MONTHLY BULLETIN

Indiana State Board of Health

[Entered as second-class matter at the Indianapolis Postoffice.]
[Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 9, 1918.]

VOLUME XXII. INDIANAPOLIS, JANUARY, 1919. NUMBER 1.
25 Cents a Year.

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BIRTHS FOR JANUARY, 1919.

Total births, 4,634 (stillbirths excluded); state rate 18.9.

Males, 2,361; females, 2,273.

White males, 2,299; white females, 2,221.

Colored births, 114; males, 62; females, 52.

Stillbirths, 152; white, 146; colored, 6.

The Northern Sanitary Section, population 1,042,514, reports 1,758 births; rate 20.2.

The Central Sanitary Section, population 1,219,131, reports 1,815 births; rate, 17.9.

The Southern Sanitary Section, population 686,443, reports 1,061 births; rate, 18.5.

The highest birth rate, Pike County, 34.1.

The lowest birth rate, Dekalb County, 8.1.

Total births to date for 1919, 4,634.

Total births to date for 1918, 5,071.

ABSTRACT OF MORTALITY STATISTICS FOR JANUARY, 1919.

Total deaths reported, 4,078; rate, 16.6. In the preceding month, 5,366 deaths; rate, 22.1. In the same month last year, 3,502 deaths; rate, 14.4. Deaths by important ages were: Under 1 year of age 413, or 10.1 per cent of total; 1 to 10, 365; 10 to 20, 239; 65 and over, 1,092, or 26.7 per cent of total.

SANITARY SECTIONS: THE NORTHERN SANITARY SECTION, population 1,042,514, reports 1,394; rate, 16.0. In the preceding month, 1,954 deaths; rate, 23.1. In the same month last year, 1,229 deaths; rate, 14.5.

THE CENTRAL SANITARY SECTION, population 1,219,131, reports 1,771 deaths; rate, 17.4. In the preceding month 2,225 deaths; rate, 22.1. In the same month last year, 1,509 deaths; rate, 14.9.

THE SOUTHERN SANITARY SECTION, population 686,443, reports 913 deaths; rate, 15.9. In the preceding month, 1,187 deaths; rate, 20.7. In the same month last year, 764 deaths; rate, 13.3.

REVIEW OF SECTIONS: The Central Sanitary Section presents the highest death rate, which is 0.8 higher than that for the entire State. The Central Section also presents the highest death rate for lobar and bronchopneumonia, cancer and smallpox. The Northern Section presents the highest death rate for typhoid fever, diphtheria and croup, scarlet fever, diarrhea and enteritis, cerebro-spinal fever, poliomyelitis and puerperal septicemia. The Southern Section presents the highest death rate for tuberculosis, measles, whooping cough and influenza.

RURAL: Population 1,701,179, reports 2,271 deaths; rate, 16.0. In the preceding month, 2,675; rate, 18.9. In the same month last year, 1,814 deaths; rate, 12.8.

URBAN: Population 1,246,909, reports 1,807 deaths; rate, 17.4. In the preceding month, 2,691 deaths; rate, 26.7. In the same month last year, 1,688 deaths; rate, 16.5. The cities named present the following death rates: Indianapolis, 17.7; Evansville, 14.0; Fort Wayne, 13.4; Terre Haute, 17.3; South Bend, 13.7; Gary, 13.7; East Chicago, 16.2; Hammond, 25.8; Muncie, 13.4; Richmond, 13.7; Anderson, 20.1; Elkhart, 15.3; Michigan City, 18.8; Lafayette, 29.3; Kokomo, 18.1; Logansport, 22.2; New Albany, 17.3; Marion, 13.8.

SUMMARY OF MORBIDITY AND MORTALITY FOR JANUARY, 1919.

Influenza, as in the previous month, was reported as the most prevalent disease. The order of prevalence was as follows: Influenza, scarlet fever, pulmonary tuberculosis, bronchial pneumonia, diphtheria, tonsillitis, lobar pneumonia, smallpox, measles, chickenpox, erysipelas, typhoid fever, whooping cough, other forms of tuberculosis, malaria fever, intermittent and remittent fever, diarrhea and enteritis, rheumatism, cerebro-spinal fever, puerperal

fever, dysentery, trachoma, anthrax, ophthalmia neonatorum, poliomyelitis, rabies in human, rabies in animals.

SMALLPOX: 255 cases in 31 counties, with 1 death. The counties reporting smallpox present were: Adams, 1; Allen, 22; Dearborn, 1; Decatur, 9; Delaware, 1; Elkhart, 62; Fayette, 1; Fountain, 6; Hamilton, 3; Hancock, 1; Huntington, 14; Kosciusko, 1; Lake, 3; Laporte, 33; Lawrence, 3; Madison, 15; Marion, 4; Montgomery, 1; Orange, 1; Parke, 6; Porter, 14; Rush, 5; Steuben, 3; St. Joseph, 3; Sullivan, 10; Union, 5; Vanderburgh, 6; Vigo, 6; Wayne, 1; White, 13; Whitley, 1.

TUBERCULOSIS: 334 deaths, of which 295 were of the pulmonary form and 39 other forms. Male tuberculosis deaths numbered 158, females, 176. Of the males 39 were married in the age period 18 to 40 and left 78 orphans under 12 years of age. Of the females, 62 were married in the same age period as above and left 124 orphans under 12 years of age. Total orphans made in one month by this preventable disease, 202. Number of homes invaded, 319.

PNEUMONIA: 510 deaths; rate, 207.6 per 100,000. In the preceding month 917 deaths; rate, 377.9. In the same month last year, 470 deaths; rate, 190.2. Males numbered 254, females, 256.

INFLUENZA: 10,945 cases in 84 counties, with 888 deaths. In the preceding month 27,248 cases in 92 counties, with 1,917 deaths.

TYPHOID FEVER: 30 cases in 12 counties, with 12 deaths. In the preceding month 47 cases in 20 counties, with 29 deaths. In the same month last year 48 cases in 18 counties, with 17 deaths.

DIPHTHERIA: 207 cases in 39 counties, with 37 deaths. In the preceding month 230 cases in 42 counties, with 39 deaths. In the same month last year 382 cases in 52 counties, with 65 deaths.

SCARLET FEVER: 270 cases in 45 counties, with 7 deaths. In the preceding month 210 cases in 40 counties, with 5 deaths. In the same month last year 694 cases in 67 counties, with 22 deaths.

MEASLES: 230 cases in 24 counties, with 5 deaths. In the preceding month 113 cases in 22 counties, with 2 deaths. In the same month last year 820 cases in 64 counties, with 8 deaths.

POLIOMYELITIS: No cases reported, with 2 deaths. In the preceding month 1 case, with 5 deaths. In the same month last year 6 cases in 4 counties, with 2 deaths.

DEATHS FROM EXTERNAL CAUSES (Total), 161; males, 119; females, 42.

SUICIDES, 19; males, 16; females, 3. Suicide by poison, 4; by asphyxia, 3; by hanging or strangulation, 2; by drowning, 1; by firearms, 7; by cutting instruments, 2.

ACCIDENTAL OR UNDEFINED (Total), 132; males, 97; females, 35. Poisoning by food, 2; other acute poisoning, 8; conflagration, 1; burns, (conflagration excepted), 20; absorption of deleterious gases, 5; accidental drowning, 7; traumatism by firearms, 1; by cutting instruments, 1; by fall, 14; in mines, 3; by machines, 9; railroad accidents and injuries, 32; street car, 1; automobile, 12; other vehicles, 2; landslides, other crushings, 3; bicycles, 1; injuries by animals, 5; electricity (lighting excepted), 2; fractures, cause not specified, 1; other external violence, 2.

HOMICIDE (Total), 10; males, 6; females, 4; by firearms, 7; by other means, 3.

HEALTH OFFICERS, ATTENTION.

Delayed Birth and Death Returns.

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

BIRTHS.

Allen, 9; Benton, 8; Boone, 3; Brown, 1; Cass, 6; Clark, 13; Clay, 11; Clinton, 3; Daviess, 2; Dearborn, 21; Decatur, 1; Dekalb, 11; Delaware, 2; Elkhart, 2; Fayette, 2; Floyd, 4; Fountain, 6; Gibson, 6; Grant, 3; Greene, 7; Hancock, 1; Harrison, 8; Hendricks, 5; Henry, 6; Huntington, 2; Jay, 1; Jefferson, 5; Johnson, 1; Knox, 5; Lake, 26; Laporte, 14; Lawrence, 6; Madison, 3; Marion, 17; Marshall, 2; Miami, 1; Monroe, 3; Montgomery, 3; Morgan, 6; Newton, 3; Noble, 1; Orange, 2; Parke, 1; Perry, 3; Pike, 1; Porter, 3; Posey, 3; Pulaski, 5; Putnam, 2; Randolph, 3; Ripley, 10; Rush, 2; Shelby, 1; Spencer, 7; Starke, 2; Steuben, 2; St. Joseph, 5; Sullivan, 5; Tippecanoe, 4; Tipton, 1; Vermillion, 5; Vigo, 45; Wabash, 1; Warren, 1; Warrick, 3; Washington, 2; Wayne, 2; Wells, 3; White, 5; Whitley, 2.

