

# MONTHLY BULLETIN

# Indiana State Board of Health

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## ABSTRACT OF MORTALITY STATISTICS FOR NOVEMBER, 1917.

Total deaths reported 2,818; rate 11.8. In the preceding month 2,991 deaths; rate 12.2. In the same month last year 2,740 deaths; rate 11.7. Deaths by important ages were: Under 1 year of age 302 or 10.7 per cent. of total; 1 to 4, 165; 5 to 9, 61; 10 to 14, 46; 15 to 19, 81; 65 and over, 1,050 or 37.2 of total.

**SANITARY SECTIONS:** The Northern Sanitary Section, population 1,009,364, reports 959 deaths; rate 11.6. In the preceding month 1,022 deaths; rate 11.9. In the same month last year 935 deaths; rate 11.4.

The Central Sanitary Section, population 1,191,458, reports 1,215 deaths; rate 12.4. In the preceding month 1,290 deaths; rate 12.8. In the same month last year 1,155 deaths; rate 11.9.

The Southern Sanitary Section, population 688,793, reports 644 deaths; rate 11.3. In the preceding month 670 deaths; rate 11.4. In the same month last year 650 deaths; rate 11.5.

**REVIEW OF SECTIONS:** The Central Sanitary Section presents the highest death rate which is 0.6 higher than the rate for the whole State. The Central Section presents the highest death rate for scarlet fever, whooping-cough, puerperal septicemia, and cancer. The Northern Section presents the highest death rate for diphtheria, measles, diarrhea, cerebro-spinal fever, influenza and external causes. The Southern Section presents the highest death rate for pulmonary tuberculosis, typhoid fever, acute poliomyelitis and smallpox.

**RURAL:** Population 1,554,481, reports 1,268 deaths; rate 9.9. In the preceding month 1,394 deaths; rate 10.5. In the same month last year 1,268 deaths; rate 9.9.

**URBAN:** Population 1,335,134, reports 1,550 deaths; rate 14.1. In the preceding month 1,597 deaths; rate 14.0. In the same month last year 1,472 deaths; rate 13.7. The cities named present the following death rates: Indianapolis, 14.5; Evansville, 14.8; Fort Wayne, 11.9; Terre Haute, 14.1; South Bend, 13.0; Gary, 20.5; East Chicago, 13.2; Hammond, 19.6; Muncie, 11.2; Richmond, 19.1; Anderson, 14.2; Elkhart, 12.8; Michigan City, 10.1; Lafayette, 21.1; Kokomo, 8.7; Logansport, 15.2; New Albany, 14.1; Marion, 14.7.

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

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## BIRTHS FOR NOVEMBER, 1917.

Total births 4,612 (stillbirths excluded); State rate 19.4.  
 Males 2,313; females 2,299.  
 White males 2,267; white females 2,251.  
 Colored births 94; males 46, females 48.  
 Stillbirths 170; white 168, colored 2.  
 The Northern Sanitary Section, population 1,009,364, reports 1,853 births; rate 22.5.  
 The Central Sanitary Section, population 1,191,458, reports 1,770 births; rate 18.0.  
 The Southern Sanitary Section, population 688,793, reports 989 births; rate 17.4.  
 The highest rate, Lake County, 36.8.  
 The lowest rate, Shelby County, 5.6.  
 Total births to date for 1917, 57,677.

## SUMMARY OF MORBIDITY AND MORTALITY FOR NOVEMBER, 1917.

Scarlet fever was reported as the most prevalent infectious disease. The order of prevalence was as follows: Scarlet fever, diphtheria, tonsillitis, pulmonary tuberculosis, typhoid fever, chickenpox, influenza, lobar pneumonia, acute rheumatism, smallpox, bronchial pneumonia, measles, whooping-cough, diarrhea and enteritis, malaria fever other forms of tuberculosis, erysipelas, intermittent and remittent fever, cerebro-spinal fever, rabies in human, puerperal fever, poliomyelitis, ophthalmia neonatorum, trachoma, dysentery, rabies in animals.

**SMALLPOX:** 583 cases in 34 counties with 1 death. The following counties reported smallpox present: Adams, 7; Allen, 209; Blackford, 3; Brown, 1; Clark, 16; Clay, 4; Dekalb, 4; Delaware, 7; Fountain, 1; Gibson, 24 and 1 death; Grant, 2; Greene, 35; Hamilton, 1; Huntington, 1; Jay, 3; Johnson, 11; Knox, 30; Lagrange, 1; Lake, 1; Lawrence, 15; Madison, 23; Marion, 92; Monroe, 30; Parke, 1; Pike, 1; Sullivan, 2; Tippecanoe, 2; Tipton, 1; Vanderburgh, 5; Vigo, 2; Wabash, 2; Wayne, 40; Wells, 1; Whitley, 5.

**TUBERCULOSIS:** 250 deaths, of which 212 were of the pulmonary form and 38 other forms. Male tuberculo is deaths numbered 109, females 141. Of the males, 18 were married in the age period 18 to 40 and left 36 orphans under 12 years of age. Of the females, 42 were married in the same age period as above and left 84 orphans under 12 years of age. Total number of orphans made in one month by this preventable disease, 120. Number of homes invaded, 236.

**PNEUMONIA:** 247 deaths, rate 104.0 per 100,000. In the preceding month 91 deaths, rate 37.1. In the same month last year 253 deaths, rate 108.1. Males numbered 136, females 111.

**TYPHOID FEVER:** 119 cases in 38 counties with 48 deaths. In the preceding month 131 cases in 40 counties with 32 deaths. In the same month last year 209 cases in 50 counties with 45 deaths.

**DIPHTHERIA:** 58 cases in 52 counties with 52 deaths. In the preceding month 153 cases in 30 counties with 23 deaths. In the same month last year 673 cases in 54 counties with 67 deaths.

**SCARLET FEVER:** 470 cases in 66 counties with 11 deaths. In the preceding month 129 cases reported in 27 counties with 5 deaths. In the same month last year 513 cases in 61 counties with 7 deaths.

**MEASLES:** 108 cases in 26 counties with 2 deaths. In the preceding month 240 cases in 33 counties with 12 deaths. In the same month last year 744 cases in 35 counties with 5 deaths.

**POLIOMYELITIS:** 4 cases in 3 counties with 2 deaths. In the preceding month 5 cases in 4 counties with 6 deaths. In the same month last year 16 cases in 10 counties with 12 deaths.

**RABIES:** 12 persons bitten by rabid animals and treated by the State Board of Health during the month. There was one death in Monticello, White County.

**EXTERNAL CAUSE:** Total 242; males 183, females 59.

**SUICIDE:** Total 34; males 27, females 7. Suicide by poison 5, by asphyxia 1, by hanging or strangulation 13, by drowning 2, by firearms 7, by cutting or piercing instruments 5, other means 1.

**ACCIDENTAL OR UNDEFINED:** Total 191; males 143, females 48. By food 3, other acute poisonings 8, burns (conflagration excepted) 17, absorption of deleterious gases (conflagration excepted) 4, accidental drowning 3, traumatism by firearms 9, traumatism by cutting or piercing instruments 1, traumatism by fall 20, traumatism in mines 11, traumatism in quarries 1, traumatism by machines 4, traumatism by other crushing 4, railroad accidents and injuries 45, street-car accidents and injuries 11, automobile accidents and injuries 28, motorcycles 4, injuries by animals 4, other external violence 14.

