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PREVALENCE OF POLIOMYELITIS IN THE UNITED STATES

Reports of poliomyelitis for the week ended October 15, 1927, showed a decrease of 12 per cent in the number of cases as compared with the preceding week. Forty-four States reported 579 cases of poliomyelitis for the week ended October 15, 1927, 660 cases for the week ended October 8, and 635 cases for the week ended October 1, 1927.

Reports for the years 1925, 1926, and 1927 are available from 36 States. These States reported 447 cases of poliomyelitis for the week ended October 15, 1927, 66 cases for the corresponding week of the year 1926, and 177 cases for the week in 1925.

Comparing the weeks ended October 8 and 15, 1927, the New England, Middle Atlantic, and East and West North Central States show decreases for the later week in number of cases. The figures for Ohio for these weeks (76 and 77 cases, respectively) are the lowest for several weeks. Comparatively few cases of poliomyelitis were reported for these weeks in the Southern and Southeastern States, although Arkansas had 13 cases for the later week as compared with only 1 for the week ended October 8. Little change was noted in the Mountain States as a whole, but the number of cases in Colorado increased from 4 to 11. A decrease was reported in California and an increase in the State of Washington.

A table giving a comparison of the telegraphic reports of poliomyelitis for two weeks of the years 1925, 1926, and 1927 appears on page 2663. Figures for the week ended October 22, 1927, are published on page 2672.

AMENDMENTS TO THE INTERNATIONAL RULES OF ZOOLOGICAL NOMENCLATURE

Important Notice to Zoologists, Physicians, Veterinarians, and Others using Zoological names

Upon unanimous recommendation by the International Commission on Zoological Nomenclature, the International Zoological Congress which met at Budapest, Hungary, September 4–9, 1927, adopted a very important amendment to article 25 (Law of Priority)

which makes this article, as amended, read as follows (*italicized type represents the amendment;* roman type represents the old wording):

ARTICLE 25. The valid name of a genus or species can be only that name under which it was first designated on the condition—

(*a*) That (*prior to January 1, 1931*) this name was published and accompanied by an indication, or a definition, or a description; and

(*b*) That the author has applied the principles of binary nomenclature.

(*c*) *But no generic name nor specific name published after December 31, 1930, shall have any status of availability (hence, also, of validity) under the rules, unless and until it is published either—*

(1) *With a summary of characters (seu diagnosis; seu definition; seu condensed description) which differentiate or distinguish the genus or the species from other genera or species;*

(2) *Or with a definite bibliographic reference to such summary of characters (seu diagnosis; seu definition; seu condensed description). And further—*

(3) *In the case of a generic name, with the definite unambiguous designation of the type species (seu genotype; seu autogenotype; seu orthotype).*

The purpose of this amendment is to inhibit two of the most important factors which heretofore have produced confusion in scientific names. The date January 1, 1931, was selected (instead of making the amendment immediately effective) in order to give authors ample opportunity to accommodate themselves to the new rule.

The Commission unanimously adopted the following resolution:

(*a*) It is requested that an author who publishes a name as new shall definitely state that it is new, that this be stated in only one (i. e., in the first) publication, and that the date of publication be not added to the name in its first publication.

(*b*) It is requested that an author who *quotes* a generic name, or a specific name, or a subspecific name shall add at least once the author and year of publication of the quoted name or a full bibliographic reference.

The foregoing resolution was adopted in order to inhibit the confusion which has frequently resulted from the fact that authors have occasionally published a given name as "new" in two to five or more different articles of different dates—up to five years in exceptional cases.

The three propositions submitted by Dr. Franz Poche, of Vienna, failed to receive the necessary number of votes in commission to permit of their being recommended to the Congress. Out of a possible 18 votes for each proposition, Poche's proposition I received 9 votes, II received 6 votes, and III received 7 votes.

Zoological medical, and veterinary journals throughout the world are requested to give to the foregoing the widest possible publicity in order to avoid confusion and misunderstanding.

C. W. STILES, *Secretary to Commission.*

THE EPIDEMIOLOGY OF TYPHUS FEVER IN IRELAND

By M. R. KING, *Passed Assistant Surgeon, United States Public Health Service*

Six miles north of the city of Dublin is a small stone church which is said to have been founded by St. Dulagh about the year 600 A. D. It is the oldest Irish church in which divine service is still conducted. In the portion of this ancient building which forms the vestry is to be seen a small aperture, designated the "leper's window," through which the unclean were permitted to witness the services held within. The presence of this ancient window bears interesting evidence of the practice in Ireland, as elsewhere in Europe during the early Christian period, of segregating persons afflicted with loathsome cutaneous diseases. Since the term "leprosy" in the early Irish records seems to denote merely cutaneous disease, not of any particular kind or variety, it is probable that very little actual leprosy has ever existed in Ireland, and that the preventive measures were usually enforced against persons afflicted with loathsome diseases not necessarily dangerous from the standpoint of transmission to others. Although the ancient Irish records emphasize the importance of segregating persons afflicted with leprosy, there is scarcely any mention of such precautions with patients afflicted with fever, although, curiously enough, the early records indicate that the latter disorder has always been the most prevalent and devastating of all diseases. There is no record or evidence available such as the "leper's window" to indicate segregation of fever patients from the populace.

Just as we now know that people in earlier times included under the term "leprosy" many different skin disorders, that the term covered a multitude of afflictions which are now classified as separate specific entities, so the term "fever" included a great variety of diseases, all having the common symptoms that accompany prolonged pyrexia. The early Irish manuscripts, which first attempt any classification of the fevers, emphasize the prevalence and virulence of fever of the "putrid type." This type of fever is recorded under the Gallic name of "Fiabhrus Morgaighthe," a term that is now conceded to have related to the fever subsequently known as the fever of the typhus type, the true *typhus Hibernicus*, frequently mentioned as the "Plague of Ireland."

THE EARLY EPIDEMICS

Since the beginning of authentic medical records typhus fever has held first place as a devastating disease among the inhabitants of Ireland, an unenviable reputation which the country has held until recent years. It is very probable that the plagues which accompanied the earliest civil wars were principally epidemic typhus. In 1642, Dr. Gerard Boate, physician to Cromwell's army, states that,

"as Ireland is subject to most diseases in common with other countries, so there are some whereunto it is particularly obnoxious, being at all times so rife there that they may justly be reputed for Irelands 'endemii morbi,' or reigning diseases, as indeed they are generally reputed for such. Of this number is a certain sort of malignant feavers, vulgarly in Ireland called Irish agues, because at all times they are so common in Ireland, as well as among the inhabitants and natives, as among those who are newly come thither from other countries." Doctor Boate likewise notes its epidemic nature, prevailing "in some years with so great violence, that notwithstanding all good helps, some are thereby carried to their graves; and others who come off with their lives through robustness of nature or hidden causes, are forced to keep their beds a long time from extreme weakness, being a great while before they can recover their perfect health and strength." The "Irish agues," as described by Boate, were not fevers of an intermittent character, and all authorities now agree that such disorders should be regarded principally as the true typhus fever. For a long period subsequent to the time of Boate, typhus fever throughout the British Isles was known as the "Irish ague."

Accurate descriptions of the early epidemics of typhus fever in Ireland are somewhat meager and unreliable, especially in regard to numerical data, since separate statistics for the disease have not been required by law until within comparatively recent years. Doctor Short, in a report for the year 1682, states: "In 1682 there raged a spotted fever in Dublin; in that year died 2,262, a very high bill." Rogers records a severe epidemic in Cork during the year 1708. Both the summer and winter of that year were exceedingly cold and were accompanied by an almost complete failure of the crops. This epidemic was repeated during the period 1718–1731, and again in 1728–1731. Epidemics of the disease, recorded by Rutty and O'Connell, again occurred from 1740 to 1743 and spread generally throughout the country, producing a very high mortality. It was estimated by the above observers that one-fifth of the inhabitants died of the fever during the epidemic. Scarcity of food during 1740 caused large crowds of people to leave their homes and live a life of begging and vagabondage throughout the country, thus tending to spread the disease. Poor crops again occurred in the years 1797 and 1800, accompanied by an acute outbreak of typhus fever which quickly subsided following a good harvest in 1801. It was following this epidemic that the first fever hospitals were founded in Cork and Dublin in the year 1802. Although such hospitals at first were not popular with the people, they were never without patronage, since the marked increase in population and wide spread prevalence of poverty and fever throughout the country occasioned such an

excess of destitute patients that they were forced to make use of the institutions furnished by the government or else die by the roadside.

Influence of the Napoleonic wars.—With the economic depression which followed the Napoleonic wars in Europe, Ireland again experienced a period of distress and want. The severe winter of 1816 and failure of the potato crop precipitated a famine accompanied by an epidemic of fever which, according to Doctors Barker and Cheyne, attacked about one and one-half million people out of an estimated population of 6,000,000. Within the course of two years, more than 42,000 patients were admitted to the fever hospitals. It is reported that during this epidemic there were approximately 70,000 cases of typhus fever in the city of Dublin, or one-third of the inhabitants were afflicted with the disease. The economic depression and the lack of food in Ireland just subsequent to the Napoleonic wars are aptly described by Bridges in "Two Centuries of Irish History," Newsholme, "Poverty and Disease":

> Hordes of starving families were driven from their homesteads into the garrets and cellars of the nearest town; when hope of finding work was gone, and town after town had been visited in vain, they betook themselves to a life of aimless vagabondage, living on wild turnips and nettles when alms failed, and carrying death with them. The most potent causes, vagrancy, starvation, cold, and, above all, the moral lethargy and despondency resulting from enforced idleness, were for the statesman rather than for the physician to cure.

Increase in population and poverty.—Subsequent favorable years for harvests were marked by a considerable increase in the population, in spite of persistent and increasing economic depression and political troubles throughout the country. In four decades (1800–1840) Ireland's population more than doubled.[1] However, the poverty of the people seemed to increase directly with the population. Because of political strife the industries of the country retrograded, and agricultural pursuits finally were practically limited to the cultivation of the potato, which, at that time, was the principal article of food. With the marked increase in population and the decline in industries, the people became almost entirely dependent upon their own produce from the land for subsistence. The rapid growth of the potato and the small amount of land required for its cultivation made it possible for large numbers of people to exist on very small portions of land. In 1845 the population was calculated

[1] In 1672 the population of Ireland was estimated at 1,320,000; in 1788 it was 4,040,000; in 1845 it reached its highest peak, 8,295,000, after which year it began to decline, reaching 6,014,000 ten years later, in 1855, 5,023,000 in 1883, and 4,468,000 in 1900. The population practically remained at this figure between 1900 and 1919, in which year it is given as 4,462,000.