DEATHS.

Allen, 9; Benton, 3; Boone, 3; Clark, 2; Clay, 11; Clinton, 1; Crawford, 3; Daviess, 8; Dearborn, 41; Decatur, 3; Dekalb, 21; Delaware, 1; Elkhart, 2; Floyd, 4; Fountain, 5; Fulton, 1; Gibson, 1; Grant, 1; Greene, 8 Hendricks, 1; Henry, 3; Howard, 1; Jasper, 6; Jay, 2; Jefferson, 6; Jennings, 1; Knox, 10; Lake, 1; Laporte, 6; Madison, 3; Marion, 4; Marshall, 1; Martin, 1; Montgomery, 1; Morgan, 3; Parke, 1; Pike, 2; Porter, 3; Posey, 5; Pulaski, 2; Randolph, 6; Ripley, 11; Spencer, 3; Steuben, 2; St. Joseph, 1; Sullivan, 4; Tippecanoe, 1; Tipton, 1; Vanderburgh, 2; Vigo, 3; Warrick, 1; Washington, 1.

REPORT OF BACTERIOLOGICAL LABORATORY INDIANA STATE BOARD OF HEALTH FOR JANUARY, 1919.

WILL SHIMER, M. D., Superintendent.

Sputum for tubercle bacilli—		
Positive	153	
Negative	397	
		550
Urine for tubercle bacilli—		
Negative	3	
		3
Feces for tubercle bacilli—		
Negative	1	
		1
Pleural effusion for tubercle bacilli—		
Negative	1	
		1
Throat cultures for diphtheria bacilli—		
Positive	84	
Suspicious	31	
Negative	131	
Unsatisfactory	5	
		251

Widal tests for typhoid fever—		
Positive	4	
Negative	28	
		32
Widal tests for paratyphoid fever "A"—		
Negative	6	
		6
Widal tests for paratyphoid fever "B"—		
		6
Wassermann tests for syphilis—		
Positive	49	
Negative	69	
		118
Brains for rabies—		
Dogs:		
Positive	1	
Negative	2	
Horses:		
Negative	1	
		4
Blood for counts	9	
		9
Blood for malaria plasmodia—		
Negative	5	
		5
Pus for gonococci—		
Females:		
Positive	22	
Negative	40	
Unsatisfactory	6	
Males:		
Positive	22	
Negative	46	
Sex not given:		
Positive	2	
Negative	2	
		140
Pus miscellaneous	2	
		2
Pathological tissues—		
Carcinoma:		
Carcinoma of breast	2	
Carcinoma of thigh	1	
Carcinoma of cervix	1	
Carcinoma of leg	1	
Carcinoma, location not given	1	
Miscellaneous tissues	7	
Gasserian ganglions	2	
		15
Urine for general anaylsis	82	
		82
Spinal fluid for meningococci—		
Negative	1	
		1
Stomach contests	1	
		1
Total number examinations made		1,227

OUTFITS PREPARED AND SENT OUT DURING JANUARY, 1919.

Tuberculosis	586
Diphtheria	203
Diphtheria epidemics	250
Widals	58
Wassermanns	143
Blood counts	7
Malaria	3
Gonococci	400
Total number	1,650

THINGS OF INTEREST FROM THE LABORATORY.

Sanatoriums are established for the cure and prevention of tuberculosis and education of tuberculous persons. One, or all three of these things, may be attempted. However, most men stress the cure of tuberculosis and education of the tuberculous in methods of cure and prevention.

Just now strenuous efforts are being made to establish a tuberculosis sanatorium in each county. Many of the arguments used lay especial emphasis on the efficiency of sanatoriums to reduce the morbidity and mortality of tuberculosis. Such great promises are made that there is sure to be disappointement unless the limitations of sanatorium treatment are thoroughly understood.

The results of sanatoriums to be established can to some extent be guessed from the results obtained by those already established. Of the 238 patients released in 1918 from the state sanatorium at Rockville 59 per cent still had tubercle bacilli in their sputum and 40 per cent were in the first stage of the disease, 41 per cent in the second stage and 19 per cent in the third. Of the 153 patients released from the Marion County institution at Sunnyside during 1918, 36 per cent had tubercle bacilli in their sputum, 31.5 per cent were in the first stage, 45.5 per cent in the second stage and 23 per cent in the third stage of the disease. Of course, many patients left contrary to medical advice. Even if we except these and include only those who were released with the disease arrested we can know many will soon relapse after getting into their home surroundings.

Tuberculosis is not simply a disease, it is an index of the social and economic status and racial quality of a people inhabiting a definite area. Patients released with their tuberculous disease arrested but not up to their normal working capacity must get employment in competition with the non-tuberculous, and at the same time they are handicapped by the same economic and social conditions and personal defects that were responsible for their primary infection with tuberculosis.

The facts set forth above are not arguments against the sanatorium treatment of tuberculosis; they should keep us from making too optimistic promises of things that will be accomplished if sanitoriums are established.

What are the measures proposed to increase and maintain the efficiency of tuberculosis sanatoriums?

1. Farm colonies and vocational schools for all patients after the disease has been arrested by hospital treatment.

2. Permanent hospitalization and segregation of the incurable tuberculous.

3. Outdoor relief for patients and family until full possible wage earning capacity is obtained.

4. Medical supervision of the tuberculous in his home after release.

5. Co-operation of sanatoriums and local medical authorities concerning all tuberculous persons needing sanatorium treatment and those released from sanatoriums with the disease arrested.

6. Co-ordination of the efforts of all persons and institutions attempting to improve the economic and social conditions and racial quality of the poor.

MONTH OF JANUARY, 1919.

Diseases present:

INFLUENZA—Reported by name..... 4,288

VENEREAL—Syphilis, 92; gonorrhea, 117; total, 209

DIPHTHERIA—Names reported in following counties: Rush, Marshall, Wabash, Randolph, Blackford, Tippecanoe, Vigo, Laporte, Cass, Tipton, Whitley, Posey, Howard, Wayne, Grant, Dekalb, Kosciusko, St. Joseph, Miami, Hendricks, Floyd and Vanderburgh.

TYPHOID FEVER—Epidemic, Marengo, Crawford County.

RURAL PROBLEMS.

Governor Goodrich in his most excellent message to the Legislature made many admirable suggestions and one deserves special commendation. We refer to his emphasis upon rural problems. He said:

> "It seems strange that, in our country where agriculture is an essential factor in our life, there should have been such delay in attending to the great question affecting our rural community. One-third of our laborers are workers of land. The business of farming is the greatest American business. It has the most intimate relation to our great financial institutions. Upon its success or failure depend our general business conditions as well as the very life of our people.
>
> "We have learned in recent years that we can not know too much about the science of agriculture, that to be a good farmer under new conditions it is necessary to be something more than the son of a good farmer and to have good soil. We must know our soil and what crops are best adapted to it, we must know market conditions, we must adapt our farm practice to scientific methods of production, we must adapt our farm management to the most approved business practice. So the most capable young men are going to the technical schools for training and are going back to the farm and producing results not even dreamed of by their fathers.
>
> "This economic and technical aspect of the problem is now generally accepted, largely because any one can appreciate an argument when figures can be shown. How to make two grains grow where one grew last year is a very satisfactory problem to demonstrate, especially when the thing has been done.
>
> "'A review of the foregoing deficiencies and remedies indicates that the problem of country life is one of reconstruction and that temporary measures and defense work alone will not solve it. The underlying problem is to develop and maintain on our farms a civilization in full harmony to American ideals.'"

In connection with the above, we wish to call attention to the fact that health underlies all. We believe much of the failure to make farm life profitable in a money sense and better yet, profitable in a social sense, is because there is not enough health on the farm. The health of the farmer must be raised.