**HOMICIDE:** Total 17; males 13, females 4. Homicide by firearms 11, homicide by cutting or piercing instruments 4, homicide by other means 2.

**HEALTH OFFICERS, ATTENTION.**

**Delayed Birth and Death Certificates.**

Each month the statistical department receives certificates for births 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 November, the following counties named below were delinquent in this matter.

**BIRTHS.**

Adam, 2; Allen, 4; Benton, 2; Boone, 4; Brown, 1; Cass, 1; Clark, 4; Clay, 4; Crawford, 1; Daviess, 5; Decatur, 2; Dekalb, 13; Delaware, 3; Floyd, 4; Fountain, 1; Franklin, 1; Gibson, 2; Grant, 2; Greene, 5; Hamilton, 2; Harrison, 3; Hendricks, 2; Howard, 2; Jackson, 2; Jay, 2; Jennings, 8; Johnson, 2; Knox, 10; Kosciusko, 1; Lagrange, 3; Lake, 16; Laporte, 1; Lawrence, 3; Madison, 2; Marion, 3; Morguo, 6; Newton, 1; Noble, 1; Orange, 4; Parke, 3; Perry, 1; Pike, 2; Porter, 1; Posey, 5; Pulaski, 2; Ripley, 16; Shelby, 1; Spencer, 7; Starke, 1; St. Joseph, 11; Sullivan, 3; Tippecanoe, 4; Tipton, 1; Vanderburgh, 4; Vermillion, 8; Vigo, 5; Wabash, 1; Warren, 1; Warrick, 2; Wayne, 4; Wells, 8; White, 4.

**DEATHS.**

Allen, 12; Cass, 3; Clay, 1; Dekalb, 4; Delaware, 1; Floyd, 2; Franklin, 1; Grant, 1; Greene, 1; Jay, 1; Knox, 2; Kosciusko, 1; Madison, 2; Marion, 1; Miami, 3; Monroe, 1; Newton, 1; Porter, 1; Posey, 3; Rush, 1; Spencer, 2; Starke, 2; St. Joseph, 1; Vanderburgh, 1; Wabash, 2; Warrick, 2; Wells, 1.

**REPORT OF BACTERIOLOGICAL LABORATORY,  
INDIANA STATE BOARD OF HEALTH,  
FOR NOVEMBER, 1917.**

WILL SHIMER, M. D., SUPERINTENDENT.

Sputum for tubercle bacilli—		
Positive.....	86	
Negative.....	337	
		423
Urine for tubercle bacilli—		
Suspicious.....	1	
Negative.....	3	
		4
Pus for tubercle bacilli—		
Negative.....	3	
		3
Feces for tubercle bacilli—		
Suspicious.....	1	
Negative.....	1	
		2
Cerebro-spinal fluid for tubercle bacilli—		
Negative.....	3	
		3
Widal tests for typhoid fever—		
Positive.....	8	
Negative.....	84	
		92
Widal tests for paratyphoid fever "A"—		
Negative.....	8	
		8
Widal tests for paratyphoid fever "B"—		
Negative.....	8	
		8

Throat cultures for diphtheria bacilli—		
Positive.....	373	
Suspicious.....	87	
Negative.....	579	
Unsatisfactory.....	29	
	1,068	
Throat cultures for diphtheria epidemics—		
Positive.....	165	
Suspicious.....	130	
Negative.....	1,583	
Unsatisfactory.....	40	
	1,918	
Brains for rabies—		
Dogs—		
Positive.....	6	
Negative.....	1	
Cows—		
Positive.....	1	
	8	
Blood for counts.....	6	
	6	
Blood for malaria plasmodium—		
Negative.....	7	
	7	
Pus for gonococci—		
Females—		
Positive.....	4	
Negative.....	41	
Males—		
Positive.....	14	
Suspicious.....	3	
Negative.....	14	
Sex not given.....	2	
	78	
Pus, miscellaneous.....	2	
	2	
Pathological tissues—		
Carcinoma—		
Carcinoma of neck.....	1	
Carcinoma of axilla.....	1	
Carcinoma of breast.....	1	
Carcinoma of hand.....	1	
Carcinoma of cervix.....	2	
Carcinoma, location not given.....	1	
Sarcoma—		
Sarcoma of arm.....	1	
Sarcoma of testicle.....	1	
Miscellaneous tissues.....	13	
Gasserian ganglions.....	2	
	24	
Urine for chemical analysis.....	65	
	65	
Feces for typhoid bacilli negative.....	2	
	2	
Feces, miscellaneous.....	2	
	2	
Worm for identification.....	1	
	1	
Stomach contents.....	1	
	1	
Cerebro-spinal fluid for meningococci—		
Positive.....	1	
Suspicious.....	1	
Negative.....	3	
	5	

Paring knives for bacteria negative.....	2	
	2	
Total number specimens examined.....	3,732	
Guinea pigs inoculated for rabies, positive.....	1	
Guinea pigs inoculated for T. B., positive.....	1	
Guinea pigs inoculated for T. B., negative.....	2	
	4	
Doses of anti-typhoid vaccine prepared and sent out.....	88	

OUTFITS PREPARED AND SENT OUT DURING NOVEMBER, 1917.

Tuberculosis.....	456
Diphtheria.....	946
Diphtheria Epidemics.....	1,350
Widals.....	79
Gonococci.....	50
Malaria.....	10
Total number sent out.....	2,891

PATIENTS TAKING "PASTEUR" TREATMENT NOVEMBER, 1917.

NAME.	Town.	County.	Age	Sex	Treatment Began.	Treatment Finished.
David Sobrel.....	Derby.....	Perry.....	15	M	11- 8-17	11-25-17
Irvin Hall.....	Derby.....	Perry.....	7	M	11-13-17	11-30-17
Mary Trone.....	Indianapolis.....	Marion.....	5	F	11-15-17	11-24-17
Wayne Ellingsworth.....	Terre Haute.....	Vigo.....	13	M	11-19-17	12- 6-17
Jessie Akers.....	Terre Haute.....	Vigo.....	12	F	11-20-17	12- 7-17
Tiny Atterson.....	Terre Haute.....	Vigo.....	9	F	11-20-17	12- 7-17
Curtis Eilert.....	Stendal.....	Pike.....	13	M	11-30-17	12-17-17
Dan Reller.....	Stendal.....	Pike.....	32	M	11-30-17	12-17-17
Justice Roettger.....	Stendal.....	Pike.....	10	M	11-30-17	12-17-17

EPIDEMICS OCCURRING DURING NOVEMBER, 1917.

DIPHTHERIA: Bethlehem, Clark County; Noble County; Gary; Fortville, Hancock County; Boxleytown and Bakers Corner, Tipton County; Bainbridge, Putnam County.

TYPHOID FEVER: Liberty, Vermillion County; New Richmond, Montgomery County; Batesville, Ripley County; Raccoon Township, Parke County; Sitka, White County.

SCARLET FEVER: Kent, Jefferson County; Tyner, Marshall County; Athens, Fulton County; Jasper County; Burket, Kosciusko County; Curtisville, Tipton County; Warsaw, Washington Township, Whitley County.