Extensive emigration followed the famine beginning in 1845, but the enumeration of emigrants from the Irish ports did not begin until 1851, in which year approximately 150,000 emigrants were recorded. In 1852 there were 190,000 recorded as leaving the country; in 1853, 170,000, and in 1854, 139,000. From 1855 to 1863 the emigration varied between 58,000 and 90,000; in 1863 it reached 110,000, and in 1864, 114,000, after which year it remained well below 100,000 until 1887, when it increased to 108,000, thereafter dropping to 40,000 in 1902, to 10,000 in 1916, and 2,900 in 1919. (See Fig. 1.)

at over 8,000,000 persons, and at least one-half of that number were dependent on the potato for subsistence. The extreme poverty that existed in some of the rural districts during that period is recorded by Stephen Gwynn in his book "Ireland," in which he states:

The parish which in 1841 held over 9,000 souls, possessed, according to the inventory furnished by the schoolmaster in 1837 (and Lord George vouched for its accuracy), one cart, and no other wheeled vehicle, one plow, sixteen harrows and twenty shovels; no pigs, twenty-seven geese, three turkeys; no clock, three watches; no fruit trees, no vegetables but potatoes and cabbage; two feather beds, eight chaff beds; people slept on straw, green and dried rushes, and all of them "in the bare buff." Men and cattle were housed together, the cattle at one end of the kitchen. The school-teacher, a man of distinction, had a salary of 8 pounds per year. The peasantry in general lived on one meal a day and in 1837 could often eat only once in two days. In 1841 the population was 8,175,000, but during the same period, except in the area about Belfast, industries were declining. The poor became a teeming multitude with nothing to live on but the produce of the land; the rich had nothing to live on but the rents of the land. The diet of the poor consisted principally of potatoes and milk throughout almost the entire country except the north, where meal was used in addition. Over 2,000,000 persons, it was estimated, were in distress for 30 weeks of every year. At least a quarter of a million were habitually driven to beg on the roads for the period between the exhaustion of one potato crop and the harvest of the next.

The famine and epidemic of 1845–1850.—Under the prevailing conditions, then, it is little wonder that when a blight practically caused a total destruction of the potato crops from 1845 to 1850, there resulted a famine accompanied by an explosive outbreak of fever and a vast emigration which is probably without parallel in the history of Europe. The typhus epidemic that accompanied the potato famine was probably the worst that has ever visited the country. The Irish people themselves, called the fever "road fever," since it especially attacked wandering people. Along with the typhus there were relapsing fever, dysentery, scurvy, and purpura. The Cork Street Fever Hospital, in Dublin, is said to have taken in 12,000 cases in 11 months. The mortality is estimated as having been between 10 and 30 per cent. This severe famine and epidemic were followed by an emigration of the people such as the country had never before experienced.[1] There are a few meager reports of the fever having been left in the tracks of the emigration in England and, especially, in America, the principal land of destination. It is significant that, as soon as the emigrants reached a land where hunger and destitution

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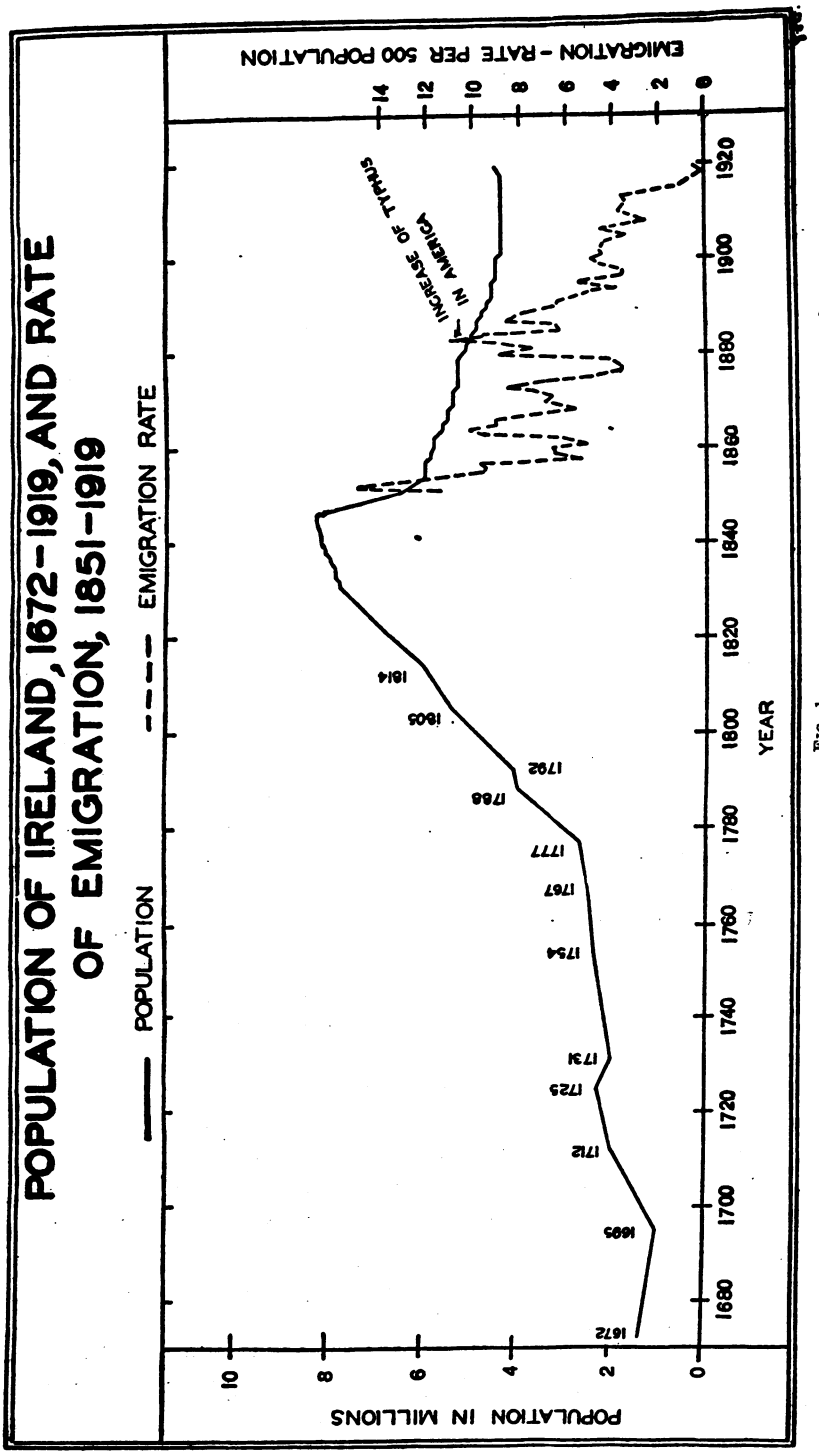
POPULATION OF IRELAND, 1672-1919, AND RATE OF EMIGRATION, 1851-1919
POPULATION
EMIGRATION RATE
POPULATION IN MILLIONS
EMIGRATION - RATE PER 500 POPULATION
YEAR
INCREASE OF TWELVE IN AMERICA
1672
1695
1712
1725
1731
1754
1767
1777
1788
1792
1805
1814

FIG. 1

did not exist, the disease failed to propagate in epidemic form, although they scattered in many directions and carried the disease with them. In this connection it is of interest to note that all of the great epidemics of typhus fever in Ireland have occurred during periods of famine and destitution, and that whereas the great epidemics of plague, cholera, and influenza have been imported from the East, and the progress of such epidemics can be followed from one country to another, no such spread of typhus epidemics can be traced.

FACTORS INFLUENCING THE SPREAD OF TYPHUS FEVER

Social influences.—The early medical records indicate that whereas typhus fever has usually been epidemic in other countries, it has been persistently endemic in Ireland, with tendencies, at intervals, during periods of want, to violent explosive outbreaks. There appears to be a few special causal factors relative to the continued prevalence of this disease which are peculiar to the Irish people. The native inhabitants of the country have always been a restless people; and especially during periods of strife and destitution they have had a tendency to migrate from one section of the country to another, and vagrancy and mendicancy have been prevalent. Furthermore, seasonal movements of laborers during haying and harvest times have always been excessive. The Irish have always been known as an exceedingly hospitable and generous people—characteristics which, though lovable and commendable, prove to be disastrous when vagrancy and hunger are prevalent and typhus fever exists throughout the land. The habitual hospitality of the Irish, too, has interfered with the work of institutions established for the purpose of controlling epidemic diseases. The fever hospitals and workhouses, when first founded in Ireland, were not popular with the people. The inherent generosity of many natives would tend to cause them to accept a wandering friend afflicted with fever into their own households, even though overcrowded, rather than see him sent to an institution. The tendency of large families to live in overcrowded quarters, the sociable nature of the poeple, causing them to exchange frequent and prolonged visits with each other, and the custom of observing wakes were factors bearing on the spread of the disease.

The food factor.—The potato, the principal article of food for the Irish for so many years, frequently proved to be untrustworthy, as shown by the occurrence of famines during the numerous failures of the potato crops. The potato, introduced into Ireland in 1610, soon became the principal article of food among the people. It probably has played as tragic a part in the famines, epidemics, and darker sides of Irish history as the numerous political upheavals to which the country has been subjected. Newsholme, commenting upon the

importance of the potato as a causal factor in the production of poverty and disease in Ireland, states:

The history of typhus in Ireland is closely wrapped up with that of the potato. Even in the early part of the reign of Charles II this demoralizing esculent, according to Petty, was already the national food. It was thus described because the life of large families could be supported by means of the potato with little labour so that the subsistence of the population was thus placed at the mercy of a single crop. The rate of wages was kept down by the same conditions, and Malthus speculates with much force on how different would the history of Ireland have been had the staple food been oatmeal or wheat.

DECLINE IN THE INCIDENCE OF TYPHUS FEVER

Since the great epidemic and famine of 1845–1850 there has been a gradual improvement in the economic prosperity and well-being of the people, with a coincident decline in the prevalence of typhus fever. The only serious outbreak of the disease within comparatively recent years which is in any way comparable to the early epidemics, is the epidemic which occurred in 1880. At that time there was a widespread tendency of landholders to evict their tenants in order to clear their estates. The year 1880 was noted for excessive rainfall and cold, which resulted in decreased crop production. During the years 1879 and 1880 there were 3,348 families evicted in Ireland, resulting in a widespread restless, wandering, and ill-nourished population, moving from town to town in an unsuccessful search for work or a new place in which to settle. The physical fitness of the population, too, had been reduced by a severe epidemic of smallpox which had just spread over the land. The result, as might be expected, was a marked increase of typhus fever throughout the country. This increase is to be seen in the sharp rise of the typhus fever curve for that year. The effects of the eviction of families on Irish emigration is also seen in the rise of the emigration curve for the period 1880–1883. As on previous occasions, there resulted a certain amount of typhus fever in England and America [1] in the wake of the immigration, but the disease failed to spread in epidemic form to any great extent.

