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PREVALENCE OF INFLUENZA, JANUARY 1 TO FEBRUARY 4, 1928

Preliminary reports from the health officers of 31 States for the first five weeks of 1928 indicate that the prevalence of influenza was about the same as it was during the same period of 1927, and about half that for 1926. The figures are as follows:

Cases of influenza reported by 31 States (population about 66,500,000) for the first five weeks of 1926, 1927 and 1928

Week ended—	Corresponding weeks—		
	1928	1927	1926
Jan. 7, 1928	1,230	1,120	1,663
Jan. 14, 1928	1,456	1,657	2,274
Jan. 21, 1928	1,651	1,594	3,114
Jan. 28, 1928	1,546	1,767	4,703
Feb. 4, 1928	1,869	1,560	4,942
Total	7,752	7,698	16,696

In 1926 and 1927 the peak of the influenza curve was reached early in March.

Comparable figures for the year 1925 are not available for some of the States, but the prevalence of influenza during the first five weeks of the year was greater in 1925 than it was in 1926, although in 1925 the peak of the influenza curve was reached about the middle of February and the total number of cases reported for January, February, and March was lower than it was in 1926.

The combined influenza and pneumonia death rates per 100,000 population in 94 large cities of the United States for the first five weeks of the years 1926, 1927, and 1928 were as follows:

	Death rate
1926	233
1927	198
1928	192

TRACHOMA IN THE STATE'S HEALTH PROGRAM[1]

By PAUL D. MOSSMAN, *Surgeon, United States Public Health Service*

The organized trachoma prevention work of the United States Public Health Service, in cooperation with States, began with the extensive survey made in eastern Kentucky in 1912 by Senior Surg.

[1] Read before the Public Health Section of the Southern Medical Association, Memphis, Tenn., Nov. 16, 1927.

John McMullen. This survey, made in response to a request from the Kentucky State Health Department, showed that trachoma was extremely prevalent and confirmed the statements of Dr. J. A. Stuckey and others that trachoma constituted a major public health problem in eastern Kentucky. The scope of Doctor McMullen's survey was enlarged in 1913 and 1914 to the extent of covering some 23 counties and involving the examination of over 18,000 people. On the basis of these examinations Doctor McMullen estimated that in the 35 mountain counties of Kentucky there were about 33,000 cases of trachoma. Being charged with the task of preventing the spread of trachoma, he evolved a plan which has not only stood the test of time, but has won the approval and praise of public health workers in many countries. The plan included the establishment of small hospitals which should serve not only as dispensaries and clinic centers, but as centers for field work in the form of surveys, field clinics, and educational work. The first hospitals were established in September, 1913, in Kentucky. In 1914, one was established in Virginia, following surveys by Senior Surg. Taliaferro Clark, of the United States Public Health Service, which showed that trachoma was quite prevalent in the western section of that State. Then the work spread to West Virginia, Tennessee, and, later, to Arkansas and Missouri, as the work became known and studies showed the prevalence of the disease in those States. Evidence which has accumulated as the work has progressed indicates that Missouri and Arkansas probably have as much trachoma as Kentucky had when the work began, and that it exists to a dangerous extent in several other States. It is not uniformly prevalent throughout any State; some communities are heavily infected while others are relatively or completely free from it.

At present, hospitals are being conducted in Kentucky, Tennessee, Arkansas, and Missouri, with the financial and moral cooperation of those States. The trachoma situation in Missouri began to attract attention through the action of the blind pension law which became effective in 1922, providing $300 per year for blind persons without other means of support. It was found that over 20 per cent of these pensioners were blind as a result of trachoma. This made blindness due to trachoma cost the taxpayers of the State over $200,000 annually in pensions alone, to say nothing of the economic cost in medical treatment, and the loss due to the withdrawal of these disabled persons from productive toil. Although new applicants have been added to the pension list and all the pensioners have been reexamined by very competent ophthalmologists, the percentage of cases of blindness due to trachoma has changed very little and has never dropped below 20 per cent. The latest figures (July 7, 1927) show a total of 3,152 pensioners, and of these, 637, or 20.2 per cent,

were blind from trachoma, costing the State in pensions $191,100 each year. These pensioners are completely blind, having no better vision than mere light perception. Many more have enough vision to be excluded from the provisions of this law, but not enough to enable them to earn a livelihood. Damage to vision sufficient to prevent education or the learning of a skilled trade is sufficient to depress the economic and social status of the individual and often of the family. Trachoma is thus a link in the vicious cycle of ignorance, poverty, and disease, each at once the result and the cause of the others.

The influence of the trachoma work on community interest in public health may be illustrated by the fact that Knott County, Ky., where our first hospital was located, was years ahead of many richer counties in installing a county health department. It is generally admitted that the value of public health work in that county was first shown to the people of the county by the teaching given by the hospital staff, both at the hospital and in the field. One of the first sanitary privies in the county was the one built at the hospital.

In many other localities the trachoma work has given the people their first view of public-health work of any sort and their first idea of the possibility of disease prevention. It is easier for State health authorities to persuade a county to install a full-time health department if energetic trachoma work has been done in that county. Conversely, it is possible for us to do much more effective trachoma-prevention work when we have the assistance of a well-organized county health department, especially when the State health department is manifesting an active interest in the campaign.

In introducing a specialized method of combating a single disease, the Public Health Service has not detracted in any way from the effectiveness of the regular health agencies within the State. We have utilized the services of State and county health authorities in carrying out our field work and in return they have had the services of our organization trained especially for the work, but with a public health vision broad enough to see the whole health program with trachoma prevention a component part, contributing to the success of the whole in proportion to its effectiveness in its own field.

The trachoma hospitals have a fourfold function, as follows:

1. Clinical treatment of trachoma for the purpose of preventing damage to sight and of stopping the patient from being a spreader of the disease. Field surveys have shown that the results of treatment have been good in a large majority of cases, the patients having remained free from evidence of the disease for a number of years. It has also been shown by the resurvey in Knott County, Ky., by Doctor McMullen, of the Public Health Service, and Doctor Duke, county health officer, and by field studies in several other localities,

that an intensive trachoma campaign can rid a community of the disease.

2. Study of the disease itself. We are constantly on the alert for improved methods of diagnosis and treatment. Although nothing revolutionary has been discovered, we believe that we have made substantial improvements both in accuracy of diagnosis and in effectiveness of treatment. In connection with our work at Rolla, Mo., the service is maintaining a research laboratory for the study of the etiology of trachoma from a bacteriologic standpoint. We also have an officer making an extended epidemiological study of the disease.

3. Education of patients in personal hygiene and disease prevention. Patients admitted to these hospitals receive careful treatment for trachoma and also instruction in personal hygiene, health, habits and general health education. They are enabled to go home relieved of their disease and trained to some extent at least to live in a clean, health-promoting manner.

4. Centers for field work. Trachoma surveys are made in the surrounding territory by the staffs of the hospitals, by means of examination of school children, and by community clinics. In the course of these surveys and clinics, talks are given on general health topics as well as on trachoma in particular. The chief value of the clinic, so far as trachoma is concerned, is the contact with the patient himself—establishing the diagnosis and showing him the value and importance of early treatment as well as the danger of spreading the disease to others.

During the past four months we have had a public health nurse on duty in Texas County, Mo., engaged in special field work. She was provided with a list of the Texas County residents who had been treated at the hospital. Her task was to look them up and report on their condition and also as to their home surroundings, diet, and other factors that might have a bearing on the incidence or spread of the disease. She also discovered suspicious eye trouble in other members of these households and in other homes in the community. These people were persuaded to come to the clinics which were held at Houston, the county seat, every Saturday. The clinics were conducted by a medical officer from the Public Health Service headquarters at Rolla, and the diagnosis of the cases sent in by the nurse was thus verified. Seventeen such clinics were held, with an average attendance of 95. Some patients came repeatedly for treatment or observation. The nurse made careful records of 254 persons during the summer. Of these, 230 were new patients who had never been in our hospital, and most of them had had no systematic treatment at all. As a result of this work a popular demand for a county nurse has arisen, and the county court will undoubtedly decide to

appoint a full-time county nurse half of whose salary will be paid by the State health department, and it is not too much to hope that another season's work may help in getting a full-time health officer for the county.

We have a somewhat similar study now going on in eastern Tennessee, which will require many months to complete, but which has already shown that in certain counties trachoma is apparently about to become a thing of the past as a result of the work done in that part of the State during the past 11 years.

No one realizes better than those of us who are in the work how far from perfect it is both in organization and execution. The chronicity of the disease, the time required to arrest it, the lack of hospitals large enough to be conducted economically, the ignorance of the people, the sad home conditions they return to when they leave the hospital—these and many other conditions make up the list of problems we must continually face. The work does have an appeal to the public, however, and legislators are not immune to this appeal when they are made acquainted with the prevalence of the disease in their State and the effectiveness of the cooperative campaign of the State health department and the United States Public Health Service.

AN EPIDEMIOLOGICAL AND STATISTICAL STUDY OF TONSILLITIS, INCLUDING RELATED THROAT CONDITIONS

In view of the widespread attention which has been given in recent years to tonsil defects and their remedy by tonsillectomy, it was deemed worth while for the Public Health Service to make a study of acute and chronic diseases of the tonsils and throat. Public Health Bulletin No. 175, by Selwyn D. Collins, associate statistician, United States Public Health Service, gives the results of this study.[1]

The data used consist of (*a*) records of sickness occurring in several groups of people kept under observation for illness for several years, and (*b*) results of physical examinations made by medical officers of the United States Public Health Service in the course of various field studies conducted during the past 10 years. The bulletin considers acute tonsillitis and sore throat, enlarged and diseased tonsils as found on physical examination, and the relation of the condition of the tonsils to illness and to physical defects. Mortality from diseases of the tonsils and pharynx is also briefly considered.

Some of the outstanding results are summarized below:

The incidence of tonsillitis and related conditions of the pharynx is higher among children of school ages than before or after those ages.

[1] This bulletin may be purchased through the Superintendent of Documents, Government Printing Office, Washington, D. C., at 30 cents per copy.

Laryngitis, on the other hand, appears to occur more frequently among adults than among preschool or school children. Tonsillitis and related conditions of the pharynx appear to be the only important respiratory affection which shows this particular age incidence; that is, higher during the school ages than among younger or older persons.

The incidence of tonsillitis and related conditions of the pharynx appears to be considerably higher for females than for males.

The relative age incidence of acute tonsillitis and sore throat is strikingly similar to the relative age prevalence of diseased tonsils as found on physical examination. The relative prevalence of enlarged tonsils as found on physical examination is also similar to the relative age incidence of acute tonsillitis and sore throat, but does not show as close correspondence as the curve for diseased tonsils.

The prevalence of defective tonsils does not seem to be significantly greater in rural than in urban districts. The percentage having had the tonsils removed, however, was considerably larger in the urban groups examined than in the rural.

The prevalence of defective tonsils seems to vary somewhat with the season of the year, but the variation is less than is the variation in the incidence of acute tonsillitis and sore throat. The maximum prevalence of defective tonsils appears to be reached about April, a period of two or three months after the maximum incidence of acute tonsillitis and sore throat and of colds.

The incidence of sore throat seems to be more than twice as great for school children with defective tonsils as for those whose tonsils have been removed. The incidence of sore throat among children with normal tonsils also appears to be less than among those with defective tonsils.

Respiratory diseases other than tonsillitis appear to be somewhat more frequent among children with defective tonsils than among those with normal tonsils or those whose tonsils have been removed. Among adults there seems to be little difference in the incidence of these respiratory diseases in the different tonsil groups.

The incidence of illness from rheumatism and related conditions appears to be higher among adults who have attacks of tonsillitis than among those who are free from tonsillitis.

The incidence of diphtheria seems to be much higher among children with defective tonsils than among children with tonsils removed. Among children with normal tonsils it appears to be only slightly higher than among those whose tonsils have been removed.

The results of the physical examination suggest that adenoids, enlarged cervical glands, conjunctivitis, eyestrain, and decayed teeth

all tend to be slightly more prevalent among children with defective tonsils than among children with normal tonsils or with tonsils removed.

Filled teeth are more prevalent among children with tonsils removed, indicating that these children are a somewhat selected group, coming from families that are more able or willing to secure the correction of other remediable physical defects in their children.

Height and weight measurements and records of growth in weight over a period of nine months for a group of school children did not show any advantage in the growth of one tonsil group over another. Data from the literature seem to indicate a more rapid growth immediately tonsillectomy, but this tendency does not appear to continue for any extended period of time.

DEATH RATES IN A GROUP OF INSURED PERSONS

RATES FOR PRINCIPAL CAUSES OF DEATH FOR DECEMBER, 1927, AND FOR THE YEARS 1911, AND 1917 TO 1927

The accompanying tables are taken from the Statistical Bulletin for January, 1928, issued by the Metropolitan Life Insurance Co. They present the mortality experience of the industrial insurance department of the company for the principal causes of death for December, 1927, and a comparison of the rates for the years 1911 and 1917 to 1927, inclusive. The rates are based on a strength of approximately 18,000,000 insured persons of the United States and Canada. In recent years the death rates in this group have been about 72 per cent of the rates for the death registration area of the United States.

DECEMBER, 1927

The month of December, 1927, as was the case with five other months of the year, registered a lower death rate than had ever before been recorded for the corresponding month of any year. The death rate for December was 8.7 per 1,000, as compared with the previous low rate of 8.9 for December, 1925.

While the rate for almost every cause of death listed in the accompanying table is lower than that registered last year, the most important single factor in the low December death rate is stated to be the low mortality, for a winter month, from pneumonia. Other noteworthy reductions were those for tuberculosis, cancer, and Bright's disease.

There were more automobile fatalities than in December, 1926, and this was the tenth month of the year 1927 to record an increase in such deaths over the corresponding month of last year.