A sick man can not accomplish anything, no matter how much he is helped from the outside. The farmer must be made well from every disease, otherwise he cannot be raised from the present conditions. Educational agencies may bring to the farmer better and more productive methods in the matter of increasing farm products, but how can these methods be applied intelligently and well without health. With coughs, colds, with "stomach trouble" and constipation, with headaches and circulatory disturbances, with consumption and typhoid fever and the whole list of diseases and sicknesses, how can we expect the farmer to do well? Contrary to general belief, all too many farmers and their families suffer from malnutrition. Every medical examiner who has ever examined into this subject, bears the same testimony and that is: "The nutrition of the farmer is far from being what it should be." The farmer knows full well he must give his animals a balanced ration, otherwise they will not flourish. Rarely does the farmer stop to think that he and his family also need a balanced ration in order to realize complete nutrition. It has often been said by physiologists: "Most men dig their graves with their teeth." The amount of food taken is very frequently excessive; it is not properly chewed; excessive quantities of meat are ingested; some neglect eating frequently of fruit and vegetables. Again, what would be a perfectly balanced diet is not properly cooked; bread is frequently soggy and not properly baked, also not properly fermented; all too frequently potatoes are presented which are not thoroughly cooked and have hard, raw centers and are swimming in grease; and so it goes down the whole line. On all too many tables we find meat that is overcooked and its nutritional qualities are partially or mostly destroyed. Rapid eating is another frequent cause of malnutrition and so it is that on the farm and in the city we find plenty of malnutrition. The infectious diseases, and all of them should be prevented, do infinite harm, and infectious diseases prevail as much in the country as in the city. A recent survey of 1,000 children in the country and 1,000 children in the city developed many surprises. For instance it was found that of the 1,000 country children 48 per cent suffered from teeth defects, while of the city children only 35 per cent suffered from the same defect. Other figures were as follows: Diseased tonsils, country children, 28 per cent; city children, 16 per cent; adenoid diseases, country children, 23 per cent; city children, 12 per cent; malnutrition, country children, 16 per cent; city children, 7 per cent; spinal curvature, country children, 3.5 per cent; city children, .13 per cent; heart diseases were also found more prevalent among the country children than with the city children, the figures being as follows: Country children, .74 per cent; city children, .40 per cent. A partial explanation why these conditions exist is not far to see. At this time the city children are enjoying better medical attention. In the city, doctors, dispensaries and hospitals are at hand and most people have learned to have their children attended to upon the first evidence of illness. This alone would reduce the percentage of defective and ailing children in the city as compared with those in the country. The war has disclosed some unexpected conditions. The statistics compiled by the attorney-general show that about 35 per cent of all young men caught in the draft net were unfit for soldiers because of physical defects or diseases, and of this 35 per cent fully 60 per cent were from the country. Before these statistics appeared it was believed and accepted that the country boy was healthier, stronger and more fit for the battle field of life than the city boy. These figures and data, which

are certainly true, frequently call forth violent denial and afterwards antagonism from rural dwellers. A rural legislator, when he heard these facts in regard to the country children and country boys set forth, without further consideration or talk violently denied the statement and said: "Everybody knows this is not true. It is a matter of common knowledge that the country people in every way and the country itself in every way is superior to the city." Naturally this should be true, but the cities have been making practical application of hygiene to everyday life, and in rural districts this has been neglected, and here lies the secret. We feel, therefore, there is abundant evidence to insist that unless rural health is improved that all the efforts put forth to raise production on the farm and to better sociological and moral conditions will fail.

"THE PEOPLE ARE SHIFTLESS AND DIRTY HERE," says an inspector of the State Board of Health. The conditions he found were in a county remote from the center of the State. His inspection and visit were on account of influenza. Continuing, the inspector says: "In one little community I have found five families with 32 cases of influenza, 20 children and 12 adults. Living conditions extremely bad. People are very poor, shiftless and dirty. They need almost everything to clean them up, underclothing, dresses for children, sheets, pillowslips, mattresses, food, etc. I think these people every one of them have been contributing to the various Red Cross drives. They paid by giving eggs and chickens. I have taken over for treatment several very sick cases; three pneumonia and one complicated with pleuritic effusion. I expect a Red Cross nurse here to day and she will indeed have plenty to do." The above is a typical picture of conditions found in almost every county of the State. It has been well said, "the poor we have always with us," and such are in their condition almost always because of sickness and disease. A thrifty family is overtaken with typhoid fever and the setback never can be overcome. It may be that consumption enters the family, and then prostration is sure to occur. These families which now have the influenza, already poor and almost helpless, will very probably be borne clear to the ground and will eventually be found in poorhouses and insane asylums. The solution of the problem is largely the prevention of disease.

ALL-TIME HEALTH OFFICERS.

The Indiana House yesterday witnessed the spectacle of an undertaker pleading that something be done to better the health of the people, while two physicians spoke against the all-time health officer bill. The House took the doctors' advice and the bill was killed. Perhaps this bill, in the form in which it appeared in the House, was open to criticism, and perhaps it was loosely drawn, as was charged; but the principle was sound and there was no reason why the measure should not have been amended in such manner that it would be acceptable.

In some foreign countries there is a practice of paying a physician to keep one well. Whenever the patient becomes ill the pay of the physician stops. The all-time health officer bill was drawn on that theory. It is a form of health insurance, calculated to raise the standards of public health and to keep people well if possible. No one objects to a fire chief who stays on the job all the time. It is his business to investigate fire hazards and see that they are removed. He occupies a position of great importance in every community because he endeavors to protect both lives and property. Yet there seems to be serious objection to the attempt to name physicians who would be paid sufficient salaries to devote all of their time to the public health and raise health standards.

The bill killed yesterday would have carried increased expense, but those who are familiar with existing conditions insist that the money spent in Indiana under present health board legislation is largely wasted. The proposed new law would have greatly reduced the number of useless health officials and would have provided machinery whereby the work would have been done systematically and adequately. The housing law can not be fully enforced until there are all-time health officers. Epidemics can not be guarded against or stamped out until there is a law giving some one authority to act and providing that he shall be constantly at such work. It is not too late to introduce a bill that will meet the conditions.—Indianapolis News, Feb. 14, 1919.

"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."—Gov. H. M. Dorsey, of Georgia.

? FLU ?

If we but knew
The cause of flu
And whence it comes and what to do,
I think that you
And we folks too
Would hardly get in such a stew.
Do you?

—*Illinois Health News.*

TYPHOID EPIDEMIC AT MARENGO.

WILL SHIMER, M. D.

About the 26th of December, 1918, several persons of Marengo, Crawford County, were taken sick with a disease diagnosed by the attending physicians as abdominal influenza. The diagnosis was agreed to by most men seeing the cases, in spite of the fact that the epidemic of influenza had subsided two weeks previous to this time and the persons sick on the 26th of December had previously had influenza.

New cases of abdominal influenza continued to appear and those first attacked were still in bed at the end of three weeks. On January 19th seven of the patients had copious intestinal hemorrhage and on the 21st one young man died.

No cases of typhoid were reported to the local health officer or to the State Board of Health, although many persons outside of the medical profession were freely expressing their opinion that the epidemic was typhoid and not influenza.

On January 23d we went to Marengo and visited twenty cases with the attending physicians. Most of these patients at the end of four weeks were very sick with a gradually receding temperature. In each family, in addition to those sick, one or more children had not been feeling well and inquiry disclosed the fact that most of them had some kind of digestive disturbance. The children who had not gone to bed looked to be in as bad if not worse condition than those in bed.

A careful case history in all cases showed water to be the only common factor in all. In addition to the cases in town there were several cases in the country, that I did not visit, who attended the school at Marengo.

In the so-called old town of Marengo were a few cases among the men and boys but none among the women, who had not used any of the city water.

Marengo is situated on the limestone strip of Indiana which runs through Putnam, Owen, Monroe, Lawrence, Washington, Crawford and Harrison counties. The limestone easily washes out in channels allowing the surface water to run through it totally unfiltered. There are many sinkholes on the surface that connect with underground channels that appear as springs at a lower level.

Marengo derives its well and city water from this Mitchell limestone. It rained on the night of January 22d and the city water supply contained more mud than did the creek into which the spring emptied.

Since most of the cases came down the last week of December, 1918, something must have happened to the city water in the two weeks previous to December 26th. Below is a record of maximum, minimum and average temperatures for the month of December. Up to December 8th there must have been freezing weather; beginning with that date the temperature was high enough to melt ice. Up to the 9th of December there was no rainfall, on which date almost an inch fell, and on the 13th there was almost an inch and a quarter of rain.

There must have been a case of typhoid somewhere on the watershed supplying the spring used. Feces thrown on the ground froze and this accumulation later on thawed and was washed into the public water supply by the heavy rain of the 9th and 13th of December. To bear out this theory it was necessary to test for surface contamination in the city water. This is set forth in detail by Mr. Taylor who did the work:

Temperature and Rainfall During December, 1918. Case Histories.

Date	Maximum	Minimum	Average	Inches Rainfall
1	5	19	35	0
2	47	21	34	0
3	46	29	37	0
4	43	28	35	0
5	60	21	40	0
6	62	26	44	0
7	64	25	44	0
8	64	55	58	0
9	65	52	56	.70
10	68	55	61	.30
11	57	36	46	0
12	54	25	39	Trace
13	67	44	65	1.15
14	66	45	65	.50
15	51	29	40	0
16	53	27	40	0
17	52	26	39	0
18	57	23	50	0
19	60	23	41	0
20	51	41	45	.30

Case Histories

Paul Walton—Have their own milk and use very little; sick 27 days; use city water; attended Central school; drank hydrant water at school; has not been away from home; age 7 years.

Hubert Doolittle—Aged 8 years; sick about 25 days; drank own milk and very little; used hydrant water at home; attended Central school; Audry Jones, teacher primer grade.

George Rogers—Age 61 years; sick Friday week; used their own milk; used city water at home; used well water at factory; has had some temperature; was at Paoli, Ind., 14 days previous.

