for analysis and found to be low in acidity, therefore illegal.

Twenty samples of drugs were examined during the month.

ANALYSES OF FOODS AND DRUGS DURING THE MONTH OF AUGUST, 1916.

Classification.	Legal.	Illegal.	Total.
Food.			
Beverages—			
Cider	1		1
Temperance beers	8	1	9
Lard	1		1
Milk products—			
Butter	3		3
Cream	2		2
Ice cream	28	6	34
Milk	18	5	23
Milk, breast	2		2
Vinegar		1	1
Miscellaneous		1	1
Totals	64	13	77
Drugs.			
Aspirin	16		16
Candy	1		1
Lemon extract	1		1
Miscellaneous	1	1	2
Totals	19	1	20

INSPECTORS' REPORTS FOR THE MONTH OF AUGUST, 1916.

During the month of August the food and drug inspectors made 652 inspections of food-producting establishments. Four places were found to be in excellent condition, 297 were in good condition, 375 fair, 36 poor and 7 bad.

Of the 14 dairies inspected one was rated good, 7 fair, 5 poor and 1 bad.

Of the 237 grocery stores visited one was rated excellent, 114 good, 120 fair and 2 poor.

Eighty-two meat markets were inspected. Of this number 42 were rated good, 39 fair and 1 poor.

Of the 41 drug stores visited 1 was rated excellent, 32 good and 8 fair.

Two of the 124 bakeries and confectioneries visited were rated excellent, 54 good, 67 fair and 1 poor.

Of the 86 drug stores inspected 25 were rated good, 51 fair, 9 poor and 1 bad.

Two of the 9 slaughterhouses visited were rated good, 5 fair, 1 poor and 1 bad.

Of the 17 ice cream factories visited 1 was classed as good, 10 fair, 4 poor and 2 bad.

Of the 18 milk depots and milk plants inspected 3 were rated good, 11 fair, 3 poor and 1 bad.

Forty-six condemnation notices were issued during the month. 44 because of unsanitary conditions and 36 because of improper construction.

Two prosecutions were filed during the month. One case involved the sale of milk below standard. One baker was fined for operating his bakery in violation of the sanitaryfood law.

INSPECTORS' REPORT FOR THE MONTH OF AUGUST, 1916.

Inspections.	No. Inspected.	No. Excellent.	No. Good.	No. Fair.	No. Poor.	No. Bad.
Dairies	14	0	1	7	5	1
Grocery stores	237	1	114	120	2	0
Meat markets	82	0	42	39	1	0
Drug stores	41	1	32	8	0	0
Bakeries and confectioneries	124	2	54	67	1	0
Hotels and restaurants	86	0	25	51	9	1
Slaughterhouses	9	0	2	5	1	1
Poultry houses	2	0	0	0	2	0
Fish markets	2	0	0	2	0	0
Ice cream parlors	4	0	1	3	0	0
Ice cream factories	17	0	1	10	4	2
Milk depots	15	0	3	9	2	1
Milk plants	3	0	0	2	1	0
Saloon	1	0	0	1	0	0
Wholesale egg store	1	0	0	1	0	0
Canning factories	14	0	7	7	0	0
Totals	652	4	297	375	36	7

NOTICES OF CONDEMNATION DURING THE MONTH OF AUGUST, 1916.

Classification.	Reasons for Unsanitary Conditions.	Condemnation Improper Construction.	Total.
Bakeries	3	1	3
Bottling works	1	1	1
Creameries	1	2	2
Dairies	1	1	1
Groceries	6	7	7
Hotels	1	1	1
Ice cream plants	5	5	5
Lunch carts		1	1
Meat markets	4	3	4
Milk depots	6	6	6
Restaurants	13	7	13
Slaughterhouses	2	2	2
Totals	44	36	46

NOTICE

To Inspectors of the State Board of Health, Health Officers, Sanitary Officers, Food, Milk and Meat Inspectors and others charged with the Enforcement of the Pure Food and Sanitary Food Laws.

Beginning October 1, 1916, health officers are directed to give special attention to the inspection of the following types of food-producing and distributing establishments, towit: bakeshops, groceries, hotel kitchens and dining-rooms, restaurants, ice cream parlors, soda fountains, saloons and other places where food or drink is prepared or served.

In addition to the customary sanitary inspection, you will require of the proprietor, if he personally engages in his business, and all clerks, cooks, waiters, or other employees who come in contact with or handle food, a medical certificate showing such proprietor or employee to be free from infectious or contagious disease.

You will make personal inquiry to determine whether the proprietor or employees have at any time suffered from typhoid fever and if you find such to be the case you will determine whether or not the necessary clinical tests have been made to prove the absence of the bacillus typhosus in the excretions of the persons examined.

In the event you find that the proprietor or any of his employees as specified above has no certificate of health, or having had typhoid fever is not proven to be a non-carrier, you will score the establishment "Bad" and recommend that the State Food and Drug Commissioner issue a "Condemnation" order against it, to remain in force until the required medical certificates have been filed with the local health officer.

This order is issued in conformity with Section 9 of the Sanitary Food Law and the rule of the State Board of Health adopted January 14, 1916, ordering employers engaged in the production and distribution of food to require a certificate of good health of all employees.

By Order of Indiana State Board of Health.

ONE BENEFIT of the European war to the people of the United States, is the cutting off of one hundred or more of the synthetic coal-tar medicinal products, with which the German chemists have flooded the earth. There is not one of these medicines that is not a two-edged sword, and it is yet to be proved that a single one of them is curative. Among these "synthetics" are aspirin, novaspirin, veronal, bromural, novocain, trional, sulphonal, medinol, adalin, luminol, etc.

All of these are "relief remedies" and affect the nerve centers injuriously, and it is through this injurious action that their effects are produced. They relieve pain by obtunding the nerves, never removing the cause of pain. Of trional and sulphonal the United States Dispensatory says: "Although trional is less prone that is sulphonal to cause chronic poisoning, a number of cases have occurred. The symptoms have been great lassitude, giddiness, headache, gastro-intestinal pain, pronounced tremors, ataxia and general paresis." Of all peoples Americans are most addicted to drugging. Our annual drug bill is $500,000,000 and it is safe to say that ninety per cent. of this is worse than thrown away. Undoubtedly, some of the degeneration of the race, which life statistics show is certainly going on, is due to drugging. The troubles and slaughter which have proceeded out of the Krupp works are probably equaled by the nerve, brain and heart injuries which have followed the German synthetic drugs. It certainly seems from some view points that the good which science brings to mankind may be balanced by the harm it produces.

SOME WELL KNOWN ENEMIES OF CHILDREN.

1. Doctors who don't report their cases of contagious diseases and the births they attend.
2. Dirty milkmen.
3. Flies.
4. School teachers who persist in keeping the schoolroom windows closed.
5. Tuberculous cows.
6. Mothers or fathers who expose their children to contagious diseases, believing that children must have such diseases.
7. Fanatics opposing school inspection.
8. Violators of quarantine.
9. Dirty parents in dirty homes.
10. Manufacturers of adulterated candies.
11. Manufacturers of adulterated foods.

Wisconsin Health Bulletin.

SYSTEMIC DISEASES which may and frequently do result from oral infections are stated to be:

Muscle and joint rheumatisms.
Arthritis Deformans.
Iritis and other eye troubles.
Focal and diffuse kidney infection (nephritis or Bright's Disease).
Blood vessel coat diseases.
Heart infections, as endocarditis and myocarditis.
Stomach and duodenal ulcer appendicitis.
Liver infections, including colicystitis and gall stones.
Skin diseases, including erythema nodosum and boils.
Nervous system infections, including neuritis, neuralgias, tic-douloureux, sciatica and Herpes Zoster.
Glandular infections, including thyroid, pancreas and lymphatics, etc.
Pneumonia and lung infections.

DR. THOMAS R. CROWDER tells what good air must be in the following words: "Good air must be able to absorb the body heat as rapidly as formed without being cold enough to produce discomfort. It must be warm, but not too warm; must have motion, but not enough to have a chilling draft; it must be changed constantly to prevent stagnation and

over-heating." Continuing, Dr. Crowder says: "When these conditions, which are purely physical, are complied with, practically all other things may be left out of consideration. The chemical change brought about by respiration are ordinarily negligible." And further he says: "When again, the temperature is too high, we need more motion, hence a larger air supply to keep the body cool. When it is too low, we need less motion or less supply to keep the body warm. The lungs and function of respiration have nothing to do with this. It is entirely a surface function. The practical problem of ventilation is one of physics and not one of chemistry".

THE LOVE OF HEALTH.