Death rates (annual basis) for principal causes per 100,000 lives exposed, December, 1927, as compared with November, 1927, and December and year 1926

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed [1]			
	Dec., 1927	Nov., 1927	Dec., 1926	Year 1926
Total, all causes	866.0	849.8	932.5	945.6
Typhoid fever	2.8	4.3	4.1	4.2
Measles	2.0	1.0	3.3	10.2
Scarlet fever	2.5	2.6	2.4	3.4
Whooping cough	3.7	3.9	5.8	9.6
Diphtheria	14.3	12.4	15.5	9.7
Influenza	17.7	11.0	18.7	31.1
Tuberculosis (all forms)	84.0	79.2	89.7	99.0
Tuberculosis of respiratory system	74.1	70.3	80.1	86.7
Cancer	73.0	73.5	78.4	73.7
Diabetes mellitus	18.1	16.2	20.2	16.7
Cerebral hemorrhage	56.0	53.2	54.7	55.6
Organic diseases of heart	135.3	135.2	139.7	134.3
Pneumonia (all forms)	83.5	66.0	97.4	98.2
Other respiratory diseases	16.4	14.9	15.2	13.0
Diarrhea and enteritis	16.1	23.1	17.4	29.8
Bright's disease (chronic nephritis)	65.7	66.7	78.0	73.5
Puerperal state	12.3	14.5	12.8	15.3
Suicides	7.2	8.0	7.4	7.7
Homicides	6.6	7.6	7.3	7.0
Other external causes (excluding suicides and homicides)	59.9	62.4	62.2	62.3
Traumatism by automobiles	16.5	20.8	14.3	16.8
All other causes	189.0	194.2	202.3	191.0

[1] All figures include infants insured under 1 year of age.

YEAR 1927 AND COMPARISON WITH 1911 AND YEARS 1917 TO 1926

In 1927 a new low minimum death rate of 8.4 per 1,000 was established for this group of persons, which comprises one-seventh of the total and more than one-fourth of the urban populations of the United States and Canada. This favorable health condition probably obtained in, and will no doubt be reflected in the death rates for, the registration area. The previous low rate for this group was 8.5 per 1,000 for the years 1924 and 1925, and the next lowest was 8.9 in 1926. The importance of these fractional reductions is much more obvious when they are translated into figures showing the actual savings of lives. If the 1926 death rate had prevailed in 1927 there would have been 8,808 more deaths than actually occurred in the group of persons here considered, and the reduction of one-tenth of one point from the 1925 death rate represents 1,782 fewer deaths.

A new low death rate was recorded for tuberculosis, 93.5 per 100,000. This may be compared with the previous minimum rate of 98.2 in 1925, with 137.9 in 1920, with 189.0 in 1918, and with 224.6 in 1911. Improved conditions as compared with 1926 were shown also for measles, scarlet fever, whooping cough, pneumonia, influenza, diarrhea and enteritis, and the principal degenerative diseases.

On the other hand, the cancer rate was slightly higher, the diabetes rate and the rate for puerperal diseases were the same as in 1926, and the rate for automobile fatalities rose from 17 to 18.6, an increase

of 9.4 per cent over the preceding year. The 1927 figure for automobile fatalities is almost twice that for 1917, more than three times the rate for 1915, and more than eight times the rate for 1911.

Death rates for principal causes per 100,000 lives exposed, 1911 and 1917 to 1927, ages 1 and over

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1911
All causes of death	839.9	885.7	846.3	848.0	897.1	882.9	870.6	989.4	1063.6	1559.2	1161.1	1253.0
Typhoid fever	4.7	4.2	4.6	4.4	5.2	5.7	6.7	6.7	7.3	11.5	12.1	22.8
Communicable diseases of childhood	19.6	25.9	19.7	26.2	33.1	29.8	37.9	43.1	31.5	41.6	46.8	58.9
Measles	3.3	8.0	2.5	5.7	8.4	4.3	3.2	8.5	3.5	8.6	11.1	11.4
Scarlet fever	3.0	3.4	3.4	4.3	4.4	4.9	7.0	6.0	3.9	3.6	6.0	13.1
Whooping cough	3.1	5.0	3.6	3.5	4.8	2.6	3.9	6.6	3.2	10.1	5.1	7.1
Diphtheria	10.2	9.5	10.2	12.7	15.5	18.0	23.8	22.1	20.9	19.3	24.6	27.3
Influenza and pneumonia	78.5	105.6	88.3	84.4	107.7	95.3	76.6	159.5	214.1	542.2	135.4	131.2
Influenza	15.6	27.4	19.4	14.2	30.1	21.7	8.7	53.5	96.9	272.4	14.4	15.9
Pneumonia	62.9	78.2	69.0	70.2	77.6	73.7	67.8	106.1	117.2	269.8	121.0	115.3
Poliomyelitis	2.0	.7	1.4	1.0	.7	.9	1.7	1.0	.6	1.1	1.6	1.6
Tuberculosis (all forms)	93.5	99.5	98.2	104.4	110.5	114.2	117.4	137.9	156.6	189.0	188.9	224.6
Tuberculosis of respiratory system	82.7	87.9	87.0	93.4	100.6	103.6	105.6	124.0	141.6	171.2	172.3	203.6
Cancer (all forms)	75.3	75.1	71.8	71.5	72.7	72.0	71.7	69.8	67.0	67.2	70.9	68.9
Diabetes mellitus	17.0	17.0	15.5	15.1	16.2	17.2	15.5	14.1	13.4	14.0	15.3	13.3
Alcoholism	3.4	3.7	3.0	2.9	3.0	2.1	.9	.6	1.4	1.8	4.9	4.9
Cerebral hemorrhage, apoplexy	55.7	56.5	54.4	61.1	61.9	62.9	62.1	61.3	59.8	64.0	66.8	64.2
Diseases of heart	134.3	136.4	128.7	125.2	128.7	126.7	117.4	117.0	113.9	141.7	142.0	141.8
Diarrhea and enteritis	9.1	10.5	12.3	11.3	11.1	10.8	14.2	15.8	16.9	23.4	25.5	28.6
Chronic nephritis (Bright's disease)	70.5	74.9	71.2	66.5	69.6	70.3	68.0	70.8	73.5	86.8	95.7	95.0
Puerperal state, total	15.6	15.6	16.9	17.2	17.9	19.0	19.8	23.0	20.0	27.4	18.2	19.8
Puerperal septicemia	6.3	6.0	6.6	6.6	6.9	7.4	8.5	8.6	6.7	7.3	7.5	8.8
Puerperal albuminuria and convulsions	3.1	3.6	3.8	4.3	4.2	4.7	4.9	5.0	4.8	4.9	5.1	4.7
Accidents of pregnancy	1.3	1.7	1.6	1.6	1.8	1.7	1.6	3.1	3.0	6.9	1.6	1.7
Total external causes	79.6	77.2	78.3	76.9	77.8	71.8	72.0	72.0	94.2	128.9	106.7	97.9
Suicides	8.4	7.8	7.0	7.3	7.4	7.5	7.6	6.1	6.8	7.6	9.3	13.3
Homicides	7.3	7.2	7.4	7.2	7.3	6.3	6.7	5.8	6.9	6.2	7.4	7.2
Accidents, total	63.8	62.3	63.9	62.4	63.0	58.0	57.5	59.6	63.8	75.5	76.5	77.4
Accidental burns	5.3	6.1	6.1	6.4	6.3	6.1	6.6	8.1	8.1	9.0	8.9	8.8
Accidental drowning	6.8	6.3	6.5	7.3	6.7	7.3	8.2	6.7	8.6	9.4	8.7	10.2
Accidental traumatismby fall	8.4	7.9	8.1	7.7	8.4	7.3	7.1	7.3	8.0	10.4	11.9	13.2
Accidental traumatism by machines	1.3	1.4	1.3	1.3	1.7	1.6	1.0	1.7	1.6	2.4	2.0	1.8
Railroad accidents	4.1	4.2	4.0	4.0	4.9	4.1	3.9	5.2	5.7	7.8	8.5	9.5
Auto accidents	18.6	17.0	16.8	15.9	15.4	13.6	12.2	11.1	10.7	10.3	9.7	2.3
All other accidents	19.3	19.4	21.2	19.7	19.5	18.0	18.5	19.5	21.2	26.1	26.8	31.6
War deaths	(1)	(1)	(1)	(1)		1	1	.5	16.6	39.7	13.5	
Other diseases and conditions	181.0	183.6	183.4	180.9	181.7	185.1	190.5	197.8	193.5	219.7	231.9	283.5

[1] Death rate less than 0.05 per 100,000.

NATIONAL NEGRO HEALTH WEEK TO BE OBSERVED APRIL 1 TO 8, 1928

The week of April 1 to April 8, 1928, has been set aside for the fourteenth observance of National Negro Health Week. State and municipal health departments, voluntary health organizations, and numerous other official and unofficial agencies interested in race welfare and advancement are cooperating with the United States Public Health Service in a determined effort to improve health and living conditions.

As a first step in this widespread health campaign this year the Public Health Service announces the issuance of the annual National

Negro Health Week Bulletin. This publication outlines effective methods of instituting and successfully carrying out the program of the health week. It is designed primarily for churches, schools, fraternal organizations, welfare societies, and other groups interested in community progress and race betterment, and contains, in addition to methods for organizing the programs for health week, information and sources of materials of value for health-week work.

It is the plan of the campaign to set aside each day of the week for special observance of some phase of health work. Sunday, April 1, will be mobilization day; Monday, April 2, home hygiene day; Tuesday, April 3, community sanitation day; Wednesday, April 4, children's health day; Thursday, April 5, adult's health day; Friday, April 6, special campaign day; Saturday, April 7, general clean-up day; Sunday, April 8, report and follow-up day.

In addition to the bulletin there is being distributed this year a specially prepared poster which gives in brief and interesting form the various rules of health and appropriate information and which has for a number of years contributed to the success of National Negro Health Week. This poster is a beautifully printed three-color illustration, and it is the aim of the committee in charge of this activity to have a copy placed in every home.

The poster is being issued in a very limited edition for free distribution. Single copies or quantities of the poster or bulletin may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C.

Health officials, race leaders, and others interested in the successful promotion of this health-week observance can secure sample copies of the bulletin or additional information as to the proposed plan of the health week by writing the United States Public Health Service, Washington, D. C., or the National Negro Health Week Committee, Tuskegee, Ala.

CLAIM AGAINST CITY BECAUSE OF ILLNESS FROM TYPHOID FEVER

The following item regarding a claim against a municipality on account of the contraction of typhoid fever, alleged to have been due to the city's negligence, is taken from the February 6, 1928, issue of the Health News, published by the New York State Department of Health:

The father of a girl who contracted typhoid fever during an outbreak of the disease in the city of Cohoes last October has filed with the comptroller and the commissioner of public works of that city a claim of $5,000 for damages and $1,000 for expenses of the sickness and the loss of his daughter's services. If the claims are not allowed by the city within three weeks, papers are ready for starting action in the supreme court, according to the Cohoes American.

It is alleged that the girl contracted typhoid fever as a result of drinking water coming from the city main into her home. The city is called grossly negligent in permitting polluted water from the canal to enter the city mains at an industrial plant through a cross connection which it is claimed has existed since July 1, 1926, in violation of regulation 15–a of Chapter VII of the Sanitary Code.

On September 18 water was shut off from the mains in that section of the city and the plant in question is said to have then pumped water from the canal to maintain pressure in its sprinkler system. It is alleged that the polluted water was forced through the cross connection into the city mains, mingling with the city water when the latter was turned on. There were 48 cases of typhoid fever reported from the general vicinity of this cross connection.

COURT DECISION RELATING TO PUBLIC HEALTH

Garbage ordinance held reasonable.—(Washington Supreme Court; State (city of Auburn) *v.* Spiller, 262 P. 128; decided December 21, 1927.) An ordinance of the city of Auburn, which required the maintenance and use of a metal garbage can by householders and operators of business places, also contained the following provision:

* * * that in any prosecution for the violation of any provision of this section it shall be competent to prove that the person failing to furnish and provide or maintain such metallic can or deposit garbage therein as in this section provided is purchasing water from the city of Auburn for use upon such premises, and proof of such purchase of water shall be prima facie evidence that garbage is accumulating upon such premises.

This provision was attacked and the supreme court, after citing cases sustaining the validity of a legislative presumption of one fact from evidence of another, decided that there was in the instant case a rational connection between the fact proved and the ultimate fact presumed, saying:

* * * The lawmaking body evidently reasoned that the purchasing of water from the city by a person in possession or in charge of premises located therein for use on such premises must of necessity be using them in such a manner as to accumulate garbage. While the reasoning may be somewhat attenuated, we can not conclude that it is without foundation. There are uses, of course, to which the water could be put which would not result in the accumulation of garbage, but such uses are occasional rather than general. The more common use of water by persons residing in municipalities is for household purposes, and to conduct a household of necessity results in the accumulation of garbage. In this connection it may be well again to call attention to the fact that the presumption to which the ordinance gives rise is not conclusive. It is a prima facie presumption only, and does not shut out from a party affected the right to show that the actual fact is otherwise.

The court also stated that "we find nothing unreasonable in the regulations of the ordinance now before us."

PUBLIC HEALTH ENGINEERING ABSTRACTS

United States District Court Upholds Minneapolis Zoning Ordinance. Anon. *Engineering News-Record*, vol. 99, No. 13, September 29, 1927, p. 525. (Abstract by E. G. White.)

The Federal District Court of Minnesota, on September 8, 1927, rendered two decisions upholding the Minneapolis zoning ordinance. Four instances are cited where zoning ordinances were upheld by the United States Supreme Court, at Euclid, Ohio, November, 1926; Minneapolis, March, 1927; Roanoke, Va., May, 1927; and Los Angeles, June, 1927.

The case decided by the Federal District Court on September 8 involved an attempt to compel the city of Minneapolis to allow the use of property for industrial purposes which had been zoned for multiple family residences. The property had once been zoned for industrial purposes, but at the request of the board of regents of the University of Minnesota had been rezoned as dwelling property to protect the university neighborhood from industrial encroachment. Judge John B. Sanborn, who rendered the decision, expressed an opinion to the effect that the theory of zoning ordinances is good, but may be unjustly applied in some cases. He was not of the opinion, however, that judges of the Federal court could remedy matters by substituting their judgment for that of the legislative bodies.