[1] Probably the most favorable period that ever existed in the United States for an extensive typhus epidemic was during the Civil War. It is quite probable that typhus fever did prevail much more extensively during that period than the records indicate. There are no data available relating to losses sustained by the Southern States. Prinzing notes the following figures from the health reports of the Northern States relative to the prevalence of typhus during the course of the Civil War:

Number that contracted typhus fever: White troops, 2,503; colored troops, 123. Number that succumbed to it: White troops, 850; colored troops, 108.

Reports indicate that typhus fever prevailed among the northern prisoners in the neglected prisons of Salisbury, N. C., and elsewhere. The total number of deaths in the Northern Army from the common fevers, typho-malarial fevers, typhus fevers, and typhoid fevers, combined, during the entire course of the war was 33,112 white troops and 3,689 colored troops. During this period there was an increased incidence of typhus fever among the civil population. According to Corse (Prinzing: Epidemics Resulting from Wars), the number of deaths due to typhus fever in Philadelphia was 37 in the year 1862, 231 in 1863, and 235 in 1864. Although most of the above fevers of a doubtful nature among the northern troops have been considered as typhoid by most authorities, it seems probable, in view of our present knowledge of typhus, that a large percentage of them were really cases of typhus fever.

TABLE 1.—*Death rates per 100,000 population for typhus fever, 1869-1921, and simple fever, 1869–1910 in Ireland*

[Figures taken from annual report of registrar general of births, deaths, and marriages in Ireland]

Year	Rate per 100,000 population		Year	Rate per 100,000 population	
	Typhus fever	Simple fever		Typhus fever	Simple fever
1869	16.3	31.5	1896	2.7	2.9
1870	13.5	26.6	1897	2.6	1.7
1871	16.1	25.4	1898	4.9	2.2
1872	11.2	28.3	1899	2.5	1.6
1873	12.9	28.1	1900	2.8	1.7
1874	14.0	27.0	1901	2.0	1.9
1875	13.1	25.1	1902	1.8	1.1
1876	11.7	22.4	1903	1.7	1.0
1877	13.6	20.5	1904	1.2	1.0
1878	14.1	28.0	1905	1.5	.9
1879	14.3	20.3	1906	1.9	.6
1880	17.9	16.8	1907	1.2	.5
1881	16.6	15.0	1908	1.3	.4
1882	14.5	12.8	1909	.9	.5
1883	16.1	11.7	1910	1.4	.3
1884	12.6	11.4	1911	.8	
1885	10.2	8.9	1912	.7	
1886	8.0	7.7	1913	1.0	
1887	8.3	7.9	1914	.6	
1888	7.5	6.8	1915	.6	
1889	7.5	5.2	1916	.6	
1890	8.2	4.9	1917	.8	
1891	5.6	3.9	1918	.6	
1892	5.7	4.5	1919	.5	
1893	4.9	3.0	1920	.9	
1894	5.0	3.2	1921	.5	
1895	4.2	2.6			

Effects of emigration.—Although the constant stream of emigration from Ireland which followed the famine of 1845–1850 has been described as a "national hemorrhage" which has remained unchecked, leaving the country in a weak and anemic condition, nevertheless it is certain that such a prolonged exodus of the people has not been without its advantages to the health of the country. Emigration has relieved the overcrowding and has caused a decrease in the restlessness and in vagrancy which were so prevalent and played such an important part in the spread of communicable diseases previously.

Changes in food and houses.—Since the great famine the Irish people have learned not to depend so much upon the potato as a staple article of food, but have cultivated other vegetables and cereals more extensively. It is significant that coincident with the decrease in population due to emigration there has been an increase in the variety and quantity of food products. The increase and improvement of animal industry and dairy products have been marked, and these industries have become valuable assets to the country, not only for the revenue from export, but also from the standpoint of food value for the nation. The improvement in the standard of living among the Irish is also shown by the improvement in the houses occupied by the majority of the population. The following figures (taken from Newsholme, "Poverty and Disease") illustrate the change in the housing situation throughout the country.

Percentage of different classes of houses in Ireland

	1841	1881	1901
First class	3.0	9.7	11.2
Second class	19.9	46.9	59.3
Third class	40.1	39.2	28.4
Fouth class	37.0	4.2	1.1

The fourth class of houses comprises chiefly houses of mud or of other primitive building materials, having only one room and one window; houses of the third class, somewhat better, have 2 to 4 rooms and as many windows; houses of the second class are equivalent to

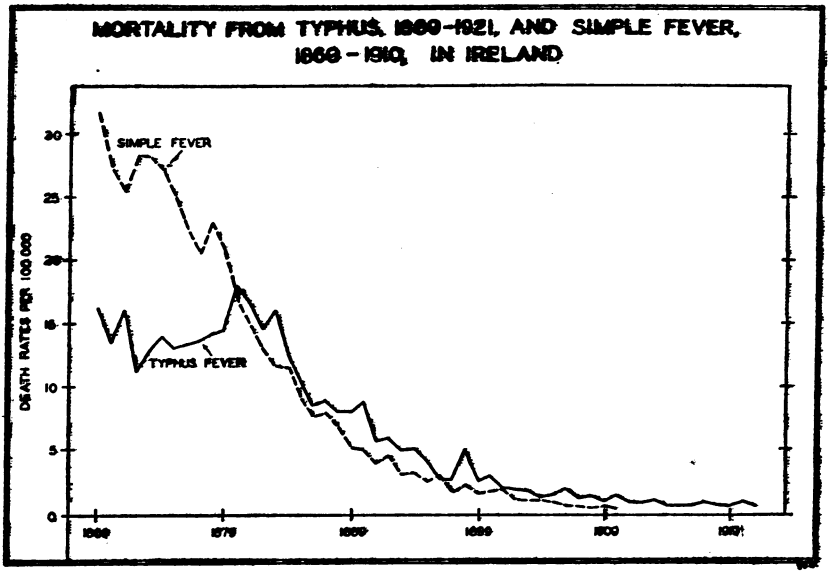

FIG. 2

what would be considered a good farmhouse, having 5 to 9 rooms and as many windows; and houses of the first class include all better houses than those in the second class.

Decrease in illiteracy.—Probably one of the most important factors indicating an improvement in the people as a whole, and, indirectly, in their standard of living and health, is the decrease in illiteracy throughout the whole of Ireland. The percentage of the people 5 years old and over who were classified as illiterate in certain of the census reports is as follows:

Year:	Per cent
1841	52.7
1871	33.4
1911	9.2

It is noteworthy that typhus fever is especially likely to prevail in countries where illiteracy is high. During the year 1911 the illiteracy

of the population over 10 years of age in Russia was 69 per cent, Serbia 78 per cent, Rumania 60.6 per cent, and Bulgaria 65.5 per cent, in all of which countries typhus fever prevailed extensively during and subsequent to the World War.

EPIDEMIOLOGICAL CHARACTERISTICS

Previous to the year 1869 the statistics relative to typhus fever recorded in the census reports and the annual reports of the Registrar General of Births, Deaths, and Marriages in Ireland were inconclusive, since previous to that year the Government included four forms of disease collectively under the term "fever," namely, typhus, enteric, relapsing, and continued fever. However, since 1869 these diseases have been considered separately and classified under their respective heads in the annual reports, thus affording valuable data concerning the death rates from typhus fever in Ireland since that year. The annual reports of the Cork Street Fever Hospital, 1809–1921, furnish valuable information relative to the number of typhus fever cases admitted to the hospital, and the age, sex, and number of deaths of such persons. During the past 30 years reports of the medical inspectors of the various medical districts throughout Ireland have been incorporated in the annual reports of the Local Government Board. The reports of the medical inspectors cover investigations of outbreaks of the diseases which offer unusual problems relative to diagnosis, origin, and transmission. Such reports relating to typhus fever are especially valuable in an epidemiological study of the disease, since they represent special investigations carried out by physicians especially trained and qualified to carry out such work. Some of the most important of these reports concerning outbreaks of typhus fever in Ireland during the past 25 years have been collected and are submitted herewith.[1]

Protean manifestations.—Although careful investigations were not carried out during the periods when typhus fever was most prevalent throughout Ireland, it seems quite probable, on analysis of the early reports, that the disease prevailed then in an atypical form, even as it does at the present time. A large majority of the so-called Irish agues were probably atypical cases of typhus fever. The vast number of the ill-defined, continued, and simple fevers and febricula which were reported during earlier periods outnumbered the typhoid and typhus fever cases combined. For example, during the two years 1869 and 1870, there were admitted to the Cork Street Fever Hospital, in Dublin, 675 cases of typhus fever, 250 cases of enteric fever, and 1,164 cases of febricula. The coincidence of an increased incidence of febricula or simple fever with

[1] Owing to the lack of space it is not possible to print here the detailed reports of the district medical inspectors.—ED.

periods of maximum prevalence of typhus fever, in the light of our present knowledge regarding the protean clinical characteristics which the latter disease may assume, justifies the conclusion that a very large percentage of the cases recorded as simple fever were really atypical cases of typhus fever. The death rate from simple fever in Ireland since 1869 is shown in graphic form with the typhus fever curve.

An analysis of the reports of the medical inspectors relative to small outbreaks of typhus fever in Ireland during the past 25 years shows that almost all the outbreaks began with, and were accompanied throughout their course by, cases of the disease which were atypical in character and which would not have been suspected of being typhus fever except for the communicable nature of the illness and the occurrence of a certain percentage of other cases with typical symptoms of the disease. It has been conclusively shown in these reports and in other available records that cases of typhus fever have frequently been ascribed to such diseases as influenza, typhoid fever, and pneumonia. It has also been shown that typhus fever has occasionally been mistaken for ill-defined and continued fevers, puerperal fever, obscure and unrecognized disorders among children, and in deaths among old people ascribed to chronic complaints, such errors in diagnosis being brought to light by subsequent cases of illness occurring in the same families, or among those exposed to the sick persons, which proved to be typical cases of typhus fever.