If any one doubts that this is an era of health propaganda he must, indeed, be oblivious of what is going on about him.

Municipal, State and national agencies are using forces and funds at their disposal to further the interests of public hygiene.

Educational influences are directing their energies to the spread of the lessons of procurable health in public print and in documents of both official and unofficial character.

Novels and short stories, the literature of biography and travel, the platform and even the pulpit are proclaiming the gospel of health far and wide.

The medical profession, more enthusiastic if not more vitally interested than any other group in the promotion and outcome of the modern hygienic movement, may well stop from time to time to inquire about the sanity of the methods of the propaganda.

The religious doctrine of past ages involved the threat of harm; it inculcated a fear of the destruction or danger that was sure to follow the violation of the law. This dismal latitude has long since been replaced by a religion of love, of uplift and joyous anticipation.

In the health propaganda, likewise, much of the pessimistic attitude unconsciously, perhaps, has been introduced in the past. The fear of disease has been held over the heads of the people. Rarely have we seen the more appropriate spirit of the modern "better health" movement better expressed than in a recent pamphlet of the Life Extension Institute.

It is not a fear of illness or of death that we should encourage, but a love of health, a sense of responsibility for the care of our bodies, a desire for bodily endurance and efficiency and full achievement. If the mind is fixed on these ideals, and the already known means of approaching them are utilized, the needless miseries that embitter the lives of so many may be left to take care of themselves. It is not so much necessary to fight disease as to cultivate health for the happiness, contentment and moral gain that it brings.

There is something unusually optimistic and buoyant in such words, says the Journal of the American Medical Association. They embody the psychologic cue to comfort and happiness for many a patient, without implying that "man is incapable of sin, sickness and death," or that "health is not a condition of matter, but of mind".

To inspire a love of health does not mean to exclude the great body of scientific knowledge which is the best that science can offer today regarding disease, or to replace medicine by crude metaphysics. The ardent love of health insures a mind receptive to the lessons of modern medicine.

—Editorial, Muncie Star.

ALL TIME HEALTH OFFICERS.

We have heretofore chosen practitioners of medicine as our health officers because they came nearest of any class in the community to having the qualifications necessary for the work. As a matter for argument, I submit that practitioners of medicine lack much of the fundamental training and knowledge required for public health work, and some of their training and qualifications, except in unusual men, actually unfits them for true public health work, in part for the following reasons:

1. Public health is a function of government involving social and economic principles, not an appendage to the practice of medicine.

2. Public health is a distinct entity, an application of the facts and principles of various fundamental sciences to the *maintenance of health* and the *prevention of disease.*

3. Public health must be based on the facts of health and disease in the mass (in numbers, space and duration of time); the practice of medicine mainly upon individual cases.

4. The practise of medicine is an individual endeavor for private gain derived from individuals in a community; the practise of public health is a public endeavor by and for the community, and paid for by the community.

5. Medical practise combined with public health service is an incompatibility.

Recently it has been argued that the training and experience of the sanitary engineer qualify him for public health work. As a matter of fact much of the sanitary engineer's training is exceedingly valuable in public health work, but the sanitary engineer as such is certainly no more qualified than the physician. The fact that several sanitary engineers have proved successful as administrative health officials by no means proves that the training of the sanitary engineer is the ideal foundation for public health work. The same arguments that have been presented for the sanitary engineer might be advanced for the training and qualifications of the attorney, the statistician, the chemist, the bacteriologist, the parasitologist, the veterinarian or the sociologist. All have labored in the filed of public health, and all have at least some qualifications of great value.

Public health is now casting off the swaddling clothes of its infancy, and entering upon a period of vigorous youth. Medicine has been one of its parents, but now that the child is endeavoring to travel its own path we hear that parent uttering warning cries and, like all good parents, prophesying immediate or ultimate disaster if its rules and precepts are not heeded. For example, witness Dr. V. C. Vaughan's statements before the 1915 convention of the American Medical Association in San Francisco, and Dr. Ford's paragraph at the top of column 1 on page 13. We have heard several such utterances lately. Some we may suspect of having ulterior motives behind them; others, as the ones referred to, are admittedly cries of alarm on the part of the medical profession at the prospect of a fancied loss of prestige and influence.

In the last analysis the highest type of public health official will be a statesman, an administrator, an educator, above all an efficient public executive. He will have a broad public vision, partly from native qualifications, but developed by a broad training in public health *as such*, which will include much that is in medicine, but leave out much of medical training; which will include all that is essential in sanitary engineering, law, sociology, and the various fundamental sciences such as chemistry, biology, bacteriology, etc. He will also have an excellent foundation of general culture.

He will superintend the work of physicians, engineers, statisticians, chemists, bacteriologists, attorneys, veterinarians and the like employed for special limited but intensive fields in public health, and will be the guiding hand in shaping public policy with respect to health. His life work, training and ideal will be public health, not private practise with public health on the side.

HAROLD F. GRAY.

Board of Public Safety,
Palo Alto, Cal.

NEEDLESS KILLING.—Of course, the killing now going on by explosives, gases and liquid fire in Europe, is needless, and so also is the killing annually of about 10,000 citizens of Indiana by preventable diseases. Killing by explosives and killing by preventable diseases are results of stupidity. If we were not so stupid we wouldn't do it. There is the nasty typhoid fever. Its prevention is known, but we won't prevent. It kills 1,000 annually in Indiana and attacks 25,000. It costs the people not less than $2,000,000 each year and for $200,000 we could put it out. Isn't it stupid not to do it? Then there is consumption. It kills 4,300 annually and its prevention is known, still we won't prevent. It costs the people $10,000,000 annually and yet the last legislature, upon motion of a lawyer member, struck from the antituberculosis law the $2,500 intended for its enforcement. Wasn't that stupidity? If not, what in the name of common sense was it? It surely wasn't economy. Then again, there is diarrhea and dysentery; they kill about 2,000 babies annually under five years of age. We bury them in little white coffins, cry and mourn over them, and wickedly blame the disaster on God. We are to blame, for diarrhea and dysentery result from wrong feeding. We simply don't feed the babies good food. Diarrhea and dysentery are the results of food poisoning. It is certainly stupid for the people of Indiana to poison 2,000 little children annually. Then again, there are those other killers called diphtheria, scarlet fever, pneumonia, etc. They kill over 3,000 annually and they can be controlled. Why don't we control them? Isn't it stupidity not to stop the killing if we can?

In a certain county forty-nine cases of trachoma were discovered among the school children. Their parents were kindly informed and told the children would almost certainly go blind if not cared for. Three weeks after the letter was sent, investigation discovered that not a parent had taken the proper steps to cure the disease and save the children's eyesight. When the health officers asked the parents why they didn't look after the eye disease and save the children from blindness, they answered, "You are cranks." But hurling epithets won't stop trachoma. To better a community first get rid of its morons.

SOME DEFINITIONS.

SALVARSAN—A substitute for virtue.
SICKNESS—Something to be ashamed of.
TYPHOID—Like sin, a disgrace to any state.
CONSUMPTION—A punishment for wrong living.
FOUL AIR—A first aid to consumption.
GONORRHOEA—A mark of folly and of rank disgrace.
CORNS—Annexes to tight shoes.

DR. G. W. SARBER is health officer at Knox, Indiana. Dr. Sarber does things. He does not wait for things to happen. He brings things about. This is a characteristic of strong, brainy men. The people of Knox are learning very rapidly under the teaching of Dr Sarber. He has got an ordinance concerning clean back yards. The ordinance says that if the orders of the health officer are not obeyed, he may go ahead and execute the same and charge the expense to the property. Afterward the said expense is assessed against the property and collected with the taxes. All outside privies were ordered removed and connected with sewers where possible, and this has been done. Of course, Dr. Sarber met with a very great deal of opposition and much abuse, but he kept on smiling and kept on working, and finally Knox has emerged from almost all of her old-time, insanitary conditions.

PUBLIC HEALTH ADMINISTRATION—A wave of constructive public health reform is sweeping over the country, and we are coming to recognize that here in the United States an unnecessary sacrifice of lives and money is being made to preventable disease. The cities generally have handled their health problems satisfactorily, but the sanitary conditions in small towns and rural communities have not been what they should be. Public health administrators recognize that the problem today is to reach the small town and the rural community, and organize effective public health service.

More than half the people of this country live in the rural districts; 53.7 per cent. of the total population being classed as rural according to the 1910 census. In the United States there are 2,953 counties, eighty per cent of which are essentially rural in character. Up to this time, with small exceptions, the rural districts throughout the country have received scarcely any attention from sanitary authorities, and as a result sanitary conditions have improved very little.