John F. Blackford—Age 16 years; took sick Christmas day; in bed about ten days; attended high school; used city water.

Jane Blackford—Age 13 years; went to bed day after Christmas; used Hamond's milk; went to New Albany, Ind., week or ten days previous to illness; had intestinal hemorrhage.

Adams—Has several children; used McKinley's milk; used hydrant water; disease began six weeks previous; 3 children; one took sick one week later.

Tom Thompson—Age 38 years; sick three weeks with headache; used own milk; works at Handles; used some city water.

Roscoe Thompson—Age 10 years; sick Christmas; used city water; used own milk.

Elwork Bird—Age 22 years; sick four weeks; used cave water; worked for Sam Wells; used Hawkin's water; used VanMeter water also.

Orval Kee—Age 15 years; sick three weeks; used own milk; used cave spring; at garage used hydrant water; ate at different restaurants over town.

E. M. Land—Age 40 years; sick 27 days; Mrs. Harris' milk; does not drink much milk; used city water; occupation physician; took sick two weeks after coming to Marengo.

Mrs. E. M. Land—Age 72 years; sick 12 days; city water; Harris' milk.

Chas. Scott—Age 38 years; run a temperature for three weeks; used Turner's milk; used well water at home and hydrant water at barber shop; has not been away.

May Curtis—Age 35 years; temperature highest about January 1st, and was 103; used Denton's milk; has not been well all summer; used well water at home; did not use city water; public pump opposite Ben Curtis' home.

FULL-TIME HEALTH OFFICER GETS RESULTS.

Public health administration, like any other worth-while work, needs and demands systematic, careful attention. There is only one successful way to provide that attention, and the way is to employ a trained health officer who can devote his full time and effort to health work. It should go without saying that no man can or should be expected to produce good results unless he receives an adequate salary, and one proportioned to his training and usefulness in the work undertaken. Part-time health officers have never been successful anywhere. They naturally cannot devote much time or thought to public service, paying a nominal salary and demanding hard, constant work and much tact and a pleasing personality for its successful prosecution.

The full-time health officer gets results; he saves lives, he prevents sickness and pain; last, but not least in the minds of many, he saves money to the community, which simply means to the individual taxpayer in the end.

Rarely does a family go through a period of five years without one or more cases of preventable, and, therefore, needless disease. Perhaps, typhoid, measles, diphtheria, tuberculosis or one of a score of other ailments visits the

home with all the attendant sorrow, physical suffering and cost. The money cost is far more than would be paid in many years, possibly a lifetime, in the form of a tax toward a public health department, and the cost of pain, mental anguish and death cannot be measured in human terms.

Palo Alto, Cal., presents a striking example of splendid health work, as the following excerpt from the Bulletin of the California State Board of Health shows:

"Palo Alto, with a population of 6,000, has a full-time health officer. The Palo Alto death rate is about one-half that for the State. Since 1911, in this city, there have been no deaths of infants under two years of age from diarrhea and enteritis. During the same period, the deaths of no less than 5,528 infants under two years of age, in California, were due to this cause. The health department of Palo Alto cost $3,310 last year—$0.56 per capita. At the beginning of 1918 there were three known cases of tuberculosis in Palo Alto. There was not a single case of diphtheria there during 1917. These are a few of the significant facts, as published in the annual report of the Palo Alto Health Department for 1917, Louis Olsen, health officer. Does it pay to have a full-time health officer?"

WHERE THE MONEY GOES.

People frequently wonder "where the money goes?" It is true that the most of our public moneys go on account of sickness. One half of all our taxes are laid because of sickness and disease. Out of sickness and disease comes all our insanity, which costs the state $2,000,000 cash annually, and the incidental and side costs make another $2,000,000. Then, there is poverty which costs us heavily. Eighty per cent of poverty comes out of sickness. Let any one investigate one hundred cases of poverty and it will be found that eighty of them began when typhoid fever or other sickness entered the family. Sixty per cent of all crime is due to sickness. This fact so impressed a professor of political economy that he said in an article upon the subject: "Hygiene can prevent more crime than any law." The workingmen of the State of Indiana alone lose $7,000,000 and more each year on account of sickness. Here is the way this loss occurs from sickness. There are in round numbers 500,000 wage-earners in Indiana and, as statistics show, each one loses nine days each year on account of sickness. Allowing the very low wage of $2.00 per day to each laborer this means that each one loses $18.00 each year on account of sickness; multiply this by 500,000 and we get the total of $9,000,000. Other facts and estimates besides those above given show that the people of Indiana pay out annually not less than $20,000,000 for "just a bein' sick" of diseases, most of them preventable. What we need is scientific health supervision, which is impossible under the present health law. It is possible for a skilled hygienist with the co-operation of the people of any county to reduce the sickness rate and death rate very materially. This, of course, would be reducing the need for doctors, nurses and drugs and would not be popular with some people connected with these occupations, and the reduction will not come until the present inefficient outworn health officer system is abolished. The people of Holland have efficient scientific health supervision and the consequences are their average duration of life is fifty-five years, while in Indiana the average is only forty years. In Holland, typhoid fever has been reduced so that the death rate is only two per 100,000 annually, while in Indiana it is forty-three per 100,000 annually. The American people object to "being told." They seem to prefer to continue in the old way and resent being told of the new ways which science finds out are the right ways. So long as this spirit prevails against scientific methods, which are simply the methods of truth, just so long must out taxes be doubled. Our money goes principally for sickness. Sickness plays havoc with American efficiency. In civil life we should strive to keep down sickness as we do in military life. A large fertilizer dealer in Indianapolis said: "Every fall when our bills for fertilizer become due, twenty per cent of the farmers ask for an extension of time for the reason that sickness has visited their families." It is thus that sickness bears down upon business; it is thus that sickness raises taxes, and it is strange indeed that we will not listen to the teachings of the science of hygiene and reduce the enormous losses of money, of strength and of happiness which we now endure.

"THE FEDERAL BOARD FOR VOCATIONAL EDUCATION is conducting, through its special adviser on tuberculosis, Dr. H. A. Pattison, a study of the problems relating to tuberculosis among soldiers." This announcement comes from Washington.

This problem is probably the greatest of all the problems of rehabilitation. Forty per cent of the applicants awarded compensations by the Bureau of War Risk Insurance are tuberculous.

The federal board requests answers to the following questions which are sent out to business organizations:

1. Are applicants for employment required to undergo physical examination?

2. Are applicants with arrested tuberculosis refused employment?

3. Are periodic re-examinations of employees made? How often?

4. What assistance is given by the company to employees who develop active tuberculosis (financial, nursing care, sanitorium treatment, etc.)?

5. When the disease becomes arrested, are the cases given employment either at their old jobs or at some other jobs more suited to their physical condition?

It is obvious after reading the questions above, that the Federal Board for Vocational Education is convinced it has a very serious and important problem to solve. That it will be entirely and completely solved, no one can hope. That it will be solved to a good degree and satisfactorily is doubtless true.

WHY DO NOT REFORMS REFORM? is a question which comes to all who think. This answer comes from Anatole France, the dean of the literati, who out of the experience of years, says: "After all the reforms (because of the omission of the factor known as heredity), men are as before, egotistical, greedy, crafty, cruel, cowardly, stupid and furious in turn; and we always find about the same number of new born babies, married people, fools and hanged men." This will always be the order of society until we practically apply the laws of heredity. We might appropriately add that most of society's evils grow out of disease, and a disease problem cannot be solved by caring for its victims.

THE STRENGTH OF A NATION.

By Dr. J. N. Hurty.

To reach old age one must be made of strong stuff. Weakness cannot bring one to old age. A strong nation will have a good percentage of old people. The strength and persistence of a nation is measured by its number of septuagenarians and octagenarians. It is an old saying: "The good die young." I don't know where this statement came from and I can't understand its meaning, nor why it was ever uttered. Certain it is, if one dies in youth, he very probably did not have strength to make old age; and if lack of strength or vitality is in any sense goodness, then indeed we have a real puzzle on our hands.

It is a great loss to any community to lose even a mediumly successful citizen between fifty and seventy years of age. Such men give the stability to a community necessary for its successful continuance. They are not dead-weight ballast, but stabilizers. They have force and ability, too, though they may have slowed up a little in what is called progressiveness.

The young man of force and ability is apt to overrun his own and his community's immediate objective and is in danger of entering his own advancing barrage. He is generally prevented from doing this by the stabilizers of his community. We must not complacently view the dropping off of men in this prime, that is between fifty and seventy or even seventy-five. Barring poisons and other accidents we should live in possession of all our faculties and full of usefulness to ninety or even one hundred years. The great chemist Chivereul died at the age of one hundred and three. He worked and directed his laboratory up to the day of his death. He knew dissolution was near, for he bade goodbye to his colaborateurs one evening, went to his home, wrapped the draperies of his couch about him and lay down to pleasant dreams. After his eighty-fifth year he directed experiments which led to valuable discoveries. He was a strong man in every way.