Cities of the United States with Zoning Ordinances Totaled 553 on July 1. Anon. *Engineering News-Record*, vol. 99, No. 13, September 29, 1927, p. 526. (Abstract by E. G. White.)

According to a report issued by the United States Department of Commerce on July 1, 1927, a total of 553 cities in the United States had adopted zoning ordinances. New York was the first, in 1916, and the other cities range in size down to places with less than 1,000 population. New York State heads the list, having 93 cities, while 8 States have only one city each with zoning ordinances. In all, 46 States and the District of Columbia permit at least some municipalities to zone themselves, and of these 28 follow largely the "standard State zoning enabling act" issued by the Department of Commerce first in 1924.

The Maintenance of Satisfactory Air Temperatures in Living Spaces and Working Spaces in Ships of the British Navy. T. B. Shaw. Journal of State Medicine, vol. 35, No. 10, October, 1927, pp. 575–590. (Abstract by Leonard Greenburg.)

Captain Shaw emphasizes the fact that the ill effects of poorly ventilated quarters are due to physical and not to chemical changes in the atmosphere. Ventilation, he says, implies not only adequate air renewal but also the maintenance of the air in a satisfactory condition of temperature, moisture, and movement, and of these three conditions temperature is the most important.

From the point of view of the Navy the following questions require consideration: (1) Wild heat and methods for its control; (2) excessive heating in the Tropics and subtropical seas and its control; (3) heating arrangements in cold weather.

Wild heat is that heat which is generated in the boiler or engine rooms of the ship and is transmitted from these and hot pipes in the ship through the metal structures and into the living quarters on board. Much can be done in the limitation of this when the ships are under construction by the use of nonconducting lagging materials wherever this heat may be released. In addition, the supply of fresh, cool air by fan systems, as well as the removal of warm air by exhaust systems, is indicated, and finally the selection of suitable sites for sources of wild heat, such as dynamo and auxiliary engine rooms, is to be advocated. Such living spaces which are materially overheated may be rendered more livable by the rapid renewal of outdoor air, which is insured by a satisfactory method of plenum ventilation.

In tropical climates the problem of heat control on board ships becomes a still more difficult matter; for here, in addition to the heat generated within the ship, the direct action of the sun's rays on the ship's framework and the

warm state of the atmosphere add their quota to the temperature on board, and, moreover, the outdoor air is oftentimes not cool enough to serve as a cooling agent for use by exhaust fans. Under these conditions the sources of wild heat must be carefully examined and efforts made to reduce the transmission of heat in every possible manner. The regulation of the use of steam and the use of hot water for bathing at certain stated periods in the morning and afternoon may aid in the temperature control of certain portions of the ship; and finally the necessity for a generous supply of table fans to secure wide air motion is advocated.

Measures should be taken to diminish in so far as possible the heat absorption by the decks and the sides of the ship. This heat may be controlled by the use of white paint, awnings, and nonconducting materials. Sleeping on deck should be encouraged, not only because the open air insures greater comfort but also because of the relief from overcrowding the spaces below deck.

The part played by clothing is exceedingly important, and men working in spaces between decks in the Tropics should remove their jumpers in order that the heat loss from the body may be increased. In temperate climates, also, this procedure may be utilized to advantage.

The possibility of cooling air for use between decks is discussed, and in this connection the author points out that in temperate climates magazine cooling and that required for cold storage constitute a severe drain on the refrigerating apparatus on board ship. Apparatus must, however, be installed for cooling air in any compartment occupied by men in which the temperature will rise to an extent which will endanger life. For certain workshops situated in close proximity to wild heat which can not be effectively combated it is essential to supply cool air.

In H. M. ships the methods of heating in cold weather are (1) indirect—steam heaters, and (2) direct—stoves, electric radiators.

The indirect method consists in by-passing the air from the supply fan through a chamber in which heating coils are placed. When it is desired to warm the air, steam is admitted to the coils and the by-pass is so altered that the air will circulate between the coils. In temperate climates it is rarely necessary to pass more than one-third of the air through the heater in order to obtain the desired temperature. Care must be exercised when such heaters are in use to prevent the overheating of the room air. In the British Navy a ventilation committee is in charge of such matters and this committee should take the necessary steps to secure adequate control of the heaters.

Captain Shaw is of the opinion that the combined system of heating and ventilation such as described is the most suitable for use on H. M. ships. He feels that this is distinctly superior to the employment of so-called steam or hot-water radiators. The same heating apparatus should not be used for several compartments unless the conditions affecting the temperature in each are approximately the same. The quantity of wild heat certainly has an important bearing on the design of the heat-supply system for each compartment.

Prior to the introduction of electricity, stoves were largely used for heating purposes, and coal-burning stoves of the closed type are still used in officers' messes and admirals' and commanding officers' apartments. The necessary draft up the flue should be insured by trimming the funnel of all stoves on deck; and when the funnel must be unshipped and the openings in the deck closed by a deck plate, care must be exercised to see that the fire is completely extinguished beforehand.

The electric radiator is a most valuable heater for use in submarines as well as surface ships. It is simple and clean and produces no products which pollute the atmosphere. In many other ways, also, does electricity aid in the problem

of naval hygiene by making it possible to obtain adequate lighting and improved air conditions and by the elimination of the pollution which would result from the use of lamps and candles. Wild heat throughout the ship has been reduced by the use of electricity in place of steam in many ways.

School Ventilation. Its Effect on the Health of the Pupil. Thomas J. Duffield. *American Journal of Public Health*, vol. 17, No. 12, December, 1927, pp. 1226–1229. (Abstract by Leonard Greenburg.)

This is a progress report of the committee on heating and ventilating of the American Public Health Association and was presented to that body at its fifty-sixth annual meeting at Cincinnati, Ohio (1927). The chief activity of the committee during the past year was an attempt at collaboration with the fresh air indoors committee of Rochester, N. Y., in a study of school ventilation. The American Society of Heating and Ventilating Engineers was also asked to collaborate in this study. Because of the fact that agreement between the American Public Health Association committee and the American Society of Heating and Ventilating Engineers committee on criteria for evaluation of ventilation was not forthcoming, a central conference committee on school ventilation, composed of seven members, was organized—three members from the American Society of Heating and Ventilating Engineers, two from the New York Commission on Ventilation, and one member each from the American Public Health Association and the joint committee of the American Medical Association and National Education Association. This central conference committee attempted to agree on a rating schedule or some other means of evaluating the conditions as found in window and fan-ventilated schools. The American Society of Heating and Ventilating Engineers proposed the use of a complex schedule based on air conditions maintained, whereas the other representatives favored a criterion based solely on the health of the school children. In view of this deadlock, the Rochester studies were dropped by the board of education of that city.

The American Public Health Association committee has been interested also in studies of school ventilation which were conducted by the New York Commission on Ventilation in Syracuse, N. Y., and Cattaraugus County, N. Y., and those conducted by the United States Public Health Service in New Haven, Conn. These studies agree in confirming the earlier studies of the New York State Commission on Ventilation in showing that, as gaged by the incidence of respiratory disease of the pupils, natural ventilation is superior to that produced by mechanical means under average conditions of operation.

The Cattaraugus County studies showed enormous differences in temperature between the floor and ceiling levels. In one case a difference of 45° F. was noted. The New York Commission on Ventilation plans to conduct experiments in an effort to maintain better air conditions in rural school rooms of this type.

Smoke and Air Pollution in a Modern City. H. B. Meller. *Pennsylvania's Health*, Pennsylvania Department of Health, vol. 5, No. 5, September–October, 1927, pp. 9–12. (Abstract by Leonard Greenburg.)

Smoke is the product of combustion, both solid and gaseous, emitted from the stack, and may include unconsumed carbon, various hydrocarbons, ash, sulphurous acid, chlorine, and ammonia. Part of this is visible and part may be invisible. The portion of the smoke which is visible is graded according to the Ringlemann Chart of the United States Bureau of Mines. Light smoke may be considered any which, while visible, is less than 60 per cent black. The atmospheric pollution to which people are subjected need not be only smoke, but, in addition, dust and pollution from other sources.

According to Doctor Meller, smoke and other substances which pollute the atmosphere irritate the sensitive membranes of the nose, eyes, throat, lungs, and gastrointestinal tract and diminish the potential reserve of the body. In addition to this, smoke and other solids in the atmosphere lessen the duration and intensity of sunshine and reduce the daylight which may be present. The importance of sunshine as a bactericidal and tonic agent is emphasized.

The systematic study carried on at the Mellon Institute showed that the average solid deposit throughout the city of Pittsburgh was approximately 1,000 tons per square mile per year. This was disclosed in the study undertaken in 1912. A resurvey in 1923–24 indicated that remarkable results had been obtained by the smoke ordinance. Visible smoke had been reduced approximately 60 per cent and dense smoke approximately 80 per cent, but the total deposit of solid matter (ash, iron oxide, and fixed carbon) had been increased practically 40 per cent. Doctor Meller points out that although now the visible smoke has been reduced, yet the increase in the solid particles constitutes an additional source of irritation to the respiratory membranes.

The author feels that a campaign of education, acquainting the general public with the gravity of the air-pollution evil, the provision of facilities to permit the control of visible smoke to the limit physically possible, and research by the chemist, the physician, and the engineer to cover thoroughly the field of air pollution, are the three requisites of the problem at this time.

Effect of different kinds of pipe on quality of water supplies. H. W. Clark. *Journal New England Water Works Association*, vol. 41, No. 1, March, 1927, p. 31. (Abstract by H. D. Cashmore.)

Investigations have shown that no matter what kind of pipe is used the water will take into solution a part of the metal, the amount depending somewhat on the water and the quality of pipe.

Iron pipe is affected the most, except when galvanized. Tin-lined pipes are the least affected. Much zinc is taken into solution from galvanized-iron pipe and brass pipe, which also yields a small amount of copper. From copper pipes only a small amount of copper is taken, but any zinc present is readily dissolved. Lead pipes have long been known to yield lead, and for this reason are dangerous, as 0.04 parts per 100,000 in solution will cause lead poisoning of some people when habitually used. Some doubt exists in the minds of different authorities as to the effect of copper and zinc on the human system.

As a matter of precaution it is suggested that where such dangers as the above exist the pipes be flushed thoroughly each morning before using the water. A small amount of copper is always present in the human system, coming from water and certain foods.

Use of Lime in Water Softening and Water Purification. Charles P. Hoover. Ind. Eng. Chem., 19:567–70, May, 1927. Abstract by Edward S. Hopkins in the *Journal American Water Works Association*, vol. 18, No. 6, December, 1927, p. 763.

"In addition to its softening qualities, attention is called to the sterilizing action of excess lime in water treatment. A selective action for *B. coli* is suggested, tables being given to show that after five 'hours' contact using excess causticity this organism is killed. Elimination of color, iron, turbidity, and odor and increased sedimentation efficiency are claimed. Modern practice is to soften to point of precipitation of magnesium and then add excess of carbon dioxide gas to precipitate calcium hydroxide, followed by filtration. Gas is obtained by burning coke, oil, etc. It is possible also to use 'split' treatment, neutralizing excess lime with carefully controlled portions of raw water. Operating cost of such treatment is given."

Recarbonation of Softened Water. Charles P. Hoover. Ind. Eng. Chem., 19:784–6, July, 1927. Abstract by Edward S. Hopkins in the *Journal American Water Works Association*, vol. 18, No. 6, December, 1927, p. 764.

"Water softened with lime may deposit calcium carbonate in pipe lines with decrease of capacity, or choke filter beds by formation of 'balls' resulting in poor operating conditions. Such a condition is overcome by adding carbon dioxide to such a supply, thereby converting the slightly soluble calcium carbonate to the highly soluble calcium bicarbonate. Such practice is being conducted in numerous places in this country, operating conditions of certain plants being

quoted together with a description of the apparatus, as well as a comparison of cost of various fuels for the production of carbon dioxide upon a plant scale."