It has been a sort of tradition that the country or small town is healthier than the congested city, but, according to recognized authorities, the reverse is rapidly coming to be true. Statistics compiled by the United States Census Bureau show that from 1900 to 1912 the death rate in registration states decreased 21.2 per cent. in the cities, but only 8.6 per cent. in rural districts. In New York City the death rate for a number of years has been steadily declining, while in the rural districts of the State at the same time it has slowly increased

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"DEAD TOADS FLOAT in the cistern which furnishes water to district school No. 2, Salt Creek Township, Monroe County." This is a sentence taken from a letter written to the State Board of Health by a patron of the school. This patron says he thinks if such big things as dead toads could get into the cistern, it is very likely that such little things as microbes could get into the water also. Anyhow, the big toads do not add to the water, but do take from it any refreshing quality it might have, and the children do not feel better from drinking toad water. The State Board of Health has promised to try and get the toads out of the cistern at school No. 2, Salt Creek Township and in fishing out the toads, it proposes also to fish out any microbes that might be therein and to see to it the school children are supplied with an abundance of pure drinking water.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM IMPORTANT CAUSES FOR AUGUST, 1916.

NORTHERN SANITARY SECTION

Total population	998,000
Total deaths	1,010
Death rate per 1,000	11.9
Pulmonary Tuberculosis, rate per 100,000	57.9
Other forms of Tuberculosis, rate per 100,000	11.8
Typhoid Fever, rate per 100,000	14.1
Diphtheria and Croup, rate per 100,000	9.4
Scarlet Fever, rate per 100,000	2.3
Measles, rate per 100,000	....
Whooping Cough, rate per 100,000	4.7
Lobar and Broncho-Pneumonia, rate per 100,000	13.0
Diarrhoea and Enteritis (under 2 years), rate per 100,000	152.6
Cerebro-Spinal Fever, rate per 100,000	1.1
Acute Anterior Poliomyelitis, rate per 100,000	4.7
Influenza, rate per 100,000	1.1
Puerperal Septicemia, rate per 100,000	7.0
Cancer, rate per 100,000	86.3
External causes, rate per 100,000	140.7
Smallpox, rate per 100,000	....

CENTRAL SANITARY SECTION

Total population	1,178,368
Total deaths	1,351
Death rate per 1,000	13.5
Pulmonary Tuberculosis, rate per 100,000	103.2
Other forms of Tuberculosis, rate per 100,000	30.0
Typhoid Fever, rate per 100,000	39.0
Diphtheria and Croup, rate per 100,000	7.0
Scarlet Fever, rate per 100,000	....
Measles, rate per 100,000	....
Whooping Cough, rate per 100,000	13.0
Lobar and Broncho-Pneumonia, rate per 100,000	34.0
Diarrhoea and Enteritis (under 2 years), rate per 100,000	145.2
Cerebro-Spinal Fever, rate per 100,000	....
Acute Anterior Poliomyelitis, rate per 100,000	....
Influenza, rate per 100,000	2.0
Puerperal Septicemia, rate per 100,000	4.0
Cancer, rate per 100,000	88.1
External causes, rate per 100,000	124.2
Smallpox, rate per 100,000	....

SOUTHERN SANITARY SECTION

Total population	648,552
Total deaths	662
Death rate per 1,000	11.4
Pulmonary Tuberculosis, rate per 100,000	101.7
Other forms of Tuberculosis, rate per 100,000	32.7
Typhoid Fever, rate per 100,000	61.7
Diphtheria and Croup, rate per 100,000	6.1
Scarlet Fever, rate per 100,000	....
Measles, rate per 100,000	1.7
Whooping Cough, rate per 100,000	18.9
Lobar and Broncho-Pneumonia 100,000	18.9
Diarrhoea and Enteritis (under 2) rate per 100,000	105.2
Cerebro-Spinal Fever, rate per 100,000	....
Acute Anterior Poliomyelitis, rate per 100,000	....
Influenza, rate per 100,000	3.4
Puerperal Septicemia, rate per 100,000	3.4
Cancer, rate per 100,000	50.0
External causes, rate per 100,000	117.3
Smallpox, rate per 100,000	....

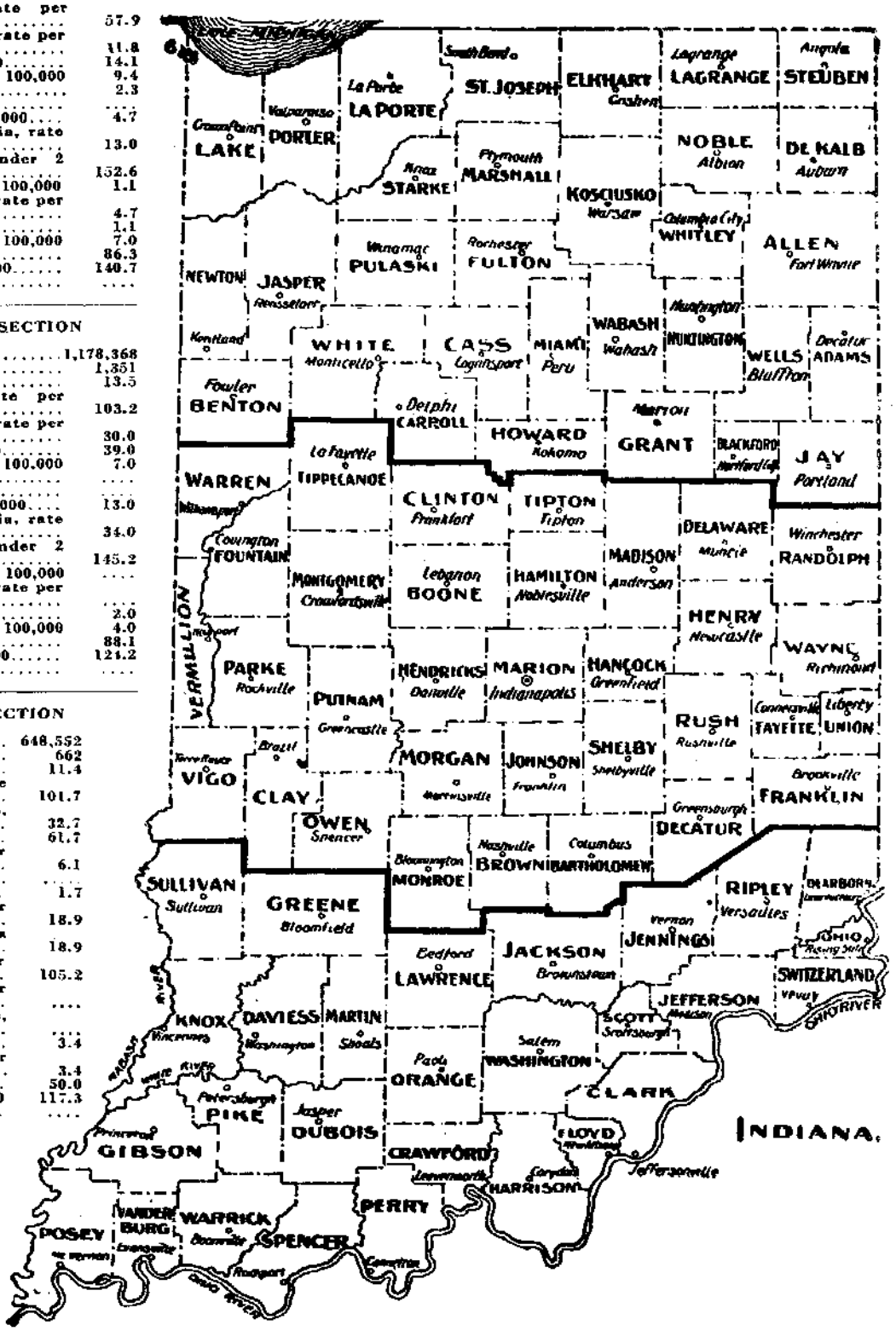

TABLE 1. Deaths in Indiana by Counties During the Month of August, 1916. (Stillbirths Excluded.)

