

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.

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BIRTHS FOR OCTOBER, 1918.

Total births, 4,823 (stillbirths excluded); state rate, 19.9.
Males, 2,473; females, 2,350.
White males numbered 2,415; white females, 2,306.
Colored births, 102; males, 58; females, 44.
Stillbirths, 177; white, 173; colored, 4.
The Northern Sanitary Section, population 1,016,514, reports 1,905 births; rate, 22.5.
The Central Sanitary Section, population 1,208,708, reports 1,869 births; rate, 18.5.
The Southern Sanitary Section, population 686,443, reports, 1,049 births; rate, 18.3.
The highest birth rate, Lake County, 36.7.
The lowest birth rate, Hancock County, 6.9.
Total births to date for 1917, 52,803.
Total births to date for 1918, 54,404.

ABSTRACT OF MORTALITY STATISTICS FOR OCTOBER, 1918.

Total deaths reported, 5,889; rate, 24.3. In the preceding month, 2,614 deaths; rate, 10.8. In the same month last year 2,991 deaths; rate, 12.2. Deaths by important ages were: Under 1 year of age, 601 or 10.2 per cent of total; 1 to 10, 663; 10 to 20, 468; 65 and over, 1,025 or 17.4 per cent of total.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 1,016,514, reports 2,276 deaths; rate, 26.9. In the preceding month, 941 deaths; rate, 11.1. In the same month last year, 1,022 deaths; rate, 11.9.

THE CENTRAL SANITARY SECTION, population 1,208,708, reports 2,544 deaths; rate, 25.2. In the preceding month, 1,163 deaths; rate, 11.5. In the same month last year, 1,299 deaths; rate, 12.8.

THE SOUTHERN SANITARY SECTION, population 686,443, reports 1,069 deaths; rate, 18.7. In the preceding month, 510 deaths; rate, 8.9. In the same month last year, 670 deaths; rate, 11.4.

REVIEW OF SECTIONS: The Northern Sanitary Section presents the highest death rate, 26.9, which is 2.6 higher than that for the entire state. The Northern Section also presents the highest death rate for lobar and bronchial pneumonia, diarrhea and enteritis, influenza and external causes. The Central Section presents the highest death rate for tuberculosis, diphtheria and croup, scarlet fever, puerperal septicemia and cancer. The Southern Section presents the highest death rate for typhoid fever, measles, whooping-cough, poliomyelitis.

RURAL: Population, 1,701,179, reports 2,889 deaths; rate, 20.4. In the preceding month, 1,373 deaths; rate, 9.7. In the same month last year, 1,565 deaths; rate, 10.9.

URBAN: Population, 1,210,486, reports 3,000 deaths; rate, 29.7. In the preceding month, 1,241 deaths; rate, 12.3. In the same month last year, 1,426 deaths; rate, 14.7. The cities named present the following death rates: Indianapolis, 30.9; Evansville, 31.3; Fort Wayne, 15.9; Terre Haute, 20.1; South Bend, 34.9; Gary, 61.2; East Chicago, 76.9; Hammond, 74.5; Muncie, 12.9; Richmond, 22.6; Anderson, 18.6; Elkhart, 27.5; Michigan City, 13.9; Lafayette, 44.3; Kokomo, 22.9; Logansport, 36.6; New Albany, 48.7; Marion, 12.6.

SUMMARY OF MORBIDITY AND MORTALITY FOR OCTOBER, 1918.

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

SMALLPOX: 126 cases in 26 counties, with no deaths. The counties reporting smallpox present were: Allen, 2; Cass, 6; Delaware, 5; Fountain, 1; Howard, 7; Huntington, 2; Jackson, 2; Laporte, 3; Madison, 5; Marion, 1; Marshall, 26; Miami, 1; Morgan, 1; Newton, 1; Owen, 8; Parke, 1; Porter, 30; Putnam, 2; Randolph, 6; Rush, 4; St. Joseph, 2; Sullivan, 4; Vanderburgh, 1; Vigo, 1; Wayne, 2; White, 2.

TUBERCULOSIS: 269 deaths, of which 233 were of the pulmonary form and 36 other forms. Male tuberculosis deaths numbered 128, females, 141. Of the males, 25 were married in the age period 18 to 40 and left 50 orphans under 12 years of age. Of the females, 49 were married in the same age period as above, and left 98 orphans under 12 years of age. Total number of orphans made in one month by this preventable disease, 148. Number of homes invaded, 252.

PNEUMONIA: 1,261 deaths; rate, 519.7 per 100,000. In the preceding month 130 deaths; rate, 536. In the same month last year, 207 deaths; rate, 84.5. Males, 704; females, 557.

TYPHOID FEVER: 180 cases in 52 counties, with 75 deaths. In the preceding month 207 cases in 57 counties, with 44 deaths. In the same month last year 187 cases in 52 counties, with 43 deaths.

DIPHTHERIA: 173 cases in 38 counties, with 34 deaths. In the preceding month 222 cases in 30 counties, with 31 deaths. In the same month last year 185 cases in 30 counties, with 23 deaths.

SCARLET FEVER: 164 cases in 40 counties, with 3 deaths. In the preceding month 156 cases in 38 counties, with 3 deaths. In the same month last year 94 cases in 31 counties, with 4 deaths.

MEASLES: 62 cases in 14 counties, with 1 death. In the preceding month 40 cases in 17 counties, with 1 death. In the same month last year 60 cases in 18 counties, with 1 death.

POLIOMYELITIS: 5 cases in 4 counties, with 4 deaths. The counties reporting deaths were: St. Joseph, 1; White, 1; Jennings, 1; Washington, 1.

RABIES: 2 persons bitten by rabid animals and treated by the State Board of Health during the month. There were no deaths.

EXTERNAL CAUSE: 194; males, 148; females, 46.

SUICIDE: 33. Males, 23; females, 10; suicide by poison, 7; by asphyxia, 1; by hanging or strangulation, 4; by drowning, 2; by firearms, 14; by cutting or piercing instruments, 4; other suicides, 1.

ACCIDENTAL OR UNDEFINED: 155. Males, 119; females, 36; other acute poisonings, 4; conflagration, 2; burns (conflagration excepted), 17; absorption of deleterious gases (conflagration excepted), 3; accidental drowning, 3; traumatism by firearms, 7; traumatism by fall, 24; traumatism in mines, 4; traumatism by machines, 7; railroad accidents and injuries, 29; street car accidents and injuries, 5; automobile accidents and injuries, 21; injuries by other vehicles, 4; landslides, other crushings, 4; motorcycles, 2; injuries by animals, 7; lightning, 1; electricity (lightning excepted), 4; other external violence, 7.

HOMICIDE: 6. Males, 6; homicide by firearms, 6.

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 depart-

ment in time to be tabulated with the report for the current month. With the report for October the following counties named below were delinquent in this matter:

BIRTHS.

Adams, 5; Allen, 1; Bartholomew, 2; Benton, 1; Boone, 1; Brown, 2; Carroll, 1; Clark, 31; Clay, 4; Daviess, 4; Dearborn, 7; Decatur, 3; Dekalb, 5; Delaware, 11; Elkhart, 6; Fayette, 10; Floyd, 3; Fountain, 11; Franklin, 18; Fulton, 1; Grant, 2; Greene, 6; Hamilton, 4; Harrison, 1; Hendricks, 2; Henry, 6; Jackson, 1; Jasper, 1; Jefferson, 4; Knox, 6; Kosciusko, 4; Lagrange, 1; Lake, 81; Laporte, 6; Lawrence, 5; Madison, 3; Marion, 2; Marshall, 1; Miami, 4; Monroe, 1; Montgomery, 3; Morgan, 6; Newton, 2; Noble, 3; Orange, 2; Parke, 6; Pike, 2; Putnam, 3; Ripley, 1; Rush, 1; Scott, 3; Spencer, 3; Starke, 3; Steuben, 2; St. Joseph, 12; Sullivan, 7; Switzerland, 2; Tippecanoe, 3; Union, 3; Vanderburgh, 9; Vermillion, 2; Vigo, 15; Warren, 1; Warrick, 5; Washington, 4; Wayne, 3; Wells, 3; White, 3; Whitley, 5.

DEATHS.