SMALLPOX: Portland, Jay County; Princeton, Gibson County; Nashville, Brown County; Rivare, Adams County; Grabill, Allen County; Knightsville, Clay County; Columbia City, Whitley County; Anderson, Madison County.

POLIO: Wabash, Wabash County; one death in Grant County; one death at Bluffton, Wells County.

RABIES: One death from hydrophobia at Monticello, White County; epidemic among dogs in Pike County.

WHOOPING-COUGH: Monticello.

MEASLES: Knightsville, Clay County.

Earl Wolfage, aged seven, died of tetanus two weeks after smallpox vaccination, at Elwood, Indiana.

## SCHOOL INSPECTION DIPHTHERIA EPIDEMICS.

Connersville.....	331	Laporte.....	14
Covington.....	14	Newcastle.....	42
Cynthiana.....	126	Richmond.....	176
Greensburg.....	37	Rushville.....	420
Jamestown.....	16	West Point.....	

## THE SIGNIFICANCE OF THE WIDAL REACTION.

When one is called to see a patient with a continuous fever the question is: What is it? After carefully weighing the subjective and objective symptoms and history of the case, the decision may still be doubtful. Blood is then taken for a Widal reaction. If the blood gives a positive test the diagnosis is still not absolutely positive, for the patient may have been vaccinated recently, or be a chronic typhoid bacilli carrier, or there may have been some slip in the laboratory man's technic. If the Widal is positive and the symptoms continue atypical of typhoid, or the patient has been recently vaccinated, other specimens of blood should be tested to see if the agglutinating power of the blood is increasing. The medical department of the English Army recently has adopted a standard method for doing Widal's, so that an increase of the agglutinating power of the blood can be accurately measured.

If the Widal is negative it is still not certain that the patient does not have typhoid, for the resistance of the patient may not be sufficient yet to produce agglutinins in the blood against typhoid bacilli, or the dilution used by the bacteriologist may have been too high. If the patient continues to have symptoms of typhoid it is well to send in specimens of blood each week until the patient has recovered. In some cases of typhoid a positive Widal has not been obtained until the third or fourth week of convalescence.

A correct diagnosis can seldom be made on one single factor. All factors must be weighed and each given its proper weight in the whole. A proper diagnosis depends on an innate diagnostic sense, that is, the ability to find one's way among a bewildering array of evidence to a decision. A man to be a good diagnostician must not only know how to do laboratory work, but he must also be able to interpret laboratory findings and to correlate them with the clinical data.

## DISINFECTATION UP-TO-DATE.

Not many years ago the placing of a saucer containing salt, black oxid of manganese and sulphuric acid under a bed, was supposed to furnish enough chlorine to disinfect a sick room. Druggists now living have prepared this formula numberless times, and the people felt they had greater security from disease on account of it. Later, carbolic acid came into domestic use and then a saucer of this chemical in the room was thought sufficient to purify it from disease infection. Formerly yellow fever was fought with disinfection. This was also true of typhus fever. Now we know that disinfectants have not the slightest effect upon these diseases, except that they might possibly drive away the mosquito which carries the yellow fever infection, or the body louse which carries the typhus fever infection.

Malaria, which as we have long known is due to the presence in the blood of an animal parasite, and which until quite recently was supposed to be transmitted in some unknown manner by dampness and night air, is now known to be communicated only by means of a certain variety of mosquito. Against malarial infection, disinfectants are helpless, except as in the case of yellow fever, they might possibly drive away mosquitoes.

For over thirty years the method by which cholera and typhoid fever are transmitted, namely, by swallowing the germs, has been well understood by the medical profession, and now the public at large understands it. It is hardly probable that diphtheria is directly communicable through the air. It almost certainly is communicated by direct contact of oral and nasal membranes with diphtheria germs. There is little danger to be feared from the air of the room in which a patient suffering from diphtheria is located, and one is safe in entering a diphtheria isolation hospital, the only care he need practice being to avoid breathing the secretions from the nose or mouth of the patient, which might be sprayed into the air by coughing or sneezing.

Very lately, disinfection with formaldehyde gas has been highly recommended and practiced. That it is a purifying agent, and a germ killer, there is no doubt; but strong doubts appear as to whether or not this disinfection actually protects to any degree against transmission of disease germs. It is now known that the infection of scarlet fever is not in the desquamation which exfoliates in this disease, and it is certain that the transmission of scarlet fever is not attendant upon the desquamative stage any more than any other stage of the disease. The infection of this malady certainly lies in the oral and nasal secretions of the patient.

Again, it has been recently discovered that measles is only contagious during the first few days, and that it is not communicated by the scales or desquamation. With this information we are certain eventually to adopt more rational methods in combating infectious diseases. In the city of London, which maintains hospital accommodations for over 10,000 patients suffering from infectious diseases, and treats 90 per cent. of infectious cases in its hospitals, little or no attention is paid to measles. The law does not require this disease to be reported. The reasons are, measles is only contagious during the first few days, and by the time the report is received and the case placed under quarantine, the damage has been done. For the same reason disinfection is not performed after cases of measles. Admitting the argument of the London authorities, it would seem proper to take early cognizance of those cases of measles which occur in the schools, and which might be immediately removed. However, this would do very little good, for it is well known that 50 per cent. of all cases of measles are not seen by physicians at all, and very many cases are not diagnosed, the parents thinking that the child has had only a "rash" or "a cold."

Dr. Chapin, the farseeing and scientific health officer of Providence, Rhode Island, has made some investigations which point to the belief that disinfection and fumigation at the termination of cases of diphtheria, measles and scarlet fever are of very little, perhaps no use. He finds that, in several hundred cases where terminal disinfection was practiced there were just as many new cases of the diseases named as where it was not practiced, and this experiment has been repeated several times. Through investigations conducted by the Department of Health of New York, it was found that secondary cases of diphtheria, measles and scarlet fever occurred only in from  $3\frac{1}{2}$  to 4 per cent. of those persons who came directly in contact with the disease.

Again, we say there is some doubt that fumigation and disinfection will destroy these germs, but it is exceedingly doubtful in the absence of a suitable culture medium whether the germs of many of the infectious diseases may persist for more than a short time after leaving the body of the patient. It is certainly a rational measure to disinfect the discharges from a typhoid fever patient, not neglecting the discharges of the nose and mouth, and it is also certain that it would be wise to disinfect the nose and mouth discharges of diphtheria, scarlet fever, and measles patients.

**A PLEA FOR PRENATAL CARE.\***

(Abstract.)

Prenatal Clinic Indiana University School of Medicine,  
Indianapolis.

C. O. McCORMICK, M. D.

Although prenatal care has been recognized for generations and generations by stock breeders it has never been applied to the community at large until the past five or eight years. Inadequate vital statistics has been the chief cause of this delay. Only a little over thirty per cent. of the United States population is included in the recently revised registration area.

Three hundred thousand babies die annually in the United States under one year of age. The period of highest infant mortality in the United States is the first month of life. In the registration area of 1915, 46% of deaths under one year occurred during the first month; 32% during the first week; and 16% during the first day. The corresponding figures for Indiana show a much higher mortality, and are as follows: 55.4% the first month; 38.7% the first week; 19.9% the first day.