STATE AND COUNTIES.	Population, Estimated 1916.	Total Deaths Reported for August, 1916.	Total Deaths Reported for July, 1916.	Total Deaths Reported for August, 1915.	Total Deaths Reported for the Year 1916 to Date.	Total Deaths Reported for the Year 1915 to Same Date.	Annual Death Rate per 1,000 Population. August, 1916.	July, 1916.	August, 1915.	Rate for Year 1916 to Date.	Rate for Year 1915 to Same Date.	Important Ages. Under 1 Year.	1 to 4 Inclusive.	5 to 9 Inclusive.	10 to 14 Inclusive.	15 to 19 Inclusive.	65 Years and Over.	Death from Important Causes. Pulmonary Tuberculosis.	Other Forms of Tuberculosis	Typhoid Fever.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Lobar and Bronchopneumonia.	Diarrhoea and Enteritis (under 2 years).	Cerebro-Spinal Fever.	Acute Anterior Poliomyelitis.	Influenza.	Puerperal Septicemia.	Cancer.	External Causes.	Smallpox.	Deaths in Institutions.	Deaths of Non-Residents.
State of Indiana	2,860,920	3,023	3,118	2,526	26,184	23,454	12.4	12.8	10.5	13.7	12.3	563	209	62	59	88	901	211	59	81	18	2	1	28	56	335	1	6	3	12	190	311	...	412	...
Northern Counties	998,610	1,010	1,084	872	9,208	7,800	11.9	12.8	10.4	13.8	11.8	228	68	21	14	20	307	49	18	12	8	2	...	4	11	129	1	4	1	6	73	119	...	136	...
Adams	22,000	11	13	9	138	161	5.8	6.9	4.8	9.3	11.0	1	1	...	...	...	3	2	...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	...	...
Allen	109,791	95	88	95	854	792	10.9	10.1	10.9	12.4	11.7	16	2	...	5	...	34	4	1	1	...	...	...	...	2	4	...	...	...	...	5	7	...	26	8
Benton	12,688	7	9	8	93	63	6.5	8.3	7.4	10.9	7.4	...	1	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Blackford	16,195	8	8	8	110	121	5.8	5.8	5.8	10.1	11.2	4	...	...	...	...	1	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Carroll	17,980	16	7	10	148	110	10.4	4.5	6.5	12.3	9.1	4	...	...	...	...	8	...	...	...	...	...	...	...	...	1	...	...	...	...	1	2	...	...	...
Cass	37,788	39	38	55	432	372	12.1	11.8	17.2	17.1	14.8	3	3	...	...	1	9	4	...	...	...	...	...	1	...	...	1	...	...	...	5	6	...	13	7
DeKalb	25,429	21	23	25	213	211	9.7	10.6	11.6	12.5	12.4	2	3	1	1	...	3	...	...	...	1	...	...	...	...	2	...	...	...	...	2	1	...	...	...
Elkhart	51,403	50	44	33	454	411	11.4	10.0	7.6	13.2	12.1	5	1	2	...	3	17	1	...	2	...	...	...	1	2	...	...	...	...	...	7	6	...	6	...
Fulton	16,870	14	25	10	165	136	9.7	17.4	6.9	14.6	12.1	...	...	...	...	1	7	1	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	1	...
Grant	52,436	74	64	62	652	509	16.6	14.4	13.9	18.6	19.5	13	2	2	...	1	36	1	1	...	...	...	...	...	...	7	...	...	...	...	7	2	...	20	7
Howard	36,377	45	38	20	330	273	14.5	12.8	9.5	13.5	11.4	12	1	2	2	3	12	5	2	...	1	...	...	...	1	6	...	...	...	...	1	6	...	9	2
Huntington	29,372	31	33	20	263	225	12.4	13.2	8.0	13.4	11.5	6	2	...	...	1	13	1	...	...	...	...	...	...	...	2	...	...	...	...	2	5	...	...	...
Jasper	13,109	16	10	2	117	72	14.4	9.0	1.7	13.3	8.2	3	1	...	...	...	9	...	...	...	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...
Jay	25,126	21	27	19	217	180	9.8	12.6	8.9	12.9	10.6	5	2	...	...	...	10	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Kosciusko	28,156	28	36	28	240	205	11.7	15.6	11.7	12.7	10.9	4	3	3	1	...	10	2	...	...	...	...	...	...	...	1	...	...	...	1	4	3	...	...	...
Lagrange	15,148	11	18	25	167	143	8.5	13.2	19.4	16.5	14.1	2	1	...	...	1	3	...	...	2	...	...	...	...	1	...	...	...	...	...	1	2	...	...	...
Lake	115,165	171	227	138	1,382	983	17.7	23.1	15.0	17.9	13.6	78	27	3	2	3	9	5	1	*3	...	...	...	1	4	63	1	1	...	2	4	30	...	29	2
Laporte	49,170	49	56	35	472	372	11.7	13.4	8.5	14.3	11.6	13	...	...	...	1	15	2	1	2	...	...	...	...	...	7	...	...	...	...	6	6	...	5	1
Marshall	24,265	17	22	17	200	203	8.2	10.6	8.2	12.3	12.5	5	...	1	...	...	8	...	...	...	...	...	...	...	...	2	...	...	...	1	2	...	...	...	...
Miami	30,570	20	30	26	281	245	7.7	11.5	10.6	13.7	12.1	4	1	...	...	1	8	1	...	...	...	...	...	...	...	4	...	...	...	...	...	2	...	4	...
Newton	10,529	10	10	6	78	56	11.2	11.2	6.6	11.0	7.9	5	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...
Noble	24,819	29	28	18	238	215	13.7	13.3	8.5	14.3	18.0	1	...	...	1	1	14	1	1	...	...	...	...	...	...	...	...	...	...	1	2	2	...	2	...
Porter	20,890	16	26	17	166	174	9.0	14.6	9.6	11.3	12.5	2	1	...	...	...	3	2	...	...	...	...	...	...	...	2	...	...	...	1	...	3	...	1	1
Pulaski	13,312	6	11	11	103	86	5.4	9.9	9.7	11.5	9.6	1	1	...	...	1	1	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Starke	10,632	11	8	7	83	85	12.2	8.8	7.7	11.7	11.9	...	...	...	...	...	5	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Steuben	14,504	15	11	17	142	114	12.2	8.9	13.8	14.6	11.7	1	1	...	...	...	8	2	...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	...
St. Joseph	96,884	108	116	69	868	727	13.0	14.0	8.5	13.3	11.5	26	10	4	...	2	23	10	2	...	3	1	...	...	...	15	...	...	...	...	11	21	...	20	...
Wabash	26,956	29	19	32	201	215	12.7	8.3	13.3	9.1	11.1	3	1	1	1	...	15	1	...	...	...	...	...	...	1	...	...	...	...	...	3	...	...	...	...
Wells	22,668	12	8	14	133	125	6.2	4.1	7.2	8.7	8.3	1	1	...	...	...	6	1	...	...	...	...	...	...	...	1	...	...	...	...	2	1	...	...	...
White	17,632	11	19	12	141	90	7.3	12.7	8.0	11.9	7.6	4	...	1	...	...	4	...	...	...	...	...	...	...	1	2	...	...	...	...	...	3	...	...	...
Whitley	17,127	16	12	15	125	123	11.0	8.2	10.3	10.9	10.7	4	2	1	1	...	4	...	...	...	...	...	...	...	...	3	...	1	1	...	1	1	...	...	...
Central Counties	1,178,368	1,351	1,299	1,041	11,117	10,296	13.5	13.0	11.1	14.1	13.1	223	97	31	21	40	395	103	30	39	7	...	...	13	34	145	...	...	2	4	88	124	...	222	...
Bartholomew	25,153	24	28	22	214	223	11.2	13.1	10.3	12.7	13.3	2	2	1	...	1	7	3	...	1	...	...	...	...	...	2	...	...	...	...	3	3	...	...	...
Boone	25,173	25	20	14	219	169	11.7	9.3	6.5	13.0	10.1	1	3	...	1	2	7	2	...	*1	1	...	...	...	...	3	...	...	...	...	2	...	...	2	2
Brown	7,075	3	10	3	61	47	4.4	14.8	4.4	11.2	8.8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Clay	33,398	38	27	23	254	215	11.6	9.5	8.1	11.4	9.6	5	3	1	2	1	14	2	...	1	...	...	...	...	...	4	...	...	...	...	3	4	...	...	...
Clinton	27,439	26	27	24	245	221	11.1	11.6	10.3	13.3	12.1	5	3	...	...	...	8	1	...	1	...	...	...	...	...	5	...	...	...	...	3	3	...	1	...
Decatur	18,983	21	23	13	175	161	13.0	14.3	8.0	13.8	12.7	3	...	1	...	...	11	...	1	1	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...
Delaware	52,944	49	63	52	442	392	10.9	14.0	11.5	12.5	11.1	16	1	1	...	2	12	3	2	...	...	...	...	...	4	4	...	...	...	...	1	2	...	3	1
Fayette	14,873	21	21	23	159	130	16.6	16.6	18.3	15.9	14.0	3	1	...	...	...	8	3	...	...	...	...	...	...	...	2	...	...	...	...	3	3	...	1	...
Fountain	20,650	24	21	12	199	148	13.7	11.9	6.8	14.4	10.7	7	1	...	...	...	9	1	...	1	...	...	...	...	...	4	...	...	1	...	1	2	...	...	1
Franklin	15,335	17	25	6	147	127	13.0	19.2	4.6	14.3	12.4	...	1	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Hamilton	27,166	23	16	27	206	229	9.9	6.9	11.6	11.3	12.6	5	4	...	1	1	5	3	...	...	...	...	...	...	...	5	...	...	...	...	1	3	...	...	...