The clinical symptoms associated with typhus fever in Ireland have been variable. In many cases the predominating symptoms have been respiratory in character. Bronchial catarrh has been so marked during epidemics in the past that the disease has occasionally been described as "catarrhal typhus," from the common presence of bronchial catarrh as a complication. On the other hand, many cases have been noted for the presence of prolonged fever and a stuporous mental state. Occasionally abdominal complaints have been mentioned as predominating symptoms.

Because of these variable symptoms it appears that typhus fever is capable of assuming protean characteristics, clinically, even as frequently as is influenza.

Distribution throughout Ireland.—The distribution of typhus-fever cases throughout Ireland changed with the standard of living. When the disease was extensively prevalent, the greatest number of cases occurred in the cities. Mapother, in 1866, in describing the unhealthiness of Irish towns and the lack of sanitary legislation, stated that fever had been much more severe in the cities as compared with the rural districts: "In the city of Sligo (population 10,605) 1 in 43 yearly suffered from fever, on an average of 7 years. In Ennis (population 7,041) no less than 1 in 24 of the population of

the dispensary district yearly suffer from fever. In Athlone (population 5,902) the death rate for the population of all towns over 2,000 inhabitants was nearly twice as high as that of the rural populations." Within recent years the situation has been reversed. Records for the past 20 years indicate that at least two-thirds of the typhus-fever cases have been reported from the rural districts, especially from western Ireland, while the remaining one-third have been reported from the urban districts. During 1920 one-third of the typhus-fever cases were reported from the western inspection districts; one-third was equally divided between the county boroughs of Dublin, Cork, and Londonderry, and the remainder represents the occurrence of the disease throughout the remainder of the country. The records of 1923 to 1925 show that only one report came from the urban districts, while 108 cases were reported from the rural districts.

Since the majority of Irish immigrants to America come from the country districts, especially from western Ireland, a knowledge of the geographical distribution of typhus fever is of value to the medical officer concerned with the examination of prospective immigrants preparatory to securing a visa.

Season.—It has generally been accepted that typhus fever is a disease of the winter months. Sir William Moore, of Dublin, found, from an examination of the Returns of the Registrar General of deaths from typhus in Ireland, that the death rate attains its maximum in January and its minimum in September. He further states that the number of admissions of typhus-fever patients to the London Fever Hospital over a period of 23 years reached a maximum during January and March, the minimum falling in July, August, and September. An analysis, by the writer, of the admissions of typhus-fever patients to the Cork Street Fever Hospital, in Dublin, for the period 1876 to 1921, shows that the maximum was reached in the month of December and the minimum in July. However, variations in the numbers admitted for the various months were not great, as the accompanying graph clearly indicates. It is well known that epidemics of typhus fever prevail irrespective of the season of the year and that sporadic cases frequently occur during the summer months.

TABLE 2.—*Cases of typhus fever admitted to Cork Street Fever Hospital, Dublin, 1876–1921*

[Figures taken from annual reports of Cork Street Fever Hospital]

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
1876	2	6	11	9	6	4	6	13	8	13	9	13	100
1877	13	13	13	10	11	16	9	10	16	7	5	11	134
1878	11	7	14	15	14	17	11	15	13	9	9	7	142
1879	2	5	2	4	4	5	4	5	6	18	20	19	94
1880	11	18	11	12	14	18	39	83	95	50	33	26	420
1881	26	32	18	16	22	26	22	4	4	13	4	11	198
1882	13	7	5	5	12	8	5	15	43	25	70	67	265
1883	53	54	26	23	28	19	13	42	22	20	27	21	350
1884	20	8	11	18	7	19	25	12	18	11	8	1	149
1885	1	3	5	5	5	10	4	3	7	2	7	14	66
1886	5	3	3	7	13			9	5	13		3	61
1887	2	4	1	1	12	6	3	7	9	5	9	24	83
1888	9	9	8	7	8	3	2	2		7	1	3	59
1889	2	4	1	6	5	7	2	5	15	4	7	2	60
1890		2	2	1		5	13	12	15	5	2	1	58
1891	3		1		1	2	2	2	6	2		1	20
1892	1	3	2		2				1	2	3	4	18
1893	2	1		1				1	1		1		7
1894	3	1			2	1	2	2	1	1	1	1	15
1895	5	3				1	1						10
1896	1	1	1		1	1		4	14	16	15	16	70
1897	4	1		1		2							8
1898		1				4		8	1	4		1	19
1899		3	13	2	2	3						2	25
1900		1	2	4		5	6		3	3	1		25
1901			1	4	6	4	3		1	3			22
1902					1				3	1			5
1903													
1904		1					3	1	1			2	8
1905	1						2	2	1		1	1	8
1906	1		2	3	1	2	1			4	1	14	29
1907	4	1	2	3	2	6	1			2	1		22
1908					1		2	1		1	4		9
1909			1				2	1	4			2	10
1910	3		2	1					3			1	10
1911	1	4	4	1	2	1	8	2	5		3	1	32
1912				1	1	4		1		8	1	11	27
1913								2	1	1		1	5
1914			1				2	10	13	8	6	5	45
1915		3	4	2			2	2				1	14
1916			3				3	5			1	1	13
1917	1			1								4	6
1918	1												1
1919		1	4	2	4				1				12
1920	5	8					10	15	3	9	2	1	53
1921	3	1											4
Total	209	208	177	165	187	190	208	296	339	277	252	303	2,811
Per cent of total	7.43	7.39	6.29	5.87	6.65	6.75	7.39	10.55	12.05	9.88	8.96	10.77	100.00

TABLE 3.—*Cases of simple fever admitted to Cork Street Fever Hospital, Dublin, 1876–1897*

[Figures taken from annual reports of Cork Street Fever Hospital]

Year	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
1876	20	18	13	15	25	17	12	17	17	16	18	12	200
1877	18	24	18	17	9	7	14	18	31	23	29	12	220
1878	13	16	18	19	13	13	20	6	14	21	11	9	173
1879	12	4	4	7	11	8	8	2	7	16	16	8	104
1880	12	16	12	6	7	5	8	15	7	7	6	2	103
1881	5	5	3	8	5	7	3	2	4	2	4	2	50
1882	9	8	3	4				2	5	9	8	16	64
1883	5	9	4	3	12	6	9	10	9	6	6	4	83
1884	9	3	5	6	6	2	5	3	6	3	5	1	54
1885		6	4	1	3	2	1	4	4		1	2	28
1886	4	2	2	1	2	2	4	3		4	3	5	32
1887	3	3	4	1	2	4	3	3	1	1	1	2	28
1888	1	1	3	2	5		1		3	1	4	8	29
1889	3	1	2	4	3	2	3	4	5	4		1	31
1890	1	1	2	2	2	1		2		2			13
1891	4	3	3	2		2	5	5		1	1	3	29
1892		4	2	1	2	4	4	11	1	4	4	6	43
1893		1	1		6	4	3	1	9	3			28
1894	2	2	1	2	1		1	2		3	1	1	16
1895		2	1	1		1	1	1				3	10
1896	2	3	1	4	1	1	2		1	1	7	2	25
1897	1	2	1	1	6	1	3	2	1	1	6		25
Total	128	134	107	107	122	89	110	114	125	128	131	99	1,388
Per cent of total	9.26	9.65	7.70	7.70	8.71	6.42	7.92	8.21	9.00	9.21	9.43	7.13	100.00

It appears that the virus does thrive during the warmer months as vigorously as during the winter time and that the increased incidence of the disease during the colder seasons is probably due to more favorable conditions for its transmission. During the winter the poor are more likely to suffer from a shortage of food, overcrowding, and exposure; clothing is not changed as frequently as during the summer, which, together with overcrowding, promotes lousiness. Famines always cause the greatest distress during the winter months. The frequent occurrence of catarrhal symptoms and affections of the respiratory organs as complications of typhus suggests

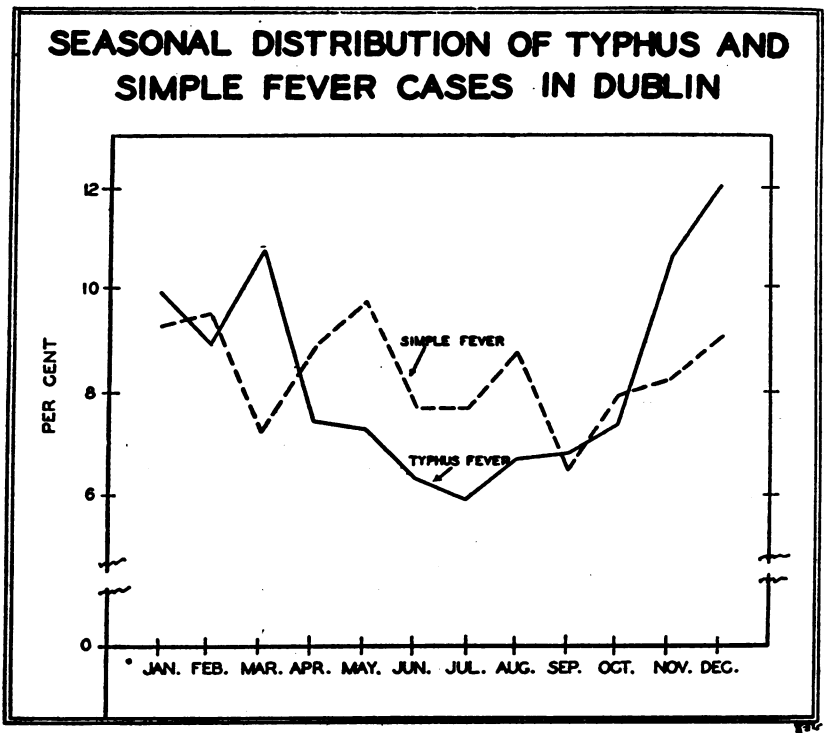

FIG. 3

that, from the nature of such symptoms, more cases might be expected during the colder seasons of the year. There are insufficient data available pertaining to the atypical and mild cases of typhus fever in Ireland to indicate conclusively the seasonal prevalence of this particular form of the disease. Maxcy (Public Health Reports, December 24, 1926) has recently shown that mild endemic typhus in the southeastern United States reaches its maximum incidence in the summer and fall, in contrast with the increased winter incidence of typhus in European countries.

Sex.—It has frequently been reported that men die of typhus in greater numbers than women. This has been attributed to various

factors, such as the greater muscular development of men, intemperance among the male sex, and to the fact that men are more frequently subjected to overwork and fatigue. According to Sir John Moore, records of 740 cases observed in epidemics in Breslau, by Lebert, indicate that 55.68 per cent of the patients were males, and only 44.32 per cent were females. Out of 18,268 cases of typhus admitted to the London Fever Hospital during the 23 years, 1848–1870, inclusive, 8,946 were males and 9,322 were females. The excess of females was 376; but this ratio is accounted for by the preponderance of females in the total population. Doctor Moore infers from this that sex does not in itself predispose to typhus fever. An analysis by the writer of 1,995 cases admitted to the Cork Street Hospital, in Dublin, for the period 1875–1894, shows that there were 1,049 females and 946 males, making 103 more females than males. This observation is in agreement with the conclusion of Sir John Moore that sex does not play a predisposing part in acquiring the disease.