Infant mortality after the first month is decreasing, while that before the first month is increasing. This persistent mortality presents as great a problem for the health officer as does smallpox, scarlet fever, or infantile paralysis. The mortality during these first weeks of life can not be reduced by postnatal measures—this reduction depends upon prenatal supervision.

Thirty per cent. of all pregnancies show some abnormality. Dr. Emmons defines child bearing as a "normal function dangerous to public health."

Prenatal care is foresight and forehandedness during pregnancy—it is preventive medicine applied to obstetrics—it is an effort to give the mother and infant the greatest possible chance.

The chief results of prenatal care are:

- (1). Reduces infant mortality of first year at least fifty per cent.
- (2). Produces healthier babies and of increased weight—thus increases the chance of average baby to live, especially through the most perilous period, the first month.
- (3). Reduces number of stillbirths 50% to 60%.
- (4). Reduces the number of miscarriages.
- (5). Reduces the number of premature births.
- (6). Produces a greater number of normal deliveries, thus reducing mortality and morbidity of both mother and infant.
- (7). Greatly reduces the number of toxemia and eclampsia cases—the latter 80%.
- (8). Greatly increases the possibility of maternal nursing, thus lessening one of the most difficult problems of infant welfare work. *Breast feeding is the strongest postnatal factor we have in reducing infant mortality and producing a better race of babies. Prenatal care is the largest single solution.*
- (9). Greatly reduces maternal mortality and morbidity. Over 70% of maternal mortality in Indiana is due to puerperal septicemia and eclampsia. The former is nine-tenths and the latter four-fifths preventable. Maternal mortality in the United States has not decreased in the past quarter of a century. However, deaths from most other preventable diseases have decreased from one-fourth to one-half.
- (10). Affords greater comfort and peace of mind to the more or less harassed mother.
- (11). Helps eliminate the midwife who delivers forty per cent. of the babies born in our country—delivers 50,000 cases annually in New York. Two hundred and twenty midwives have been licensed in forty-four counties in the State of Indiana since 1897. In 1916, 3,821 births, or 6.02% of State's total, were reported by midwives. Eighty-eight per cent. of midwife deliveries were conducted in Lake and St. Joe counties. Statis-

tics for the past seven years in this State show her to have a less maternal mortality from septicemia than the general practitioner. This probably portrays what Dr. De Lee had in mind when he said, "The science of obstetrics is far in advance of the art."

(12). Prenatal care puts obstetrics on a basis where the physician can charge and the patient is willing to pay a respectable fee. It makes obstetrics as a specialty inductive to the young physician.

It would require much less effort and money on the part of the State to direct its health forces upon the "production plant" of its citizenship, rather than upon the race "service stations" and "repair shops," such as are afforded by public institutions for the care of defectives.

Pregnancies should be reported to the public health authorities. Most European countries give the prospective mother consideration in way of exemption from employment, pecuniary allowance while off duty, maternal insurance, etc. In this country but four States give her protection, and that only in the way of exemption from employment.

*The present war has focused attention upon the infant. One of its earliest achievements.*

The appointment of a commission to look after the motherhood of this country is, indeed, opportune. Prenatal care represents the highest form of national preparedness.

414 Hume-Mansur Building.

**CHART A.**

**Early Infant Mortality (Exclusive of Stillbirths).**

(PER CENT OF TOTAL DEATHS UNDER ONE YEAR OF AGE.)

	First Day.		First Week.		First Month.	
	1915.	1916.	1915.	1916.	1915.	1916.
Allen County.....	18.7	23.3	51.4	43.6	66.2	61.3
Lake County.....	11.5	10.3	25.4	19.7	37	33.5
Marion County.....	19.5	19.2	46.6	37.8	54.5	53
St. Joe County.....	18.8	15.3	38.2	32.9	58.5	50
State.....	19.9	19.3	38.7	36	55.4	51
United States.....	16.1	.....	31.9	.....	46	.....
United States (1911).....	12.1	.....	27.4	.....	42.1	.....

Former registration area 67.1% population.

**CHART B.**

**Stillbirths (Indiana, 1915).**

Allen County.....	1 to 42	live births.
Lake County.....	1 to 31.6	live births.
Marion County.....	1 to 25	live births.
St. Joe County.....	1 to 27.2	live births.
State.....	1 to 30.1	live births.

**TABLE C.**

**Indiana's Maternal Mortality.**

	1910, Per Cent.	1911, Per Cent.	1912, Per Cent.	1913, Per Cent.
C.....	450	493	450	422
Puer. Sep....	229—50	293—59.4	231—51.8	205—48.5
Eclampsia..	74—16.4	79—16	88—19.5	81—19.1

	1914, Per Cent.	1915, Per Cent.	1916, Per Cent.	Average Per Cent.
C.....	459	398	443	.....
Puer. Sep....	220—47.9	185—46.5	224—50.5	50.7
Eclampsia..	108—23.5	78—19.6	97—21.9	19.4

Death from eclampsia is probably increasing.

70% of puerperal deaths in Indiana are due to sepsis and eclampsia—both largely avoidable diseases. At least 9/10 of puerperal septicemia and 1/2 eclampsia cases are preventable.

\*Read before Marion County Medical Society October 30, 1917.

TABLE D.

The Midwife in Indiana.

TWO HUNDRED AND TWENTY LICENSED IN FORTY-FOUR COUNTIES.  
Year 1916. Reported Births in 27 Counties.  
Reported 3,821 Births, or 6.02% of State's Total.

	Number of Cases.	Per Cent. of Counties' Total.	Per Cent. of State's Total of Midwife Deliveries.
Allen County	119	7 (2,192)	3.9
Lake County	2,374	55 (4,319)	62.13
Marion County	55	9 (6,084)	1.4
St. Joe County	814	33.5 (2,549)	22.08

TABLE E.

Puerperal Septicemia in Indiana.

	1910.	1911.	1912.	1913.	
Allen County (Physician 93%)	1 in 496	1 in 135	1 in 313	1 in 525	
Lake County (Midwife 55%)	1 in 214	1 in 180	1 in 534	1 in 293	
Marion County (Physician 99%)	1 in 208	1 in 207	1 in 175	1 in 251	
St. Joe County (Midwife 33%)	1 in 112	1 in 145	1 in 181	1 in 466	
State	1 in 246	1 in 194	1 in 248	1 in 289	
					Average Rate Per 10,000 Deliveries.
	1914.	1915.	1916.		
Allen County (Physician 93%)	1 in 322	1 in 1069	1 in 731		19
Lake County (Midwife 55%)	1 in 448	1 in 392	1 in 240		30
Marion County (Physician 99%)	1 in 195	1 in 208	1 in 174		49
St. Joe County (Midwife 33%)	1 in 286	1 in 272	1 in 315		39
State	1 in 281	1 in 334			39

PER CENT. OF TOTAL MATERNAL MORTALITY IN INDIANA.

1910.	1911.	1912.	1913.	1914.	1915.	1916.	Average.
50.9	59.4	51.3	48.5	47.9	46.5	50.5	50.7

Death rate from puerperal septicemia is not decreasing.

So far as puerperal septicemia is concerned, the midwife ranks as high if not higher than the physician. Puerperal septicemia is more incorrectly and insufficiently diagnosed than any other puerperal disease.