Hancock	19,030	23	18	17	170	158	14.2	11.1	10.5	13.3	12.4	3	1	...	1	...	8	1	1	1	...	...	...	...	1	2	...	...	...	...	2	2	...	...	...
Hendricks	20,840	9	13	17	191	171	5.0	7.3	9.6	13.7	12.3	1	1	1	...	...	5	1	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Henry	31,431	20	41	31	256	278	7.5	15.3	11.8	12.2	13.5	6	...	1	...	1	12	1	...	...	...	...	...	...	2	1	...	...	...	1	3	2	...	3	2
Johnson	20,630	22	25	19	165	163	12.5	14.3	10.8	11.9	11.8	7	3	...	...	1	8	1	2	...	...	...	...	...	1	3	...	...	...	...	...	2	...	...	...
Madison	66,374	74	44	53	545	497	13.1	7.8	9.4	12.3	11.2	22	4	1	...	2	17	3	1	3	...	...	2	...	...	12	...	...	...	...	5	6	...	3	...
Marion	296,661	427	374	303	3,293	946	16.9	14.8	12.3	16.6	15.2	47	36	16	4	12	95	41	14	17	4	...	...	4	13	38	...	...	...	3	25	34	...	149	22
Monroe	24,683	30	21	20	160	185	14.3	10.0	9.6	10.7	11.4	5	5	...	1	2	8	2	...	2	1	...	...	...	...	4	...	...	...	...	3	3	...	2	...
Montgomery	30,604	32	16	24	273	283	12.3	6.1	9.2	13.3	13.9	2	...	...	1	...	13	3	1	1	...	...	...	...	1	1	...	...	...	...	2	1	...	2	...
Morgan	21,544	23	20	18	189	181	12.6	10.9	9.8	12.7	12.0	4	1	...	...	...	12	3	...	...	...	...	...	1	1	3	...	...	...	...	...	...	...	1	...
Owen	14,053	9	11	12	124	105	7.5	9.2	10.0	13.1	11.1	1	...	...	...	...	2	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1
Parke	22,214	27	24	18	213	167	14.3	12.7	9.5	14.3	11.2	6	3	1	1	1	9	5	...	...	...	...	...	2	...	6	...	...	...	...	...	2	...	...	1
Putnam	20,580	16	23	20	159	169	9.1	13.1	11.4	11.5	12.3	4	1	...	...	...	5	1	1	...	...	...	...	...	1	2	...	...	...	...	2	...	...	2	2
Randolph	20,533	28	24	22	241	228	11.1	9.5	8.8	12.2	11.6	1	1	...	1	...	13	2	2	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...
Rush	19,539	19	18	19	173	171	11.4	10.8	11.4	13.2	13.1	3	1	1	1	...	7	1	...	...	...	...	...	...	...	2	...	...	...	...	2	4	...	...	...
Shelby	27,967	36	16	36	232	278	15.1	6.7	15.2	12.4	15.0	9	...	...	1	1	11	7	1	...	...	...	...	...	1	2	...	...	...	...	...	4	...	...	...
Tippecanoe	41,043	54	59	54	476	470	15.4	16.9	15.5	17.3	17.2	7	1	...	1	3	18	2	1	...	...	...	...	1	1	2	...	...	...	...	3	15	...	25	2
Tipton	17,614	17	29	7	146	142	11.3	19.4	4.6	12.4	12.1	2	2	1	...	1	6	2	...	1	...	...	...	...	...	1	...	...	...	...	2	2	...	...	...
Union	6,260	6	7	7	56	52	11.2	13.1	13.1	13.3	12.4	1	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Vermillion	20,670	39	29	24	243	191	22.2	16.5	13.9	17.6	14.1	13	5	...	2	1	7	2	1	1	1	...	...	1	...	7	...	...	...	...	1	8	...	...	...
Vigo	100,885	108	130	91	895	842	12.6	15.2	10.8	13.2	12.7	21	11	3	...	...	27	3	...	3	...	...	...	2	3	23	...	...	1	...	11	11	...	22	...
Warren	10,899	9	14	9	88	81	9.7	15.1	9.7	12.0	11.0	2	...	2	...	...	3	...	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Wayne	46,147	57	62	55	484	461	14.5	15.8	14.1	15.7	15.1	8	2	1	...	2	21	3	...	1	...	...	...	...	3	4	...	...	...	...	4	2	...	6	3
Southern Counties	648,552	662	735	550	5,859	5,358	11.4	12.6	9.5	12.8	11.8	112	44	10	24	28	199	59	19	30	3	...	1	11	11	61	...	2	...	2	29	68	...	54	...
Clark	30,260	31	28	30	269	217	12.6	10.9	11.6	13.3	10.7	4	1	...	2	...	13	3	...	...	...	...	...	...	1	4	...	...	...	...	3	2	...	...	...
Crawford	12,057	6	8	8	104	83	5.8	7.8	7.8	12.8	10.2	1	1	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Daviess	27,747	19	24	18	235	178	8.0	10.2	7.6	12.6	9.6	5	1	...	1	...	5	1	1	1	...	...	...	...	...	3	...	...	...	...	1	1	...	...	...
Dearborn	21,776	26	17	17	182	170	14.0	9.2	9.2	12.5	11.8	4	...	...	2	1	13	...	1	...	...	...	...	...	1	...	2	...	...	...	2	2	...	...	...
Dubois	19,877	15	30	8	155	165	8.9	17.8	4.7	11.7	12.4	2	2	...	1	...	4	2	...	1	...	...	...	...	...	2	...	...	...	...	2	2	...	...	...
Floyd	30,378	44	47	25	294	295	17.0	18.2	9.6	14.5	14.2	5	...	1	3	1	15	3	1	2	...	...	...	2	1	1	...	...	...	...	1	1	...	4	3
Gibson	30,337	25	25	19	218	239	9.7	9.7	7.3	12.2	11.8	3	2	...	3	1	9	4	...	...	...	...	...	...	...	2	...	...	...	...	1	2	...	...	...
Greene	41,043	31	27	16	273	250	8.8	7.7	4.6	9.9	9.3	7	6	...	...	2	6	4	...	...	...	...	...	...	...	6	...	...	...	...	...	3	...	...	...
Harrison	20,232	14	20	18	162	131	8.1	11.8	10.4	12.0	9.7	3	1	...	2	...	2	...	...	2	...	...	...	1	...	2	...	...	...	...	1	1	...	...	...
Jackson	24,727	19	24	25	237	195	9.0	11.4	12.3	14.3	11.8	1	1	...	...	1	9	3	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Jefferson	20,483	35	27	25	259	252	20.1	15.5	14.3	18.9	18.3	5	1	1	1	...	14	3	1	...	...	...	...	...	1	2	...	...	...	...	1	4	...	13	9
Jennings	14,248	12	19	14	118	129	9.9	15.7	11.5	12.3	13.5	1	...	...	1	...	3	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Knox	42,358	50	69	27	414	323	16.4	19.1	7.6	14.0	11.6	16	6	2	...	3	12	5	1	1	...	...	...	3	2	9	...	...	...	...	1	9	...	2	...
Lawrence	33,070	25	35	26	238	215	8.9	12.4	9.3	10.7	11.2	10	3	...	...	2	5	...	1	1	1	...	...	...	...	3	...	...	...	...	1	2	...	...	...
Martin	13,335	9	14	8	110	84	7.9	12.3	7.1	12.3	9.4	3	...	...	1	1	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Ohio	4,329	4	2	4	37	34	10.8	5.4	10.8	12.7	11.7	...	...	...	...	...	3	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Orange	17,324	17	16	21	162	163	11.5	10.8	14.2	14.0	14.1	4	2	...	1	...	4	2	...	1	...	...	...	...	...	1	...	...	...	...	3	2	...	1	...
Perry	18,418	9	21	15	122	128	5.7	13.4	9.6	9.9	10.4	...	1	...	...	...	5	2	...	...	...	...	...	...	...	...	...	...	...	...	1	0	...	...	...
Pike	19,684	20	10	26	145	159	11.9	5.9	15.5	11.0	12.1	5	1	2	...	...	6	2	1	...	...	...	...	1	...	2	...	...	...	...	...	1	...	...	...
Posey	21,885	19	20	17	165	140	10.2	10.7	9.1	11.3	9.6	2	2	...	...	2	3	4	1	1	...	...	...	...	...	3	...	...	...	...	...	2	...	...	...
Ripley	21,918	22	13	19	171	153	11.8	6.9	11.3	11.6	11.6	3	1	...	2	2	7	...	...	...	...	...	...	1	...	3	...	...	...	...	...	4	...	...	...
Scott	8,728	9	5	3	59	57	12.1	6.7	4.0	10.0	9.8	4	...	...	...	...	2	...	1	...	...	...	...	...	...	3	...	...	...	...	1	2	...	...	...
Spencer	20,676	17	20	21	178	129	9.7	11.4	11.9	12.9	9.3	2	2	...	...	1	6	...	2	1	...	1	...	...	...	2	...	...	...	1	...	2	...	...	...
Sullivan	35,664	31	28	21	225	231	10.2	9.2	7.6	9.4	9.9	4	2	1	...	2	12	3	1	4	1	...	...	...	...	3	...	...	...	...	1	4	...	...	...
Switzerland	9,914	14	12	7	101	89	16.6	14.2	8.2	15.2	13.4	1	...	...	...	...	8	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
Vanderburgh	84,258	112	127	80	993	836	15.6	17.7	11.5	16.0	15.2	16	7	3	4	8	18	12	4	*11	1	...	...	2	4	9	...	...	...	1	5	17	...	34	13
Warrick	22,381	10	22	18	145	152	5.2	11.5	9.5	11.7	10.2	...	...	...	...	1	6	...	1	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
Washington	17,445	8	22	13	145	141	5.4	14.8	8.7	12.4	12.1	1	1	...	...	...	5	2	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Urban	1,308,540	1,659	1,656	1,234	13,304	11,664	14.9	14.9	11.4	15.1	17.2	324	113	39	26	49	491	114	46	42	10	1	...	14	38	207	...	4	...	9	116	176	...	330	...
Rural	1,552,380	1,364	1,462	1,292	12,880	11,790	10.3	11.1	9.8	12.4	11.4	239	96	23	33	39	501	97	19	39	8	1	1	14	18	128	1	2	3	3	74	135	...	8	...