DEATHS DURING WEEK ENDED FEBRUARY 11, 1928

Summary of information received by telegraph from industrial insurance companies for the week ended February 11, 1928, and corresponding week of 1927. (From the Weekly Health Index, February 16, 1928, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 11, 1928	Corresponding week 1927
Policies in force	70, 240, 787	66, 705, 342
Number of death claims	13, 626	12, 300
Death claims per 1,000 policies in force, annual rate	10. 1	9. 6

Deaths from all causes in certain large cities of the United States during the week ended February 11, 1928, infant mortality, annual death rate, and comparison with corresponding week of 1927. (From the Weekly Health Index, February 16, 1928, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 11, 1928		Annual death rate per 1,000 corresponding week 1927	Deaths under 1 year		Infant mortality rate, week ended Feb. 11, 1928 [2]
	Total deaths	Death rate [1]		Week ended Feb. 11, 1928	Corresponding week 1927	
Total (68 cities)	7,943	13. 6	13. 3	825	834	[3] 69
Akron	40			5	12	54
Albany [4]	41	17. 8	20. 5	8	2	164
Atlanta	83	17. 1	14. 0	9	2	
White	43		10. 7	6	1	
Colored	40	(5)	21. 9	3	1	
Baltimore [4]	239	15. 0	15. 0	28	27	89
White	182		12. 8	17	17	68
Colored	57	(5)	27. 7	11	10	172
Birmingham	74	17. 4	12. 0	17	8	145
White	33		10. 2	8	2	110
Colored	41	(5)	14. 8	9	6	203
Boston	242	15. 8	16. 0	22	42	61
Bridgeport	42			3	5	55
Buffalo	178	16. 7	16. 0	15	16	64
Cambridge	34	14. 1	15. 2	3	5	53
Camden	44	17. 0	12. 9	8	5	128
Canton	21	9. 4	13. 8	5	2	119
Chicago [4]	700	11. 6	12. 4	68	95	58
Cincinnati	144	18. 2	16. 8	11	14	66
Cleveland	173	9. 0	11. 4	18	27	49
Columbus	70	12. 3	12. 7	3	9	28
Dallas	43	10. 3	9. 9	7	6	
White	33		9. 1	5	5	
Colored	10	(5)	15. 2	2	1	
Denver	89	15. 8	13. 3	9	3	
Des Moines	30	10. 3	10. 2		2	
Detroit	299	11. 3	11. 3	50	52	77
Duluth	13	5. 8	7. 3	1	1	23
El Paso	39	17. 3	9. 2	7	2	
Erie	27			1	5	21
Fall River [4]	23	9. 0	11. 0	3	2	51
Flint	22	7. 7	12. 4	3	10	38
Fort Worth	28	8. 7	8. 3	3	3	
White	21		8. 7	1	2	
Colored	7	(5)	5. 3	2	1	
Grand Rapids	44	14. 0	11. 3	2	6	30
Houston	60			11	4	
White	40			8	3	
Colored	20	(5)		3	1	
Indianapolis	108	14. 8	16. 3	11	9	84
White	80		16. 8	4	8	35
Colored	28	(5)	12. 8	7	1	425
Jersey City	101	16. 3	12. 5	17	6	127
Kansas City, Kans	30	13. 3	12. 9	1	4	21
White	24		10. 8	1	3	25
Colored	6	(5)	22. 1	0	1	0
Kansas City, Mo	109	14. 6	11. 7	12	4	85

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended February 11, 1928, infant mortality, annual death rate, and comparison with corresponding week of 1927—Continued

City	Week ended Feb. 11, 1928		Annual death rate per 1,000 corresponding week 1927	Deaths under 1 year		Infant mortality rate, week ended Feb. 11, 1928 [2]
	Total deaths	Death rate [1]		Week ended Feb. 11, 1928	Corresponding week 1927	
Knoxville	36	17.9	14.3	6	2	130
White	21		12.2	4	2	97
Colored	15	(5)	29.9	2	0	427
Los Angeles	280			27	21	77
Louisville	67	10.6	14.5	3	5	25
White	53		12.5	2	3	19
Colored	14	(5)	25.6	1	2	69
Lowell	22	10.4	13.2	1	1	21
Lynn	24	11.9	11.9	3	4	76
Memphis	85	23.4	16.6	18	6	211
White	48		14.9	7	3	131
Colored	37	(5)	19.7	11	3	345
Milwaukee	136	13.1	12.3	17	20	76
Minneapolis	98	11.2	10.7	8	7	48
Nashville	45	17.0	16.3	5	0	79
White	20		10.5	3	0	64
Colored	16	(5)	30.8	2	0	120
New Bedford	45	19.7	17.9	8	3	173
New Haven	63	17.5	14.9	6	7	85
New Orleans	143	17.4	19.2	10	13	48
White	79		15.8	6	5	44
Colored	64	(5)	28.8	4	8	58
New York	1,658	14.4	13.0	177	147	71
Bronx Borough	195	10.7	9.2	14	10	42
Brooklyn Borough	514	11.6	11.7	67	63	67
Manhattan Borough	721	21.5	17.9	70	58	83
Queens Borough	181	11.1	9.9	21	14	85
Richmond Borough	47	16.3	13.2	5	2	90
Newark, N. J	121	13.4	11.2	15	25	77
Oakland	66	12.6	12.5	1	13	11
Oklahoma City	33			2	0	
Omaha	60	14.1	11.7	9	5	104
Paterson	44	15.9	12.7	8	4	139
Philadelphia	534	13.5	15.2	43	58	58
Pittsburgh	210	16.3	13.5	28	24	92
Portland, Oreg	84			8	5	86
Providence	75	13.7	11.1	5	12	44
Richmond	52	14.0	14.7	5	4	65
White	33		14.5	4	4	81
Colored	19	(5)	15.0	1	0	37
Rochester	82	13.1	13.8	9	7	73
St. Louis	226	13.9	12.8	20	13	67
St. Paul	52	10.8	11.7	3	4	29
Salt Lake City	37	14.0	14.6	6	8	98
San Antonio	62	14.9	14.3	8	11	
San Diego	46	20.1	18.5	1	1	19
San Francisco	156	13.9	14.2	7	5	44
Schenectady	28	15.7	11.7	1	5	31
Seattle	69	9.4	11.4	3	2	31
Somerville	35	17.8	10.8	2	4	69
Spokane	29	13.9	18.7	2	1	52
Springfield, Mass	35	12.2	12.4	4	4	63
Syracuse	50	13.1	13.2	3	15	36
Tacoma	19	9.0	9.7	1	1	26
Toledo	81	13.5	13.8	11	6	105
Trenton	38	14.3	14.5	5	5	85
Washington, D. C	143	13.5	14.4	14	7	80
White	83		12.7	4	5	33
Colored	60	(6)	19.5	10	2	185
Waterbury	24			3	4	87
Wilmington, Del	36	14.6	9.5	0	3	0
Worcester	51	13.5	14.4	3	6	36
Yonkers	27	11.6	10.5	1	2	23
Youngstown	36	10.8	10.8	4	0	53

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.
[3] Data for 67 cities.
[4] Deaths for week ended Friday, Feb. 10, 1928.
[5] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisaille, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended February 19, 1927, and February 18, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 19, 1927, and February 18, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928
New England States:								
Maine	2	8	6	5	192	29	0	0
New Hampshire	----	7	----	24	----	48	----	0
Vermont	----	----	----	----	85	6	0	0
Massachusetts	91	120	14	21	154	1,833	1	2
Rhode Island	----	6	----	----	----	26	----	0
Connecticut	41	29	14	10	89	318	2	0
Middle Atlantic States:								
New York	508	404	[1] 140	[1] 36	1,003	1,723	3	13
New Jersey	135	149	41	18	64	451	3	1
Pennsylvania	211	268	----	----	907	1,323	1	2
East North Central States:								
Ohio	----	78	----	19	----	423	----	7
Indiana	56	33	78	31	236	141	1	0
Illinois	141	177	59	18	2,340	103	3	7
Michigan	130	62	----	4	277	572	0	4
Wisconsin	49	36	98	88	765	47	2	2
West North Central States:								
Minnesota	31	39	3	2	301	5	1	3
Iowa [2]	24	14	----	----	729	56	0	7
Missouri	65	46	10	25	272	133	0	3
North Dakota	2	5	----	2	102	4	2	2
South Dakota	----	2	1	----	148	21	0	0
Nebraska	5	12	1	3	105	3	0	2
Kansas	11	13	36	31	795	31	5	2
South Atlantic States:								
Delaware	----	2	----	----	7	10	0	0
Maryland [2]	56	40	162	40	30	696	2	1
District of Columbia	43	33	24	4	1	61	0	0
Virginia	----	----	----	----	----	----	1	----
West Virginia	35	45	50	74	118	118	0	0
North Carolina	29	39	----	----	476	----	0	----
South Carolina	16	18	636	1,423	34	1,430	0	0
Georgia	15	13	99	281	64	214	1	1
Florida	17	8	7	15	93	19	0	1
East South Central States:								
Kentucky	----	6	----	13	----	253	----	0
Tennessee	9	13	58	102	80	457	2	1
Alabama	60	23	61	137	181	264	0	0
Mississippi	11	13	----	----	----	----	----	----

[1] New York City only.

[2] Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 19, 1927, and February 18, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928
West South Central States:								
Arkansas	7	8	74	275	23	605	0	0
Louisiana	26	21	7	70	141	166	1	0
Oklahoma [3]	18	27	285	209	252	220	1	2
Texas	56	68	17	140	129	118	1	1
Mountain States:								
Montana	5	18	----	----	77	----	2	5
Idaho	2	1	----	----	101	----	2	0
Wyoming	1	2	----	----	239	15	0	1
Colorado	----	5	----	2	----	40	----	3
New Mexico	1	2	2	1	72	163	0	0
Arizona	1	5	----	----	5	4	1	2
Utah [3]	11	3	5	----	547	1	1	4
Nevada	----	----	----	----	----	----	----	----
Pacific States:								
Washington	24	11	2	----	173	278	7	4
Oregon	10	6	460	28	87	78	0	3
California	133	109	55	56	2,587	146	8	8

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928
New England States:								
Maine	1	0	37	40	0	0	0	5
New Hampshire	----	1	----	34	----	0	----	0
Vermont	0	0	7	6	0	0	3	0
Massachusetts	0	4	516	327	0	0	4	2
Rhode Island	----	0	----	59	----	0	----	0
Connecticut	0	0	118	86	0	1	3	1
Middle Atlantic States:								
New York	2	2	1,243	776	6	4	24	18
New Jersey	1	1	428	283	0	0	6	2
Pennsylvania	0	1	651	603	0	1	14	12
East North Central States:								
Ohio	----	3	----	278	----	23	----	7
Indiana	0	0	317	145	150	116	2	3
Illinois	2	1	432	316	21	77	19	14
Michigan	0	0	364	262	56	42	12	7
Wisconsin	0	2	235	192	23	58	4	3
West North Central States:								
Minnesota	1	0	225	173	12	3	4	4
Iowa [2]	0	0	90	110	1	98	0	2
Missouri	0	0	143	113	17	25	2	2
North Dakota	0	1	73	62	4	7	0	1
South Dakota	0	0	65	33	5	9	0	1
Nebraska	0	0	65	96	8	22	1	0
Kansas	0	0	210	188	70	78	3	0
South Atlantic States:								
Delaware	0	0	58	4	0	0	0	0
Maryland [2]	1	0	94	60	1	0	14	3
District of Columbia	0	0	19	54	0	0	0	0
Virginia	0	----	----	----	0	----	0	----
West Virginia	0	0	63	64	23	102	13	5
North Carolina	3	1	45	43	71	93	9	4
South Carolina	0	0	8	10	13	12	2	3
Georgia	0	0	16	25	100	0	4	4
Florida	0	0	14	12	45	2	9	4
East South Central States:								
Kentucky	----	0	----	45	----	16	----	4
Tennessee	0	0	12	26	7	33	8	9
Alabama	0	2	15	13	46	4	41	2
Mississippi	0	0	24	11	4	0	2	6
West South Central States:								
Arkansas	0	0	11	21	2	0	2	3
Louisiana	1	0	9	8	6	33	5	17
Oklahoma [3]	1	1	53	77	38	94	17	14
Texas	0	0	71	88	53	62	8	4

[2] Week ended Friday.

[3] Exclusive of Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 19, 1927, and February 18, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928	Week ended Feb. 19, 1927	Week ended Feb. 18, 1928
Mountain States:								
Montana	1	0	76	11	3	27	1	0
Idaho	0	1	34	5	4	6	3	0
Wyoming	0	0	19	17	0	0	0	0
Colorado		0		137		9		0
New Mexico	0	1	28	14	4	1	1	4
Arizona	0	0	4	4	1	28	3	0
Utah [1]	0	2	25	9	1	22	0	0
Nevada								
Pacific States:								
Washington	1	0	106	52	47	26	1	3
Oregon	0	3	57	24	47	59	9	0
California	1	7	268	247	31	18	3	13

[1] Week ended Friday.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
December, 1927										
District of Columbia	4	63	6	-------	11	1	14	135	2	2
Kansas	2	138	21	-------	92	-------	3	559	260	23
January, 1928										
Indiana	5	188	152	-------	318	-------	7	466	471	17
Maine	0	13	21	-------	248	-------	4	141	0	11
North Dakota	13	23	-------	-------	45	-------	4	140	14	5
Vermont	0	5	-------	-------	74	-------	0	54	0	1

December, 1927

	Cases
Chicken pox:	
District of Columbia	107
Kansas	902
German measles:	
Kansas	6
Malta fever:	
Kansas	3
Mumps:	
Kansas	118
Rabies in animals:	
District of Columbia	2
Trachoma:	
Kansas	1
Vincent's angina:	
Kansas	4
Whooping cough:	
District of Columbia	29
Kansas	253

January, 1928

	Cases
Chicken pox:	
Indiana	236
Maine	161
North Dakota	73
Vermont	256

January, 1928—Continued

	Cases
German measles:	
Maine	8
Lethargic encephalitis:	
Maine	1
North Dakota	14
Mumps:	
Indiana	74
Maine	80
North Dakota	19
Vermont	198
Scabies:	
North Dakota	6
Septic sore throat:	
Maine	1
Vincent's angina:	
Maine	9
Whooping cough:	
Indiana	66
Maine	74
North Dakota	18
Vermont	64

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 101 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,650,000. The estimated population of the 95 cities reporting deaths is more than 30,960,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended February 4, 1928, and February 5, 1927

	1928	1927	Estimated expectancy
Cases reported			
Diphtheria:			
43 States	2,282	2,155	----
101 cities	1,152	1,156	1,082
Measles:			
42 States	14,034	12,413	----
101 cities	4,384	3,397	----
Poliomyelitis:			
43 States	59	13	----
Scarlet fever:			
43 States	5,166	6,469	----
101 cities	1,635	2,397	1,504
Smallpox:			
43 States	1,338	1,374	----
101 cities	127	148	103
Typhoid fever:			
43 States	226	208	----
101 cities	42	43	39
Deaths reported			
Influenza and pneumonia:			
95 cities	1,002	1,088	----
Smallpox:			
95 cities	1	0	----
Terre Haute	1	0	----

City reports for week ended February 4, 1928

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1919 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population, July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	76,400	4	1	1	0	0	2	12	5
New Hampshire:									
Concord	[1] 22,546	0	0	0	0	0	0	0	2
Vermont:									
Barre	[1] 10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston	787,000	40	54	32	1	0	465	9	27
Fall River	131,000	0	6	3	0	0	1	0	1
Springfield	145,000	6	3	3	0	1	1	55	1
Worcester	193,000	8	6	5	0	0	4	64	3
Rhode Island:									
Pawtucket	71,000	5	1	3	0	0	4	6	0
Providence	275,000	1	10	11	0	2	3	7	5
Connecticut:									
Bridgeport	[2]	4	8	12	0	0	1	0	0
Hartford	164,000	19	8	14	0	0	1	7	7
New Haven	182,000	8	3	0	0	1	174	17	4
MIDDLE ATLANTIC									
New York:									
Buffalo	544,000	29	15	25	----	0	535	0	17
New York	5,924,000	181	215	383	47	19	164	32	234
Rochester	321,000	12	12	15	----	0	2	7	11
Syracuse	185,000	23	5	2	----	0	102	7	4
New Jersey:									
Camden	131,000	3	5	9	0	1	0	3	6
Newark	459,000	29	15	25	9	1	173	15	23
Trenton	134,000	2	6	2	0	0	7	1	3
Pennsylvania:									
Philadelphia	2,008,000	91	81	71	----	5	106	97	34
Pittsburgh	637,000	20	22	39	----	3	179	112	28
Reading	114,000	13	4	0	----	0	1	0	5
Scranton	143,000	2	----	7	----	----	2	0	----
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	411,000	18	11	7	0	4	233	7	6
Cleveland	960,000	63	35	53	4	4	31	170	16
Columbus	285,000	11	5	4	0	0	1	6	8
Toledo	295,000	36	8	2	0	0	326	17	8
Indiana:									
Fort Wayne	99,900	0	3	3	0	0	0	0	3
Indianapolis	367,000	29	10	8	0	0	16	64	19
South Bend	81,700	0	1	0	0	0	0	0	0
Terre Haute	71,900	2	1	0	0	1	0	0	3
Illinois:									
Chicago	3,048,000	98	94	92	16	8	31	43	95
Peoria	82,500	3	0	2	0	0	0	0	1
Springfield	64,700	6	2	0	1	1	0	19	1

[1] Estimated, July 1, 1925.