REMOVING DIPHTHERIA BACILLI WITH KAOLIN.

Kaolin, commonly known as "china clay," has been suggested by Drs. L. Hektoen and B. Rappaport for the removal of bacteria from the throat and nose. Kaolin powder is blown into the nose six or seven times a day at two-hour intervals while the throat is freed of bacteria by swallowing slowly one-third of a teaspoonful of the powder four or five times an hour. Not only diphtheria organisms, but practically all bacteria were destroyed in three or four days.

Within recent years it has become the custom to determine the length of quarantine in diphtheria by swabs from the throat of the patient and it is deemed unwise to release the patient, however well he may be, so long as the germs of the disease persist in the throat and nose. This may occupy a very long period of time, some patients carrying bacilli for weeks or months.

In fact some persons who have shown no evidence of illness whatever are found to be carriers of diphtheria organisms and the safe and sane method in such cases has led to much discussion and conflict.

If, as is now claimed, a simple and harmless substance like kaolin will destroy the offending organisms, there can probably be a considerable shortening in certain periods of quarantine which persistence of germs now prolong. Checked up by repeated swabs from the throat, quarantine can become more efficient, more exact and, in many instances less arduous.

Kaolin is not a germicide in the ordinary sense of the word. Strumpf believes that it acts by depriving the germs of suitable soil on which to live while mechanically burying them alive.

A PROCLAMATION BY HIS EXCELLENCY, HUGH M. DORSEY, GOVERNOR.

*To the People of Georgia:* Health is fundamental to all success. The prosperity of our State, in the last analysis, depends upon the bodily vigor of its citizens. This is a self-evident proposition—a premise which every right-thinking man must admit. Without good health as an asset, our people cannot meet the severe physical and mental requirements of the times. There is no place for the weakling in these strenuous preparations for war.

It is not one whit less important to preserve our vital forces than it is to conserve our food products. We cannot do our bit or contribute our mite, without the self-command which comes from good health. Science has demonstrated beyond cavil that many diseases, now wantonly wasting the lives of human beings, can be successfully checked. The number of "ills that flesh is heir to" has been greatly increased by a disregard of natural laws. To reduce this sum, there must be a return to the simpler and saner habits of life.

The next step is co-operation. United effort, if wisely directed, is bound to yield good results. The saving of human life from disease is a basic duty of government. Especially is it opportune at this time to emphasize a precaution which at all times is wise. I, therefore, urge that all persons aid the constituted authorities by giving an active co-operation to our State Board of Health in its efforts to conserve the health of our people. Efficiency demands it. Every element of our strength will be needed for the great conflict.

THIRTY CASES OF TYPHOID IN FOUR SQUARES is the report from Dr. J. T. Oliphant of Farmersburg, Indiana. This is a very severe comment upon the cleanliness and sewage disposal of Farmersburg. Typhoid is a filth disease and of course, Farmersburg must be filthy to have as high as thirty cases of typhoid in an area of four squares. These cases occurred in the last ten years. When all of the citizens of Farmersburg dispose of all of their sewage all of the time in a sanitary way, then typhoid fever will depart. The people of this town and all the towns and cities have it within their power to free themselves of typhoid fever, and we may say also other diseases. The question is: How long will the people suffer loss of health, loss of life and loss of money before the science of hygiene is practically applied?

CHIGGERS was the diagnosis and the symptoms were as follows, and this occurred in Randolph County: The child had sore throat, fever, and pronounced scarlet rash. It recovered with considerable desquamation, especially from fingers, and several finger nails came off. The doctor diagnosed the disease as "chiggers" and prescribed an antiseptic oil. Sometime after, a relative of the child borrowed its wrap for her child to wear. In a few days the second child had fever and eruption, acute nephritis, and edema. There was also a rash and afterwards pronounced desquamation. Under such circumstances as this, the question is, how shall our children be saved from our ignorant, incompetent doctors?

SMALLPOX has existed in the State probably every day of the year since 1901. Fortunately it has been very mild and the deaths few. Last year there was one death from smallpox. November 6th a letter was received from Dr. Thorp, health officer of Earl Park, telling of an epidemic of mild smallpox in his town. He says: "The disease does not seem to be hurting anyone and prevails mostly among children, although adults have it. I have the houses carded and vaccinate all members of every family where the disease prevails. I have also been urging general vaccination. In some instances I have permitted the head of the family, after thorough disinfection in body and apparel, to keep regularly at his work. In such instances the bread-winner returns to his home at night, promises not to come in close contact with the patient and changes his clothes before entering. When he leaves, he changes his clothes again. In instances I have established absolute quarantine. We now understand that the township according to the late rulings of the attorney-general, shall pay the expenses of all quarantines which the law commands."

We have written Dr. Thorp informing him that he certainly is handling the situation correctly. Smallpox is not a dangerous disease, these days, and for this we should be very thankful. Tuberculosis, to which we pay no attention, is 4,000 times more dangerous, when the deaths from the two diseases are balanced against each other. It should be understood that no amount of quarantine and disinfecting will stop smallpox when it becomes even slightly epidemic in a community. This is because people who have the disease mildly and in whom it has not been diagnosed, are at large. They spread the infection in the discharges from their oral and nasal cavities. Concerning quarantine, the law says: "It shall be done in such manner and for such length of time as in the opinion of the local health officer is necessary to prevent the spread of infection."

A GREAT MISTAKE was made recently by a certain town health officer in Indiana. He gave the following certificate: "I wish to certify that this boy (X), who has impetigo contagiosa, is under proper treatment for his ailment and should not be kept out of school. While this disease is contagious, it is not a serious disease like other exanthems. It is loosely called eczema, but an accurate diagnosis gives it as I have named." The school law says: "It shall be the duty of all teachers to immediately send home any pupil who is perceptibly ill in any way, or who is unclean and emits offensive bodily odors or who is infested with lice or other vermin." The same section of the law, which was approved March 1, 1911, says that refusal or neglect to obey the provisions of this section shall be punished by a fine of not less than \$10 nor more than \$100. The law is certainly right in refusing admission to school of children perceptibly ill in any way. It is for the protection of the school and for the protection of the child.

HAY, HOGS, HEALTH, HAPPINESS: The North Carolina State Board of Health has something to say upon the subject of Hay, Hogs, Health, Happiness. It calls attention to the fact that the State of North Carolina has sixty-three whole-time farm demonstrators and has only ten whole-time health officers. Continuing, the bulletin says: "Do these facts and figures indicate that the State's progress and prosperity along the lines of health and agricultural developments are in the same proportion? We believe the State has progressed six times as far in scientific farming as it has in public health interests." North Carolina evidently fully realizes that farm demonstrators are a help to the State, and she partially realizes that all-time, trained, health officers pay. Doubtless the people will gradually understand there is more money in health than in anything else in this world.

A MARRIAGE RECORD TRANSCRIPT is wanted by Mrs. W. A. Nourse of Mobile, Alabama. In her letter she says: "So long ago as 1889 (possibly the year earlier or later) Daniel Felch or John Martin Byer (the first name may have been assumed) married Miss Katie J. Rogers of Lansing, Michigan. I have no known data as to where the marriage occurred or where the license was procured. It is very essential that we learn the facts concerning this marriage. The records of Michigan do not show that the marriage occurred in that State and the question is, Did it occur in Indiana?" Mrs. Nourse is now trying to secure a record of the marriage by writing to the clerks of the various Indiana counties bordering on Michigan. We hope she will be successful. The lesson of this whole matter is the importance of recording and making proper account of all marriages.