*1 Resident of West Hammond, Ill. *1 Resident of Elgin, Tenn. *1 Resident of Warrick county.

TABLE 2. Deaths in Indiana by Cities During the Month of August, 1916. (Stillbirths Excluded.)

CITIES	Population, Estimated, 1916	Total Deaths Reported for August, 1916	Total Deaths Reported for July, 1916	Total Deaths Reported for August, 1915	Total Deaths Reported for the Year 1916 to date	Total Deaths Reported for the Year 1915 to same date	Annual Death Rate per 1,000 Population: August, 1916	July, 1916	August, 1915	Rate for Year 1916 to Date	Rate for Year 1915 to Same Date	Important Ages: Under 1 Year	1 to 4 inclusive	5 to 9 inclusive	10 to 14 inclusive	15 to 19 inclusive	65 Years and Over	Deaths from Important Causes: Pulmonary Tuberculosis	Other Forms of Tuberculosis	Typhoid Fever	Diphtheria and Croup	Scarlet Fever	Measles	Whooping Cough	Lobar and Broncho-Pneumonia	Diarrhœa and Enteritis (under 2 years)	Cerebro-Spinal Fever	Acute Anterior Poliomyelitis	Influenza	Puerperal Septicæmia	Cancer	External Causes	Smallpox	Deaths in Institutions	Deaths of Non-Residents
Cities of the First Class. Population 100,000 and over..	**265,890**	**377**	**335**	**264**	**2,965**	**2,623**	**16.7**	**14.8**	**11.9**	**16.7**	**15.1**	**43**	**31**	**16**	**4**	**11**	**79**	**36**	**14**	**14**	**4**		**3**	**12**	**34**				**3**	**22**	**33**		**142**	
Indianapolis	265,890	377	335	264	2,965	2,623	16.7	14.8	11.9	16.7	15.1	43	31	16	4	11	79	36	14	14	4		3	12	34				3	22	33		142	26
Cities of the Second Class. Population 45,000 to 100,000	**282,282**	**323**	**348**	**237**	**2,651**	**2,287**	**13.5**	**14.5**	**10.1**	**14.6**	**12.5**	**60**	**21**	**10**	**6**	**8**	**76**	**23**	**7**	**14**	**4**	**1**	**3**	**6**	**34**				**1**	**30**	**38**		**87**	
Evansville	76,467	97	113	60	748	638	14.9	17.4	9.5	14.6	12.9	10	5	3	4	7	17	11	4	*10	1		2	1	3				1	5	16		29	9
Fort Wayne	73,338	73	62	77	629	594	11.7	9.9	12.6	13.0	12.4	13	1		2		20	3	1	1				2	2					11	4		24	9
Terre Haute	68,897	76	93	58	664	608	12.9	15.9	10.2	14.4	13.6	14	7	3			17	3		3			1	3	16					7	6		20	1
South Bend	63,580	77	80	42	596	447	14.2	14.8	7.9	14.0	10.8	23	8	4		1	10	6	2		3	1			13					7	12		14	1
Cities of the Third Class. Population 20,000 to 45,000	**304,643**	**416**	**445**	**309**	**3,337**	**2,562**	**16.1**	**17.2**	**13.2**	**16.3**	**14.6**	**126**	**28**	**7**	**5**	**12**	**84**	**19**	**6**	**6**	**1**		**5**	**13**	**87**		**1**		**3**	**18**	**47**		**69**	
Gary	33,802	64	82	44	401	255	22.3	28.6	15.7	17.7	11.6	34	12	2		2	1	2					1	1	33				1	2	9		1	
East Chicago	26,938	37	51	37	332	250	16.2	22.3	20.3	18.4	17.5	21	7					1						1	18						8			
Muncie	25,535	29	27	28	212	194	13.3	12.4	13.0	12.4	11.5	7	1	1		2	9	1	2					2	3						1		5	
Hammond	25,195	32	40	28	352	239	18.2	18.7	13.5	20.9	14.7	15	2		1		4			†2				2	8				1		6		16	
Richmond	24,369	28	31	26	242	208	13.5	15.0	12.7	14.2	13.0	4	1			2	8	2		1				2	2					3			3	
Anderson	23,626	28	13	24	233	192	13.9	6.4	12.0	14.7	12.3	11	2				6	1					1		9						2		1	
Elkhart	21,327	17	19	9	187	180	9.4	10.5	5.0	13.1	12.9			1		2	5	1			1			2							1	2		2	
Michigan City	21,112	22	26	13	192	168	12.2	15.0	7.3	13.5	12.1	6					8	1	1						4					2	1		1	
Lafayette	21,061	25	41	25	266	273	15.6	22.9	14.1	18.9	19.6	1			1	1	7	2						1	1					2	10		14	
New Albany	20,629	42	41	20	237	229	24.0	23.4	11.4	17.2	16.6	5		1	2	1	14	3	1	2				2	1				1	1	1		4	3
Logansport	20,470	18	21	20	223	182	10.3	12.0	11.6	16.3	13.5	3	1			1	2	1					1			1				4	4		3	2
Marion	20,369	35	30	35	243	193	20.2	17.3	20.4	17.8	14.3	10	2				10		1						5					2			3	1
Kokomo	20,210	29	23	20	208	163	16.9	13.4	12.0	15.4	12.5	6		2	1	1	10	4	1					1	4					1	3		9	2
Cities of the Fourth Class. Population 10,000 to 20,000	**152,429**	**190**	**172**	**118**	**1,409**	**1,180**	**14.7**	**13.3**	**10.0**	**13.8**	**12.7**	**36**	**10**	**1**	**3**	**8**	**57**	**15**	**1**	**3**				**5**	**19**				**1**	**13**	**22**		**16**	
Vincennes	17,215	31	28	11	190	146	21.2	19.2	7.7	16.5	13.0	7	3	1		1	7	1	1					1	6					1	4		2	
Mishawaka	15,046	17	15	11	116	116	13.3	11.7	8.9	11.5	12.1	3	1			1	3	2							1					2	3		4	
Peru	12,996	9	10	14	109	107	8.1	9.0	12.9	12.5	12.5	1					3								1								3	
Laporte	12,266	18	13	10	126	100	17.3	12.5	9.8	15.3	12.6	3				1	5			1					2					2	3		4	1
New Castle	11,258	9	19	8	94	83	9.3	19.7	9.3	12.5	12.3	3				1	1						2						1		1			
Elwood	11,028	9	10	5	88	75	9.6	10.7	5.3	11.9	10.2	2				1	3	1		1										2				
Crawfordsville	10,731	14	8	7	104	108	15.4	8.8	7.8	14.4	15.4						7	2						1							1		1	1
Shelbyville	10,665	16	7	14	104	103	17.6	7.7	15.6	14.5	14.8	4					4	4						1	1						1			
Huntington	10,662	13	21	6	119	82	14.3	23.1	6.6	16.6	11.6	2	1				6													1	3			
Jeffersonville	10,412	13	12	12	99	86	14.6	13.5	13.5	14.2	12.4	1			2		4	2							1						2			
Brazil	10,115	17	9	8	92	82	19.7	10.4	9.4	13.6	12.3	3	3			1	6			1					4					3	2			
Bloomington	10,019	16	11	8	87	90	18.7	12.8	9.6	12.9	13.7	2	2		1	2	6	2							1					2	2		2	1
Bedford	10,016	8	9	7	84	73	9.3	10.5	8.4	12.5	11.1	5					2								2									
Cities of the Fifth Class. Population under 10,000	**303,296**	**353**	**356**	**306**	**2,953**	**3,012**	**13.7**	**13.8**	**10.9**	**14.5**	**13.7**	**59**	**23**	**5**	**8**	**10**	**105**	**21**	**12**	**5**	**1**		**3**	**2**	**33**		**3**		**1**	**33**	**36**		**16**	