Adams, 4; Allen, 7; Bartholomew, 4; Boone, 2; Clark, 15; Clay, 1; Clinton, 1; Daviess, 7; Dearborn, 6; Decatur, 2; Dekalb, 3; Delaware, 4; Elkhart, 1; Fayette, 10; Floyd, 2; Fountain, 3; Franklin, 7; Fulton, 3; Gibson, 2; Grant, 4; Greene, 3; Hamilton, 1; Harrison, 2; Hendricks, 2; Henry, 2; Huntington, 1; Jackson, 2; Jefferson, 7; Kosciusko, 1; Lagrange, 1; Lake, 60; Laporte, 4; Marion, 7; Marshall, 1; Martin, 1; Monroe, 1; Morgan, 2; Noble, 1; Orange, 5; Parke, 3; Perry, 1; Pike, 1; Porter, 1; Posey, 3; Pulaski, 4; Putnam, 1; Randolph, 2; Shelby, 1; Spencer, 1; St. Joseph, 1; Sullivan, 4; Tippecanoe, 2; Tipton, 1; Vanderburgh, 9; Vermillion, 1; Vigo, 3; Wabash, 1; Warren, 1; Warrick, 7; Washington, 3; Wayne, 3; Wells, 1.

REPORT OF BACTERIOLOGICAL LABORATORY INDIANA STATE BOARD OF HEALTH FOR OCTOBER, 1918.

WILL SHIMER, M. D., Superintendent.

Sputum for tubercle bacilli—		
Positive	126	
Negative	384	
		510
Urine for tubercle bacilli—		
Negative	5	
		5
Pleural fluid for tubercle bacilli—		
Negative	2	
		2
Spinal fluid for tubercle bacilli—		
Negative	2	
		2
Feces for tubercle bacilli—		
Negative	1	
		1
Widal tests for typhoid fever—		
Positive	19	
Negative	100	
		119
Widal tests for paratyphoid fever "A"—		
Negative	119	
		119
Widal tests for paratyphoid fever "B"—		
Negative	119	
		119

Blood for Wassermann tests—		
Positive	27	
Negative	30	
Throat cultures for diphtheria bacilli—		
Positive	46	
Suspicious	11	
Negative	102	
Unsatisfactory	2	
Brains for rabies—		
Dogs:		
Positive	7	
Blood for counts.....	12	
Blood for malaria plasmodia—		
Negative	3	
Pus for gonococci—		
Females:		
Positive	31	
Suspicious	7	
Negative	15	
Males:		
Positive	16	
Negative	3	
Sex not given:		
Positive	2	
Negative	1	
Pus miscellaneous.....	3	
Pathological tissues—		
Carcinoma:		
Carcinoma of cheek.....	1	
Carcinoma of neck.....	1	
Carcinoma of chest.....	1	
Carcinoma of breast.....	3	
Carcinoma of axilla.....	1	
Carcinoma of dorsal.....	1	
Carcinoma of right ilium.....	1	
Carcinoma of thigh.....	1	
Carcinoma of uterus.....	2	
Carcinoma of rectum.....	1	
Carcinoma, location not given.....	1	
Sarcoma:		
Sarcoma of nasal cavity.....	1	
Sarcoma of finger.....	1	
Miscellaneous tissues.....	25	
Gasserian ganglions.....	4	
Urine for chemical analysis.....	62	
Spinal fluid for meningococci, suspicious.....	1	
Worm for identification.....	1	
Total number examinations made.....	1,304	
Doses of antityphoid vaccine sent out.....	81	

OUTFITS PREPARED AND SENT OUT DURING OCTOBER, 1918.

Tuberculosis	491
Diphtheria	368
Diphtheria epidemics.....	250
Widals	165

Wassermanns	78
Blood counts.....	14
Malaria	9
Gonococci	56

Total number outfits.....1,431

PERSONS TAKING "PASTEUR" TREATMENT OCTOBER, 1918.

NAME	Town	County	Age	Sex	Treat-ment Began	Treat-ment Finished
Wanda Coulson.....	Indianapolis	Marion	9	F	10-8-18	10-18-18
Walter A. Briles.....	Indianapolis	Marion	31	M	10-10-18	10-27-18
Rosa Sherman.....	Wheatland	Knox	36	F	10-14-18	10-31-18
Mrs. C. Bowman.....	Madison	Jefferson	41	F	10-24-18	11-10-18
Harry Elkin.....	Bowling Green	Clay	26	M	10-25-18	11-11-18

EPIDEMICS OCCURRING DURING OCTOBER, 1918.

INFLUENZA: Cases reported by name (Marion County not included):

October 7.....	343
October 8.....	1,129
October 9.....	1,529
October 10.....	183
October 12.....	2,002
October 14.....	995
October 16.....	1,702
October 17.....	2,045
October 18.....	1,463
October 21.....	1,348
October 22.....	872
October 23.....	421
October 24.....	381
October 25.....	612
October 26.....	461
October 28.....	336
October 29.....	476
October 30.....	379
October 31.....	488
Total	17,165

THINGS OF INTEREST FROM THE LABORATORY.

The present epidemic of influenza complicated by pneumonia is a very perplexing problem. It seems to be the general conclusion that influenza of itself does not cause death but does prepare the soil for other bacteria in the lungs.

The infectious material of influenza, even in high dilutions, causes the disease, so that it is almost impossible to stop an epidemic. Probably everybody is infected and only 25 per cent of all persons show marked symptoms of the disease.

Influenza bacilli persist for a long time in the nasopharynx so that the number of convalescent and contact carriers is always very high. The influenza bacilli seems to attack every tissue and organ. In some it is the intestinal type; in other the nervous; while in still others it is the respiratory type.

The pneumonia which is due to a secondary infection with some other organism is seldom caused by type I or II pneumococci, but by type III or IV. The character of type III pneumococci is uncertain and some bacteriologists question whether it should be included among the pneumococci at all. It is usually called streptococcus mucosus. However, it is agglutinated by its type sera and does not

produce hemolysis on fresh blood. No potent specific curative serum against type III has ever been produced.

Type IV pneumococci is a sort of "catch-all" for cocci that have the cultural characteristic of pneumococci. They are usually thrown into type IV because they do not agglutinate by the other type sera.

We also find streptococcus hemolyticus in the lung lesions. This common type of streptococci is the causative factor in most severe streptococcal infections. However, the streptococci found in influenza pneumonia does not tend to produce the usual general septicemia.

The relation of influenza bacilli to the other bacteria must be somewhat analogous to the initiative factor of hog cholera and the hog cholera bacillus. The latter is usually the cause of death while the former is the cause of the initial symptoms.

PUBLIC SCHOOL HEALTH SUPERVISION.

East Chicago, Indiana.

Health supervision in the public schools of the city of East Chicago is under the direction of two closely allied departments—Physical Education and Medical Supervision. Two practicing physicians are employed, each visiting three schools each morning that school is in session. The visits are made early in the forenoon so that physicians may admit returning children, out because of illness, or exclude those who for any reason should not be in school. First aid is rendered or minor treatments are made in many cases, but as a rule the child is referred to the family physician. Two registered nurses are employed for full time as teachers of hygiene and assistants in health supervision.

In addition to this daily routine of inspection, examination and assistance, all children are carefully examined one or more times during the year and accurate records are kept. Through the co-operation of the Board of Health, the Welfare Association and some of the industries additional nurses are furnished to assist in the examinations and to "follow up" all cases of exclusion for sickness. All pupils absent and reported sick are visited by the nurses. Communicable diseases known or suspected are reported at once to the City Board of Health.

Physicians and nurses make investigations and recommendations as to sanitary condition of the buildings and give instruction to teachers and pupils on hygiene or health topics. The Board of Education supports these movements, providing janitor service sufficient to insure cleanliness and means of maintaining pure, fresh air at all times. This is considered much more effective than disinfecting with chemicals.

Before the war made inroads on the teaching force, the school maintained a corps of five men and four women physical education teachers, who worked in full accord with the medical department. Each child has from thirty to sixty minutes each day under the direction of these teachers, who divide the time between supervised play and such physical and correctional exercises as are found necessary and helpful in developing physical strength and proper moral attitude. At present fewer men and more women are employed. Athletic activities are directed by this department.

The physical education teachers preach continually the gospel of fresh air and cleanliness. Use of the shower bath is as popular as well as an essential part of the program. The physical examinations are made and records kept jointly by the physical education and medical de-

partments. The aim is to make the two departments practically one, working constantly not only to produce healthy bodies and minds but to keep them healthy. In September, 1917, military training was inaugurated in both the junior and senior high schools. This is made an integral part of the work in physical education.

WHO KNOWS.