SOUTH BEND plans a sanitary survey of the whole city. The South Bend Board of Health is not asleep. It actually works for the people, and this is in contrast with some other city boards in the State. No comprehensive sanitary survey has ever been made of South Bend. Only a few minor cities have conducted such investigations. It is announced by Dr. Charles Bosenbury, the very efficient city health officer, that the survey will be done block by block. Of course, maps will be made. A special, all-time sanitary inspector has been appointed and provided with a Ford automobile to use in his work. South Bend already has a quarantine officer who looks after contagious diseases and disinfection and does some general sanitary inspecting.

CHARLES DICKMAN OF COLUMBUS, INDIANA, with bare hands, choked to death a rabid dog. The Columbus Herald gives this account of the instance: "When a mad dog attacked his eleven-year old daughter, Charles Dickman, the father, seized the dog with his bare hands and in a fierce struggle choked it to death. The dog was a hound whose owner is unknown. It attracted attention by its strange behavior and by attacking a woman, biting her on the arm and hands. In struggling with the animal, Mr. Dickman was bitten on the hand, but nevertheless succeeded in killing the dog. The brain showed negri bodies when sent to the laboratory of the State Board of Health, and all who were bitten by the animal received pasteur treatment.

"MERCURY SUCCINIMIDE is now found to be a specific (?) for pyorrhoea. Emetin destroys the entanœba buccalis but does not inhibit pus. The mercury salt destroys both." Dr. Barton Lisle Wright, surgeon of the U. S. Navy, and Dr. Paul G. White, dental surgeon of the U. S. Navy, are the scientists who first used mercury succinimide for pyorrhoea. Of twenty-eight consecutive cases treated, every one was completely cured in from four to forty-one days. Among the twenty-eight cases, six had chronic rheumatism, one chronic stomach trouble, one chronic facial neuralgia, and one laryngitis. Three, when cured of pyorrhoea, found their other troubles disappeared. After all, the practical way is to keep well, keep the oral cavity sanitary and then one will not have to take mercury succinimide or emetin.

"ELEVEN CASES OF DIPHTHERIA in one family" is the statement made by the Hartford City News of December 1. The matter is reported as follows by the News: "Eleven cases of diphtheria in one family is the record at the home of George Besser, two miles west of Danbury. Mrs. Besser and all the children are ill, as are also grandchildren residing in the Besser home."

"THE SECOND STAGE OF TUBERCULOSIS is on," says Babcock, "if the infra-clavicular region is involved or reveals evidence of disease." The second stage is not beginning-tuberculosis. A physician of Indiana sent a patient to the State tuberculosis hospital who was in the last stages and who died in a few days, insisting the case was in the beginning or incipient stage. Now is the time for such doctors to subscribe.

THAT DISEASED AND PHYSICALLY UNFIT children should not be born, is a sound idea which is taking hold of the minds of the people. That State is delinquent which does not senselessly strive to secure the right of every child to be well born. The bad business of producing the unfit by thousands and then heaping up taxes to care for them, must stop. Prevention, not cure, is the thing.

TRACHOMA is not rare in Indiana. It has now been reported from twelve counties and doubtless will be found in many others. So many cases have appeared in Indianapolis that the City Board of Health has decided to employ a visiting nurse to aid in the fight against the disease. Patients at the city dispensary who have this disease will be placed under nurse visitation; also children found suffering from it who are found in the schools.

MRS. STONER OF MARION desires a transcript of the birth certificate of her son Forrest C. Stoner, born March 7, 1903, at Fairmount, Indiana. She says: "We are moving to New York and the school authorities require a birth certificate of every child entering school." The school authorities also make medical examination of every child.

A MAN'S EFFICIENCY depends largely upon having plenty of fresh air to breathe. Bad air in a factory will increase the number of accidents. Good air keeps the brain clear. Bad air clouds the brain. Efficient ventilation of a factory will increase the individual producing capacity 20 per cent.

### WHY WELLVILLE GOT THE PANTS FACTORY.

BY A. W. HEDRICK.

Secretary, American Public Health Association.

Wellsville wanted the pants factory; so did Epidemia.

"Pants," they figured, "are staple articles that will always be in demand. They aren't like hoop-skirts or bicycles. Hoop-skirts and bicycles may come and go, but pants will be worn forever. Therefore, a pants factory that will give steady all-the-year-around employment to three or four hundred people would make a highly desirable addition to our little city."

Accordingly, they showered a mass of data upon the Knickerbocker Pants Company regarding freight rates, railroad facilities, markets, raw materials and labor supply—all tending to show that their respective cities were each the one and only place for the new branch pants factory. Finally, the president of the Pants Company asked the commercial secretaries of both cities to appear before his board of directors at the next meeting.

When the appointed day came, the Wellville secretary was on hand, but Epidemia sent a business man, who explained that their commercial secretary couldn't come. They had had a little outbreak of diphtheria in the Epidemia schools, he said, and the secretary had "caught it" through a small son. He then spent fifteen minutes in extolling the unrivaled commercial virtues of Epidemia, a gem of the Mississippi

Valley, and concluded with the magnanimous offer of a factory site at half price, with exemption from taxes for five years.

Things looked gloomy for the Wellville man when he started to speak, for he could offer no bonus whatever. However, he took a few minutes to show that for Wellville to offer any such inducements would be like royalty enclosing curfare with an invitation to the coronation ball. And then he tackled his main theme.

"In Wellville," he said, "we haven't had an epidemic of diphtheria in eight years. We have a well-organized health department to look after such things. Our medical inspectors watch the health of the school children in every school on every day, and no youngster stays in school with a 'sore throat' that turns out to be diphtheria. They even keep a card catalog of all the kids, showing who has had scarlet fever, measles, and so on, so they know whom to exclude from school on suspicion, and whom not. We have public health nurses that will teach the wives of your workers how to keep the family healthy, and infant welfare stations that will show them how to save the babies. We have the lowest death rate from preventable diseases in the State—," and when he was through the Knickerbocker people had forgotten all about cheap factory sites.

The Knickerbocker superintendent then arose and turned toward the president and directors.

"Gentlemen," he said, "I feel like sending our foremen, the workers and their households to a city that looks after the health of its people. I'd like to choose the same city for them that I would select for my own family. And let me tell you that infant welfare has a lot more to do with pants-making than we imagine! Only last week one of our operatives smashed his hand in a pressing machine because he had been up half the night before with a sick baby. Another thing, we have to look out for tuberculosis among our workers, and I understand that they have a system in Wellville whereby every recognized case of tuberculosis gets proper attention at the earliest possible moment.

"It's good business as well as decency for us to promote the health of our employes. Idle machines and workmen's compensation eat up profits.

"I'm for Wellville!"

The president nodded his head shortly, turned to the directors and seconded the superintendent's remarks.

And that was why the pants factory went to Wellville.—Reprinted from *The American City*, December, 1917.