The enemies to be feared after fifty are cancer, nephritis, cardiac diseases, hardened arteries. These retard the brain processes and dull the faculties and capabilities, hence "second childhood" or "old-age-imbecility." If they would avoid wrong living, most men and women would pass through old age without entering second childhood or experiencing old-age imbecility. We should use the doctor to keep us well and to this end be examined by him periodically, say, twice a year, and thus circumvent the plagues which ruin old age.

IT IS VERY INTERESTING that people are so much interested in hospitals and ambulances and relief and cure and exhibit so little interest in prevention. This, too, in face of the fact that every one accepts the old saying that "An ounce of prevention is worth a pound of cure." It almost excites jeers and sneers when prevention is mentioned as of more importance than cure and relief, and for one to declare a prevention is more important than hospitals is almost certain to be met by the epithet "crank." It is fortunate that hospitals for animals are not practical. If it were, legislatures everywhere would be building them at the requests of the people. We should thank God that science never found a medicine that could in any degree be called a cure for yellow fever. If such had been found, dependence would have been placed upon it and prevention would have gone glimmering. The Indiana Legislature, which adjourned March 10th, passed two bills encouraging hospitals and also passed one law "To provide for eradication of tuberculosis in cattle and provide methods of compensating owners of slaughtered cattle." Two bills of the State Board of Health which referred to the prevention of tuberculosis and the general prevention of disease, that hospitals might be lessened, were jumped upon in the Legislature as if said bills were rats let loose in the great hall. How funny is man.

ZIONSVILLE HIGH SCHOOL PUPILS were medically examined with the following results: The total number inspected, 37; males, 16; females, 21. These young people gave a history of having had the following diseases: 6 rheumatism, 22 measles, 6 scarlet fever, 27 chickenpox, 28 whooping cough, 7 pneumonia, 27 mumps, 16 influenza and 12 diphtheria. Only one of these students suffered from malnutrition; 15 had defective eyes; 3 defective ears; 8 had nasal catarrh; 27 had throat trouble; 18 had bad teeth; 9 had enlarged glands and one had incipient tuberculosis. Without doubt most of these young people who had reached high school and represent about 10 per cent of those who started with them in the first grade had these imperfections thrust upon them. It is certainly immoral to bring up children under conditions and circumstances which deform them even in the slightest degree.

TWO THOUSAND FIVE HUNDRED PRISONERS were examined as to their occupations. This examination was made in the Northern Indiana Prison. There were a very few trained and skilled mechanicians, but most of the prisoners said that they followed fairs, circuses and carnivals, peddled shoestrings and pencils, cooked in camps, collected junk, acted as porters in saloons, worked in various capacities in race horse stables and as fake solicitors for magazines. It is supposed by many that education and training and proper environment would have saved all of these delinquents, but this is not true. By far the great majority of these derelicts are what they are simply because they have not the brains and the moral character to raise them to the higher levels of social life. They can be temporarily raised, but if the support beneath them is removed, down they go, for they cannot sustain themselves. Education, training and environment cannot make dullards bright and cannot make fools sagacious. It is certainly true that strong men seek education, make opportunity and bring things about.

SOME PREVENTABLE EXPENDITURES for Indiana are as follows. The figures represent the amount of money annually spent for the causes and reasons named: Rats, $4,500,000; chewing gum, $1,000,000; typhoid fever, $8,000,000; insanity, $3,000,000; tuberculosis, $10,000,000; venereal diseases. $1,000,000; dirty milk and other poison foods, $1,000,000; feeble-mindedness, $500,000; nicotine, $3,000,000; drugs, $1,500,000; animals killed by dogs, $200,000. The total is $28,700,000. This is a neat sum and when education and civilization have done their good work in Indiana most of this waste of wealth will be prevented.

CHART SHOWING GEOGRAPHICAL DISTRIBUTION OF DEATHS FROM IMPORTANT CAUSES FOR JANUARY, 1919.

NORTHERN SANITARY SECTION.

Total population	1,042,511
Total deaths	1,394
Death rate per 1,000	16.0
Pulmonary Tuberculosis, rate per 100,000	82.9
Other forms of Tuberculosis, rate per 100,000	12.7
Typhoid Fever, rate per 100,000	6.9
Diphtheria and Croup, rate per 100,000	18.4
Scarlet Fever, rate per 100,000	6.9
Measles, rate per 100,000	3.4
Whooping Cough, rate per 100,000	1.1
Lobar and Broncho-Pneumonia, rate per 100,000	136.8
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000	26.5
Cerebro-Spinal Fever, rate per 100,000	1.1
Acute Anterior Poliomyelitis, rate per 100,000	1.1
Influenza, rate per 100,000	355.7
Puerperal Septicemia, rate per 100,000	6.9
Cancer, rate per 100,000	80.6
External causes, rate per 100,000	82.9
Smallpox, rate per 100,000	....

CENTRAL SANITARY SECTION.

Total population	1,219,131
Total deaths	1,771
Death rate per 1,000	17.4
Pulmonary Tuberculosis, rate per 100,000	128.9
Other forms of Tuberculosis, rate per 100,000	16.7
Typhoid Fever, rate per 100,000	3.9
Diphtheria and Croup, rate per 100,000	14.8
Scarlet Fever, rate per 100,000	.9
Measles, rate per 100,000	....
Whooping Cough, rate per 100,000	....
Lobar and Broncho-Pneumonia, rate per 100,000	229.1
Diarrhoea and Enteritis (under 2 yrs.), rate per 100,000	14.8
Cerebro-Spinal Fever, rate per 100,000	....
Acute Anterior Poliomyelitis, rate per 100,000	....
Influenza, rate per 100,000	335.6
Puerperal Septicemia, rate per 100,000	5.9
Cancer, rate per 100,000	91.7
External causes, rate per 100,000	69.9
Smallpox, rate per 100,000	.9

SOUTHERN SANITARY SECTION.

Total population	686,443
Total deaths	913
Death rate per 1,000	15.9
Pulmonary Tuberculosis, rate per 100,000	160.8
Other forms of Tuberculosis, rate per 100,000	19.2
Typhoid Fever, rate per 100,000	3.5
Diphtheria and Croup, rate per 100,000	10.4
Scarlet Fever, rate per 100,000	....
Measles, rate per 100,000	3.5
Whooping Cough, rate per 100,000	1.7
Lobar and Broncho-Pneumonia, rate per 100,000	188.8
Diarrhoea and Enteritis (under 2), rate per 100,000	17.4
Cerebro-Spinal Fever, rate per 100,000	....
Acute Anterior Poliomyelitis, rate per 100,000	....
Influenza, rate per 100,000	416.0
Puerperal Septicemia, rate per 100,000	3.5
Cancer, rate per 100,000	66.1
External causes, rate per 100,000	31.5
Smallpox, rate per 100,000	....