Age.—Practically all reports on typhus fever indicate that it is, for the most part, a disease of adult life. Sir John Moore reports that in the London Fever Hospital it was ascertained that of 3,456 cases of typhus fever admitted to the hospital, the mean age was 29.33 years. An analysis, by the writer, of 1,995 cases admitted to the Cork Street Fever Hospital, in Dublin, for the period 1875–1895, shows that 36.49 per cent of the cases were between the age of 20 and 40 years. These figures also indicate that the incidence and the mortality of the disease are low among children, in comparison with adults, and that the mortality among the aged is very high. These observations are in accord with other reports regarding the influence of age on the prevalence of typhus. The accompanying graph represents the incidence of the disease according to certain age groups, and the death rates for the same age periods.

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TABLE 4.—*Summary of cases of typhus fever admitted to the Cork Street Fever Hospital, 1875–1894, giving the number of cases, the case-fatality rates, and the percentage of admissions, by sex and age groups*

[Figures taken from the annual reports of the Cork Street Fever Hospital]

	Admissions		Mortality	
	Number	Per cent	Number of deaths	Per cent of deaths
Males:				
Under 5 years	55	5.8	3	5.5
5 and under 15	286	30.2	7	2.4
15 and under 20	180	19.0	12	6.7
20 and under 40	326	34.5	65	19.9
40 and under 60	88	9.3	23	26.1
60 and under 80	11	1.2	7	63.1
Total	946	100.0	117	12.4
Females:				
Under 5 years	53	5.1	0	0
5 and under 15	269	25.6	11	4.1
15 and under 20	200	19.1	13	6.5
20 and under 40	401	38.2	58	14.5
40 and under 60	114	10.9	33	28.9
60 and under 80	12	1.2	8	66.7
Total	1,049	100.0	123	11.7
Both sexes:				
Under 5 years	108	5.4	3	2.8
5 and under 15	555	27.8	18	3.2
15 and under 20	380	19.0	25	6.6
20 and under 40	727	36.5	123	16.9
40 and under 60	202	10.1	56	27.7
60 and under 80	23	1.2	15	65.2
Total	1,995	100.0	240	12.0

Social status.—Probably the most potent predisposing causative factor of typhus fever is undernourishment. Almost all the smaller outbreaks in Ireland within recent years have occurred among families in straitened circumstances, victims of deficient nourishment, overcrowding, and poverty. Occupation seems not to have been a predisposing factor except in so far as it tended to lower bodily resistance through fatigue from overwork or actual exposure to the disease. The poor peasant classes in the country districts, accustomed to heavy physical labor on insufficient food, seem to be especially prone to the disease. It has been noted during typhus epidemics that butchers seemed to be especially immune from typhus fever (Sir John Moore: Text Book of Eruptive and Continued Fevers), although apparently exposed to the infection as frequently as other people. The reason for this has been attributed to the fact that they always have an ample supply of nourishing food. Doctors and nurses, when exposed, are especially likely to succumb to an attack when fatigued or undernourished. Von Hildenbrand, of Vienna, who, in 1815, differentiated the typhus exanthematus from the typhus abdominalis of the Germans, noted the importance of being physically fit when attending typhus-fever patients. He recommended that one should never approach a case with an empty

stomach, or when the body is wet and cold. He advised taking some wine or brandy or some small meal or to make the body less receptive to infection by moderate warmth. It is reported that Doctor Ricketts, who lost his life from an attack of typhus fever acquired in Mexico, was fatigued and in poor physical condition from overwork just previous to his last trip to Mexico City. Other

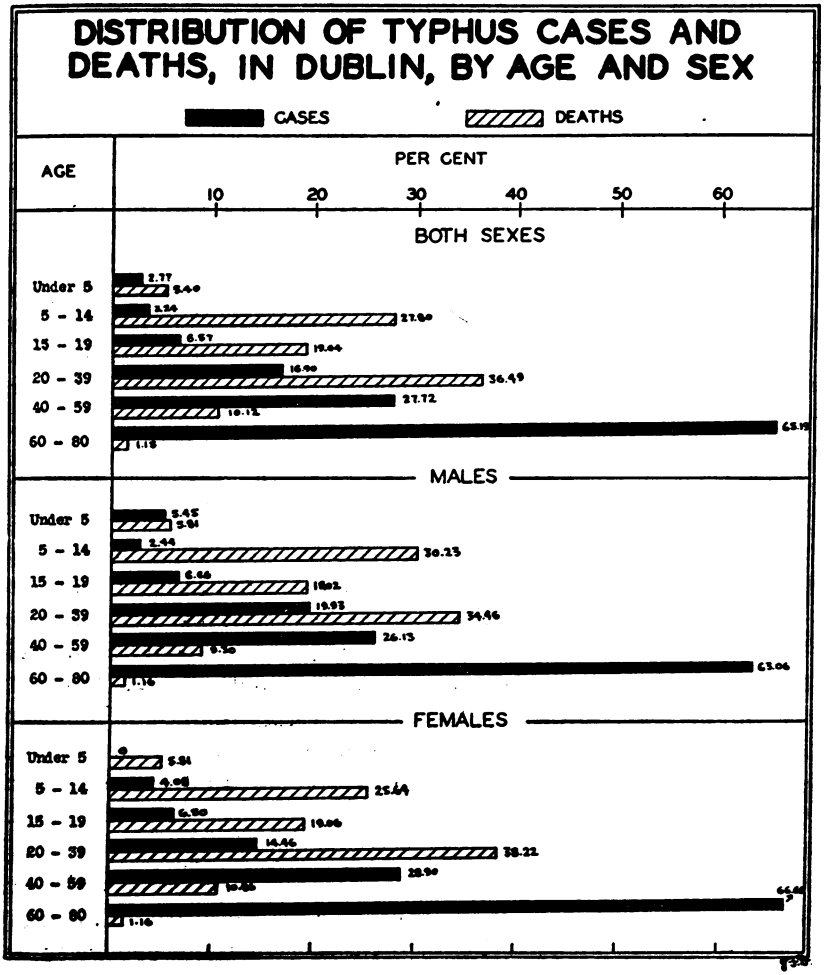

FIG. 4

predisposing factors which lower the natural resistance, acting in a manner similar to that in which undernourishment operates, are intemperance and the loss of strength from previous illnesses. Murchinson has pointed out that he has known of persons exposed to typhus fever for months and apparently immune who were attacked immediately after an alcoholic debauch. Patients convalescing from other diseases are very susceptible to typhus. Epidemics of smallpox and other diseases in Ireland have been followed by an increased incidence of typhus.

DISCUSSION

Although there has been a marked decrease in the prevalence of typhus fever in Ireland coincident with the improvement in the standard of living of the people, nevertheless, the disease still remains in endemic form with frequent small outbreaks throughout the country. The occurrence of occasional isolated cases during earlier periods was explained at the time by the theory of the spontaneous origin of disease, such cases being thought to arise *de novo*. It is now known that the disease is caused by a specific virus which thrives or tends to die out according to whether the environment is suitable or detrimental to its growth, and that each case of typhus owes its origin to some previous case of the same disease, regardless of the duration of the intervening period which separates cases. However, just what factor is responsible for the maintenance of the virus during prolonged periods between cases has not been conclusively established. Dr. Charles V. Chapin, in his lecture, "Changes in type of Contagious Diseases," submits facts which support the theory that the mild type of present-day scarlet fever is due to the elimination of the severe strains of the disease through selective isolation, and that the mild type of smallpox of to-day is due to certain changes or mutations in the virus. The compulsory isolation of all recognized cases of typhus within recent years may be a factor in eliminating virulent strains of the disease, even as with scarlet fever; but it seems more probable, in view of the nature of typhus, that the present mildness and atypical characteristics of the disease are due to the present unsuitable state of the medium by which the virus is spread. It has been shown that typhus will not flourish in a well-nourished population. On the other hand, given a population which has suffered from insufficient food, the disease seems to revive in its original virulent form, as demonstrated in European countries during the World War.

During the period 1920 to 1922 there were serious political upheavals in Ireland, accompanied by war, restlessness, and anxiety among the people. This period of political stress, however, was not accompanied by want, since there was an abundance of food throughout the land. Apparently the only predisposing factor that was missing during this period was undernourishment of the people. There were overcrowding and poor sanitation in some quarters, with endemic typhus through the land. Lousiness must have been prevalent, since examinations of prospective Irish immigrants to America indicate that at least 50 per cent of such people present evidence of infestation. The fact that no serious outbreak of the disease occurred during the above period indicates the importance

of nutrition as a causal factor in the incidence of typhus. As already mentioned, it is certain that the disease in virulent form has been transferred to other countries where, perhaps, the environment has not been favorable for its extension. The tendency has been for the disease to die out or to assume an atypical form. In this respect the parallel between the infection of tuberculosis and the parable of the sower, as given by Osler, is applicable to the infection of typhus; i. e., the resultant disease is dependent on the nature of the soil upon which the seeds fall, either dying out entirely or changing in virulence and type, even as a plant fails to grow and thrive true to form in an environment unfavorable for its growth.

It is impossible, from available records, to ascertain the origin of the great majority of the sporadic cases of typhus which have occurred intermittently throughout Ireland during the past 25 years. Many of them were reported from isolated districts where no cases of the disease had been recognized for long periods of time previously, and where there was an absence of subsequent cases, although, undoubtedly, contacts were numerous.

On the other hand, it has occasionally been possible to trace the origin of a sporadic case back to a case occurring several months previously, several atypical cases supplying the intervening links. (This is shown in one of the reports of the district medical inspectors.) It is noteworthy that many of the reports mention the mildness of the disease among children who frequently were not ill enough to go to bed and among whom the disease was difficult to recognize. For this reason it is probable that the disease has always been much more prevalent among children than statistics indicate.