GARBAGE FED TO HOGS. The United States Department of Agriculture recently issued circular No. 80 which is entitled—Disposal of City Garbage by Feeding to Hogs. We recommend the health officers of cities and large towns in Indiana to write the department of Agriculture, Washington, D. C., and request that Circular No. 80 be sent to them. The State Board of Health will soon prepare an ideal garbage law which will admit of the disposal of garbage by burying, by incineration or cremation, and also by feeding to hogs. The Agricultural Department has done a great service to hygiene by issuing this circular.

ARSPHENAMIN is the name now used instead of salvarsan by the United States Government. This preparation is exactly the same as salvarsan, for the national government has abrogated the german patents. It is our understanding that anyone wishing this remedy should buy it under the new name of Arspheamin, for the old names, salvarsan, 006, arsenobenzol and arsaminol will no longer be used. The Public Health Service according to law has promulgated rules and standards in this matter.



CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM IMPORTANT CAUSES FOR NOVEMBER, 1917.

NORTHERN SANITARY SECTION.

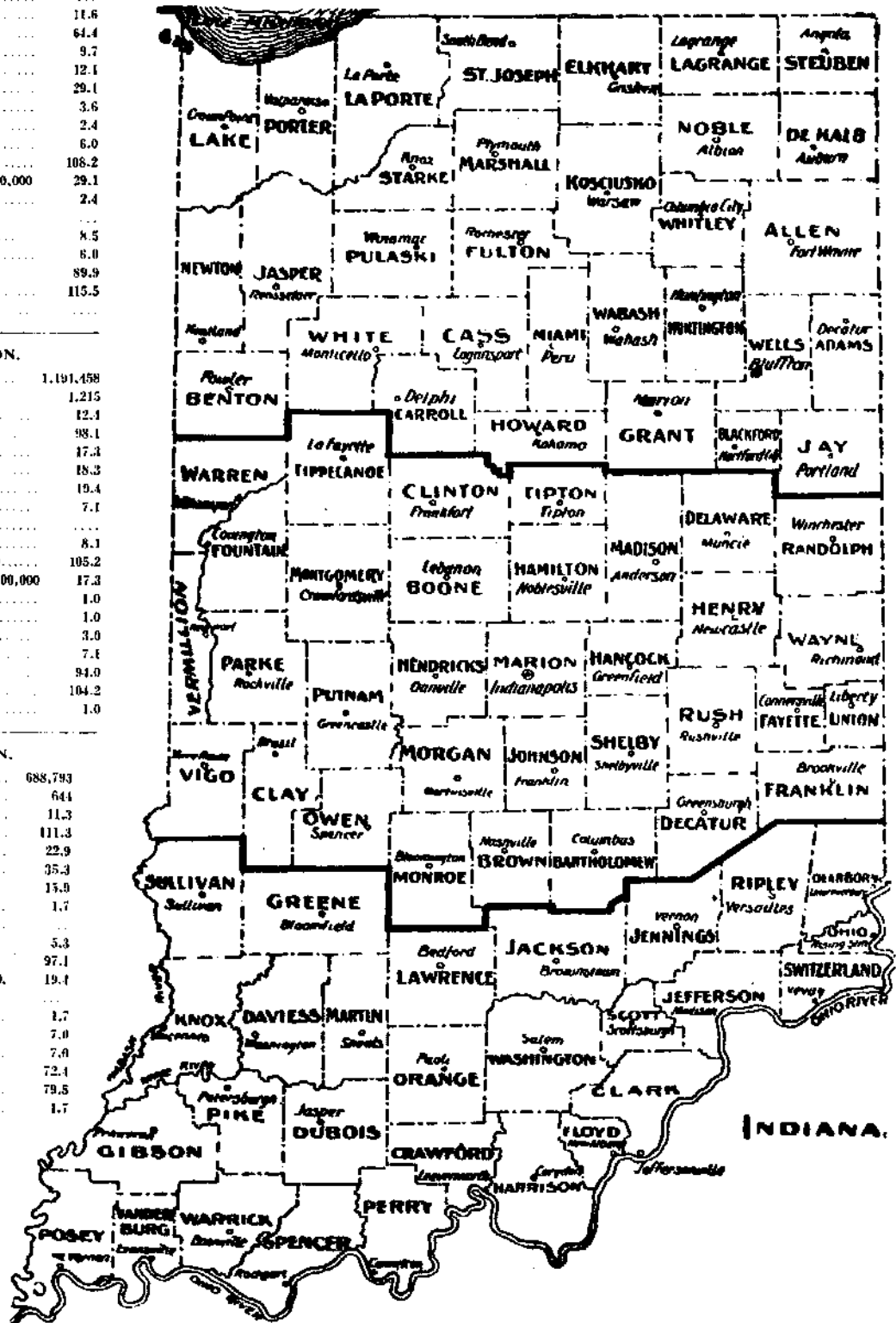
Total population	1,009,364
Total deaths	959
Death rate per 1,000	11.6
Pulmonary Tuberculosis, rate per 100,000	64.4
Other forms of Tuberculosis, rate per 100,000	9.7
Typhoid Fever, rate per 100,000	12.1
Diphtheria and Croup, rate per 100,000	29.1
Scarlet Fever, rate per 100,000	3.6
Measles, rate per 100,000	2.4
Whooping Cough, rate per 100,000	6.0
Lobar and Broncho-Pneumonia, rate per 100,000	108.2
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000	29.1
Cerebro-Spinal Fever, rate per 100,000	2.4
Acute Anterior Poliomyelitis, rate per 100,000	...
Influenza, rate per 100,000	8.5
Puerperal Septicemia, rate per 100,000	6.0
Cancer, rate per 100,000	89.9
External causes, rate per 100,000	115.5
Smallpox, rate per 100,000	...

CENTRAL SANITARY SECTION.

Total population	1,191,458
Total deaths	1,215
Death rate per 1,000	12.1
Pulmonary Tuberculosis, rate per 100,000	98.1
Other forms of Tuberculosis, rate per 100,000	17.3
Typhoid Fever, rate per 100,000	18.3
Diphtheria and Croup, rate per 100,000	19.4
Scarlet Fever, rate per 100,000	7.1
Measles, rate per 100,000	...
Whooping Cough, rate per 100,000	8.1
Lobar and Broncho-Pneumonia, rate per 100,000	105.2
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000	17.3
Cerebro-Spinal Fever, rate per 100,000	1.0
Acute Anterior Poliomyelitis, rate per 100,000	1.0
Influenza, rate per 100,000	3.0
Puerperal Septicemia, rate per 100,000	7.1
Cancer, rate per 100,000	94.0
External causes, rate per 100,000	104.2
Smallpox, rate per 100,000	1.0

SOUTHERN SANITARY SECTION.

Total population	688,793
Total deaths	644
Death rate per 1,000	11.3
Pulmonary Tuberculosis, rate per 100,000	111.3
Other forms of Tuberculosis, rate per 100,000	22.9
Typhoid Fever, rate per 100,000	35.3
Diphtheria and Croup, rate per 100,000	15.9
Scarlet Fever, rate per 100,000	1.7
Measles, rate per 100,000	...
Whooping Cough, rate per 100,000	5.3
Lobar and Broncho-Pneumonia, rate per 100,000	97.1
Diarrhoea and Enteritis (under 2), rate per 100,000	19.4
Cerebro-Spinal Fever, rate per 100,000	...
Acute Anterior Poliomyelitis, rate per 100,000	1.7
Influenza, rate per 100,000	7.0
Puerperal Septicemia, rate per 100,000	7.0
Cancer, rate per 100,000	72.4
External causes, rate per 100,000	79.5
Smallpox, rate per 100,000	1.7







Mortality of Indiana for November, 1917. (Stillbirths excluded.)