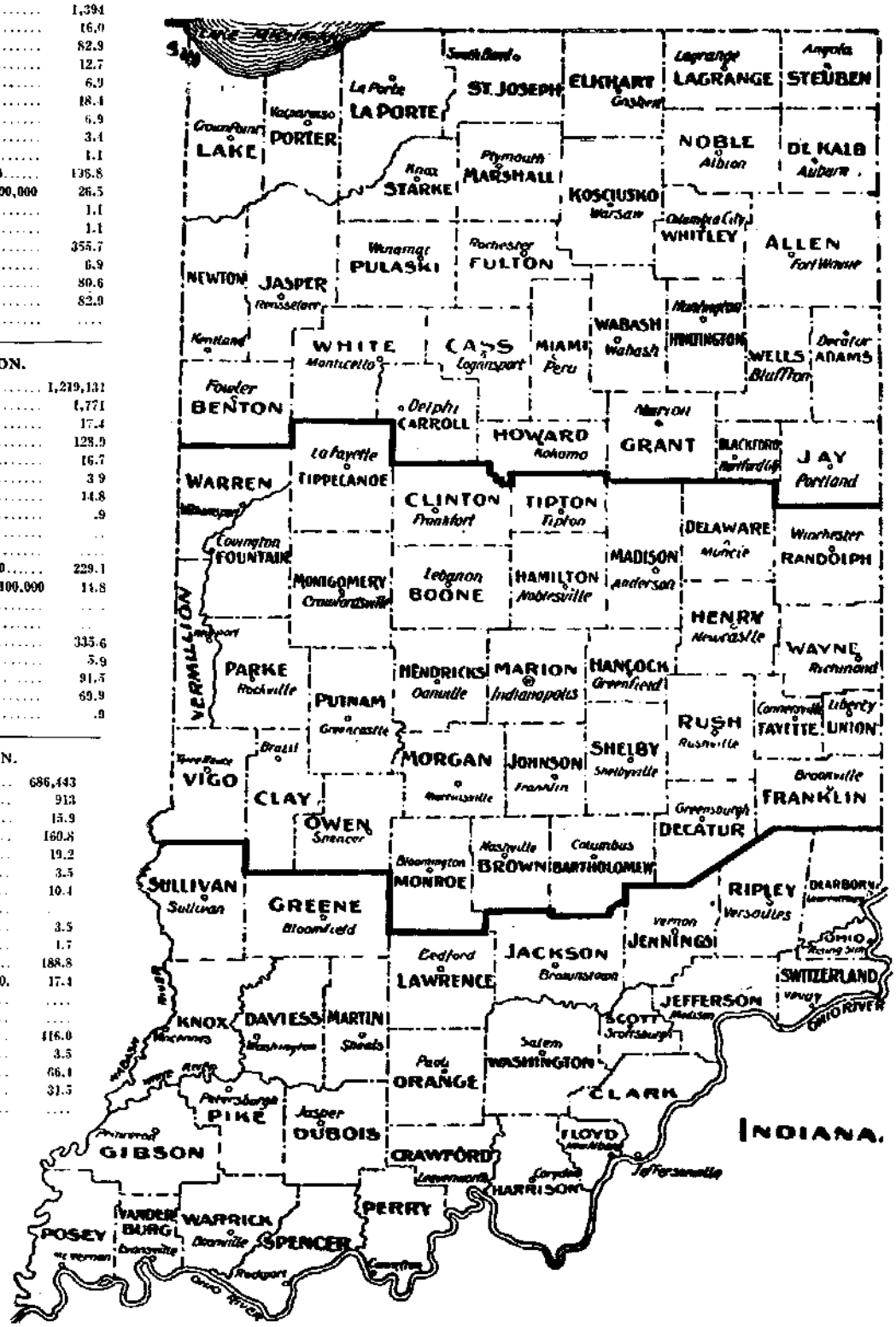

TABLE 1. Deaths and Births in Indiana by Counties and Sections During the Month of January, 1919. (Stillbirths Excluded.)

STATE AND COUNTIES	Estimated 1919 Population.	Total Deaths Reported for January, 1919.	Total Deaths Reported for January, 1918.	Total Deaths Reported for the Year 1919 to Date.	Total Deaths Reported for the Year 1918 to Same Date.	Annual Death Rate Per 1000.		Important Ages				Deaths from Important Causes.																	Births	
						January, This Year.	January, Last Year	Under 1 Year.	Age 1 to 10.	Age 10 to 20.	65 Years and Over.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Lobar and Bronchio-Pneumonia.	Diarrhœa and Enteritis (under 2 years).	Cerebro-Spinal Fever.	Acute Anterior Poliomyelitis.	Influenza.	Puerperal Septicemia.	Cancer.	External Causes.	Smallpox.	Institution Deaths.	Total Births.	Rate per 1,000 Population.
State of Indiana	2,948,086	4,078	3,502	4,078	3,502	16.6	14.4	413	385	239	1,092	296	39	12	37	7	5	2	310	48	1	2	888	14	201	161	1	438	4,634	16.9
Northern Counties	1,042,514	1,394	1,229	1,394	1,229	16.0	14.5	169	138	74	367	72	11	6	16	6	3	1	171	23	1	1	309	6	70	72		157	1,758	20.2
Adams	21,840	28	14	28	14	15.4	7.2	4		2	5	1	1						4	1			10		1			1	38	20.9
Allen	106,781	118	109	118	109	13.3	12.2	11	9	9	24	12		1	1				13				34		9	5		30	180	20.2
Benton	12,668	16	10	16	10	15.1	9.4	1	1		5	1							1				7						18	17.0
Blackford	15,820	9	12	9	12	8.8	9.1	1	1		5	1							1							1			27	20.5
Carroll	17,970	38	14	38	14	25.4	9.3	3	1	4	6					1			3	1			15		1				23	15.3
Cass	37,881	80	50	80	50	25.3	15.8	3	4	5	25	9				1			6				14	1	3	7		34	52	16.5
DeKalb	25,054	45	32	45	32	21.5	15.3	3	6	2	23	1	1			1			6				10		1	2		1	17	8.1
Elkhart	52,295	75	82	75	82	17.2	18.8	5	8	9	25	2			1				10				16	1	5	2		4	97	22.2
Fulton	16,879	18	15	18	15	12.8	10.6	2	4	2	6	1							1	1			9		1				22	15.6
Grant	51,426	56	85	56	85	13.1	19.8	7	10	1	22	5			2	1	1		4				7		6			11	84	19.6
Howard	37,002	47	39	47	39	15.2	12.6	6	3	2	17	2							5				10		1	2		2	68	22.0
Huntington	29,048	36	43	36	43	14.9	17.7	4	1	1	12								6				9		2	2		2	52	21.8
Jasper	13,044	17	7	17	7	15.6	6.4	2		2	3								1				7		1				32	15.4
Jay	24,961	32	38	32	38	15.4	18.2	5	1		10	2							5	1			12		2			4	47	20.2
Kosciusko	27,936	30	26	30	26	13.9	11.1	2	5	1	11								3				7		2	1			26	20.6
Lagrange	15,148	24	21	24	21	19.0	16.6	2	2	3	11	1	2	1					1				4			1			24	29.0
Lake	146,245	202	187	202	187	16.6	18.6	49	36	9	18	6	2	3	9		1		43	14			25	2	4	26		41	354	29.0
Laporte	51,956	66	42	66	42	15.2	9.7	10	5	2	18	11			1	2			7	2		1	14			2		7	87	20.0
Marshall	24,175	35	33	35	33	17.4	16.3	2	3	2	14			1	1				7				5			4		1	41	20.3
Miami	30,186	26	40	26	40	10.3	15.9	2	3	1	5	2							2				3		3	2		1	36	14.3
Newton	10,549	14	10	14	10	15.9	11.3	2	1		5								1				6		2				22	25.0
Noble	24,403	34	19	34	19	16.7	9.3	3	6	1	15	1											9		3	1		1	32	15.7
Porter	21,673	33	28	33	28	18.3	15.5	2	3	1	5	1	1						10	1			9	1	1	2			24	13.3
Pulaski	13,312	14	10	14	10	12.6	9.0	3		1	5	1							2				5			1			21	18.9
Starke	10,680	14	10	14	10	15.7	11.2	2	2	1	3								3				2		1				16	17.9
Steuben	14,274	18	22	18	22	25.1	18.4	1	1		8												1		1	2			16	13.4
St. Joseph	105,450	119	133	119	133	13.5	15.1	16	11	9	25	6	4		1		2		14	1	1		22	1	5	6		17	172	19.6
Wabash	26,926	53	34	53	34	23.6	15.1	3	1		26	4							4	1			11		1	2		2	39	17.4
Wells	22,418	29	19	29	19	15.5	10.1	4	4	2	1	1							4				11		1	1			40	21.4
White	17,602	48	25	48	25	32.7	17.0	6	5	2	13								4				23		3				34	23.2
Whitley	16,892	20	20	20	20	14.2	14.2	2	1		11	1							1				2		1				24	17.0
Central Counties	1,219,131	1,771	1,509	1,771	1,509	17.4	14.9	153	135	168	458	131	17	4	15	1			231	15		1	341	5	93	71	1	218	1,815	17.9
Bartholomew	24,993	31	20	31	20	14.9	13.9		1	3	14	5	1		1				3				2		5				33	15.9
Boone	24,573	26	27	26	27	12.6	13.1	3	1	1	6	1											4	1	1			2	34	16.6
Brown	7,975	23	9	23	9	34.6	13.5	2	2	2	5	1							3				14						10	15.0
Clay	32,535	40	36	40	36	14.7	13.2	3	4	2	13								7				10	1	2	3		1	33	12.2
Clinton	20,674	57	32	57	32	30.1	14.3	10	7	5	13	2	1						18				18		1	1		3	41	18.4
Decatur	18,793	32	28	32	28	20.4	17.8	1	5	1	18	2	1						6				5		2				31	19.8
Delaware	52,901	51	59	51	59	11.6	13.3	5	6	1	20	4							2	1			14		1	1		5	70	15.9