Why do we breed morons? Is it because we wish to have social ills and then organize and support societies for amelioration and reform? Who knows?

Why do we breed idiots? Surely it is not because we want to increase taxes to build asylums and support them? Who knows?

Why do we breed mosquitoes? Can it be because we like to have malaria? Who knows?

Why do we breed flies? Is it because we like to have typhoid fever? Who knows?

Why do we grow tobacco? Is it because we want to rob the soil of potash and thus cut down wheat production? Or is it because we want the dope which tobacco carries? Who knows?

Why do we have syphilis? Is it because we desire to be covered with sores, to have paresis, paranoia and locomotor ataxia? Who knows?

Why do we have consumption? Is it because we wish to breathe foul air? And otherwise live against hygiene and health? Who knows?

Why do we breed degenerates? Is it because we wish to build more institutions and to relieve the miseries they bring? Who knows?

Why do we build and maintain hospitals? "To care for the sick, of course." Oh, yes, but why be sick? Is it because we haven't enough practical sense to keep well? Who knows?

Why do Americans spend five hundred million dollars annually for medicines? Is it because they like to make themselves sick, or is it because they like the taste? Who knows?

Is civilization an organization which aims to secure the survival of the unfit? Who knows?

GERMAN SAVAGERY TO PRISONERS.

The report of Mr. Justice Younter's committee on the treatment by the Germans of prisoners of war taken during the spring offensives of 1918 has been issued. As in all previous reports, the tale is one of monotonous barbarity enlightened at only rare intervals by the conduct of a German officer who can be described as human. The statements were collected of upward of seventy British prisoners who succeeded in escaping. Each man took his life in his hand; but as one of them, Corporal A. J. Coney, said: "All the men in our compound felt that they might as well risk being killed going back to British lines as remain in German lines to be killed by our shells or starved by Germans." The treatment of the prisoners is indicated by the statement of a German officer, March 22, at Marchiennes: "We will break your brave English hearts tomorrow." After capture the men were in nearly every instance left without food for periods varying from twenty-four to forty-eight hours, during which they were kept constantly on the march. Wounded prisoners got no dressing or attention and were forced to march with the others. Even the French peasants who tried to give the prisoners food were prevented, and when they reached water the

men were not allowed to fall out to drink it. There was an utter disregard by the German command for its obligations whether entered into before or during the war. Prisoners were employed under pain of death on operations directly concerned with the German offensive. They were billeted in buildings, such as churches without a roof and with nothing to lie on or only verminous straw. The following is a typical day: "Reveille at 3:00 a. m., a drink of coffee but no food. Marched to work, which would start about 8:00 a. m. Rest from 12:00 to 1:00; then work to 5:00 p. m. Nothing to eat until 7:00 p. m., when soup made of a kind of dried fish and lentils and a loaf to three men were given. The prisoners, of course, became very weak and exhausted. During the spell between 12:00 and 1:00 they collected nettles, which they brought to the camp at night to eat. The result was that most of them became ill with bad feet and dysentery, but they were still made to work. The camp was in a very insanitary condition, and there were no beds or blankets or straw. The prisoners of the Army Medical Corps volunteered to take over the sanitary arrangements of the camp, but this was refused. Of the hospital at Valenciennes an escaped prisoner gives a gruesome account. The food was bad, the sanitary arrangements appalling. Eggs were sometimes issued to the men who had lost limbs, but the German orderlies stole them, and in some cases even the clothing of the prisoners, who had to lie in bed with nothing on except the bed covering made of papier-mache. One man, Private Ellis, lay in bed with a bullet wound in his lung for some days unattended. As he was in great pain he was crying, and was taken to a doctor who hit him a punch on the jaw. He came back crying and died next morning."—London Letter in Journal A. M. A.

The German savagery above detailed is of the same kind exhibited by the Hun and Goth ancestors of the present breed, when they burned the beautiful temple of Diana and raped and murdered the women and children of southern Europe. Verily the leopard can not change his spots.

PREVENTION AND CURE OF INFLUENZA.

The State Board of Health has received numerous letters from the laity giving opinions and information concerning the cure and prevention of influenza and pneumonia. The greatest stress is laid upon cure. One good woman writes: "You will find a thorough cure for influenza in pine tar. Take some pine tar. Put it in a kettle with some water and boil. Pour it into a stone jar and let it stand. The yellow tar tasting water will cure influenza and any other disease. Drink the tar water frequently, it will not hurt you." Another earnest soul writes: "We have a grand new public school building in our town. Now I would like to see that this flu does not enter it. As a preventative I am asking for the Bible to be used also the Lord's Prayer each morning in the schools. This will surely keep away the dreaded disease." A correspondent dating her letter "Somewhere in Indiana," says: "I approve the health authorities putting bans on, but why do they not put bans on spitters. The spitters are the worst enemies to the country. The spitter is filthy, indecent and inconsiderate. If conditions were reversed and women were the spitters and men were the decent ones, you would hear a howl go up to the heavens against women. Why can't men be decent like women and quit spitting? Spitting spreads influenza. I have seen nothing yet that equals the filthiness of that human being called

man, who spits on the sidewalk." A woman with a queer furtive look about her called at the office of the State Board of Health to tell how "flu" could be stamped out. She said: "Take peroxide of hydrogen. It will prevent or cure any case. I have tried it at my home and it has worked well. I know it will cure every time." Several letters were received from Christian Scientists stating that fear is at the bottom of the trouble. If we would divest ourselves of fear, we would have no influenza. In this connection we know that our soldier boys went over the top without the least fear, yet they got shot. It seems reasonable to say any person going over the top against influenza might possibly be shot, although they had no fear.

DON'TS.

Don't associate with the impolite and careless who spray your air with their spit.

Don't go to unnecessary public gatherings while the epidemic is on. Put your moving picture show money in Thrift Stamps.

Don't drink from common dippers and drinking cups.

Don't use a roller towel.

Don't patronize a soda fountain that does not use paper cups.

If you get the grippe: Go to bed and stay there until you are well, until your temperature has been normal for at least two days. If you are past fifty, or if you are not strong, stay in bed four days after normal temperature. Remember, the danger of grippe is pneumonia. Pneumonia is the penalty for disrespect to the grippe that gets out of bed too soon.

In conclusion, public officials can do little to protect you. You can do a great deal to protect yourself.—Bulletin N. C. State Board of Health.

GERMS.

There was a little germ,
Such a sly little worm,
A sailing all around by the million;
And then a little mask
Made a fine place to bask,
And he settled on the thing by the trillion.

There was a little man
Who was scared by the ban,
And he wore this little mask like a muzzle.
But the germ got in its work
Like a busy little Turk,
And the little man was worried o'er the puzzle.

But when he figured out
That the way to keep 'em out
Was not to trap 'em on his upper story;
It was just a bit too late,
For the germ had took the bait,
And the little man was on his way to Glory.

—H. E. Negley.

A Letter from a Good Hoosier Grandmother to the State Board of Health, says: "I have one good remedy which would keep the influenza from getting any worse so people wouldn't half to wear Mask. is to get pure tar mixed with Hot water enough to make a dark color to drink at any time that is a good remedy I use it in my home every day. This is a good thing for any kind of diseases."

THE MIGHTY MICROBE.

A TOAST.

It certainly is in full accord with the facts to designate the microbe as mighty. He actually rules the earth. He is omnipresent, there is not a lazy bone in his body and he knows his business. He has inhabited every throne since the first throne was established. But shake the velvet upon which the monarch sits, and from the dust which falls, if caught on a gelatin plate, not violets, but microbes will spring. Who then will say, that from the seats of the mighty, the mighty microbe may not rise to change a dynasty. But this is small work for microbes, for is it not necessary for them to work the soil before a grain of corn or a grain of wheat can be produced? And what is a few score kings, as compared with the millions and millions of tons of grain which annually feed the world?