Frankfort	9,399	14	11	7	109	96	17.5	13.7	8.8	17.3	15.6	3	1				3								4					2	1		1	2
Columbus	9,153	9	12	7	86	83	11.6	15.4	9.0	14.0	13.6					1	2	1												2	1			
Goshen	8,864	9	4	4	86	88	11.9	5.3	5.3	14.5	14.9	2					2						1							1	2		3	
Wabash	8,717	11	8	10	83	74	14.8	10.8	13.5	14.2	12.7	3					4										1							
Connersville	8,188	16	9	12	87	82	23.0	12.9	17.4	15.9	15.1	3					7	1							2					3	1			1
Whiting	7,887	11	16	9	96	80	16.3	28.3	13.8	18.2	15.6	5	3		1				1	1					3		1				1			
Clinton	7,884	16	11	11	81	66	23.8	16.3	17.0	15.3	13.0	7				1	2	1		1					2					1	3			
Washington	7,854	7	10	8	91	65	10.5	15.0	11.9	17.3	12.4	3						1	1						1									
Valparaiso	7,337	5	2	9	54	48	8.0	3.2	14.5	11.0	9.8						2												1		1		1	1
Linton	7,321	7	3	3	56	31	11.2	8.0	3.3	11.4	6.6	4				1		1							2									
Lebanon	6,974	10	5	5	72	49	16.9	8.4	10.0	15.4	12.4		3			1	3	1		‡1					2					1			2	2
Madison	6,934	12	12	5	76	81	20.4	20.4	8.4	16.4	17.4	2		1	1		6		1						2					1	1		1	
Princeton	6,648	8	7	4	67	65	14.1	12.3	7.1	15.0	14.7		1				3	1							1					1	1			
Hartford City	6,562	2	1	1	36	42	3.5	1.7	1.8	8.2	11.3	1											1											
Seymour	6,309	6	4	8	61	71	11.2	7.4	14.8	14.4	16.8					1	2	2	1												1			
Kendallville	5,781	8	5	§	53	41	16.3	10.2	§	13.7	12.5	1			1	1	2		1											2	1		2	2
Mt. Vernon	5,778	9	6	5	50	59	18.3	12.2	10.2	12.9	15.3						2	3													2			
Greensburg	5,610	6	5	7	62	69	12.6	10.5	14.7	16.5	18.6	1					1													2	1		2	
Portland	5,295	6	6	5	65	38	13.3	13.3	11.1	18.3	10.8	2					3								1									1
Bluffton	5,237	2	4	6	38	41	4.5	9.0	13.6	10.8	11.8						1													1				
Noblesville	5,213	6	6	10	45	60	13.5	13.5	22.7	12.9	17.3		2				1								1								1	
Rushville	5,115	4	8	7	57	56	9.2	18.4	16.1	16.7	16.5						3													1	1			
Alexandria	5,096	7	2	3	39	47	16.1	4.6	6.9	11.4	13.8	2							1						1					1	1		1	
Aurora	4,790	8	6	5	41	44	19.6	14.7	12.4	12.8	13.9		1		1		4							1		1					1			
Martinsville	4,774	6	6	3	53	58	14.8	14.8	7.4	16.6	18.3	1					3	1															1	
Franklin	4,747	3	6	5	40	36	7.4	14.8	12.5	12.6	17.8		2				1		1															
Warsaw	4,650	5	10	4	50	39	12.6	25.3	10.2	16.1	12.7			1	1		1	1													2			
Decatur	4,631	3	3	6	27	43	7.6	7.6	15.3	8.7	14.0						1													1	1			
Garrett	4,613	6	4	4	47	34	15.3	10.2	11.0	15.2	12.0	1	2				1				1				2					1				
Sullivan	4,610	7	2	3	31	38	17.9	5.1	7.8	10.0	12.6	1				1	1	2		1					1									
Winchester	4,546	5	6	5	42	42	12.9	15.5	13.1	13.8	14.0				1		2	1																
Greenfield	4,448	7	8	1	49	40	18.5	21.2	2.6	16.5	13.4	1			1		3							1										
Boonville	4,404	2	11	8	44	47	5.3	29.4	21.2	14.9	16.3		1																	1				
Mitchell	4,208	1	2	3	30	39	2.7	5.5	8.6	10.5	14.2						1																	
Tipton	4,230	5	7	2	40	43	13.9	19.5	5.6	14.1	15.3			1		1	1	2		1														
Auburn	4,179	4	6	6	36	39	11.2	16.9	17.1	12.8	14.1		1		1																			
Lawrenceburg	3,930	6	5	5	42	39	18.0	15.0	14.9	16.0	14.8	2					2		1															
Plymouth	3,928	2	5	5	28	50	6.1	15.3	15.6	16.6	19.2						2													1				
Greencastle	3,850	3	4	4	24	34	9.1	12.2	12.2	9.3	13.2						3													1				
Tell City	3,709	3	1	3	20	43	9.5	3.1	9.6	8.0	17.7						2	1																
Columbia City	3,683	5	2	2	33	27	16.0	6.4	6.4	13.4	11.1	1	1				2													1				
Attica	3,500	4	5	3	49	31	13.4	16.8	10.1	20.9	13.4	2					1								1					1				
Union City	3,449	1	6	1	26	27	3.4	20.5	3.4	11.2	11.9								1															
Rochester	3,364	6	11	3	51	38	21.0	38.5	10.4	22.6	16.9						3													3	1		1	
Jasonville	3,310	3	4	2	22	22	10.6	14.2	7.1	9.9	9.9	1	1												1									
Gas City	3,224	2	2	§	29	19	7.3	7.3	§	13.4	9.2						1													1				
Dunkirk	3,031	3	5	1	17	22	11.6	19.4	3.8	8.3	10.8		2																					
North Vernon	2,960	3	5	5	23	37	11.9	19.9	19.9	11.6	18.8						1																	
Angola	2,840	3	5	2	33	21	12.4	20.7	8.4	17.4	11.2						1														2			
Bicknell	2,809	4	11	4	47	38	16.8	46.2	16.7	25.0	20.2	1	1			1	1	1							1						1			
Montpelier	2,786	1	3	4	28	20	4.2	12.6	16.8	15.0	10.7	1																						
Rockport	2,736	9	4	4	34	23	38.7	17.2	17.2	18.6	12.6	2				1	3								2						2			
Crown Point	2,621	5	4	4	37	19	22.5	18.0	18.0	21.1	10.9	1		1			2								1					1	2			
Loogootee	2,539	1	1	3	22	20	4.6	4.6	14.3	12.9	12.2																				1			
Batesville	2,531	4	1	3	24	23	18.6	4.6	14.3	14.2	14.0						1														1			
Huntingburg	2,464	4	4	2	24	33	19.1	19.1	9.5	14.5	20.0	2							1						1									
Rensselaer	2,458	2	4	1	31	20	9.6	19.2	4.8	18.9	12.2		1				1																	
Jasper	2,400	3	3	2	21	5	14.7	14.7	9.9	13.1	12.4						1													1	1			
Monticello	2,190	2	4	3	25	16	10.7	21.5	16.1	19.8	10.9						1																	
Ligonier	2,173	2	2	3	25	18	10.8	10.8	16.2	17.2	12.4						1																	
Delphi	2,171	5	2	1	20	20	27.1	10.8	5.4	13.8	13.8	1					2														2			
Cannelton	2,130	2	11	3	32	20	11.0	60.9	27.6	22.5	14.1		1				1						1											
Covington	2,069	2	3	§	22	14	11.4	17.1	§	15.6	10.1						2																	
Butler	1,818	3	§	2	24	20	19.4	§	12.9	19.8	16.5			1																				
Veedersburg	1,812	3	§	1	13	11	19.5	§	6.5	10.7	9.1	2					1								1									
Rising Sun	1,513	3	§	3	21	19	23.4	§	23.3	20.8	18.8						2													1				
Vevay	1,256	1	§	2	12	13	9.4	§	18.7	14.2	15.4																							

Mortality of Indiana for August, 1916. (Stillbirths Excluded.)