Fayette	15,178	30	9	30	9	23.7	7.1	1	3		9				1								16		1	1		1	21	16.6
Fountain	20,439	32	22	32	22	18.8	12.9	5	4	4	3	4	1						4				6		1	1			32	18.8
Franklin	15,335	14	11	14	11	10.9	8.6		1	1	5	1		1									4			1			21	16.4
Hamilton	27,026	26	29	26	29	11.5	12.8	1	1	1	12	1							2				4		2	1			26	11.5
Hancock	19,030	25	20	25	20	15.8	12.6	1	1	4	8	4				1			2				2		1	1			21	13.2
Hendricks	20,840	20	26	20	26	11.5	14.9	1	1		9	1							1				5		4	3			32	18.4
Henry	33,640	53	27	53	27	18.9	9.6	6	7	2	13	3			1				3	1			13		4	1		2	35	12.5
Johnson	20,535	22	23	22	23	12.8	13.4		2	3	11	5							1				5		4				32	18.7
Madison	65,224	80	88	80	88	14.7	16.1	8	4	6	21	10	1						38				11	1	3	3		5	86	15.8
Marion	329,304	553	458	553	458	20.1	17.2	40	38	31	102	36	8	1	9				90	7			71	3	29	29		129	570	20.8
Monroe	25,547	34	18	34	18	15.9	8.4	3	4	4	5	1							10				8		1	2		1	33	15.5
Montgomery	29,296	47	36	47	36	19.2	14.7	1	2	3	15		1						8				9		2	2		1	41	16.8
Morgan	21,783	31	29	31	29	17.1	15.9	3	5	3	9	3							9				9		1			2	35	19.3
Owen	14,853	14	11	14	11	11.9	9.3	2			7	1							1						2				18	15.4
Parke	22,214	25	27	25	27	13.5	14.5		3	1	9	4							1				9		2	2		2	30	16.2
Putnam	20,520	53	31	53	31	30.9	18.1	2	3	5	16	7							11	1			13		1				21	12.3
Randolph	29,312	20	36	20	36	8.2	14.7	4	2	2	4	1			3				2				1			3	1		38	15.5
Rush	19,349	24	27	24	27	14.9	16.7	1	3	3	5	2			1				1				6		3	2			28	16.1
Shelby	27,059	35	31	35	31	15.5	13.7	3	1	1	9	2							1				10		3				30	13.3
Tippecanoe	41,229	84	68	84	68	24.4	19.7	12	6	5	15	7			1				5				25		4	1		34	70	20.4
Tipton	17,459	19	17	19	17	13.0	11.6	1	1	3	5	2							2	1			2		2				23	15.8
Union	6,260	3	4	3	4	5.7	7.6				2	1																	11	21.1
Vermillion	21,868	26	29	26	29	14.3	15.9	5	2	2	6	2	1						2	1			8			3			48	25.2
Vigo	109,452	139	134	139	134	15.2	14.6	21	8	6	33	13	2						15				29		9	7		17	171	18.7
Warren	10,899	15	6	15	6	16.5	6.6	4			3								2	1			1		1	1			23	25.3
Wayne	47,736	77	72	77	72	19.3	18.0	4	6	3	30	5		1					11	2		1	7		1	2		13	71	17.8
Southern Counties	686,443	913	784	913	764	15.9	13.3	91	92	57	247	92	11	2	6		2	1	108	10			238	2	38	18		63	1,061	18.5
Clark	30,260	40	50	40	50	15.9	19.8	1	3	1	11	5	1				1		1				12		1				25	9.9
Crawford	12,057	19	8	19	8	18.9	7.9	3	4	1	4	3			1		1		3				5		3				20	19.9
Daviess	27,747	31	29	31	29	13.4	12.5	6	3	1	10	4							2	1			5		1				56	24.2
Dearborn	21,396	17	22	17	22	9.5	12.3	1		1	8									1			5		2	1			32	17.9
Dubois	19,843	24	26	24	26	14.5	15.7	5	2	4	6	2							4	1			12		1	1			37	22.4
Floyd	30,439	44	39	44	39	17.3	15.3	5	3	4	18	6							4	1			8	1	2	2		9	50	19.7
Gibson	30,168	57	24	57	24	22.7	9.5	5	5	3	14	4	1						12				16		2			1	42	16.7
Greene	43,808	57	38	57	38	15.6	10.4	7	8	2	18	7	1		1				3	1			18		1	2			44	12.0
Harrison	20,232	31	26	31	26	18.4	15.4	1	3	2	12	4			1				5	1			9		1				27	16.0
Jackson	24,727	40	22	40	22	19.4	10.0	2	3		18	2							4				10		6			1	50	24.3
Jefferson	20,483	52	34	52	34	30.5	19.9	3	1		17	8	2						3				8		4			13	27	15.8
Jennings	14,203	8	9	8	9	6.7	7.6	3	1		2								1										26	21.9
Knox	44,533	85	52	85	52	22.9	14.0	3	18	10	9	7						1	20	1			28		1	5		8	80	21.5
Lawrence	34,604	40	27	40	27	13.8	9.3	3	1	2	7	4							1				14		1				52	17.9
Martin	12,950	23	15	23	15	21.3	13.8	3	1	2	5	1							2				8		2	1			22	20.4
Ohio	4,329	8	4	8	4	22.2	11.0	2			3	1							1				3		1				10	27.7
Orange	17,471	20	19	20	19	13.7	13.0	1	3	3	6	1							8				5	1					19	13.0
Perry	18,078	12	18	12	18	7.9	11.9	4	1		3	1							3				3		1				42	27.8
Pike	19,684	24	36	24	36	14.6	21.9	4	2	3	10	6			1				3				5		1				56	34.1
Posey	21,670	6	22	6	22	3.3	12.1		1		4	1							1										22	12.2
Ripley	19,452	12	20	12	20	7.4	12.3	2	1		8				1								1						25	15.4
Scott	8,336	15	6	15	6	21.6	8.6	1	3	1	2								2				8			2			14	20.1
Spencer	20,678	9	19	9	19	5.2	11.0	2			3	1							2				1						31	17.9
Sullivan	37,787	43	29	43	29	13.6	9.2	6	4	3	6	4							5	1			14						54	17.1
Switzerland	9,914	22	9	22	9	6.6	10.9	3	1	3	9	2							2				5		1	1			21	25.4
Vanderburgh	82,150	123	130	122	130	17.8	18.9	7	8	7	29	14	4		1				14	1			15		5	1		33	120	17.5
Warrick	21,911	19	18	19	18	10.4	9.8	3	7		3	1	1	1					1				7						31	16.9
Washington	17,445	33	13	33	13	22.7	8.9	5	5	6	6	3	1	1					4				13		2	1			26	17.9