Further, is it not absolutely necessary that the microbes get busy if we are to have hard cider and high balls? How also about the foaming amber fluid which made Milwaukee famous? Do or not microbes elaborate it? Yet more than this—Is it not a microbe that leavens the toothsome rye bread and gives schweitzer cheese its fine flavor and snap? Surely, without all of these this globe would hang darkling in space. Take away these gustatory and bibulous delights so bounteously supplied by the busy microbe, and who would care to live? If the high ball, and Pilsner, and rye bread and cheese were taken from us, who would not fade away? Is the microbe mighty? Ask the general practitioner when he lies in wait for meningitis and peritonitis, for parotitis and orchitis, for diphtheria and influenza, for typhoid and dysentery, for pneumonia and scarlet fever, for erysipelas and malaria. Ask the surgeon, while he sits and watches the smoke curl ceilingward from his twofer, and as he waits for appendicitis or salpingitis, or for bacillus tuberculosis and staphylococcus pyogenes aureus to invade some poor mortal and produce local lesions requiring laparotomy: Where, would be the occupation of the gynecologist if it were not for that frisky microbe of tadpole form which so unerringly finds his tortuous way through the dark corridors of the vas-deferens and eventually embraces his affinity at the portals of the fallopian tube? Yes, indeed, the microbe is not only mighty, he is immense. When he, she or it, whichever the microbe is, feels the creative throb, when the glow of perpetuation fills his frame, there is no necessity for him to seek a mate of opposite sex. All that is required is to pass a girdle around his cylindrical form, gradually drawing it tighter and tighter, enjoying, of course, each increasing constriction, and finally the parent is rewarded with a progeny as big as the old man himself, fully equipped for elaborating his products, and to, in his turn perform fission. Certainly, however, popularity will never attend this admirable method of perpetuation in the higher animal world.

The microbe is really mighty. Antony van Leeuwenhoek little knew what light he was letting into the world when he discovered the wriggling things in stagnant water. There is no need of naming and eulogizing the long list of truth seekers who millimeter by millimeter laid bare the story of the microbe. When, however, we come to Pasteur, that Himalayan peak in science, we must pause to at least pay silent tribute. His discoveries, his usefulness and genius, should make us hasten to call this the Age of Pasteur. He opened wide the door to an invisible world teeming with life so small, that only a portion will ever be fully revealed. The knowledge, the understanding, the comforts, the practical savings, for which we owe Pasteur, almost drown us with debt. Although a chemist and

not a physician, he raised medicine from an empiricism to a science. And it was he who said—"It is within the powers of a man to banish germ diseases from the earth."

In closing permit me to give the story of "The King and the Coccus."

A Staphylococcus pyogenes aureus,
On account of his name
Thought it a shame—
He received so little attention.
And he thought he would go
And see what he could do—
To settle the important contention.

So, this Staphylococcus, pyogenes aureus,
Did buckle on shoe
And said, now I'll do—
To man and to king a plenty.
So the very first thing,
He tackled a king,
And lodged in his 'pendix not empty.
Mr. King squirmed and rolled
Suffering pain that's untold,
And the doc's cried out—God help us,
Then one with fine eye
Looked up at the sky,
And yelled—"O, perityphlitis."

This raised a commotion
That spread o'er the ocean,
And the doc's with instruments gleaming,
Made a deep cut
And lifted that gut,
And the King forthwith stopped his screaming.
Now all of this trouble was caused by a bubble,
Merely a spot of a coccus,
Which bored into the king's belly
And churned it to jelly.
So hurrah for pyogenes aureus.

STATEMENT BY COL. CHARLES E. BANKS, MEDICAL ADVISOR OF THE BUREAU OF WAR RISK INSURANCE.

No human problem however small seems untouched by the war. Not the least of these problems is the housing of tuberculous men, women and children in sanatoria. And the needs are increasing rapidly. The operation of the selective service law is discovering many thousands of hitherto unknown cases of tuberculosis. Hundreds of them need sanatorium treatment.

When the drafted men reach the camp they are examined as quickly as possible by the regimental surgeon and the special examiners, generally within a week. If found unfit because of tuberculosis or other physical disabilities they are at once rejected and returned to their homes. They have never been accepted as soldiers and the Government apparently assumes no responsibility for them more than to furnish transportation back to their homes. They remain a civilian problem. And added to those rejected by the local boards, the whole number is becoming very serious. The number of those in the army who are breaking down is very considerable. The Medical Department of the army is building large hospitals for their care but many of them are anxious to return to civilian life and are demanding their discharge. They are entitled to compensation and sanatorium treatment under the War Risk Insurance Act. It is the policy of the Bureau of War Risk Insurance to place them in sanatoria as near

their homes as possible. The bureau pays a maximum of \$15.00 per week for their maintenance. Up to the present time, of the men who have applied for compensation for disability about one-half are tuberculous. There are not enough sanatoria nor nearly enough beds to provide care for this increasing number of known cases of tuberculosis.

This is very tersely stated by Col. Charles E. Banks, Medical Adviser of the Bureau of War Risk Insurance, who says concerning these men discharged from the army or rejected by draft boards, "it must be understood that this sudden and great demand on the bed space of the existing sanatoria in this country cannot be met without extension of their facilities—even of a temporary character, and in order to maintain the morale of the public which remains at home, and to conserve the health of the people, it is necessary that a large proportion of these cases be given sanatorium treatment. First: for their own benefit and second: to protect the health of the communities wherein they reside.

"This bureau already has about 4,000 cases under its jurisdiction, and is intending to place them in suitable sanatoria. This can be accomplished in some states, but is almost impossible in others owing to the long waiting lists which exist at many of the public institutions. I can, therefore, say and emphasize the opinion, that provision for these unfortunate men is a secondary war work and should be met by the public-spirited citizens by making provisions for the extension of local sanatoria to take care of the needs of the public in those regions where the present facilities are inadequate.

"This bureau needs bed-space in almost every state for the care and treatment of these discharged soldiers and sailors who are beneficiaries of this bureau under the act creating it."

GERMS HAVE THEIR VICTORIES no less renowned in war than in peace. The soldier's worst enemy enlists with him, and the deadliest foe and the thing that kills most men in war is not bullets, but bugs and bacilli. Whenever you mobilize and call to the colors a thousand men, you call with them at least twenty billion tubercle bacilli, ten billion typhoid, five billion pneumonia, and a couple of million each of the germs of measles, cerebrospinal meningitis, diphtheria and rheumatism.

In other words, there will be twenty cases of half-healed, chronic or half-healed consumption, ten who have recovered from typhoid but are still "carriers" of the bacilli, five at least whose noses and throats are still swarming with pneumonia germs, and two each who still carry about with them odd, surviving calories of the germs of measles, diphtheria, meningitis and even mumps.

The younger the soldiers the more certain you are of a full crop of these left-over germs, these "remnant" bugs which are eager to start a "bargain sale" spread whenever they are provided with plenty of fresh customers.—Dr. Woods Hutchinson in "The Doctor in War."

"THERE IS NO HOPE of an early abolition of war. There is no hope of ever abolishing it by appeals to reason or sentiment." These are the concluding words of Paul Poperroe, a writer of note. Dr. George W. Crite (Major Crite of the Medical Reserve Corps) seems to agree for he remarks: "As I reflected upon the intensive application of man to war in cold, rain, mud; in rivers, canals, and lakes; under the ground, in the air, and under the sea; infected with vermin, covered with scabs, adding the stench of his own filthy body to that of his decomposing

comrades; hairy, begrimed, bedraggled, yet with unflagging zeal striving eagerly to kill his fellows; and as I felt within myself the mystical urge of the sound of the great cannon I realized that war is a normal state of man."

Men's actions do not spring from desire for what would in fact bring happiness, for if they did the purely rational arguments against war would long ago have put an end to it.

War surely springs from impulse. The "Potsdam Gang" seems to have known this and made the most of it. The fighting instinct is probably the strongest that men possess. This is why so many cool and strong thinkers say it is utopian to talk of suppressing war.

It seems to be a biological fact that war is natural and hence inevitable. It has been said that "peace is an interval between two wars." This certainly appears to be true that life is a struggle, a fight, and he wins who is most fit; that is, he wins who is able to work out and accomplish his own salvation. There are no reasons for concluding that wars will not occur in the future. A League to Enforce Peace will fail until human nature changes and the league will not be necessary then, and no war will settle the matter.

Now is the time to prepare for the next war.

DAVENPORT SAYS: Recent studies in heredity show it to be quite probable that every disease, every particularity of form, structure and conduct of human beings are determined in a degree by hereditary factors. The nervous history of every child is thus, within limits, predetermined at the moment of conception. From this point of view the germ plasm carried by the parents becomes of increased importance. The family physician after becoming cognizant of a contemplated marriage which must lead to nervously defective or weak offspring, should take steps to prevent its consummation. If the rules of professional secrecy regarding matters of importance to progeny work against social progress, then they are immoral. The physician should take an active part in race hygiene, or he may be replaced in this capacity by the rise of a new profession.