[2] No estimate made.

City reports for week ended February 4, 1928—Continued

Division, State, and city	Population, July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Michigan:									
Detroit	1,290,000	37	64	32	3	2	218	66	31
Flint	136,000	10	7	6	0	0	2	94	4
Grand Rapids	156,000	6	3	0	0	0	11	15	2
Wisconsin:									
Kenosha	52,700	10	2	3	0	0	0	2	0
Milwaukee	517,000	57	20	12	0	0	3	17	7
Racine	69,400	6	2	2	0	0	2	9	0
Superior	[1] 39,671	2	0	0	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth	113,000	3	1	0	0	0	0	6	2
Minneapolis	434,000	78	19	10	0	2	1	11	5
St. Paul	248,000	13	14	2	0	1	1	53	4
Iowa:									
Davenport	[1] 52,469	2	1	0	0	----	0	0	----
Des Moines	146,000	0	3	0	0	----	0	0	----
Sioux City	78,000	11	2	0	0	----	47	14	----
Waterloo	36,900	1	1	1	0	----	1	0	----
Missouri:									
Kansas City	375,000	20	9	9	0	1	3	145	0
St. Joseph	78,400	1	3	0	0	0	0	1	3
St. Louis	830,000	17	50	33	1	1	58	13	----
North Dakota:									
Fargo	[1] 26,403	5	0	0	0	0	0	1	2
Grand Forks	[1] 14,811	1	0	0	0	----	1	0	----
South Dakota:									
Aberdeen	[1] 15,036	2	0	0	0	----	0	0	----
Sioux Falls	[1] 30,127	0	0	0	0	----	0	0	----
Nebraska:									
Lincoln	62,000	14	2	1	0	0	1	21	0
Omaha	216,000	11	5	1	0	0	0	3	7
Kansas:									
Topeka	56,500	24	2	0	1	0	3	0	0
Wichita	92,500	13	4	2	0	0	0	0	1
SOUTH ATLANTIC									
Delaware:									
Wilmington	124,000	3	3	5	0	0	1	7	0
Maryland:									
Baltimore	808,000	91	36	31	21	5	430	11	42
Cumberland	[1] 33,741	2	1	0	0	0	0	0	1
Frederick	[1] 12,035	1	0	0	0	0	0	0	0
District of Columbia:									
Washington	528,000	16	21	33	0	0	22	0	18
Virginia:									
Lynchburg	30,500	6	2	6	0	0	1	0	2
Norfolk	174,000	19	2	1	0	0	11	0	5
Richmond	189,000	1	5	5	0	1	60	0	5
Roanoke	61,900	0	2	0	0	1	0	1	2
West Virginia:									
Charleston	50,700	10	2	0	0	0	0	0	2
Wheeling	[1] 56,208	4	1	0	0	0	0	0	3
North Carolina:									
Raleigh	[1] 30,371	3	0	0	0	0	18	0	0
Wilmington	37,700	3	1	1	0	1	48	0	5
Winston-Salem	71,800	3	0	1	0	0	138	19	2
South Carolina:									
Charleston	74,100	0	1	2	132	0	4	0	7
Columbia	41,800	7	0	1	0	0	160	22	5
Greenville	[1] 27,311	1	0	0	0	0	75	6	0
Georgia:									
Atlanta	(2)	5	3	4	51	3	5	13	7
Brunswick	[1] 16,809	0	0	0	0	0	50	0	1
Savannah	94,900	1	1	2	6	0	16	0	5
Florida:									
Miami	[1] 69,754	8	2	1	0	0	0	2	0
St. Petersburg	[1] 26,847	----	0	----	----	0	----	----	1
Tampa	102,000	10	1	3	0	2	0	0	1

[1] Estimated, July 1, 1925.

[2] No estimate made.

City reports for week ended February 4, 1928—Continued

Division, State, and city	Population, July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,500	1	1	0	0	0	25	0	0
Lexington	47,500	0	-------	0	0	0	1	1	0
Louisville	311,000	5	7	0	2	0	31	23	6
Tennessee:									
Memphis	177,000	13	4	5	0	1	169	43	6
Nashville	137,000	4	0	1	0	3	1	13	4
Alabama:									
Birmingham	211,000	3	3	3	19	6	13	6	7
Mobile	66,800	0	0	0	0	3	0	0	2
Montgomery	47,000	3	1	2	1	-------	0	0	-------
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	[1] 31,643	2	0	0	0	-------	2	1	-------
Little Rock	75,900	1	1	0	1	0	122	1	2
Louisiana:									
New Orleans	419,000	4	12	5	8	6	0	0	13
Shreveport	59,500	0	1	2	0	0	34	0	3
Oklahoma:									
Oklahoma City	[2]	4	1	0	7	1	5	2	4
Tulsa	133,000	9	2	3	0	-------	0	15	-------
Texas:									
Dallas	203,000	-------	7	8	4	4	2	-------	5
Fort Worth	159,000	9	3	3	3	2	0	10	4
Galveston	49,100	1	1	3	0	0	2	0	1
Houston	[1] 164,954	4	6	9	0	0	2	1	13
San Antonio	205,000	1	2	11	0	1	65	5	14
MOUNTAIN									
Montana:									
Billings	[1] 17,971	0	0	0	0	0	1	0	0
Great Falls	[1] 29,883	2	1	0	0	0	0	0	2
Helena	[1] 12,037	0	1	5	0	0	0	0	0
Missoula	[1] 12,668	0	0	0	0	0	0	0	1
Idaho:									
Boise	[1] 23,042	1	0	0	0	0	0	4	0
Colorado:									
Denver	285,000	43	12	4	-------	4	9	69	14
Pueblo	43,900	7	2	1	0	2	3	0	3
New Mexico:									
Albuquerque	[1] 21,000	3	0	0	0	0	45	0	1
Utah:									
Salt Lake City	133,000	15	3	2	0	0	0	0	3
Nevada:									
Reno	[1] 12,665	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	[2]	21	6	5	0	-------	197	14	-------
Spokane	109,000	16	4	3	0	-------	0	0	-------
Tacoma	106,000	9	3	0	0	0	8	22	0
Oregon:									
Portland	[1] 282,383	29	10	5	0	1	6	4	7
California:									
Los Angeles	[2]	63	46	38	27	7	10	40	32
Sacramento	73,400	7	3	1	0	0	10	0	1
San Francisco	567,000	98	23	14	1	3	52	43	5

[1] Estimated, July 1, 1925.

[2] No estimate made.

City reports for week ended February 4, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	3	1	0	0	0	1	0	0	0	8	28
New Hampshire:											
Concord	1	0	0	0	0	0	0	0	0	0	9
Vermont:											
Barre	0	2	0	0	0	0	0	0	0	0	3
Massachusetts:											
Boston	85	79	0	0	0	9	1	0	0	41	217
Fall River	2	8	0	0	0	2	0	2	0	1	21
Springfield	8	15	0	0	0	4	0	0	0	7	37
Worcester	11	9	0	0	0	4	1	1	0	17	47
Rhode Island:											
Pawtucket	1	2	0	0	0	0	0	2	0	0	18
Providence	9	28	0	0	0	0	0	1	0	2	65
Connecticut:											
Bridgeport	13	1	0	0	0	2	0	0	0	6	28
Hartford	6	5	0	0	0	3	0	0	1	15	46
New Haven	10	6	0	0	0	0	1	0	0	28	----
MIDDLE ATLANTIC											
New York:											
Buffalo	26	38	0	0	0	9	1	0	0	0	142
New York	281	323	0	0	0	121	8	3	3	186	1,607
Rochester	14	16	0	0	0	2	1	1	0	12	83
Syracuse	16	17	0	0	0	4	0	0	0	41	59
New Jersey:											
Camden	6	2	0	0	0	2	0	0	0	3	37
Newark	27	33	0	0	0	11	1	0	0	54	120
Trenton	5	7	0	0	0	2	0	0	0	1	31
Pennsylvania:											
Philadelphia	96	105	0	0	0	34	3	3	0	75	513
Pittsburgh	44	40	0	0	0	8	0	3	1	13	164
Reading	2	24	0	0	0	0	0	0	0	4	44
Scranton	----	2	----	0	----	----	----	0	----	0	----
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	21	21	1	1	0	12	0	0	0	5	126
Cleveland	45	47	1	0	0	12	0	0	0	67	179
Columbus	12	17	1	0	0	6	0	0	0	0	87
Toledo	15	18	1	0	0	9	0	0	0	7	73
Indiana:											
Fort Wayne	6	2	0	0	0	0	0	0	0	0	21
Indianapolis	9	15	11	5	0	6	0	0	0	1	100
South Bend	3	2	1	0	0	0	0	0	0	2	12
Terre Haute	4	1	0	4	1	2	0	0	0	0	27
Illinois:											
Chicago	148	132	2	3	0	50	3	3	0	154	863
Peoria	5	0	0	0	0	0	0	0	0	8	----
Springfield	2	11	0	0	0	0	0	0	0	0	17
Michigan:											
Detroit	103	100	3	1	0	26	1	1	1	64	276
Flint	9	15	1	0	0	0	0	0	0	5	21
Grand Rapids	13	6	0	0	0	1	0	0	0	4	27
Wisconsin:											
Kenosha	1	13	1	0	0	0	0	0	0	5	----
Milwaukee	30	48	2	0	0	12	0	0	0	29	121
Racine	6	9	1	0	0	0	0	0	0	16	8
Superior	4	3	2	0	0	0	0	0	0	0	11
WEST NORTH CENTRAL											
Minnesota:											
Duluth	10	8	1	0	0	1	0	0	0	5	22
Minneapolis	62	24	6	3	0	5	1	0	0	3	108
St. Paul	36	11	6	0	0	4	0	0	0	7	57
Iowa:											
Davenport	0	15	2	0	----	----	0	0	----	0	----
Des Moines	7	30	1	19	----	----	0	0	----	0	----
Sioux City	2	2	2	1	----	----	0	0	----	3	----
Waterloo	2	4	0	0	----	----	0	0	----	0	----

City reports for week ended February 4, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Missouri:											
Kansas City	14	24	3	1	0	4	0	0	0	11	113
St. Joseph	3	2	0	17	0	2	0	0	0	0	29
St. Louis	52	25	3	0	0	11	1	0	0	26	250
North Dakota:											
Fargo	2	5	0	0	0	0	0	0	0	1	14
Grand Forks	1	2	1	0	----	----	0	0	----	0	----
South Dakota:											
Aberdeen	0	0	0	0	----	----	0	0	----	4	----
Sioux Falls	3	1	1	0	----	----	0	0	----	0	5
Nebraska:											
Lincoln	3	2	1	16	0	0	0	0	0	13	22
Omaha	5	10	9	0	0	2	0	1	0	1	73
Kansas:											
Topeka	1	1	0	8	0	0	0	0	0	27	22
Wichita	3	11	0	30	0	1	0	0	0	0	28
SOUTH ATLANTIC											
Delaware:											
Wilmington	6	1	0	0	0	0	0	0	0	1	27
Maryland:											
Baltimore	46	34	0	0	0	15	2	0	0	25	235
Cumberland	1	1	0	0	0	0	0	0	0	0	7
Frederick	1	0	0	0	0	0	0	0	0	0	1
District of Columbia:											
Washington	26	36	2	0	0	19	1	0	0	10	150
Virginia:											
Lynchburg	1	3	0	0	0	0	0	0	0	2	9
Norfolk	3	13	1	0	0	2	0	0	0	2	----
Richmond	4	0	0	0	0	2	0	0	0	0	45
Roanoke	2	2	0	0	0	1	0	0	0	4	19
West Virginia:											
Charleston	1	3	0	0	0	0	0	2	0	0	32
Wheeling	2	0	0	0	0	0	1	0	0	0	16
North Carolina:											
Raleigh	0	0	0	4	0	0	0	1	1	0	12
Wilmington	0	0	1	0	0	1	0	0	0	0	19
Winston-Salem	1	4	4	0	0	1	0	0	0	0	16
South Carolina:											
Charleston	0	0	0	0	0	1	1	0	0	1	28
Columbia	0	2	0	0	0	0	0	0	0	0	15
Greenville	0	0	1	0	0	1	0	0	0	0	3
Georgia:											
Atlanta	4	13	5	0	0	9	1	0	0	3	83
Brunswick	0	0	0	0	0	0	0	0	0	0	6
Savannah	1	1	1	6	0	2	0	0	0	0	34
Florida:											
Miami	1	1	1	0	0	2	1	0	0	0	31
St. Petersburg	0	----	0	----	0	0	0	----	0	----	17
Tampa	1	5	0	0	0	6	1	0	1	0	40
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	4	0	0	0	4	0	0	0	0	20
Lexington	----	2	----	0	0	2	----	0	0	1	16
Louisville	6	16	0	0	0	1	0	0	0	1	48
Tennessee:											
Memphis	7	4	2	3	0	5	0	1	0	2	68
Nashville	4	0	1	0	0	4	1	0	0	0	47
Alabama:											
Birmingham	3	1	4	1	0	9	1	0	0	0	73
Mobile	1	1	1	0	0	2	0	2	0	0	22
Montgomery	0	0	0	0	----	----	0	0	----	0	----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	0	0	0	0	----	----	0	0	----	1	----
Little Rock	1	5	0	1	0	3	1	0	0	0	----