TABLE 2. Deaths and Births in Indiana by Cities and Groups During the Month of January, 1919. (Stillbirths Excluded.)

CITIES.	Estimated 1919 Population	Total Deaths Reported for January, 1919.	Total Deaths Reported for January, 1918	Total Deaths Reported for the Year 1919 to Date.	Total Deaths Reported for the Year 1918 to Same Date.	Annual Death Rate Per 1000.		Important Ages.				Deaths from Important Causes.																Births.	
						January, This Year.	January, Last Year.	Under 1 Year.	Age 1 to 10.	Age 10 to 39.	65 Years and Over	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Typhoid Fever.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Whooping Cough.	Lobar and Bronchio-Pneumonia.	Diarrhoea and Enteritis (under 2 years).	Cerebro-Spinal Fever.	Acute Anterior Poliomyelitis	Influenza.	Puerperal Septicemia.	Cancer.	External Causes.	Smallpox.	Institution Deaths.	Total Births	Rate per 1,000 Population
State of Indiana	2,946,088	4,078	3,802	4,078	3,502	16.6	14.4	413	365	239	1,092	295	39	12	37	7	5	2	510	48	1	2	888	14	201	161	1	438	4,634	18.9
Rural	1,701,179	2,271	1,814	2,271	1,814	16.0	12.8	224	198	142	680	162	17	6	11	3	2		249	20			571	5	108	71	1	147	2,512	17.7
Urban	1,246,909	1,807	1,688	1,807	1,688	17.4	16.5	189	169	97	412	133	22	6	26	4	3	2	261	28	1	2	317	9	93	90		291	2,122	20.4
Cities of the First Class Population 100,000	300,000	443	448	443	448	17.7	18.5	32	37	24	90	34	7	1	9				80	7			63	2	28	24		102	524	20.9
Indianapolis	300,000	443	448	443	448	17.7	18.5	32	37	24	90	34	7	1	9				80	7			63	2	28	24		102	524	20.9
Cities of the Second Class, Population 45,000 to 100,000	355,257	426	440	426	440	14.4	17.6	50	35	25	81	38	9	2	7		2	1	51	4	1		67	2	24	21		107	590	19.9
Evansville	77,884	91	119	91	119	14.0	15.3	6	7	5	22	13	3		1				9				8		5	1		23	97	14.9
Fort Wayne	79,846	80	82	80	82	13.4	12.3	8	5	6	15	9		1	1				8				22		8	4		29	136	20.3
Terre Haute	68,639	99	92	99	92	17.3	16.0	13	2	3	24	10	2						13				17		8	5		16	97	16.9
South Bend	72,888	83	92	83	92	13.7	15.1	12	8	8	18	4	3		1		2		10	1	1		13	1	2	4		16	121	19.9
Gary	56,009	64	55	64	55	13.7	22.0	11	13	3	5	3	1	1	4				11	3			7	1	1	7		23	140	30.0
Cities of the Third Class, Population 20,000 to 45,000	290,018	450	422	450	422	18.6	16.8	59	45	24	116	32	1	2	6	2	1		61	14		2	70	4	21	31		61	530	21.9
East Chicago	31,829	43	54	43	54	16.2	20.3	17	10	2	2			1	3				16	5			5			4			89	33.5
Hammond	27,861	60	41	60	41	25.8	14.0	12	9	3	3		1	1	1				11	5			9	1	1	13			53	23.7
Muncie	25,882	29	40	29	40	13.4	18.5	2	4		15	1								1			9		1			5	35	16.2
Richmond	25,463	29	33	29	33	13.7	15.5	1	1		17	3							2			1	3		1			2	36	16.9
Anderson	24,464	41	39	41	39	20.1	19.1	3		3	11	4							5				3	1	2	3		3	38	18.6
Elkhart	22,688	29	35	29	35	15.3	18.5	1	4	3	9								6				3	2	2	1		4	43	22.7
Michigan City	22,314	35	15	35	15	18.8	8.0	4	2		8	9							6	2		1	5			2		3	32	17.2
Lafayette	21,676	53	42	53	42	29.3	23.2	7	4	4	8	5			1				3				15		3			24	45	24.9
Kokomo	22,569	34	29	34	29	18.1	15.4	6	2	2	10	1							4				7		1	2		2	47	24.9
Logansport	21,630	40	34	40	34	22.2	18.8	1	1	4	13	4				1			1				6		5	4		10	27	14.9
New Albany	23,629	34	33	34	33	17.3	16.9	3	2	3	15	4							4	1			4	1	1	2		8	40	20.3
Marion	20,013	23	27	23	27	13.8	16.3	2	6		5	1			1	1	1		3				1		4				43	25.8
Cities of Fourth Class Population 10,000 to 20,000	165,854	230	190	230	190	16.6	13.0	22	25	16	50	14		1	1	2		1	35	2			51		8	11		12	231	16.7
Vincennes	17,679	42	26	42	26	28.5	17.6	3	8	5	1	2						1	13	1			10		1	3		6	29	19.7
Mishawaka	17,781	12	20	12	20	8.1	13.4	3	2		3								1				1		1	1		1	28	18.9
Peru	12,572	16	16	16	16	15.3	15.2	1	1	1	4	2							1				1		2	2			19	18.1
Laporte	13,942	13	11	13	11	11.2	9.2		3	1	6				1	2							2						32	27.5
New Castle	14,801	25	7	25	7	20.3	5.6	3	5	3	3	2		1					1	1			9					2	15	12.2
Elwood	11,028	4	12	4	12	4.3	13.0	1		1	1	2											1						9	9.8
Crawfordsville	11,722	18	14	18	14	18.4	14.3			1	7								4				2			1			15	15.3
Shelbyville	11,437	13	12	13	12	13.0	12.5	2		1	2	1											2		1				15	15.7
Huntington	11,034	16	16	16	16	17.4	17.4		1		7								6				3		1	2		1	19	20.7
Jeffersonville	10,412	12	22	12	22	13.8	25.3	1			5	1											1						9	10.4
Bedford	10,877	22	5	22	5	24.3	5.5	2	2	1	3	3							1				11						16	17.6
Brazil	10,630	19	17	19	17	21.4	19.1	3	2		8								2				4		1	1		1	8	9.0
Bloomington	11,939	18	12	18	12	18.1	12.0	3	1	3	3	1							6				4		1	1		1	17	17.1
Cities of Fifth Class, Population 5,000 to 10,000	135,780	256	168	256	168	22.8	14.8	26	27	8	75	15	5		3				34	1			66	1	12	3		9	247	21.8
Frankfort	10,000	36	15	36	15	43.2	15.0	5	5	3	7	1	1						10				13					3	20	24.0
Columbus	9,379	16	9	16	9	20.5	11.5		1		8	1	1		1								2		2				8	10.2
Goshen	9,098	16	17	16	17	21.1	22.4	2	2	2	4	1			1				1				3		3				18	23.7
Wabash	8,744	16	13	16	13	21.9	17.8	2			4								3	1			2		2			1	13	17.8
Connersville	8,278	22	7	22	7	31.9	10.1	1	2		8												10		1	1		1	13	18.8
Clinton	8,215	8	11	8	11	11.7	16.0	2	1		4								2				2						21	30.7
Whiting	8,147	12	7	12	7	17.7	10.3	3	3			2			1				3				2						31	45.7
Washington	7,854	14	10	14	10	21.4	15.2	2	2		5	1											3						18	27.5
Linton	7,604	14	5	14	5	22.1	7.8	2	1		3								1				4			1			12	18.9
Valparaiso	7,407	14	12	14	12	22.7	19.4		1		2	1	1						4				4						7	11.3
Lebanon	7,074	10	9	10	9	16.9	15.2				3												1	1				2	15	25.4
Madison	6,934	16	7	16	7	27.7	12.1	2			5	3	1						1				2		2				14	24.3
Princeton	6,688	20	8	20	8	35.9	14.3	2	2	2	2	2							3				7		1			1	10	17.9
Hartford City	6,637	5	7	5	7	9.0	12.6	1			2	1														1			14	25.3
Seymour	6,309	12	10	12	10	22.8	19.0	1	2		6								1				4					1	16	30.4
Kendallville	5,943	10	4	10	4	20.2	8.0	1	2		4												4		1				11	22.2
Mt. Vernon	5,821		7		7		14.4																						1	2.1
Greensburg	5,648	17	10	17	10	36.1	20.9		3	1	8	2	1						3				3						5	10.6

Mortality of Indiana, January, 1919 (Stillbirths Excluded.)

POPULATION BY GEOGRAPHICAL SECTIONS AND AS URBAN AND RURAL.	Deaths and Annual Death Rates Per 100,000 Population from Important Causes.																																	
	Population.	Pulmonary Tuberculosis.		Other Forms Tuberculosis.		Typhoid Fever.		Diphtheria and Croup.		Scarlet Fever.		Measles.		Whooping Cough.		Lobar and Broncho Pneumonia.		Diarrhoea and Enteritis (Under 2 Years.)		Cerebro-Spinal Fever.		Acute Anterior Poliomyelitis.		Influenza.		Puerperal Septicemia.		Cancer.		External Causes.		Smallpox.	
		Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.	Number.	Death Rate.
State	2,911,665	296	120.1	39	15.9	12	4.9	37	15.1	7	2.8	5	2.0	2	.8	510	207.6	48	19.5	1	.4	2	.8	888	361.4	14	5.7	201	81.8	161	65.6	1	.4
Northern Counties	1,016,514	72	82.9	11	12.7	6	6.9	16	18.4	6	6.9	3	3.4	1	1.1	171	196.8	23	26.5	1	1.1	1	1.1	309	355.7	6	6.9	27	30.6	72	82.9		
Central Counties	1,208,708	131	128.9	17	16.7	4	3.9	15	14.8	1	.9					231	229.1	15	14.8			1	.9	341	335.6	6	5.9	93	91.5	71	69.9	1	.9
Southern Counties	686,443	92	160.8	11	19.2	2	3.5	6	10.4			2	3.5	1	1.7	108	188.8	10	17.4					238	416.0	2	3.5	38	66.4	18	31.5		
All Cities	1,210,488	133	127.9	22	21.2	6	5.8	26	25.0	4	3.8	3	2.9	2	1.9	261	251.2	28	26.9	1	0	2	1.9	317	306.1	9	8.7	93	89.5	90	86.6		
Over 100,000	289,577	34	136.0	7	28.0	1	4.0	9	36.0							80	320.0	7	28.0					63	252.0	2	8.0	25	112.0	24	96.0		
45,000 to 100,000	299,257	38	128.3	9	30.4	2	6.7	7	23.6			2	6.7	1	3.4	51	172.3	4	13.5	1	3.4			67	226.3	2	6.7	24	81.1	21	70.9		
20,000 to 45,000	320,018	32	132.4	1	4.1	2	8.3	6	24.8	2	8.3	1	4.1			61	252.4	14	57.9			2	8.3	70	289.6	4	16.5	21	86.9	31	128.3		
10,000 to 20,000	165,854	14	101.3			1	7.2	1	7.2	2	14.5					35	253.2	2	14.5					51	368.9			8	57.9	11	79.5		
Under 10,000	135,780	15	132.6	5	44.2			3	26.5							34	300.5	1	8.8					66	583.3	1	8.8	12	106.0	3	26.5		
Country	1,701,179	162	114.3	17	11.9	6	4.2	11	7.7	3	2.1	2	1.4			249	175.6	20	14.1					571	402.8	5	3.5	108	76.2	71	50.1	1	.7

U. S. Department of Agriculture, Weather Bureau. Condensed Summary for Month of January, 1919.

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.
33.2	+4.3	Rome	66	20	La Porte	14	4

PRECIPITATION—IN INCHES AND HUNDREDTHS.

Section Average.	Departure from the Normal.	Extremes.			
		Station.	Greatest Monthly Amount.	Station.	Least Monthly Amount.
1.02	+2.09	Rome	2.29	Veedersburg	T

Education

Society cannot be relieved by sound instruction of the horrible doctrine that the begetting and bearing of children are in the slightest degree a sinful or foul process. That doctrine lies at the root of the feeling of shame in connection with these processes and of the desire for secrecy. The plain fact is that there is nothing so sacred and propitious on earth as the bringing of another normal child into the world in marriage. There is nothing staining or defiling about it, and therefore there is no need for shame or secrecy but only for pride and joy. This doctrine should be part of the instructions given to all young people.

CHARLES ELLIOTT