FLOYD COUNTY HEALTH ASSOCIATION is the name of an organization projected by Glenn V. Scott, County Superintendent of Floyd County, Indiana. The health association is composed of pupils only, and of course its object is the promotion of health. The pupils of each schoolroom may elect its own officers. The chief health advisor is the teacher. A reward is offered for the cleanest and most sanitary schoolroom.

The daily inspection of each pupil requires answers to seven questions. 1st. Did you sleep with your windows open last night? 5th. Did you go without tea and coffee yesterday? 6th. Did you try to sit, stand and walk correctly yesterday?

We wish most heartily the fullest success to Mr. Scott in this work of improving the health of the people of his county. It is indeed of great importance and a most valuable work.

SYPHILIS THE TERRIBLE is trailed by abortions, stillbirths, sickly and crippled children, paranoia, paresis, paralysis, locomotor ataxia, diseases of the heart and of the blood vessels. Twenty-five per cent of our insanity is the outcome of syphilis. It is also a factor of considerable degree in causing poverty, feeble-mindedness and crime.

COUNTRY CHILDREN need care as well as city children, but they do not get as good care, and in consequence the young men drafted from country life to the army showed a higher percentage of rejections on account of physical fitness. The workers in hygiene therefore believe that the movement for child conservation so well begun in all large cities, and in many small ones, should be extended to the country. Country child care will include rural home and rural school hygiene. The program would be a survey to determine the physical condition of rural children, to thoroughly study the rural morbidity and mortality and at the same time carefully make a sanitary survey of homes and schoolhouses. With this data in hand intelligent action would be taken to improve matters. And then, when soldiers are needed, country boys would match city boys in strength and fitness to keep the world safe for democracy. Personal hygiene is the foundation of a nation's greatness.

FOOD POISONING.

Everybody has heard of food poisoning, yet few understand how food may poison one; and few know how frequently it occurs. Be it known, then, that food poisoning of greater or less degree happens daily in every locality. Some there are who continually suffer from chronic food poisoning and who drag out a miserable existence in consequence.

Gas or flatus, with abdominal distention, is food poisoning that is frequently attendant upon gorging, or because of an unbalanced diet. There are few persons indeed who have not experienced gastro-intestinal attacks of moderate severity which they attribute to something eaten shortly before. It is often possible to name with certainty the offending food. When the attack is more than ordinarily serious, neighbors hear of the sickness (poisoning), and when a number of persons are affected simultaneously the papers almost certainly print the fact. Most attacks of food poisoning are usually slight and recovery early, and so are considered negligible or of trivial importance. Later, the victim is disabused of this idea when headaches, biliousness, dizziness, spots before the eyes, muscular pains, roaring in the ears, sweaty hands and feet and other uncomfortable symptoms appear. Not only sometimes, but rather frequently, food poisoning brings about degenerative changes in the kidneys or blood vessels. Indeed, very many kidney and liver diseases result from repeated or perhaps almost daily food poisoning. Eczema is caused by food poisoning. It is really funny to him who knows this, to hear people ask in a drug store for a salve or lotion to cure eczema, when the only cure is to correct the diet. Here, surely, is a chance to throw physic to the dogs, and then eat sensibly.

Many cases of food poisoning proceed from bacterial poisons (ptomaine) which have been generated in meat and fish dishes which have been kept a few hours. If any one wishes to have practical experience with ptomaine poisoning, it is a simple matter. Their wish may be indulged by preparing from good materials some salmon or chicken salad, keep for twelve or fifteen hours in a refrigerator which is not extra clean, and then eat the stuff. And again, you may get an equal result by gorging with any meat salads. In the last instance (gorging), the poison-making microbes, always in meats, elaborate poisons in the intestines, the opportunity being afforded because the gorging hinders or overcomes the digestive processes. Where digestion is vigorous and food is taken

in moderation, poison-making microbes have no change. Here is the physiological argument against gorging.

Food poisoning—let us call it immoderate eating, especially of meats—is given as the cause of the reduced expectancy of life in the United States. It is also one cause of our reduced strength. The average strength of the early pioneers who lived on simple foods, sometimes scanty, was greater than the present average. Malaria played havoc even with the strong men of that day, but the same amount of malarial poison introduced into the present stock would certainly exterminate it.

A sum up of the whole matter is: foods with poisons formed in them before they are eaten, cause not a little poisoning, but by far the greater amount of food poisoning follows immoderate eating, especially immoderate eating of meat. Solomon "got onto this," for he said: "Be ye not among riotous eaters of flesh." And he also warns against gluttony over and over.

IRVIN S. COBB in a humorous article on diet says: "I predict that there is going to be an era of better cooking in America after this war. Our soldiers, returning home, are going to demand a tastier and more diversified fare than many of them enjoyed before they put on khaki and went overseas; and they are going to get it, too. Remembering what they had to eat under French roofs, they will never again be satisfied with meats fried to death, with soggy vegetables, with underdone breads."

For calling attention to the "dyspepsia producing poorly baked bread, soggy vegetables and fried to death meats found frequently on farmers' tables," an Indiana writer was accused of falsifying and plentiful abuse was heaped on him.

SCRAPS, is the name of a paper published by the Diamond Chain Mfg. Co. of Indianapolis. This company supports a medical and social welfare department and SCRAPS is printed in support of said department and, of course, has the object of holding together its hundreds of employes as a large family. The social welfare department is superintended by Miss Mercia Hoagland, and an able superintendent she is. The copy of SCRAPS which is on our table has several good articles upon health. The spitting campaign presents some hot shots. The Diamond Chain Mfg. Co. held a social and victory celebration in Tomlinson Hall, November 21st. SCRAPS is well edited and is a very bright and spicy publication.

CONGRESSMAN COX, Third Indiana congressional district, says: "Militarists tell us that the first line of defense of a country is in the navy and that the second line is in the coast line fortifications and that its third line of defense is in the army. I deny that. The first line of defense of this or any other country is the children of the country, and if by an appropriation or any amount of money there can be built up in this country a strong active, fighting race of men and women who are able to take care of themselves, that money, in my judgment, will be well and economically expended."

GONORRHEA THE ABOMINABLE is trailed by—blindness, sterility, heart disease, stricture, disease of the joints, abdominal tumors in women requiring mutilating surgical operations, and almost always remains a permanent bodily pollution.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM IMPORTANT CAUSES FOR OCTOBER, 1918.

NORTHERN SANITARY SECTION.

Total population.....	1,016,514
Total deaths.....	2,276
Death rate per 1,000.....	26.9
Pulmonary Tuberculosis, rate per 100,000.....	87.3
Other forms of Tuberculosis, rate per 100,000.....	11.1
Typhoid Fever, rate per 100,000.....	30.7
Diphtheria and Croup, rate per 100,000.....	10.6
Scarlet Fever, rate per 100,000.....	1.2
Measles, rate per 100,000.....	8.3
Whooping Cough, rate per 100,000.....	629.2
Lobar and Broncho-Pneumonia, rate per 100,000.....	62.6
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000.....	62.6
Cerebro-Spinal Fever, rate per 100,000.....	2.4
Acute Anterior Poliomyelitis, rate per 100,000.....	912.5
Influenza, rate per 100,000.....	4.7
Puerperal Septicemia, rate per 100,000.....	79.1
Cancer, rate per 100,000.....	102.7
Smallpox, rate per 100,000.....

CENTRAL SANITARY SECTION.

Total population.....	1,208,708
Total deaths.....	2,544
Death rate per 1,000.....	25.2
Pulmonary Tuberculosis, rate per 100,000.....	107.2
Other forms of Tuberculosis, rate per 100,000.....	13.8
Typhoid Fever, rate per 100,000.....	22.8
Diphtheria and Croup, rate per 100,000.....	19.8
Scarlet Fever, rate per 100,000.....	1.8
Measles, rate per 100,000.....	7.9
Whooping Cough, rate per 100,000.....	565.9
Lobar and Broncho-Pneumonia, rate per 100,000.....	52.6
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000.....	9
Cerebro-Spinal Fever, rate per 100,000.....	870.7
Acute Anterior Poliomyelitis, rate per 100,000.....	11.9
Influenza, rate per 100,000.....	89.3
Puerperal Septicemia, rate per 100,000.....	68.5
Cancer, rate per 100,000.....
Smallpox, rate per 100,000.....

SOUTHERN SANITARY SECTION.