The frequent occurrence of outbreaks of typhus fever following "wakes" is in accord with the well-established fact that the louse is the usual means of transmission of the disease. Lice are prone to leave a cold dead body and seek a new host. Apparently it is possible for an exposed person to transmit typhus fever to a third party without the intermediate party acquiring the disease. (Reports of the medical inspectors.) It also seems probable that furniture moved from an infected house may be the means of conveying the disease to other houses. (Reports of the medical inspectors.) There is evidence indicating that the use of secondhand clothing purchased from itinerant dealers has been the origin of certain cases of typhus fever. The exact manner in which old clothing may convey the disease is not clear in all cases. Since the life of the louse rarely exceeds 45 days, and it is doubtful whether the disease is ever handed down through succeeding generations of lice, it becomes difficult to explain, on this basis, the occurrence of certain cases in which a considerable period of time has elapsed between the purchase of the clothes and the development of the first case of the fever.

It seems safe to predict that, should the standard of living continue to improve in Ireland, there will be no further visitations of the great typhus fever epidemics. However, the manner in which the disease may return during periods of misery and want has been illustrated in recent years by the extensive epidemics in certain countries of war-swept Europe. The small localized outbreaks of the disease which continue to occur in Ireland among families and communities in destitute circumstances indicate that, under favorable conditions, the disease is capable of reviving in epidemic form. In this respect the occurrence of typhus fever epidemics differs from the periodical or cyclical visitations of certain other diseases, such as the great pandemics of influenza.

Although an analysis of the available data relative to the sporadic cases indicates that such cases usually were widely separated both as to time and distance, and with no relationship to each other or to outbreaks of the disease, still, others were associated with disorders of an obscure nature or with diseases which were afterwards shown to be atypical cases of typhus fever, furnishing the intervening links between the typical cases. It is highly probable that the unrecognized cases greatly outnumber the recognized cases. In view of the mildness of the disease among children, and the difficulty of recognizing the atypical cases, both among children and adults, it seems justificable to assume that it is largely through such cases that the infection is kept alive.

SUMMARY AND CONCLUSIONS

The great typhus fever epidemics which have occurred in Ireland during the past have prevailed during periods of famine.

The incidence of the disease has declined with the improvement in the standard of living.

Undernourishment has been the most potent predisposing factor in acquiring the disease.

Because of the unrecognized cases, typhus fever has always been more prevalent in Ireland than the records indicate.

Typhus fever in Ireland presents as varied characteristics, clinically, as influenza.

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DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for August, 1927

The accompanying table is taken from the Statistical Bulletin for September, 1927, published by the Metropolitan Life Insurance Co., and presents the mortality experience of the industrial insurance department of the company for August, 1927, as compared with that for July and with that for August, 1926. The rates are based on a strength of approximately 18,000,000 insured persons in the United States and Canada.

The death rate for August for this group of persons was 8.1 per 1,000, as compared with 8 for the same month last year, this being the first month this year in which the death rate in this group exceeded that for the corresponding month of 1926. No significance is attached to this fact, however, as the difference is small and both rates are low.

Diphtheria is the only one of the four principal epidemic diseases of childhood to record an increase as compared with last year. The death rate for this disease has been higher every month this year than last year, though the 1927 year-to-date rate is low as compared with all preceding years excepting 1926.

While the typhoid fever death rate for August exceeded the rate for the same month last year, largely due to the Montreal outbreak, the rate for the United States shows improvement over last year as well as over all other years.

There were no notable changes, as compared with August, 1926, in any of the diseases of major numerical importance, with the

single exception of organic diseases of the heart, the death rate for which increased from 101.1 per 100,000 last year to 114.5 this year.

The death rate for diarrheal complaints was the lowest recorded since the industrial department began insuring infant lives.

The rate for automobile fatalities was higher than the rate recorded for August last year, but was the same as that for July, 1927.

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

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Death rate per 100,000 lives exposed [1]			
	August, 1927	July, 1927	August, 1926	Year 1926
Total, all causes	806.8	780.0	797.7	945.6
Typhoid fever	5.6	5.1	4.9	4.2
Measles	1.7	2.7	3.2	10.2
Scarlet fever	1.8	2.1	2.0	3.4
Whooping cough	7.0	6.1	8.0	9.6
Diphtheria	7.5	7.8	5.8	9.7
Influenza	4.5	6.2	5.0	31.1
Tuberculosis (all forms)	90.6	90.5	90.3	99.0
Tuberculosis of respiratory system	79.2	78.8	76.5	86.7
Cancer	74.3	65.6	73.4	73.7
Diabetes mellitus	15.4	13.7	13.2	16.7
Cerebral hemorrhage	44.6	46.8	45.9	55.6
Organic diseases of heart	114.6	111.5	101.1	134.3
Pneumonia (all forms)	38.2	43.4	36.5	98.2
Other respiratory diseases	11.2	12.1	10.4	13.0
Diarrhea and enteritis	35.9	24.5	50.4	29.8
Bright's disease (chronic nephritis)	61.0	60.3	59.2	73.5
Puerperal state	14.6	13.4	13.4	15.3
Suicides	8.7	7.9	6.8	7.7
Homicides	6.9	6.7	6.3	7.0
Other external causes (excluding suicides and homicides)	73.1	76.8	71.6	62.3
Traumatism by automobiles	19.7	19.7	15.9	16.8
All other causes	189.6	177.0	190.1	191.0

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

CASES OF POLIOMYELITIS REPORTED BY STATES FOR FIRST TWO WEEKS OF OCTOBER, 1925, 1926, AND 1927

The following table is a continuation of the table appearing in the Public Health Reports, October 7, 1927, page 2452, and also gives a comparison of the telegraphic reports for the first two weeks of October of the years 1925, 1926, and 1927:

Cases of poliomyelitis reported by State health officers October 2–15, 1927, compared with reports for the corresponding weeks of 1925 and 1926

State	Week ended—					
	Oct. 8, 1927	Oct. 9, 1926	Oct. 10, 1925	Oct. 15, 1927	Oct. 16, 1926	Oct. 17, 1925
Alabama	0	0	2	0	3	1
Arizona	5	0	0	6	0	1
Arkansas	1	1	0	13	2	1
California	36	3	17	26	3	10
Colorado	4	0	1	11	1	2
Connecticut	13	1	1	8	2	0
Delaware	0	2	0	0	0	0
District of Columbia	1	0	3		0	1
Florida	1	0	3	0	0	4
Georgia	10	0	0	0	0	1
Idaho	1	0		0	0	
Illinois	40	7	12	26	6	16
Indiana	9	3	1	13	3	7
Iowa	12	0	19	5	0	13
Kansas	15	4	5	26	5	5
Louisiana	0	0	1	1	0	0
Maine	13		1	12	0	0
Maryland	1	2	4	2	1	2
Massachusetts	115	6	12	78	3	5
Michigan	30	0	0	21	0	0
Minnesota	12	3	45	5	2	23
Mississippi	2	0	0	0	0	0
Missouri	18	2	6	20	1	5
Montana	2	3	0	2	0	2
Nebraska	10	0	6	13	0	11
New Jersey	14	1	3	9	1	3
New Mexico	13	0	1	15	0	0
New York	59	37	40	38	20	32
North Carolina	1	6	4	0	5	1
North Dakota		2	12		0	3
Ohio	76			77		
Oklahoma	10	1	4	13	2	1
Oregon	18	3	1	19	1	0
Pennsylvania	29	3		33	12	
Rhode Island	8			2		
South Carolina	2	4		3	7	
South Dakota	8	1		2	0	7
Tennessee	3	2		3	0	
Texas	15	0	0	10	0	0
Utah	4	0		2	0	
Vermont	4	1	3	1	0	5
Virginia	1	1	0	2	0	1
Washington	15	0	5	33	1	3
West Virginia	17	0	0	14	0	0
Wisconsin	12	0	22	12	3	14
Wyoming	1	0	0	3	1	1

PUBLIC HEALTH ENGINEERING ABSTRACTS

Report of the Committee on Communicable Disease Transmitted Through Milk. J. F. Shigley, H. C. Lawson, and H. E. Shroat. Pennsylvania Association of Dairy and Milk Inspectors, third annual report, 1927, pp. 68–71. (Abstract by R. S. Smith.)

The epidemics appearing in several communities during the past year have furnished direct evidence to substantiate the claim that untiring vigilance is necessary in the production of a clean milk supply. Advocates of more stringent inspection regulations should be given the hearty support of governing bodies in order that the health of the community may be properly safeguarded.

The committee states that continued support should be given all programs of public health education by all interested organizations. Advocates favoring measures intended to make certain measures less stringent have bid for favor during the year. We regret to state that some of these individuals occupy positions rating them as intelligent and influential. Efforts of these and their followers may temporarily interfere. But the facts concerning transmission of disease will eventually nullify such propaganda.

Considerable time is being spent on the problem of tuberculosis, especially as it relates to immunization. Conclusions reached thus far are such as to warrant the continued policy of slaughter of domestic animals affected.

The work of Carpenter, Evans, Polk, and others indicates that *Brucella abortus* and *Brucella melitenis* may be transmitted to man through milk which is contaminated either through the udder or through lack of precautions in handling.

Leersum reports the favorable results of the high-frequency current in the destruction of bacteria in milk. Where carbon electrodes are used, the antiscorbutic vitamin is not destroyed.

Experimental evidence supporting Pasteurization as a means of destroying tubercle bacilli is shown by the fact that milk raised to 62.5° C. and kept at this temperature for 30 minutes insured a noninfective product. It is interesting to note that where Pasteurization is required, the typhoid death rate is considerably less than where it is not generally enforced.

The work of Prucha and Brannon indicates that typhoid germs were active two years and four months after their introduction into ice cream kept in a hardening room the temperature of which, for the most part, was 4° F. above zero. The bacteria count varied from 51,000,000 at the beginning to 6,300 at the end of the test.

Pennsylvania has not been free from outbreaks of disease. Several outbreaks of typhoid are cited.

The committee concludes with the statement that it appreciates the growing interest in the production of a clean milk supply. Healthy and clean cows, clean stables and utensils, and medical inspection of employees are means of producing clean, wholesome milk.

Enforcing Pennsylvania Milk Laws. James W. Kellogg. Pennsylvania Association of Dairy and Milk Inspectors, third annual report, 1927, pp. 25–29. (Abstract by R. S. Smith.)

To the bureau of foods and chemistry of the Pennsylvania Department of Agriculture has been assigned the enforcement of the food laws, which have to do with the purity of food and the protection of the public health. The inspection of milk having to do with sanitary conditions, and also for the protection of the public health, comes under the provisions of the laws and ordinances assigned for enforcement to the State, municipal, and township departments of health.