City reports for week ended February 4, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL—continued											
Louisiana:											
New Orleans	6	5	1	0	0	8	2	9	3	1	143
Shreveport	0	5	1	0	0	3	0	0	0	0	26
Oklahoma:											
Oklahoma City	2	10	3	15	0	1	0	0	0	0	36
Tulsa	2	7	0	5			0	0		1	
Texas:											
Dallas	3	12	2	1	0	0	0	1	0		46
Fort Worth	1	1	1	0	0	3	0	0	0	0	40
Galveston	0	1	1	0	0	2	1	0	0	0	10
Houston	2	3	2	1	0	4	0	0	0	0	61
San Antonio	1	2	0	0	0	2	0	0	0	0	53
MOUNTAIN											
Montana:											
Billings	0	1	0	1	0	0	0	0	0	0	5
Great Falls	2	5	1	6	0	0	0	1	1	0	12
Helena	0	2	0	2	0	0	0	0	0	0	2
Missoula	1	0	1	0	0	0	0	0	0	0	11
Idaho:											
Boise	1	1	0	0	0	0	0	0	0	0	6
Colorado:											
Denver	14	12	2	0	0	12	0	0	1	3	103
Pueblo	1	18	0	1	0	1	0	0	0	0	11
New Mexico:											
Albuquerque	2	0	0	0	0	3	0	0	0	0	12
Utah:											
Salt Lake City	3	3	2	3	0	2	0	0	0	11	28
Nevada:											
Reno	0	1	0	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle	12	6	4	2			0	0		7	
Spokane	6	10	5	8			0	0		0	
Tacoma	3	2	4	0	0	2	0	0	0	0	26
Oregon:											
Portland	6	5	8	14	0	1	1	1	0	0	73
California:											
Los Angeles	34	25	6	3	0	30	2	4	0	11	
Sacramento	1	6	1	9	0	3	0	0	0	0	31
San Francisco	17	36	3	1	0	16	1	0	0	8	168

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston	0	0	1	0	0	0	1	1	0
Worcester	0	1	0	0	0	0	0	0	0
Rhode Island:									
Providence	1	1	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo	0	1	0	0	0	0	0	0	0
New York	10	5	7	2	0	0	0	5	2
New Jersey:									
Camden	0	0	1	0	0	0	0	0	0
Newark	1	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia	0	0	1	1	1	1	0	0	0
Pittsburgh	0	0	1	0	0	0	0	1	0

City reports for week ended February 4, 1928—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland	1	0	1	1	0	0	0	1	1
Toledo	0	0	1	0	0	0	0	0	0
Indiana:									
Indianapolis	0	1	0	0	0	0	0	0	0
Illinois:									
Chicago	8	5	0	0	0	0	0	0	0
Michigan:									
Detroit	0	0	0	0	0	0	0	0	1
Wisconsin:									
Milwaukee	3	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis	0	0	1	0	0	0	0	0	0
Missouri:									
Kansas City	0	0	0	0	0	0	0	1	1
North Dakota:									
Fargo	0	0	3	0	0	0	0	0	0
Kansas:									
Wichita	1	1	0	0	0	0	0	0	0
SOUTH ATLANTIC [1]									
Maryland:									
Baltimore [1]	1	0	0	0	0	0	1	0	0
District of Columbia:									
Washington	0	1	0	0	0	0	0	0	0
South Carolina:									
Charleston	0	0	0	0	1	0	0	0	0
Florida:									
Tampa	0	0	0	0	0	2	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	1	0	0	0	0
Louisiana:									
New Orleans	1	0	1	0	0	0	0	0	0
Shreveport	0	1	0	0	0	0	0	0	0
Texas:									
Fort Worth	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Colorado:									
Denver	6	3	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Tacoma	0	1	0	0	0	0	0	0	0
Oregon:									
Portland	1	0	1	0	0	0	0	0	0
California:									
Los Angeles	1	0	0	0	0	0	0	2	1
San Francisco	1	1	1	0	0	0	0	0	0

[1] Typhus fever: 1 case at Baltimore, Md., and 2 cases at Savannah, Ga.

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended February 4, 1928, compared with those for a like period ended February 5, 1927. The population figures used in computing the rates are approximate estimates as of July 1, 1927 and 1928, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had estimated aggregate populations of approximately 31,050,000 in 1927

and 31,657,000 in 1928. The 95 cities reporting deaths had nearly 30,370,000 estimated population in 1927 and nearly 30,961,000 in 1928. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, January 1 to February 4, 1928—Annual rates per 100,000 population, compared with rates for the corresponding period of 1927 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 8, 1927	Jan. 7, 1928	Jan. 15, 1927	Jan. 14, 1928	Jan. 22, 1927	Jan. 21, 1928	Jan. 29, 1927	Jan. 28, 1928	Feb. 5, 1927	Feb. 4, 1928
101 cities	198	[2] 168	186	200	175	193	177	[3] 193	194	190
New England	158	149	174	200	151	168	163	172	146	198
Middle Atlantic	182	202	176	253	191	252	194	251	229	278
East North Central	223	176	189	220	170	192	175	186	201	145
West North Central	188	115	158	111	146	138	127	131	123	113
South Atlantic	222	[2] 154	215	142	161	146	198	146	143	167
East South Central	137	90	248	50	152	105	101	[3] 87	127	55
West South Central	252	240	244	204	170	152	203	164	232	152
Mountain	126	71	117	115	117	168	197	124	188	106
Pacific	230	123	193	143	232	125	167	161	217	156

MEASLES CASE RATES

101 cities	384	[2] 518	339	566	451	619	425	[3] 583	570	726
New England	253	917	195	1,021	549	1,248	323	1,078	379	1,508
Middle Atlantic	31	466	38	500	49	478	46	483	41	618
East North Central	427	265	406	300	545	326	536	368	696	359
West North Central	259	134	192	109	277	259	297	138	453	222
South Atlantic	204	[2] 1,461	202	1,496	301	1,675	256	1,533	536	1,822
East South Central	106	1,566	96	1,521	203	1,387	188	[3] 1,621	269	1,192
West South Central	186	200	302	268	447	560	376	500	562	916
Mountain	5,227	62	3,434	106	5,074	97	4,447	86	7,217	115
Pacific	1,517	383	1,478	526	1,342	531	1,504	434	1,538	708

SCARLET FEVER CASE RATES

101 cities	318	[2] 208	366	258	384	269	386	[3] 278	403	270
New England	491	340	479	398	537	508	539	372	509	359
Middle Atlantic	285	196	338	266	368	268	378	288	433	295
East North Central	288	234	345	285	336	286	347	301	324	289
West North Central	449	203	556	261	517	224	487	273	521	247
South Atlantic	231	[2] 152	258	168	280	207	253	200	245	207
East South Central	233	190	213	140	335	190	319	[3] 116	243	130
West South Central	153	100	141	124	194	88	112	128	124	132
Mountain	950	195	1,112	301	1,345	265	1,605	301	1,515	380
Pacific	340	184	376	220	319	240	326	296	436	217

SMALLPOX CASE RATES

101 cities	22	[2] 17	22	23	20	22	26	[3] 23	25	21
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	1	0	1	0	0	0	0	0
East North Central	32	9	21	7	17	9	17	12	22	9
West North Central	57	105	69	146	59	121	79	121	53	117
South Atlantic	27	[2] 12	51	26	34	14	60	14	43	18
East South Central	41	5	86	15	25	55	86	[3] 29	101	20
West South Central	41	16	25	28	62	4	41	20	79	12
Mountain	0	106	0	142	0	106	9	133	9	115
Pacific	60	26	37	31	63	64	71	59	63	59

[1] The figures given in this table are rates per 100,000 population annual basis and not the number of cases reported. Populations used are estimated as of July 1, 1927 and 1928, respectively.
[2] Atlanta, Ga., not included.
[3] Louisville, Ky., not included.

Summary of weekly reports from cities, January 1 to February 4, 1928—Annual rates per 100,000 population, compared with rates for the corresponding period of 1927—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Jan. 8, 1927	Jan. 7, 1928	Jan. 15, 1927	Jan. 14, 1928	Jan. 22, 1927	Jan. 21, 1928	Jan. 29, 1927	Jan. 28, 1928	Feb. 5, 1927	Feb. 4, 1928
101 cities	8	[2]5	9	8	7	6	7	[2]8	7	7
New England	9	7	21	14	2	9	5	21	9	14
Middle Atlantic	6	3	8	5	5	3	4	5	9	5
East North Central	5	3	1	3	6	6	2	5	5	3
West North Central	8	2	6	8	4	2	8	8	4	2
South Atlantic	7	[2]15	16	2	7	5	18	7	5	5
East South Central	25	20	15	55	10	30	35	[2]29	5	15
West South Central	25	0	17	20	4	12	0	40	17	40
Mountain	9	9	9	0	27	9	18	0	0	9
Pacific	8	5	21	10	21	8	21	0	8	10

INFLUENZA DEATH RATES

95 cities	20	[1]19	21	24	21	24	25	[1]19	19	19
New England	16	16	14	7	5	18	9	7	5	9
Middle Atlantic	18	13	20	21	20	19	22	16	21	14
East North Central	17	10	16	13	25	17	21	12	9	13
West North Central	14	4	10	14	4	18	4	10	12	10
South Atlantic	16	[1]21	23	37	20	26	49	11	27	23
East South Central	48	89	37	78	16	105	32	[3]101	58	68
West South Central	42	82	42	66	42	66	72	78	64	45
Mountain	63	53	99	62	54	71	72	80	45	53
Pacific	10	24	14	37	31	17	14	20	7	34

PNEUMONIA DEATH RATES

95 cities	195	[1]170	179	191	183	179	158	[3]159	168	150
New England	181	103	191	179	207	156	158	126	188	126
Middle Atlantic	208	186	204	214	197	193	174	183	197	129
East North Central	169	140	152	158	138	137	132	121	121	129
West North Central	116	124	124	112	116	137	126	98	135	49
South Atlantic	229	[1]231	189	252	278	231	189	210	222	198
East South Central	213	235	207	225	255	251	213	[3]171	207	131
West South Central	238	238	178	287	195	308	200	267	149	209
Mountain	368	195	197	168	215	186	170	177	143	203
Pacific	210	176	169	142	134	142	107	145	121	128

[1] Atlanta, Ga., not included.

[3] Louisville, Ky., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1927 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1927	1928	1927	1928
Total	101	95	31,050,300	31,657,000	30,369,500	30,960,700
New England	12	12	2,242,700	2,274,400	2,242,700	2,274,400
Middle Atlantic	10	10	10,594,700	10,732,400	10,594,700	10,732,400
East North Central	16	16	7,820,700	7,991,400	7,820,700	7,991,400
West North Central	12	10	2,634,500	2,683,500	2,518,500	2,566,400
South Atlantic	21	21	2,890,700	2,981,900	2,890,700	2,981,900
East South Central	7	6	1,028,300	1,048,300	980,700	1,000,100
West South Central	8	7	1,260,700	1,307,600	1,227,800	1,274,100
Mountain	9	9	581,600	591,100	581,600	591,100
Pacific	6	4	1,996,400	2,046,400	1,512,100	1,548,900

FOREIGN AND INSULAR

THE FAR EAST

Report for the week ended January 21, 1928.—The following report for the week ended January 21, 1928, was transmitted by the Eastern Bureau of the Health Section of the Secretariat of the League of Nations, located at Singapore, to the headquarters at Geneva:

Plague, cholera, or smallpox was reported present in the following ports:

PLAGUE

Egypt.—Suez.
Madagascar.—Tamatave.
Aden Protectorate.—Aden.
India.—Bassein, Bombay, Rangoon.
Ceylon.—Colombo.
Dutch East Indies.—Makassar.

CHOLERA

India.—Calcutta, Rangoon.
Straits Settlements.—Singapore.
Siam.—Bangkok.
French Indo-China.—Saigon-Cholon.

SMALLPOX

Ceylon.—Colombo.
China.—Shanghai.
French India.—Pondicherry.
India.—Bombay, Madras, Calcutta, Cochin, Rangoon, Moulmein, Vizagapatam.
French Indo-China.—Saigon-Cholon.
Dutch East Indies.—Belawan-Deli, Banjermassin, Pontianak.
Iraq.—Basrah.
Sarawak.—Kuching.
China.—Hong Kong.

Returns for the week ended January 21 were not received from Canton, China, or Vladivostok, Union of Socialist Soviet Republics.

ARABIA

Aden—Plague—January 9–17, 1928.—Plague was reported present at Aden, Arabia, January 9, 1928. The outbreak was stated to have occurred in a section of the town inhabited by coal coolies. All of the residents of this section were removed to Flint Island and isolated. On January 17 a small increase was reported in the number of cases first reported, occurring in the original infected area.