Total population.....	686,443
Total deaths.....	1,069
Death rate per 1,000.....	18.7
Pulmonary Tuberculosis, rate per 100,000.....	89.1
Other forms of Tuberculosis, rate per 100,000.....	17.4
Typhoid Fever, rate per 100,000.....	35.4
Diphtheria and Croup, rate per 100,000.....	8.7
Scarlet Fever, rate per 100,000.....	1.7
Measles, rate per 100,000.....	10.4
Whooping Cough, rate per 100,000.....	276.2
Lobar and Broncho-Pneumonia, rate per 100,000.....	38.4
Diarrhoea and Enteritis (under 2), rate per 100,000.....	3.5
Cerebro-Spinal Fever, rate per 100,000.....	664.3
Acute Anterior Poliomyelitis, rate per 100,000.....	1.7
Influenza, rate per 100,000.....	69.9
Puerperal Septicemia, rate per 100,000.....	66.4
Cancer, rate per 100,000.....
Smallpox, rate per 100,000.....

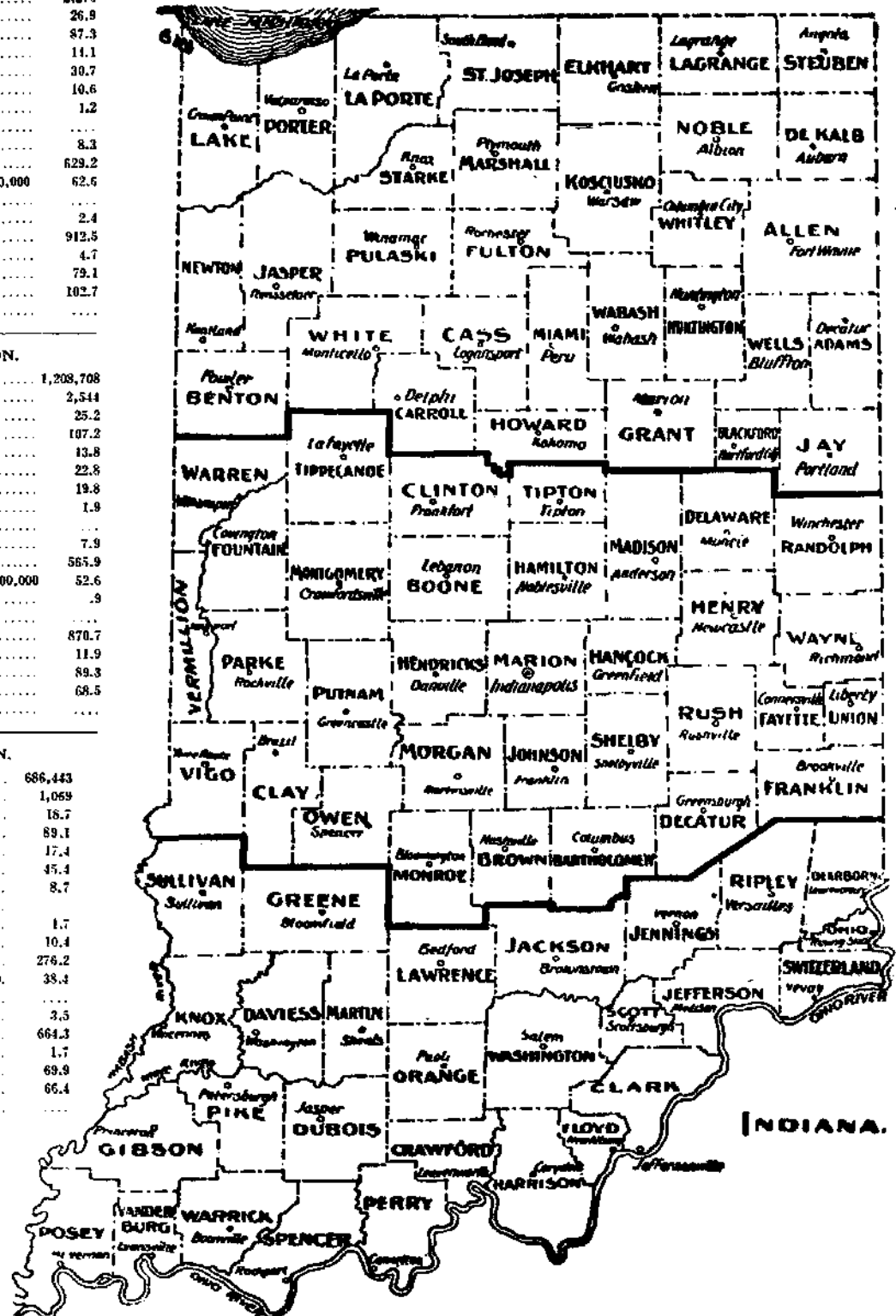


TABLE 1. Deaths and Births in Indiana by Counties and Sections During the Month of October, 1918. (Stillbirths Excluded.)

STATE AND COUNTIES	1918 Population, United States Census Bureau.	Total Deaths Reported for October, 1918.	Total Deaths Reported for October, 1917.	Total Deaths Reported for the Year 1918 to Date.	Total Deaths Reported for the Year 1917 to Same Date.	ANNUAL DEATH RATE PER 1000.	IMPORTANT AGES.										DEATHS FROM IMPORTANT CAUSES.										BIRTHS.						
							Under 1 Year.	Age 1 to 10.	Age 10 to 20.	25 Years and Over.	Tuberculosis.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Lobar and Bronchopneumonia.	Diarrhea and Enteritis (under 2 years).	Cerebro-Spinal Fever.	Acute Anterior Poliomyelitis.	Influenza.	Puerperal Septicemia.	Cancer.	External Causes.	Smallpox.	Deaths of Non-Residents.	Total Births.	Rate per 1,000 Population.				
State of Indiana.....	2,911,668	5,689	2,991	35,367	33,481	24.3	12.2	601	663	468	1,025	233	36	75	34	3	1	21	1,261	53	1	2	773	4	67	67	19	1,908	22.6	40	26.0		
Northern Counties.....	1,016,514	2,276	1,022	12,621	11,551	26.9	11.8	228	261	164	396	74	12	26	9	1	7	533	53	2	773	4	67	67	19	1,908	22.6	40	26.0				
Adams.....	21,840	19	13	188	163	10.4	6.9	3	1	1	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Allen.....	106,781	133	113	1,217	1,081	15.2	12.7	13	8	11	44	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Benton.....	12,688	32	10	128	82	30.3	9.2	1	1	1	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Blackford.....	15,820	22	10	156	171	18.7	7.2	4	2	1	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Carroll.....	17,670	37	14	180	183	18.0	9.1	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cass.....	37,881	95	56	539	541	30.1	17.3	7	9	9	24	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
DeKalb.....	25,054	28	23	239	279	13.4	10.6	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Elkhart.....	52,295	104	46	697	582	23.8	10.4	16	10	3	20	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fulton.....	16,679	32	14	183	176	22.7	9.7	4	4	3	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Grant.....	51,420	71	58	730	691	16.6	12.9	3	11	3	32	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Howard.....	37,002	72	42	451	438	23.3	12.3	7	9	6	10	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Huntington.....	29,048	24	23	328	297	9.9	9.1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Jasper.....	13,044	26	17	129	139	23.9	15.2	1	2	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Jay.....	24,661	19	23	233	264	9.1	10.7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Kosciusko.....	27,936	67	32	377	268	28.8	13.3	4	5	9	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Lagrange.....	15,148	40	15	173	150	31.7	11.6	5	3	7	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Lake.....	120,245	623	174	2,450	1,874	62.2	17.2	94	107	31	25	11	2	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Laporte.....	51,956	77	39	572	550	17.8	9.1	9	10	4	19	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Marshall.....	24,175	87	29	294	277	43.2	14.0	3	10	5	17	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Miami.....	30,186	52	33	340	314	20.7	12.8	4	9	4	14	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Newton.....	10,549	59	6	122	114	67.1	5.5	1	15	4	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Noble.....	24,403	49	25	294	291	24.1	11.7	3	6	8	12	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Porter.....	21,673	38	17	218	214	21.0	9.5	2	2	3	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Pulaski.....	13,312	19	4	117	116	17.1	1.5	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
St. Joseph.....	106,680	17	6	106	132	19.1	8.6	2	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Steuben.....	14,274	34	7	192	157	25.5	5.8	1	6	1	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
St. Joseph.....	105,450	283	102	1,182	1,122	32.2	12.0	29	35	19	33	9	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Wabash.....	26,926	27	25	292	262	12.8	10.9	2	2	2	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Wells.....	22,418	26	27	188	187	13.9	13.9	1	3	2	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
White.....	17,602	47	12	193	171	22.0	8.0	3	6	7	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Whitley.....	16,882	25	8	163	154	17.7	5.4	2	3	3	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Central Counties.....	1,208,708	2,544	1,299	15,777	14,476	25.2	12.8	259	244	216	425	108	14	23	20	2	8	579	53	1	877	12	90	69	255	1,869	18.6	18	8.6				
Bartholomew.....	24,993	41	20	316	256	19.7	12.1	7	1	2	13	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Boone.....	24,673	52	20	290	271	25.3	9.3	2	7	9	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Brown.....	7,975	5	12	70	82	7.5	17.6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Clay.....	32,535	30	31	295	287	11.0	10.8	3	3	3	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Clinton.....	26,674	61	24	353	296	27.4	10.2	8	6	7	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Decatur.....	18,793	21	15	199	214	13.4	9.2	3	2	1	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Delaware.....	62,901	33	54	606	611	12.0	11.9	8	6	4	22	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fayette.....	15,178	54	15	194	203	42.7	11.8	4	7	4	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Fountain.....	20,439	35	25	225	209	20.5	11.4	3	4	1	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