In addition to the general food law, which applies to and regulates all foods, including milk and cream, and defines and prohibits adulteration and misbranding, there are the following specific regulations: The milk and cream law, fixing standards for butterfat and total solids and preventing adulteration by means of removing fat and addition of water; a law prohibiting the coloring and the preserving of milk and cream; the milk container law, which requires all milk sold for drinking purposes to be sold in original containers, and which is designed to prevent contamination and, therefore, to protect the public health; the filled milk law, which defines and fixes standards for evaporated and condensed whole milk and skimmed milk and prohibits the use of foreign fats; and the milk testing law, which is a comprehensive measure designed largely for the protection

of the producer by providing for the licensing of all milk plants and receiving stations, and for the employment of experienced and licensed testers and weighers and samplers to the end that producers will receive correct remuneration for the milk and cream they supply on the basis of accurate Babcock tests.

Food agents are assigned to food-inspection districts, and they purchase samples and institute action if violations occur. Three dairy experts are assigned to the enforcement of the milk testing law. These men are qualified to supervise the operation of plants handling milk and cream, and to see that the Babcock test is performed accurately.

One of the most important phases brought to the authors' attention was the sale, by a few plants, of milk under the name of so-called "Viscolized pasteurized milk." The process consisted of mixing homogenized cream separated from milk, again with the skimmed milk and passed through a second so-called viscolizer at a much lower presure, thereby resulting in a mixing process so that the milk is not at all viscolized or homogenized but is essentially homogenized cream and skimmed milk mixed together and then pasteurized. This process, no doubt, was designed for the express purpose of extending the cream line so that in the case of a quart bottle of milk the cream line is approximately 4¼ inches, giving the appearance of containing at least twice as much cream as is normally present in average milk. The unfairness of this trade practice is well recognized by all those having come in contact with it. The sale of such milk with a falsely extended cream line is a plain fraud on the consuming public and a direct violation of the general food law, as has been declared in a formal opinion by the Attorney General.

Recording Thermometers. Ralph E. Irwin. Pennsylvania Association of Dairy and Milk Inspectors, third annual report, 1927, pp. 43–57. (Abstract by R. S. Smith.)

Four years ago only a few recording thermometers were found in milk-treatment plants in Pennsylvania, and these were seldom correctly adjusted. To-day nearly every plant is equipped with approved and correctly adjusted instruments. Furthermore, many recorders are under the supervision of trained municipal inspectors or the care of service men employed by the manufacturer.

Information similar to that given for two preceding years is given under four heads as follows: (1) Requirements of the Pennsylvania Department of Health for the approval of recording thermometers; (2) list of manufacturers of recorders approved; (3) general statement of manufacturers concerning the construction and operation of recording thermometers; (4) instructions for use of recorders furnished by each manufacturer.

Municipal Cooperation in Milk Supervision. W. W. White. Pennsylvania Association of Dairy and Milk Inspectors, third annual report, 1927, pp. 64–67. (Abstract by R. S. Smith.)

In Pennsylvania there are nearly 1,000,000 dairy animals. Of the large volume of milk produced, it is estimated that the per capita consumption is less than one-half pint daily. The problem to be solved is how to increase the consumption of milk to double its present volume and to deliver the milk to the consumer in a clean, sweet, and safe condition.

The author calls attention to the different laws applying to State and municipal officials and the public, governing milk supplies, and to the fact that some laws are seldom applied except in an emergency. He discusses the question of State and county control, stating that there is not now an adequate State control and such is not even attempted, and also that there is no example of county control in the State.

It would seem that the municipality has been chosen by the legislature as the logical control unit in that each type of municipality has been given such au-

thority. Health work, including milk supervision in 110 boroughs, has been taken over by the Pennsylvania Department of Health. This was done because the boroughs were inactive or requested the State to assume control. Some progress has been made in regulating milk supplies in these boroughs and also in townships of the second class, but conditions are far from satisfactory, owing to inadequate regulations and other reasons. A number of municipalities are achieving creditable results by supervising their supplies under the advisory health board regulations of April 4, 1923.

Over 100 cities, boroughs, and townships of the first class have ordinances regulating the distribution of milk. Some of these ordinances are enforced through the service of trained inspectors and are giving almost ideal results. The writer states that the only worth-while supervision in the State at the present time is that carried on by municipalities, either individually or in groups, having ordinances providing reasonable regulations and authorizing the employment of trained inspectors.

A number of near-by municipalities may at present adopt similar ordinances and cooperate in the employment of a full-time trained inspector. This plan is simple and well worth study. Thus a multiplicity of licenses and rules is avoided. Uniformity means simplicity and less opportunity for misunderstandings, promotes fair competition, and prevents the shifting of supplies from town to town.

The author concludes with the statement: "The coordination of the many interests mentioned will not cause confusion but rather a mutual understanding that will lead to a final solution of the problem—an increased consumption of a clean, sweet, and safe milk supply."

Protection of Ontario Water Supplies. A. E. Berry. *Canadian Engineer*, vol. 52, No. 8, February 22, 1927, pp. 231–232. (Abstract by R. E. Thompson.)

The Ontario public health act, which is enforced by the provincial department of health, includes the following provisions: (1) Approval of all proposals for waterworks and sewerage installations, extensions, or alterations; (2) general supervision of all waters used for domestic, agricultural, or industrial purposes; (3) authority to collect returns from all waterworks systems; (4) right to give sanitary control over any defined watershed; (5) authority to issue mandatory orders for the installation or extension of a waterworks or sewerage system; (6) authority to investigate and report on stream pollution at the request of riparian owners. An experimental station is operated in Toronto, where facilities and equipment are available for research on problems associated with waterworks, sewerage, and general sanitation; and (8) branch laboratories are maintained in convenient centers in the Province for the examination of water samples. Sanitary surveys have been carried on in 177 municipalities, involving the examination of all water supplies and the collection of other data of sanitary significance. The information so obtained is plotted on a map of the municipality and forwarded with recommendations to the local officials. Annual inspections are made of tourist camps and refreshment booths; and in 1926, for the first time, certificates of approval were issued to those which conformed to the standards of the department. Regulations passed in 1921 prohibit direct connections between municipal water supplies and polluted fire or industrial supplies. It is required that a residual chlorine content be maintained in all swimming pool waters while in use. Experience has shown that these waters must be the equal of domestic supplies, and some agency must be present to immediately destroy infectious material given off by bathers.

An Ordinance for the Abatement of Nuisances. Publication No. 11, League of Minnesota Municipalities. *American City*, vol. 36, No. 2, February, 1927, pp. 199–200. (Abstract by D. W. Evans.)

This is a model ordinance for small towns and villages. Section 1 defines public nuisances; section 2 lists those nuisances affecting the health; section 3 lists those nuisances affecting morals and decency; section 4 lists those affecting peace and safety; and section 5 provides for the penalty for violation.

Report of Bureau of Sanitary Engineering, Maryland State Department of Health, 1926. 19 pages. (Abstract by I. W. Mendelsohn.)

State institutions.—The bureau carried out considerable waterworks and sewerage works improvements for State institutions, designing, estimating, and acting as general consulting engineers on the projects. The adequacy of existing works was investigated and estimates were prepared for additions.

Report on Municipal Sanitary Engineering Practice in Great Britain. H. W. Streeter. Public Health Bulletin No. 166, United States Public Health Service. 56 pages. (Abstract by Arthur P. Miller.)

This bulletin is the report of the trip of H. W. Streeter, sanitary engineer, United States Public Health Service, to Great Britain in June and July, 1926, under the joint auspices of the League of Nations and the British ministry of health. It covers also observations made on an additional inspection trip authorized by the Public Health Service.

Garbage Park, Oakland, Calif. W. W. Harmon, *American City*, vol. 36, No. 6, July, 1927, pp. 787–790. (Abstract by S. H. Smith.)

Oakland's garbage, formerly disposed of by dumping into the harbor in an attempt to make a sanitary fill, is now dumped 40 miles at sea. One and one-half acres of the sanitary fill has been beautified with trees, shrubs, flowers, and grass, all donated by citizens. Garbage is collected with teams and forty 5-ton wagons and with 22 trucks of 10 to 15 yards capacity. It is hauled to and dumped off the wharf into ten 5-yard bottom dump skips. Electric traveling cranes pick up the skips and dump them at the ends of their 8-foot booms directly into the bunkers of either of two ships. The ships' bunkers have sloping bottoms so that when the side doors are lifted the load slips easily into the sea, the period of unloading being three minutes. An actual cost of $1.10 per ton for disposing of garbage results in a net cost of 69 cents after deducting toll charges, which is a reduction of 87 cents per ton over the former methods. The new method has done away with insanitary conditions along the water front. The distance of 40 miles at sea was selected after trials showed some return of garbage to shore from dumps 25, 30, and 35 miles out.

Birmingham, England, Refuse and Salvage. Anon. *Surveyor*, vol. 71, No. 1845, June 3, 1927, p. 548. (Abstract by J. K. Hoskins.)

A brief summary of statistical data from the 1926–27 report of the Birmingham Corporation Salvage and Stables Committee is presented in this article. The output of refuse per 1,000 population per annum was 225½ tons, a yield that has been gradually reduced from that of former years (259 tons in 1924).

The net cost of the salvage department was 16s. 2.56d. per ton, or £206.42 per 1,000 population per annum. Fertilizer and feeding stuffs amounting to 3,671 tons were recovered, as well as 940 tons of manures and meals and 62 tons of fats.

Refuse Collection and Disposal in Sioux City and Elsewhere. W. H. Carrigg *American City*, vol. 36, No. 4, April, 1927, pp. 487–489. (Abstract by D. W. Evans.)

Collection and disposal of all garbage in Sioux City is handled by the municipality. The city covers an area of 47 square miles, has a population of 80,000, and collections are made twice weekly in the residential district and three times weekly in the congested districts. Horse-drawn wagons are used, each collector owning, maintaining, and operating his own wagon. Wagons are covered with tarpaulin when load is completed.

Householders are required to separate garbage and rubbish and wrap the former in paper. All cans must be carried to and from the curb by the owner. Collections are made regularly and punctually to eliminate unsightly heaps from standing over long periods. Regulation cards are issued to each householder and a system of warning is maintained when rules are infracted.

Rubbish is used to make fills and garbage is sold to a hog feeder at the rate of $250 per month. The longest haul is 5 miles and the average 2 miles. The system appears to be working satisfactorily, as indicated by the low number of complaints handled. Some facts regarding collection costs in other mid-western cities such as St. Louis, Kansas City, Omaha, Sioux Falls, St. Paul, Minneapolis, Duluth, and Winnipeg have been summarized in the article.