Quarantine and restrictive measures taken.—The section in which the outbreak occurred was stated to be under police guard. Quarantine measures applied to vessels in port were stated to be:

1. Medical inspection prior to embarkation of all passengers and members of crew joining the ship at Aden;

2. Disinfection prior to loading of merchandise considered liable to convey infection;

3. No visiting passengers allowed on shore and no persons allowed on ship other than those required for work on the vessel except under special permission of the port health officer.

ARGENTINA

Plague—Rosario—February 20, 1928.—A report of a case of bubonic plague at Rosario, Argentina, was received on February 20, 1928.

BRAZIL

Plague—Rio de Janeiro—February 16, 1928.—Under date of February 16, 1928, three cases of plague were reported at Rio de Janeiro, Brazil.

CANADA

Communicable diseases—Week ended February 4, 1928.—The Canadian Department of Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended February 4, 1928, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever			1	1				2
Influenza	14			6				20
Lethargic encephalitis				2				2
Poliomyelitis							3	3
Smallpox				63		9	1	73
Typhoid fever	1	1	21	19				42

Quebec—Communicable diseases—Week ended February 4, 1928.—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the week ended February 4, 1928, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Scarlet fever	112
Chicken pox	21	Smallpox	11
Diphtheria	45	Tuberculosis	26
German measles	6	Typhoid fever	21
Influenza	1	Whooping cough	11
Measles	208		

CUBA

Habana—Communicable diseases—January, 1928.—During the month of January, 1928, communicable diseases were reported in Habana, Cuba, as follows:

Disease	New cases	Deaths	Remaining under treatment Jan. 31, 1928	Disease	New cases	Deaths	Remaining under treatment Jan. 31, 1928
Cerebrospinal meningitis			1	Measles	8		7
Chicken pox	7		6	Paratyphoid fever	2	1	1
Diphtheria	8	1	4	Scarlet fever	1		1
Leprosy			18	Typhoid fever [1]	33	2	45
Malaria [1]	43	2	7				

[1] Many of these cases from the interior.

DUTCH EAST INDIES

Plague—Island of Java—November 19–December 10, 1927.—During the period November 19 to December 10, 1927, plague was reported present in the Island of Java, Dutch East Indies, as follows: *Pasoeroean Residency*—November 28 and December 10, 1927, in two native villages in the Tengger District. *Surakarta Residency*—November 19, 1927, in 13 subdivisions and Klaten District. *Surabaya Residency*—at Grissae, a seaport town, December 1, 1927.

ECUADOR

Guayaquil—Plague—Examination of rats—Smallpox—December 16–31, 1927.—During the 16 days ended December 31, 1927, five cases of plague with two deaths were reported at Guayaquil, Ecuador. During the same period, of 11,634 rats taken, 11 rats were found plague infected.

During the same period, four cases of smallpox were reported at Guayaquil.

EGYPT

Suez—Plague—January 18, 1928.—A fatal case of plague occurring in a native who was found dead in his own house was reported at Suez, Egypt, January 18, 1928. The locality is 4 kilometers from the port.

JAMAICA

Smallpox (Alastrim)—January 1–28, 1928.—During the four weeks ended January 28, 1928, eight cases of smallpox (alastrim) were reported in the island of Jamaica, exclusive of Kingston.

Other communicable diseases.—During the same period other communicable diseases were reported in the island as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chicken pox	3	23	Puerperal fever		1
Diphtheria		1	Tuberculosis	19	39
Dysentery	3	11	Typhoid fever	22	72
Leprosy		1			

Population, island, estimated: 926,000; Kingston, census, 62,707.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, Health Section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place		July 3-30, 1927	July 31-Aug. 27, 1927	Aug. 28-Sept. 24, 1927	Sept. 25-Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927 5	12	19	26	December, 1927 3	10	17	24	31	January, 1928 7	14	21
China:																		
Amoy	C	2	28	72	16													
	D		7	3														
Canton	C	8	31	36	14	5	1	6			1							
	D	5	16	25	14	5	1	5			1							
Foochow	C	P	P	P	P													
Hong Kong	C	2	P	1	P													
	D	1																
Shanghai—(settlement and concession)																		
Foreigners only	C		1	6	3													
Including natives	D		20	74	7													
Swatow	C	72	42	P	P	P	P											
	D	1		P	P	P	P											
Tientsin	C	P	P	15	2	P	P					1						
Dutch East Indies: Java—Batavia	C						1	2	25	2	1							
	D						1	2	15	2	1							
India	C	46,137	45,163	31,390	20,160	5,303	4,845	5,987	6,912	8,102	5,997	5,766	5,274					
	D	24,081	22,051	15,895	10,371	2,867	2,641	3,350	4,005	4,835	3,672	3,355	3,164					
Bassein	D	16																
Bombay	C	75	42	3				2										
	D	35	30	2				2										
Calcutta	C	95	87	76	101	28	35	65	71	156	119	87	66	69	43	43		
	D	48	40	39	64	22	25	42	49	106	77	55	43	48	34	27		
Madras	C	424	547	59	14			6	7			1					1	18
	D	204	278	48	8			3	4	1		1					1	
Rangoon	C	2	1	2	6		1		1	3	1	2	2	1	2			
	D	2	1	2	5	1		3	4	2	1	2	1	1	1			4
Tuticorin	C				1						6		2					
	D				1	7	5	10	16		6	6	2					
India (French):																		
Karikal	C	56	18	1			1						1					
	D	45	12	1			1						1					

Pondicherry	C	37	12	15			1				5	3	17						
	D	24	11	15			1				5	1	15						
Indo-China: Saigon	C			1	1											2	1	1	
	D															1			
Iraq:[1]																			
Japan: Yokohama	C	1																	
	D	1																	
Philippine Islands: Manila	C	1	1																
Siam	C	81	77	40	18	14	23	43	30	19	29	18	32	24	24				
	D	59	53	24	11	10	15	25	26	11	19	13	21	18	21				
Bangkok	C	6	2	3	5		1		3		1	1	1	2	3	7	9	5	
	D	1	1	1	3		1		1		1		1	2	1	3	11	7	
Straits Settlements: Singapore	C					1		4	2	1	2		2	3	12	3	2	1	
	D					1		4		2			2	1	3	5	2	2	
On vessel:																			
S. S. Adrastus: At Yokohoma, Japan	C		1																
	D		1																
S. S. Tabaristan: At Basra, Iraq	C				1														

Place		July, 1927	August, 1927	September, 1927	October, 1927	November, 1927			December, 1927		
						1-10	11-20	21-30	1-10	11-20	21-31
Indo-China (French):											
Annam	C	911	1,628	640	226	13	75	38	16	2	
Cambodia	C	87	89	75	180	56	1	28	21	12	39
Cochin-China	C	257	68	144	178	21	27	52	17	38	58
Laos	C	20	190	36	67	10					
Tonkin	C	1,093	180	24	1			1			2
Kwang-Chow-Wan	C		1	15							

[1] From July 19 to Dec. 26, 1927, 1,479 cases of cholera were reported in Iraq, with 1,063 deaths, as follows: Amarah Liwa, 261 cases, 205 deaths; Baghdad Liwa, 80 cases, 60 deaths; Basra Liwa, 421 cases, 330 deaths; Diwaniah Liwa, 122 cases, 72 deaths; Diyalah Liwa, 1 case, 1 death; Dulaim Liwa, 100 cases, 69 deaths; Hillah Liwa, 105 cases, 71 deaths; Kerbalah Liwa, 79 cases, 60 deaths; Kut Liwa, 66 cases, 44 deaths; Muntafiq Liwa, 244 cases, 151 deaths. The report of 29 cases of cholera with 18 deaths at Baghdad during the week ended July 30, 1927, which appeared in the PUBLIC HEALTH REPORTS Sept. 23, 1927, and in subsequent issues, was erroneous. The director of public health of Iraq states that cholera did not appear at Baghdad in 1927 until Oct. 20.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE

[C indicates cases; D, deaths; P, present]

Place		July 3–30, 1927	July 31–Aug. 27, 1927	Aug. 28–Sept. 24, 1927	Sept. 25–Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927				December, 1927					January, 1928				February, 1928	
							5	12	19	26	3	10	17	24	31	7	14	21	28	4	11
Algeria: Oran	C		4	1			1		1												
	D		3	1																	
Arabia: Aden	C																19	13	P		
	D																7	8			
Argentina:																					
Bahia Blanca District	C									1	1	1									
Buenos Aires	D																				2
Cordoba Province	C		2		P	P	P			10				1	1						
Entre Rios	C		5																		
Firmat	C												1								
Quilino	C									1	1	1									
Rosario	C									1	1	1	1	2	3				4		
Ucacha	C												1								
Azores: St. Michaels Island	C	2	2	2	3	1		1	1	1	1	1		1		1					
	D			1	1							1									
Brazil: Rio de Janeiro	D																	2			
British East Africa:																					
Tanganyiki	C	P	P		P	P	P														
Uganda	C	528	456	226	99																
	D	413	345	158	88																
Canary Islands:																					
Las Palmas	C				9					1			2			2		1			
Santa Cruz	C																	1			
Teneriffe	C																	1	3		
Ceylon: Colombo	C		1	3	1					1	1				2	1	1	1			
	D			3											1	1	1	1			
China:																					
Amoy	C	P																			
Tungliao	D				200																
Tientsin	C		2																		
Dutch East Indies:																					
Balik-Papan	C													1							
	D													1							

Celebes: Makassar	C						2	2	2	1		1		2	1		3	2				
	D						2	2	2	1		1		2	1		2	2				
Java	D			432	779	191	213	228	197													
Batavia and West Java	C	40	71	68	130	41	29	31	34	45	43	32	34	32								
	D	40	71	68	129	41	29	31	34	44	43	32	33	32								
Cheribon	C										1											
	D										1											
East Java and Madura	C	29	28	18	17	3	4	2	1	5	3											
	D	29	27	18	17	3	4	2	1	5	3											
Pasoeroean Residency	C									P	P	P										
Surakarta Residency	C								P	P	P											
Egypt:																						
Alexandria	C		2	1						5	3	2	2	3	2							
	D									5	3			1	1							
Suez	C			1													1					
	D																1					
Greece:																						
Athens and Piræus	C		1	3	1										2	1						
	D				1										1							
Mitylene	C		1	5	1	1		2		1	1	1										
Patras	C		2	2	1		1															
	D				1		1															
Hawaii Territory: Hawaii	D		1																			
India	C	404	1,391	2,710	3,246	812	1,015	856	919	1,193	1,228	1,348	1,749									
	D	241	836	1,428	1,792	495	551	485	554	668	742	773	1,085									
Bombay	C	14	14	7	4										1							
	D	13	11	5	3										1		1					
Calcutta	C			18																		
	D			10																		
Madras Presidency	C	255	620	465	583	149	83	152	86	190	158	220	223	174								
	D	115	321	230	298	63	54	80	85	111	61	108	79	69								
Rangoon	C	21	15	6	11	5	2		4	5	2	6	2	2	4							
	D	20	14	6	11	5	2		4	5	2	5	3	2	3	7						
Indo-China: Saigon	C			2					1													
Senegal:																						
Baol	C	41	23	72	95				P		P											
	D	22	13	33	40																	
Cayor	C	126	227	463	176	32	8	8	P													
	D	74	166	233	88	20	4	4														
Dakar	C	67	46	20	1																	
	D	41	32	12																		
Louga	C			5	8																	
	D			4																		
M'Bour	C	28																				
	D	23																				
Rufisque	C	104	44	16																		
	D	82	38	12																		
Thies	C	7		9	1	1																
	D	3		7																		
Tivaouane	C	43																				
	D	29																				

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place		July 3-30, 1927	July 31-Aug. 27, 1927	Aug. 28-Sept. 24, 1927	Sept. 25-Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927				December, 1927					January, 1928				February, 1928	
							5	12	19	26	3	10	17	24	31	7	14	21	28	4	11
Siam	C				13					2			1	1	7						
	D				9		1			1			1	1	1						
Bangkok	C				2																
	D						1														
Straits Settlements: Singapore	C								1												
	D								1												
Turkey: Constantinople	C			1	1					1	1										
	D				1						1										
Union of South Africa: Cape Province	C					2						2									
	D					2						1									
Orange Free State	C	4							1	8	P										
	D	4							1	6											
U. S. S. R.: Chita District	C				1																
	D				1																
Northern Caucasus	C			14	1																
	D			10																	
On vessel: At La Plata, from Rosario, Argentina	C														1						
S. S. Aghios Gerasimos at Vigo, Spain	C								3												

Indo-China (French), 3 cases, Dec. 11-20; Beirut, Syria, 1 case, Dec. 1-10.