TABLE 2. Deaths and Births in Indiana by Cities and Groups During the Month of October, 1918. (Stillbirths Excluded.)

CITIES.	1918 Population, United States Census Bureau.	Total Deaths Reported for October, 1918.	Total Deaths Reported for October, 1917.	Total Deaths Reported for the Year 1918 to Date.	Total Deaths Reported for the Year 1917 to Same Date.	ANNUAL DEATH RATE PER 1000.	IMPORTANT AGES.				DEATHS FROM IMPORTANT CAUSES.																BIRTHS.	
							Under 1 Year.	Age 1 to 10.	Age 10 to 20.	25 Years and Over.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Lobar and Broncho-Pneumonia.	Diarrhea and Enteritis (under 2 years).	Cerebro-spinal Fever.	Acute Anterior Poliomyelitis.	Influenza.	Puerperal Septicemia.	Cancer.	External Causes.	Smallpox.	Deaths of Non-Residents.	Total Births.
State of Indiana.....	2,911,665	5,889	2,991	35,387	33,481	24.3	601	663	468	1,025	233	36	75	34	3	1	21	1,261	128	1	4	2,030	17	197	194	280	4,823	19.8
Rural.....	1,701,179	2,889	1,565	18,661	18,117	20.4	257	308	273	636	125	19	47	9	1	1	14	491	52	1	3	1,038	9	104	89	137	2,640	18.6
Urban.....	1,210,486	3,000	1,426	16,726	15,364	29.7	344	357	195	389	108	17	28	25	2		7	770	70	1	1	992	8	93	105	143	2,183	21.6
Cities of the First Class, Population 100,000.....	289,577	748	357	4,185	3,863	30.8	91	71	54	87	40	4	3	11			1	221	19	1	209	1	25	20	62	508	27.0	
Indianapolis.....	289,577	748	357	4,185	3,863	30.8	91	71	54	87	40	4	3	11			1	221	19	1	209	1	25	20	62	508	27.0	
Cities of the Second Class, Population 45,000 to 100,000.....	299,257	636	335	3,712	3,419	25.5	73	65	37	99	21	3	10	2			2	151	13	1	186	3	30	21	26	442	17.7	
Evansville.....	77,884	203	108	1,106	1,089	31.3	23	21	13	29	8	2	5	2			1	56	3		61	6	4		8	166	16.3	
Fort Wayne.....	79,846	106	68	934	825	15.9	11	7	10	29	5	1	1	1			1	17	3		9	1	11	5	10	124	18.6	
Terre Haute.....	68,639	115	76	833	778	20.1	15	10	3	24	6	2	2	2			1	18	4		29	1	10	5	4	74	12.9	
South Bend.....	72,898	212	63	819	746	34.9	11	24	27	17	2						1	60	6		87	1	3	7	4	138	22.7	
Cities of the Third Class, Population 20,000 to 45,000.....	329,018	1,026	410	5,123	4,593	38.5	125	159	56	103	22	6	11	7	2		2	316	22		359	3	19	45	29	726	27.2	
Gary.....	30,000	153	67	753	680	61.2	29	22	4	3	3	3	3	4				52	3		58	1	1			145	58.0	
East Chicago.....	31,829	204	39	621	480	76.9	1	35	57	12	3							83	4		62	1	1	10		83	31.3	
Hammond.....	27,961	173	30	590	452	74.5	12	19	10	5	1	1	1	1			1	8	3		56	2	9		11	77	33.2	
Muncie.....	25,882	28	30	338	339	12.9	8	3	9	9								3	3		3	2	1		2	56	25.9	
Richmond.....	25,463	43	30	311	328	22.6	5	5	3	14	1	1						1	1		16	1	1			23	10.8	
Anderson.....	24,464	38	28	295	348	18.6	3	6	2	6	2							7	4		4	4				46	22.6	
Elkhart.....	22,688	52	23	304	272	27.5	8	5	3	14	2		1					5	3		15	1	1		3	54	28.6	
Michigan City.....	22,314	26	18	221	230	13.9	1	5	5	5								9	5		5	1	4			36	20.4	
Lafayette.....	21,676	80	36	424	359	44.3	5	7	9	8	2	1	3	1	2			20	1		24	1	3	3	12	42	23.8	
Kokomo.....	22,569	43	23	291	272	22.9	7	2	5	3	3							18	2		7	4	2			52	27.6	
Logansport.....	21,630	66	27	319	235	36.6	4	9	7	8	1							11	1		34	2	4			31	17.3	
New Albany.....	23,629	96	30	355	344	48.7	4	17	6	15	3	1	1	1			1	11	1		54	2	2		1	44	22.3	
Marion.....	20,013	21	18	261	262	12.6	2	2		8	1	1	1	1				1	1		1	1	1			34	20.4	
Cities of Fourth Class, Population 10,000 to 20,000.....	165,854	286	179	1,910	1,863	20.7	22	32	26	56	13	4	1	4			2	43	9		114	9	10		4	261	18.9	
Vincennes.....	17,679	23	22	238	231	15.6	1	2	1	8	1	2						1	3		4	1	1			34	23.1	
Mishawaka.....	17,781	17	13	148	135	11.5	2	3	2	4	2							6	4		4	1	2			22	14.8	
Peru.....	12,572	15	29	154	152	14.3	1	1	1	7	1							1	1		1	1				28	26.7	
Laporte.....	13,942	24	13	174	177	20.6	6	1	1	6	1							1	1		1	1			2	38	30.9	
Newcastle.....	14,801	26	14	126	184	21.1	4	3	3	5	1							4	4		8	1				18	14.6	
Elwood.....	11,028	10	15	136	126	17.4	2	2	1	5	1							4	4		5					25	27.2	
Crawfordsville.....	11,722	29	17	131	142	20.7	1	3	7	6	1							10	1		9	2	1			13	13.3	
Shelbyville.....	11,437	30	13	132	141	27.3	4	4	3	3	2							4	1		16	1	1			6	6.3	
Huntington.....	11,034	8	8	135	126	8.7	1	1	1	1								2	2		1	2	1			24	26.1	
Jeffersonville.....	10,412	26	13	160	168	19.9	1	3	1	3	1							4	1		14	1	1			14	16.1	
Bedford.....	10,877	37	11	122	107	30.8	2	2	2	3	2							3	1		25	1	1		1	12	13.2	
Brazil.....	10,630	17	9	107	109	19.1	1	1	3	3	2							6	3		4					15	20.3	
Bloomington.....	11,030	22	9	147	126	22.1	4	1	6	2	1	1						3	2		11	1	1			11	11.0	
Cities of Fifth Class, Population 5,000 to 10,000.....	135,780	302	145	1,796	1,626	26.7	33	30	22	44	12	3	1					39	8		124	1	10	9	2	246	21.7	
Frankfort.....	10,000	31	12	170	120	37.2	4	2	5	7	1							4	1		15	1	1			28	33.6	
Columbus.....	9,379	16	14	127	101	20.5	3	2	1	3	2							1	2		2	1	1			17	21.7	
Goshen.....	9,098	23	4	140	107	30.3	4	5	1	4	1							2	2		10	1	2			17	22.4	
Wabash.....	8,744	16	7	110	85	21.9	1	1	1	4	1							2	2		5	2				19	26.1	
Cannonsville.....	8,278	35	11	119	120	50.7	1	3	1	3	3							1	1		25					17	24.6	
Clinton.....	8,215	13	7	106	80	18.9	1	3	1	2								2	1		6					10	14.6	
Whiting.....	8,147	36	5	123	77	53.0	0	4	3	1								13	1		10	2				30	44.2	
Washington.....	7,854	13	7	103	102	19.8	3	3	1	1								1	1		8	1				18	27.5	
Linton.....	7,804	8	10	71	59	12.5	2	2		1								1	1		2	1			1	11	17.3	
Valparaiso.....	7,407	17	8	87	67	27.5	3	3	4	4								2	2		6	1	1			13	21.1	
Lafayette.....	7,074	15	8	85	91	35.4	2	1	3	2								1	1		8					7	11.9	
Madison.....	6,934	11	7	96	103	19.0	2	2	2	2	1							1	2		2	2				13	22.4	
Princeton.....	6,888	29	13	95	96	52.0	3	4	3	3								1	2		20	2	2			11	10.7	
Hartford City.....	6,637	6	6	70	80	10.8	1	1	3	3								1	1		1	2	2			10	18.1	
Seymour.....	6,309	17	12	97	92	33.2	1	1	2	6								2	1		4	1				15	28.5	
Kendallville.....	5,943	7	7	64	70	14.1	3	3	1	3	1							1	1		1					6	12.1	
Mt. Vernon.....	5,821	9	5	59	78	4.1	1	1		1								2			1					2	4.1	
Greensburg.....	5,648	5	5	72	93	14.9	1	1		1								2								2	4.2	