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Population, Estimated, 1917.	Total Deaths Reported for November, 1917.	Total Deaths Reported for October, 1917.	Total Deaths Reported for November, 1916.	Total Deaths Reported for Year 1917 to Date.	Total Deaths Reported for Year 1916 to Same Date.	Annual Death Rate Per 1,000 Population.					Important Ages.											
							November, 1917.	October, 1917.	November, 1916.	Rate for Year 1917 to Date.	Rate for Year 1916 to Same Date.	Under 1.		1 to 4.		5 to 9.		10 to 14.		15 to 19.		65 and Over.	
												Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
State	2,869,615	2,816	2,891	2,740	36,298	34,985	11.8	12.2	11.7	14.0	13.3	302	10.7	165	5.8	81	2.1	46	1.6	81	2.6	1,050	37.2
Northern Counties	1,009,364	959	1,032	935	12,510	12,258	11.6	11.9	11.4	13.5	13.3	126	13.1	59	6.1	20	2.0	13	1.3	34	3.5	356	37.1
Central Counties	1,191,458	1,215	1,299	1,153	15,691	14,814	12.4	12.8	11.9	14.3	13.5	122	10.6	65	5.1	34	2.8	15	1.2	32	2.6	434	37.3
Southern Counties	688,793	644	670	650	8,098	7,843	11.3	11.4	11.3	12.8	12.4	54	8.3	43	6.6	10	1.5	18	2.7	15	2.3	240	37.2
All Cities	1,335,134	1,550	1,597	1,472	18,925	17,965	14.1	14.0	13.7	15.4	15.0	177	11.4	100	6.4	37	2.3	21	1.3	47	3.0	469	30.2
Over 100,000	272,338	327	357	302	4,190	3,947	14.5	15.4	13.9	16.8	16.2	34	10.4	13	3.9	8	2.4	3	0.9	9	2.4	96	29.3
45,000 to 100,000	291,051	334	335	331	3,743	3,743	13.5	13.5	14.3	14.1	14.0	37	11.4	13	4.0	1	1.1	7	2.1	13	4.0	82	25.3
20,000 to 45,000	311,153	391	410	371	4,954	4,522	15.2	15.5	14.5	17.4	16.1	30	15.3	48	12.2	15	3.8	6	1.5	16	4.0	83	21.3
10,000 to 20,000	153,949	159	179	141	2,022	1,916	12.4	13.5	11.2	14.1	13.7	19	11.9	11	6.9	3	1.8	4	2.5	4	2.5	48	30.1
Under 10,000	306,546	349	316	327	3,980	3,958	13.6	12.1	13.1	14.1	14.2	27	7.7	15	4.2	5	1.4	5	1.4	6	1.7	160	45.8
Country	1,554,481	1,268	1,394	1,268	17,374	17,020	9.9	10.5	9.9	12.2	11.9	125	9.8	65	5.1	24	1.8	25	1.9	34	2.6	581	45.8

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

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Pulmonary Tuberculosis.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria and Croup.		Scarlet Fever.		Measles.		Whooping Cough.		Lobar and Broncho Pneumonia.		Diarrhoes and Enteritis. (Under 2 Years.)		Cerebro-Spinal Fever.		Acute Anterior Poliomyelitis.		Influenza.		Puerperal Septicemia.		Cancer.		External Causes.		Small-pox.	
	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.		
	State	212	89.2	39	16.0	48	20.2	52	21.9	11	4.6	2	.8	16	6.7	247	104.0	52	21.9	3	1.2	2	.8	14	5.8	18	6.7	207	87.1	242	101.9	1
Northern Counties	53	64.4	8	9.7	10	12.1	24	20.1	3	3.6	2	2.4	5	6.0	89	108.2	24	29.1	3	2.4	7	8.5	5	6.0	74	89.9	95	115.5	1	.4		
Central Counties	96	98.1	17	17.3	18	18.3	19	19.4	7	7.1	1	1.1	8	8.1	103	105.2	17	17.3	1	1.0	3	3.0	7	7.1	92	94.0	102	104.2	1	.4		
Southern Counties	63	111.3	13	22.9	20	35.3	9	15.9	1	1.7	1	1.7	3	5.3	55	97.1	11	19.4	1	1.7	1	1.7	4	7.0	41	72.4	45	79.5	1	1.7		
All Cities	112	101.9	22	20.0	23	20.9	34	30.9	4	3.6	2	1.8	8	7.2	141	128.3	37	33.6	3	2.7	3	2.7	11	10.0	106	96.4	145	131.9	1	1.9		
Over 100,000	31	108.5	5	22.3	2	8.0	7	31.2	1	3.6	1	1.1	2	8.9	21	93.8	4	17.8	1	3.6	1	3.6	1	4.4	26	116.1	27	120.6	1	3.9		
45,000 to 100,000	34	142.1	5	20.9	3	12.5	6	25.0	1	3.6	1	1.1	1	4.1	31	129.6	7	29.2	2	8.3	1	4.1	22	91.9	27	112.8	1	3.9				
20,000 to 45,000	18	70.3	7	27.3	8	31.2	18	70.3	2	7.8	2	7.8	3	11.7	49	191.6	17	66.4	1	3.9	1	3.9	4	15.6	23	89.9	54	21.1	1	3.9		
10,000 to 20,000	8	62.4	2	15.6	4	31.2	1	7.8	2	15.6	1	1.1	15	117.0	3	23.4	3	23.4	1	3.9	1	3.9	3	23.4	10	78.0	10	78.0	1	3.9		
Under 10,000	21	83.3	3	11.9	6	23.6	2	7.9	1	3.6	1	1.1	25	99.2	6	23.8	2	8.3	2	1.5	11	8.6	5	3.9	101	79.1	97	72.0	1	3.9		
Country	100	78.4	16	4.7	25	18.7	18	14.1	7	5.4	1	1.1	8	8.2	106	83.1	15	11.7	2	1.5	11	8.6	5	3.9	101	79.1	97	72.0	1	3.9		

U. S. Department of Agriculture, Weather Bureau. Condensed Summary for Month of November, 1917.

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

TEMPERATURE—IN DEGREES FAHRENHEIT.

Section Average.	Departure from the Normal.	Extremes.						
		Station.			Highest.	Date.	Station.	
		Station.	Highest.	Date.	Station.	Lowest.	Date.	
41.5	-0.3	Rome	77	5	Auburn	8	24	
		Paoli	77	7	Howe	8	24	

PRECIPITATION—IN INCHES AND HUNDRETHS.

Section Average.	Departure from the Normal.	Extremes.			
		Station.		Greatest Monthly Amount.	Least Monthly Amount.
		Station.	Greatest Monthly Amount.	Station.	Least Monthly Amount.
0.55	-2.68	Mt. Vernon	2.25	Crawfordsville	T