Place		July	August	September	October	November	December
Algeria: Algiers	C				2		
British East Africa: Kenya	C	13	61	21	18	28	
Ecuador: Guayaquil	C	5	7	3	4	9	5
	D					3	2
Indo-China (French)	C			14	3	3	
Madagascar	C	46	98	170	166	209	
	D	43	89	154	155	189	
Ambositra Province	C	6	1		6		
	D	6	1		6		
Antisirabe Province	C		34	5	19		
	D		34	4	19		
Itasy Province	C	14	11	21	16		
	D	14	7	20	15		

Place		July	August	September	October	November	December
Madagascar—Continued.							
Moramanga Province	C	5	4	3	24		
	D	5	4	3	20		
Tananarive Province	C	21	48	142	99		
	D	19	43	127	93		
Mauritius	C			1			
Peru	C	8	11	15	14	6	14
	D	7	6	6	5	2	4
Callao	D	3					
Lima	D				1	1	1
Syria: Beirut	C			1	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX

[C indicates cases; D, deaths; P, present]

Place		July 3-30, 1927	July 31-Aug. 27, 1927	Aug. 28-Sept. 24, 1927	Sept. 25-Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927				December, 1927					January, 1928				Feb., 1928
							5	12	19	26	3	10	17	24	31	7	14	21	28	4
Algeria	C			382	683		294	218	149											
Algiers	C												3	3	4			3		
Oran	C	14	9	16	11		10	4	6	9	11	10	9	8	15	2	4	2		
Arabia: Aden	C	2							1		1		1							
	D	1																		
Brazil:																				
Para	C		1																	
Rio de Janeiro	C	4	6	10		1														
	D	4	4	9		1														
British East Africa: Tanganyiki	D		21	8	P	P	P													
British South Africa:																				
Northern Rhodesia	C	48	55	39	164	150	10	22	3	57	15	125	55	2						
	D	2	1	2	11	40	23		1	18	7	28	9							
Southern Rhodesia	C								3				2	1						
Canada:																				
Alberta	C	42	17	17	23	6	2	1	1	7	3	3	6		3	3	5	1	19	1
Calgary	C	5	1																	
Edmonton	C				1	1				6		1	1			3	2	1		
British Columbia: Vancouver	C			2								4		1	3	3	1	11	3	1
Manitoba	C		13	9	7	3	14		2	1	3	1	2	2	2	2	5		1	
Winnipeg	C	3	5	4	2				2			1	1	1			1	1	1	
New Brunswick	C			2										1						
Nova Scotia	C			1	1															
Halifax	C				1															
Ontario	C	63	60	22	96	64	38	77	85	71	90	82	104		53	83	76	52	77	63
Hamilton	C										2									
Kingston	C								1					1						
Ottawa	C	37	27	40	67	47	17	51	19	10	19		34	18	9	20	23	20	16	23
Toronto	C	5		2	10	2	16	3	13		25	14		7		11	10	8	5	
Windsor	C				9															
Quebec	C	12	1		8	7	3	12	3	8	5	3		14	3	10	17	7		11
Montreal	C							1						1		1	6	3	4	1
Quebec	C										2		2		2		3		5	
Riviere du Loup	C								3											
Saskatchewan	C	25	14	68	31	5	12	2	14	9	15	19	15	12	13	15	12	30	15	9
Moose Jaw	C		10	16	3								1		1	2	1	4	2	3

Regina	C	2	8		5			1				1							
Saskatoon	C																		
Ceylon: Colombo	C		1									2		4			13	1	
	D		1								1								
China:																			
Antung	C	3														1			
Canton	C			1															
	D			1															
Chefoo	C			1	P					P									
	D			1															
Foochow	C	P	P	P	P		P			P									
Hong Kong	C	3	1	2												1			
	D	3	1	2															
Manchuria—																			
Changchun	C	4								1									
Dairen	C				1		2						1						
	D				1														
Fushun	C	1		1				1											
Harbin	C	1											2		1				
Mukden	C	3			2	1													
Pensihu	C	1			1														
Tientsin	C	11		4	13	8				4	1	2	2	2					
Curacao (Alastrim)	C																2		
Dutch East Indies:																			
Borneo—																			
Samarinda District	C					P													
South and East Borneo Residency	C		P																
Java:																			
Batavia and West Java	C	2	4		4			25											
	D							15											
East Java and Madura	C	8	4	22	8	1	3	5		4	3	2							
	D				1														
Sumatra: Medan	C		1										3		8				
	D												2		1				
Egypt	C	4		3							4								
	D			1	1							1							
Cairo	C										1								
Great Britain:																			
England and Wales	C	721	568	508	473	199	219	258	226	223	366	230	212	255	247	275	398	405	370
Birmingham	C		1		1													14	17
Bradford	C					1	5	3	2	9	6	2	2	2	2	4	24	6	9
Bristol	C				6	1			3	2	4	2							2
Cardiff	C					1										1			
Leeds	C	2	5	3	7	1	1	1	2	3	3	6	4	4	6	1		1	
Liverpool	C																1		
London	C																	2	
Manchester	C				3		1	1	4	2	5	10	8		1	2	2	11	6
Newcastle-upon-Tyne	C	1	1	2	6	2	6		1	28	18	5	4	2	13	2	5	14	3
Nottingham	C															7	6	4	
Sheffield	C	11	2	1	10	4			2	1	8			3		1	10	4	
Stoke-on-Trent	C		1													3	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		July 3–30, 1927	July 31–Aug. 27, 1927	Aug. 28–Sept. 24, 1927	Sept. 25–Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927				December, 1927					January, 1928				Feb., 1928
							5	12	19	26	3	10	17	24	31	7	14	21	28	4
Greece: Saloniki	D	1	2																	
Guinea (French): Beyla	C	9																		
India	C	11,340	5,911	4,398	3,153	779	805	1,235	1,233	1,031	1,556	1,939	2,205							
	D	3,140	1,668	1,120	715	190	200	211	326	307	359	465	519							
Bombay	C	38	33	12	10	2			4				5		4	4	6			
	D	21	19	8	2	2			1				1							
Calcutta	C	93	27	22	5				5	4	3	11	7		17	9	14			
	D	70	25		6				2	2	1	6	2		17	4	6			
Madras	C	4	6	7	8	3		2	2	2	2	5	2	2		11	8			
	D	1		2		1		1		1	1	1		1		4	1			
Rangoon	C	37	14	9	17	4		1	1	5	2	1	6	36	28		49			
	D	11	3	2	3	1				1	1		2	5	13		9			
Vizagapatan	C	11		3												3		2		
	D	4		2														6		
India (French):																				
Karikal	C	2	3	1	2		P													
	D	2	3	1	2															
Pondicherry	C	22	39	37	38							6								
	D	20	31	37	38							6								
Indo-China: Saigon	C	1	1	1									1		1		1			
Iraq:																				
Baghdad	C			1	7			5		1	5	7	12	8	9		2			
	D			1	4			4			5	4	5	2	3					
Basra	C	1	1	4	2				3		2	2			2					
	D	1	1	4	2				1		2	1			1					
Italy: (Rome and vicinity)	C	1		1																
Jamaica (outside Kingston) (alastrim)	C	15	6	9	9	7				1		1	1		2				4	
Kingston	C			3	2															
Japan: Nagasaki	C	17	2																	
	D	5	1																	
Mexico:																				
Acapulco	C			2				1												
	D			2				1												
Chihuahua	D															1				

Guadalajara	D									1			1								
Manzanillo	D																1				
Mexico City and surrounding territory	C									1	1	1	1								
Monterey	C	6																			
	D	4																			
San Luis Potosi	D	4	1																		
Torreon	D		1		2																
Palestine: Jerusalem	C										1										
Paraguay	D	2																			
Persia: Teheran	D	2																			
Poland	C	7	2										1								
	D	2	1																		
Portugal:																					
Lisbon	C	4		3	8	1	2		1		3	3	4	1	2	4	5				
	D												1								
Oporto	C			1																	
Siam	C	34	51	27	5				1		8		1	2	5						
	D	9	10	15									1								
Bangkok	C	5		3					1		1				1						
	D	1		1																	
Spain:																					
Malaga	D								1	1											
Seville	C																1				
Valencia	C				1										1	1					
Straits Settlements: Singapore	C							1													
Switzerland	C													2							
Tunisia: Tunis	C														1	2					
Union of South Africa:																					
Cape Province	C	P	P		P																
Orange Free State	C		P						P	P	P	P	P	P							
Transvaal	C				P	7															
Venezuela: Maracaibo	D	1		2	1																

Place		July, 1927	August, 1927	September, 1927	October, 1927	November, 1927			December, 1927		
						1-10	11-20	21-30	1-10	11-20	21-31
Algeria	C	376	459	382	682						
Oran	C	14	10	16	11						
Indo-China	C	19	3	21	25	13	3	22	10		
Syria:											
Aleppo	C										1
Beirut	C								1		1
Damascus	C		3	5	22		13		4	6	2

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		July	August	September	October	November	December
Angola	C	42	2	5	73		
	D				2		
Congo	C			5	77		
Cuanza-Norte	C			1			
Cuanza-Sul	C				2		
Loanda	C			1			
Zaire	C			3	4	1	
Brazil: Porto Alegre	C	5	3	3	4	1	
British East Africa: Zanzibar	C				2		
	D				1		
Chosen	C	19	2			2	
	D	6				1	
Ecuador, Guayaquil	C		2	2	1	1	4
France	C	23	6	8	7	4	14
Gold Coast	C	1	1	5			
Greece	C	3	3	4	4		1
Latvia	C				2		
Mexico	D	93	73	55			
Morocco	C	53	76	51	81	401	
Nigeria	C	492	91	237			
	D	83	20	70			
Persia	D					2	
Spain: Madrid	D					1	
U. S. S. R.:							
Railways, etc	C	11	6				
Other territories in Europe	C	146	111				
Transcaucasus, Siberia, and Central Asia	C	36	29				
Ukraine	C	16	4				

TYPHUS FEVER

Place		July 3–30, 1927	July 31–Aug. 27, 1927	Aug. 28–Sept. 24, 1927	Sept. 25–Oct. 22, 1927	Week ended— Oct. 29	November, 1927: 5	12	19	26	December, 1927: 3	10	17	24	31	January, 1928: 7	14	21
Algeria: Oran	C													1	1	1		
Bulgaria: Sofia	C				17	3	1	2					1	1	4	1		1
	D						1											
Chile:																		
Antofagasta	D	1			1													
Talcahuano	D	1																
Valparaiso	C	2		1				1		1	1						1	
	D		2	1				1	1									
China:																		
Manchuria—Harbin	C	3	2					1										
Tientsin	C	1		2														

Egypt	C	24	2		12		4			1	7	3	3	1				
	D	1	3		5						5	1	2					
Port Said	C				1						1							
Ireland (Irish Free State):																		
Cork County	C	1										3				1		
Donegal County, Letterkenny	C				4													
Mexico:																		
Guadalajara	D									1								
Mexico City, including municipalities in Federal District	C	16	17	19	18	9	6	2	11	7	6	4		4	4	4	3	
	D						2						1	1	3	1		
Palestine:																		
Haifa	C		4		2				1	1								
Herzlia	C									1								
Jaffa	C		2		1					1								
Nazareth	C	1	2						1									
Safad	C	1	2							1		1						
Tel-Aviv	C		1	1	2				1	1	1							
Poland	C	99	50	35	19	35	12	6	11	13	28	17	35	26	32	68		
	D	10	6	2	4	6	3		2	1	5		4	1	3	6		
Portugal: Oporto	C		1			1								1				
Rumania	C	27	36	16	17				2	6	8	8						
	D	4	1		2													
Syria: Aleppo	C			2												2		
Tunisia	C	29	14	1	3			1					1	1			5	
Union of South Africa:																		
Cape Province	C	P	P	P	P		P	P	P	P	P	P	P	P	1			
Natal	C	P	P	P	P		P	P	P	P	P	1	P	2	P			
Orange Free State	C	P			P							P						
Transvaal	C	18	1		5		P	P	P	P	P							

Place		1927				November, 1927			December, 1927			January, 1928
		July	August	September	October	1-10	11-20	21-30	1-10	11-20	21-31	1-10
Algeria	C	67	33	10	12							
	D	13			1							
Algiers	C	2	2	6	2							
Bulgaria	C	12	24	7	2							
	D		1	2	1							
Morocco	C	148	76	7	11	5	14	7	5	6	75	107
	D											

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER—Continued

[C indicates cases; D, deaths; P, present]

Place		July	August	September	October	November	December
Argentina	C					1	
Chosen	C	72	17	1	16	26	
	D	8			1	2	
Chemulpo	C	1	2				
Gensan	C	2					
Seoul	C	2	3		2		
	D	1			1		
Czechoslovakia	C	6					
Greece: Athens	C	1		2			1
Japan	C	1					
Latvia	C	6					
Lithuania	C	44	18	7	9	18	
	D	5	8	1	1	1	
Mexico	D	12	38	14			
Peru:							
Arequipa	D		2	1	2		
Lima	D	8					
U. S. S. R.:							
Railways, etc	C	30	22	25	23		
Transcaucasus, Siberia, and Central Asia	C	79	69	60	61		
Ukraine	C	96	85	114			
Other territories in Europe	C	732	552	555			
Yugoslavia	C	11	9		1	1	
	D	4	1				

YELLOW FEVER

Place		July 3–30, 1927	July 31–Aug. 27, 1927	Aug. 28–Sept. 24, 1927	Sept. 25–Oct. 22, 1927	Week ended— Oct. 29, 1927	November, 1927: 5	12	19	26	December, 1927: 3	10	17	24	31	Jan. 7, 1928
Belgian Kongo: Boma and Matadi	C														7	
Ashanti: Obuasi	C		1													
	D		1													
Dahomey:																
Grand Popo	C									1						
	D									1						
Porto Novo	C	1														
	D	1														
Ivory Coast	C	1												1		
	D	1												1		
Liberia: Monrovia	C			1												
Nigeria	C			2												
	D			2												

Place																	
Senegal	C	3	10	21	31	9	16	6	7								
	D	3	9	21	31	8	10	4	6								
Dakar	C	1			12	3	6		5	2	1	4			1	1	
	D				7	2	4		4	2	1	4			1	1	
Geoul	C				1												
	D				1												
Goree Island	C			2													
	D			2													
Kebemer	C				2												
	D				2												
Kelle	C				2	1											
	D				1	1											
Keur Samba Kane	C					1	1										
	D						1										
Keur Madiop	C					1											
	D					1											
Khombole	C		3		3				1								
	D				3				1								
Louga	C				1	2	1	1									
	D				1	2	1	1									
Mekhe	C				1	1	2	2									
	D					1	1	1									
M'Dande	C				1		2	1									
	D				1		1										
Ouakham	C	2	2														
	D		1														
Pout	C			1													
	D			1													
Rufisque	C				1												
	D				1												
Saint Louis	C		2		1												
	D		2		1												
Sebikotane	C				1		2	1									
	D				1			1									
Thies	C	1		3	8	1	2	1	1								
	D	1		3	8	1	2	1	1								
Tiaroye	C			1													
	D			1													
Tivaouane	C			1													
	D			1													
Togoland	C		1														
	D		1														

Place		July	August	September	October
Gold Coast	C	15	2	6	1
	D	4	2	4	1