Mortality of Indiana, October, 1918 (Stillbirths Excluded.)

DEATHS AND ANNUAL DEATH RATES PER 100,000 POPULATION FROM IMPORTANT CAUSES.

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Pulmonary Tuber- culosis.		Other Forms Tuber- culosis.		Typhoid Fever.		Diph- theria and Croup.		Scarlet Fever.		Measles.		Whoop- ing Cough.		Lobar and Broncho Pneumonia.		Diarrhea and Enteritis (Under 2 Years.)		Cerebro- spinal Fever.		Acute Anterior Poli- myelitis.		Influenza.		Puer- peral Septi- cemia.		Cancer.		External Causes.		Small- pox.	
	POPULATION.	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.....	2,911,665	233	93.0	36 14.8	75 30.9	34 14.0	3 1.2	1 4	21 8.6	1,261 619.7	128 52.7	1 4	4 1.6	2,030 836.6	17 7.1	197 81.2	194 79.9															
Northern Counties.....	1,016,514	71	87.3	12 14.8	26 30.7	9 19.6	1 1.9		7 8.3	533 629.2	53 62.6		2 2.4	773 912.5	4 4.7	67 76.1	67 102.7															
Central Counties.....	1,208,708	108	107.2	14 13.8	23 22.8	20 19.8	2 1.9		8 7.9	570 565.9	53 52.6	1 9		870 77.7	12 11.9	90 89.3	69 68.5															
Southern Counties.....	686,443	51	89.1	10 17.4	26 45.4	3 8.7		1 1.7	6 10.4	158 276.2	22 35.4		2 3.5	380 664.3	1 1.7	40 69.9	35 66.4															
All Cities.....	1,210,486	108	107.1	17 16.8	28 27.7	25 24.8	2 1.9		7 6.8	770 763.3	70 69.4	1 9	1 9	992 983.4	6 7.9	93 82.2	105 104.1															
Per 100,000.....	289,577	40	165.7	4 16.6	3 12.4	11 45.5			1 4.1	221 915.5	15 74.6	1 4.1		209 866.1	1 4.1	25 103.6	26 82.9															
5,000 to 100,000.....	299,257	21	84.2	3 12.0	10 40.1	2 8.0			2 5.0	151 605.5	13 52.1		1 4.0	312 674.8	3 12.0	30 120.3	21 84.2															
3,000 to 45,000.....	320,018	22	84.3	5 22.5	11 41.2	1 7.6	2 7.4		2 7.4	316 1,184.9	22 82.4			339 1,346.2	3 11.2	19 71.2	45 168.7															
1,000 to 20,000.....	165,854	13	94.0	4 22.9	1 7.6	2 29.9			2 14.4	43 311.1	9 65.1			114 824.8			10 72.3															
Under 10,000.....	135,750	12	105.0	3 26.5	1 8.8				39 344.7	8 70.0			124 1,095.9	1 8.8	10 98.4	9 79.5																
Country.....	1,701,179	125	89.2	19 13.4	47 33.1	9 6.3	1 7	1 7	14 9.9	491 346.3	56 40.9		3 2.1	1,038 732.2	9 6.3	104 73.4	89 62.8															

U. S. Department of Agriculture, Weather Bureau. Condensed Summary for Month of October, 1918.

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.
57.8	+3.5	2.....	89	31	Laporte.....	23	1

PRECIPITATION—IN INCHES AND HUNDREDTHS.

Section Average.	Departure from the Normal.	Extremes.			
		Station.	Greatest Monthly Amount.	Station.	Least Monthly Amount.
2.88	+0.41	Marengo.....	5.35	Vera.....	0.98

THE STATE PROGRAM FOR THE ERADICATION OF TUBERCULOSIS.

By H. W. HILL, M. D., M. B., D. P. H.

(Extracts from paper presented at St. Louis, meeting Mississippi Valley Conference on Tuberculosis, Oct. 2-4, 1918.)

We may assume that until that glad day when a reliable immunizing agent against human tuberculosis may shine forth upon the world, our only real weapon against human tuberculosis is the isolation of the infectious cases.

What then would be my State program? First, the provision of isolation facilities for the infectious cases and, second, the segregation of these cases therein. We have, I think a general average of approximately two such infectious cases per 1,000 of the population, and that means we need a 100-bed sanatorium for each 50,000 persons. Inasmuch as our populations are not distributed in 50,000 lots, and inasmuch as the county population in many cases approach to such a population, or can be combined together to make such a population, I think the county sanatorium for the advanced case, in the proportion of 100 beds to 50,000 population, is the ideal.

What should be done with the non-infectious case, especially the early non-infectious case? These, I believe, should be trained at the sanatoria for open cases, in buildings situated on the same grounds or separated from the open cases. Residence in these institutions for the non-open cases should be avowedly for educational purposes. It is often advocated to teach the open case at a sanatorium so that he may go home still open, and yet be harmless because he now knows how to prevent infection of his associates. This is a dangerous delusion, a snare, and an impossibility in 99 cases out of every hundred. But to train the non-infectious case how to live for his own best interests is possible, practicable and a reasonable solution of the sociological difficulties.

I agree that we cannot house all the tuberculous in sanatoria; if we attempt it, the race is doomed to financial disruption. But we can and must isolate, preferably in sanatoria, all the tuberculous who are infectious, and if we do not the race is doomed to continue tuberculous as one of the joys of living for centuries to come.

These county sanatoria, established at the rate of about

100 beds per 50,000 population for open cases, together with sufficient beds for the non-open cases, should be more than the anti-tuberculosis center of the county. They should supervise the county unit for health propaganda in general. They should form the center for tuberculosis clinics truly but also for child welfare clinics, for adult clinics, for school clinics, for venereal disease clinics and in general for all other health efforts of the county or counties associated together.

Thus, I believe a series of such consolidated health centers, if you like, can be provided, with a minimum of physicians, nurses, beds and a maximum of efficiency.

These county health centers should be under state supervision; and that state supervision should be strong, unified, progressive. The controlling policy should be centralization of principles of action, decentralization of the action itself. Independent control would be a total failure; so also a centralized staff attempting to operate from a distance must in the long run fail. Centralized control, decentralized operation—that is the proper motto of all big business.

As things are now, the best control would be a central body, containing a representative of the state organization for supervision of State Institutions, whatever that body may be called in the various states; this body to build and maintain the grounds and buildings; a representative of the State Board of Health, to deal with the police questions that must unavoidably arise; representatives of the State educational mechanism, to deal with the school problems; a representative of the American Red Cross; a leading sociologist of the State University; a representative of each county government; this body to work through an executive committee, and an executive officer, whose duties shall be confined to these sanatoria. I am inclined to think that a representative of the Army Medical Service might well have a recognized place on such a body, in an advisory capacity.

A local County Public Health Association should exist in every county or group of associated counties, and a committee of this county association should be the local sanatorium committee, dealing with the State Central Controlling body, directly, or through its county representative.