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL	Population Estimated 1916	Total Deaths Reported for August, 1916	Total Deaths Reported for July, 1916	Total Deaths Reported for August, 1915	Total Deaths Reported for the year 1916 to date.	Total Deaths Reported for the Year 1915 to same date	Annual Death Rate per 1,000 Population: August, 1916	July, 1916	August, 1915	Rate for Year 1916 to date	Rate for Year 1915 to same date	Important Ages: Under 1 Number	Under 1 Per Cent.	1 to 4 Number	1 to 4 Per Cent.	5 to 9 Number	5 to 9 Per Cent.	10 to 14 Number	10 to 14 Per Cent.	15 to 19 Number	15 to 19 Per Cent.	65 and Over Number	65 and Over Per Cent.
State	2,860,920	3,023	3,118	2,526	26,184	23,454	12.4	12.8	10.5	13.7	12.3	563	18.7	209	6.9	62	2.0	59	1.9	88	2.9	901	29.8
Northern Counties	998,000	1,010	1,084	872	9,208	7,800	11.9	12.8	10.4	13.8	11.8	228	22.5	68	6.7	21	2.0	14	1.3	20	1.9	307	30.4
Central Counties	1,178,368	1,351	1,299	1,104	11,117	10,296	13.5	13.0	11.1	14.1	13.1	223	16.5	97	7.1	31	2.8	21	1.5	40	2.9	395	29.2
Southern Counties	648,552	662	735	550	5,859	5,358	11.4	12.6	9.5	12.8	11.8	112	16.9	44	6.6	10	1.5	24	3.6	28	4.2	199	30.0
All Cities	1,308,540	1,659	1,656	1,234	13,304	11,664	14.9	14.9	11.4	15.1	17.2	324	19.5	113	6.8	39	2.3	26	1.5	49	2.9	401	24.1
Over 100,000	265,890	377	335	264	2,965	2,623	16.7	14.8	11.9	16.7	15.1	43	11.4	31	8.2	16	4.2	4	1.0	11	2.9	79	20.9
45,000 to 100,000	282,282	323	348	237	2,651	2,287	13.5	14.5	10.1	14.0	12.5	60	18.5	21	6.5	10	3.0	6	1.8	8	2.4	76	23.5
20,000 to 45,000	304,643	416	445	309	3,327	2,562	16.1	17.2	13.2	16.3	14.0	126	30.2	28	6.7	7	1.6	5	1.2	12	2.8	84	20.1
10,000 to 20,000	152,429	190	172	118	1,409	1,180	14.7	13.3	10.0	13.8	12.7	36	18.9	10	5.2	1	.5	3	1.5	8	4.2	57	30.0
Under 10,000	303,296	353	356	306	2,952	3,012	13.7	13.8	10.9	14.5	13.7	59	16.7	23	6.5	5	1.4	8	2.2	10	2.8	105	29.7
Country	15,52,380	1,364	1,462	1,292	12,880	11,790	10.3	11.1	9.8	12.4	11.4	239	17.5	96	7.0	23	1.6	33	2.4	39	2.8	500	36.7

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

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL	Pulmonary Tuberculosis: Number	Pulmonary Tuberculosis: Death Rate	Other Forms Tuberculosis: Number	Other Forms Tuberculosis: Death Rate	Typhoid Fever: Number	Typhoid Fever: Death Rate	Diphtheria and Croup: Number	Diphtheria and Croup: Death Rate	Scarlet Fever: Number	Scarlet Fever: Death Rate	Measles: Number	Measles: Death Rate	Whooping Cough: Number	Whooping Cough: Death Rate	Lobar and Broncho Pneumonia: Number	Lobar and Broncho Pneumonia: Death Rate	Diarrhoea and Enteritis (Under 2 Years): Number	Diarrhoea and Enteritis (Under 2 Years): Death Rate	Cerebro-Spinal Fever: Number	Cerebro-Spinal Fever: Death Rate	Acute Anterior Poliomyelitis: Number	Acute Anterior Poliomyelitis: Death Rate	Influenza: Number	Influenza: Death Rate	Puerperal Septicemia: Number	Puerperal Septicemia: Death Rate	Cancer: Number	Cancer: Death Rate	External Causes: Number	External Causes: Death Rate	Smallpox: Number	Smallpox: Death Rate
State	211	87.1	59	24.3	81	33.4	18	7.4	2	.8	1	.4	28	11.5	56	23.1	335	138.2	1	.4	6	2.4	3	1.2	12	4.9	190	78.4	311	128.3	..	....
Northern Counties	49	57.9	10	11.8	12	14.1	8	9.4	2	2.3	..	....	4	4.7	11	13.0	129	152.6	1	1.1	4	4.7	1	1.1	6	7.0	73	86.3	119	140.7	..	....
Central Counties	103	103.2	30	30.0	39	39.0	7	7.0	..	....	..	....	13	13.0	34	34.0	145	145.2	..	....	..	....	2	2.0	4	4.0	88	88.1	124	124.2	..	....
Southern Counties	59	101.7	19	32.7	30	61.7	3	6.1	..	....	1	1.7	11	18.9	11	18.9	61	105.2	..	....	2	3.4	..	....	2	3.4	29	50.0	68	117.3	..	....
All Cities	114	102.8	10	36.1	42	37.9	10	9.0	1	.9	..	....	14	12.6	38	34.2	207	186.8	..	....	4	3.6	..	....	9	8.1	116	104.7	176	158.8	..	....
Over 100,000	36	159.8	14	62.1	14	62.1	4	17.7	..	....	..	....	3	13.3	12	53.2	34	150.9	..	....	..	....	..	....	3	13.3	22	97.7	33	146.5	..	....
45,000 to 100,000	23	96.2	7	29.2	14	58.5	4	16.7	1	4.1	..	....	3	12.5	6	25.0	34	142.2	..	....	..	....	..	....	1	4.1	30	125.4	38	158.9	..	....
20,000 to 45,000	19	73.6	6	23.2	6	23.2	1	3.8	..	....	..	....	5	19.3	13	50.3	87	337.2	..	....	1	3.8	..	....	3	11.6	18	69.7	47	182.1	..	....
10,000 to 20,000	15	116.2	1	7.7	3	23.2	..	....	..	....	..	....	..	....	5	38.7	19	147.1	..	....	..	....	..	....	1	7.7	13	100.7	22	170.4	..	....
Under 10,000	21	81.7	12	46.7	5	19.4	1	3.8	..	....	..	....	3	11.6	2	7.7	33	128.5	..	....	3	11.6	..	....	1	3.8	33	128.5	36	140.1	..	....
Country	97	73.7	19	14.4	39	29.6	8	6.0	1	.7	1	.7	14	10.6	18	13.6	128	97.3	1	.7	2	1.5	3	2.2	3	2.2	74	56.2	135	102.6	..	....

U. S. Department of Agriculture, Weather Bureau. Condensed Summary for Month of August, 1916.

J. H. ARMINGTON, SECTION DIRECTOR, IN CLIMATOLOGICAL DIVISION

TEMPERATURE—IN DEGREES FAHRENHEIT

Section Average	Departure from the Normal	Extremes: Station	Highest	Date	Station	Lowest	Date
76.0	+2.7	Collegeville	105	3+	Valparaiso	42	28

PRECIPITATION—IN INCHES AND HUNDREDTHS

Section Average	Departure from the Normal	Extremes: Station	Greatest Monthly Amount	Station	Least Monthly Amount
3.14	−0.20	Salem	6.61	South Bend	0.82