DEATHS DURING WEEK ENDED OCTOBER 15, 1927

Summary of information received by telegraph from industrial insurance companies for week ended October 15, 1927, and corresponding week of 1926. (From the Weekly Health Index, October 19, 1927, issued by the Bureau of the Census, Department of Commerce)

	Week ended Oct. 15, 1927	Corresponding week 1926
Policies in force	68, 985, 805	65, 563, 132
Number of death claims	9, 993	10, 241
Death claims per 1,000 policies in force, annual rate	7. 6	8. 1

Deaths from all causes in certain large cities of the United States during the week ended October 15, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926. (From the Weekly Health Index, October 15, 1927, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Oct. 15, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended Oct. 15, 1927 [2]
	Total deaths	Death rate [1]		Week ended Oct. 15, 1927	Corresponding week 1926	
Total (67 cities)	6,244	11.0	[3] 11.6	752	[3] 802	[4] 65
Akron	35			10	6	108
Albany [5]	40	17.4	8.8	4	0	83
Atlanta	56			6	9	
White	27			5	6	
Colored	29	([6])		1	3	
Baltimore [5]	225	14.3	13.4	46	34	142
White	164		11.5	32	23	123
Colored	61	([6])	24.5	14	11	218
Birmingham	48	11.6	14.9	3	9	
White	25		15.1	1	3	
Colored	23	([6])	14.5	2	6	
Boston	195	12.8	12.7	33	35	92
Buffalo	122	11.6	14.0	17	13	71
Cambridge	25	10.5	13.7	1	8	18
Camden	23	9.0	10.3	4	1	69
Canton	26	12.0	10.0	3	2	71
Chicago [5]	579	9.7	10.5	72	65	62
Cincinnati	116	14.7	12.8	11	26	69
Cleveland	141	7.5	11.3	8	27	21
Columbus	66	11.8	13.0	9	14	84

[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 66 cities.
[4] Data for 61 cities.
[5] Deaths for week ended Friday, Oct. 14, 1927.
[6] 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; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended October 15, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926—Continued.

City	Week ended Oct. 15, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended Oct. 15, 1927
	Total deaths	Death rate		Week ended Oct. 15, 1927	Corresponding week 1926	
Dallas	43	10.7	11.3	1	4	----
White	33	----	8.9	1	4	----
Colored	10	(6)	27.0	0	0	----
Dayton	37	10.7	8.8	5	6	82
Denver	89	16.0	14.6	8	9	----
Des Moines	30	10.5	10.4	2	7	33
Detroit	275	10.7	10.8	47	38	74
Duluth	16	7.3	9.7	0	2	0
El Paso	28	12.8	12.9	7	4	----
Erie	20	----	----	5	1	98
Fall River [5]	24	9.4	10.7	8	5	141
Flint	22	8.0	10.7	8	7	131
Fort Worth	21	6.7	6.6	4	4	----
White	15	----	7.1	3	3	----
Colored	6	(6)	2.7	1	1	----
Grand Rapids	32	10.5	11.7	7	5	103
Houston	43	----	----	4	3	----
White	27	----	----	4	3	----
Colored	16	(6)	----	0	0	----
Indianapolis	80	11.2	14.5	7	10	55
White	62	----	13.2	4	9	36
Colored	18	(6)	23.7	3	1	183
Jersey City	62	10.0	9.5	14	8	105
Kansas City, Kans	25	11.1	9.4	2	0	39
White	17	----	7.6	1	0	22
Colored	8	(6)	17.8	1	0	152
Kansas City, Mo	89	12.1	12.8	8	14	----
Knoxville	27	13.8	----	4	----	----
White	23	----	----	2	----	----
Colored	4	(6)	----	2	----	----
Los Angeles	245	----	----	22	13	63
Louisville	77	12.5	13.6	1	11	34
White	60	----	11.9	3	9	29
Colored	17	(6)	23.1	1	2	70
Lowell	30	14.2	16.5	5	8	96
Lynn	21	10.4	7.0	1	2	26
Memphis	62	18.1	23.9	7	7	----
White	39	----	19.7	4	4	----
Colored	23	(6)	31.4	3	3	----
Milwaukee	97	9.5	7.2	17	8	79
Minneapolis	89	10.5	9.1	10	6	56
Nashville [5]	28	10.6	19.0	4	8	----
White	16	----	14.9	3	3	----
Colored	12	(6)	29.4	1	5	----
New Bedford	23	10.0	7.9	1	1	17
New Haven	31	8.7	10.0	1	3	14
New Orleans	147	18.1	16.7	20	13	----
White	96	----	15.3	11	9	----
Colored	51	(6)	20.6	9	4	----
New York	1,181	10.3	11.2	119	143	49
Bronx Borough	143	8.1	9.5	12	13	38
Brooklyn Borough	414	9.5	10.1	47	56	49
Manhattan Borough	485	13.9	14.6	47	61	55
Queens Borough	108	7.0	7.6	10	11	43
Richmond Borough	31	11.0	11.3	3	2	56
Newark, N. J	88	9.8	10.1	10	12	50
Oakland	56	10.9	11.6	7	6	82
Oklahoma City	29	----	----	3	1	----
Omaha	56	13.3	11.3	3	7	33
Paterson	28	10.1	7.7	2	0	35
Philadelphia	430	11.0	11.7	51	62	68
Pittsburgh	143	11.6	12.1	21	24	73
Portland, Oreg	64	----	----	3	6	32
Providence	66	12.2	13.7	13	7	110
Richmond	43	11.7	17.1	4	6	53
White	28	----	13.6	2	4	40
Colored	15	(6)	25.6	2	2	76

[5] Deaths for week ended Friday, Oct. 14, 1927.

[6] 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; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended October 15, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926—Continued.

City	Week ended Oct. 15, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended Oct. 15, 1927
	Total deaths	Death rate		Week ended Oct. 15, 1927	Corresponding week 1926	
Rochester	68	10.9	10.1	9	11	76
St. Louis	187	11.6	12.1	8	10	
St. Paul	62	12.9	11.6	3	4	27
Salt Lake City [5]	34	13.0	11.4	9	6	137
San Antonio	30	7.4	8.9	3	8	
San Diego	30	13.6	17.5	1	2	21
San Francisco	137	12.4	14.3	8	7	50
Schenectady	10	5.6	12.3	2	1	60
Seattle	73			3	2	31
Somerville	19	9.7	7.3	2	2	72
Spokane	31	14.8	14.4	0	1	0
Springfield, Mass	34	12.1	12.2	3	3	46
Syracuse	33	8.7	15.8	4	7	51
Tacoma	26	12.7	9.3	4	0	95
Toledo	84	11.0	10.4	5	11	48
Trenton	36	13.7	11.7	3	7	52
Washington, D. C	104	10.0	12.6	25	12	145
White	68		9.9	13	7	110
Colored	36	(6)	20.7	12	5	220
Waterbury	15			2	3	47
Wilmington, Del	39	16.1	10.5	9	3	223
Worcester	35	9.4	10.8	3	4	36
Yonkers	26	11.4	9.4	4	4	91
Youngstown	37	11.4	9.8	4	8	56

[5] Deaths for week ended Friday, Oct. 14, 1927.

[6] 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; Louisville, 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 Week Ended October 22, 1927

DIPHTHERIA

	Cases
Alabama	143
Arizona	31
Arkansas	28
California	151
Colorado	26
Connecticut	29
Florida	30
Georgia	63
Idaho	1
Illinois	166
Indiana	46
Kansas	37
Louisiana	39
Maine	2
Maryland [1]	32
Massachusetts	106
Michigan	83
Minnesota	48
Mississippi	83
Missouri [2]	66
Montana	3
Nebraska	11
New Jersey	119
New Mexico	7
New York	205
North Carolina	159
Oklahoma [2]	141
Oregon	12
Pennsylvania	211
Rhode Island	14
South Carolina	88
South Dakota	6
Tennessee	43
Texas	72
Utah [1]	11
Vermont	4
Washington	10
West Virginia	34
Wisconsin	25
Wyoming	1

[1] Week ended Friday.
[2] Exclusive of Kansas City.

INFLUENZA

	Cases
Alabama	19
Arkansas	37
California	15
Colorado	1
Florida	7
Georgia	47
Illinois	13
Indiana	8
Kansas	8
Louisiana	10
Maine	2
Maryland [1]	11
Massachusetts	5
Minnesota	1
Missouri [2]	1
Nebraska	4
New Jersey	6
New Mexico	1
New York	6
Oklahoma [2]	52
Oregon	11
South Carolina	327
South Dakota	1
Tennessee	24
Texas	46
West Virginia	5
Wisconsin	31

MEASLES

Alabama	17
Arizona	1
Arkansas	4
California	43
Connecticut	2
Delaware	1
Florida	2
Georgia	21
Idaho	1
Illinois	35

[2] Exclusive of Oklahoma City and Tulsa.

MEASLES—continued

	Cases
Indiana	8
Kansas	32
Louisiana	6
Maine	18
Maryland [1]	13
Massachusetts	122
Michigan	24
Minnesota	4
Missouri [2]	6
Montana	2
Nebraska	1
New Jersey	15
New Mexico	186
New York	108
North Carolina	154
Oklahoma [3]	27
Oregon	9
Pennsylvania	206
Rhode Island	1
South Carolina	129
Tennessee	25
Texas	9
Utah [1]	4
Washington	30
West Virginia	3
Wisconsin	86
Wyoming	6

MENINGOCOCCUS MENINGITIS

Alabama	1
Arkansas	1
California	6
Connecticut	1
Florida	1
Illinois	7
Massachusetts	1
Michigan	2
Minnesota	1
Missouri [2]	1
Montana	1
New Jersey	2
New York	1
North Carolina	1
Oklahoma [3]	2
Oregon	1
Pennsylvania	6
Rhode Island	1
Texas	1
Utah [1]	1
Washington	1
West Virginia	1
Wisconsin	4

POLIOMYELITIS

Alabama	2
Arizona	4
Arkansas	2
California	32
Colorado	7
Connecticut	9
Georgia	1
Illinois	37
Indiana	11
Kansas	8

POLIOMYELITIS—continued

	Cases
Louisiana	2
Maine	13
Maryland [1]	2
Massachusetts	99
Michigan	18
Minnesota	8
Mississippi	2
Missouri [2]	7
Montana	2
Nebraska	5
New Jersey	11
New Mexico	7
New York	32
North Carolina	1
Oklahoma [3]	10
Oregon	31
Pennsylvania	45
Rhode Island	3
South Carolina	3
South Dakota	5
Tennessee	7
Texas	9
Vermont	7
Washington	22
West Virginia	17
Wisconsin	8
Wyoming	1

SCARLET FEVER

Alabama	16
Arizona	1
Arkansas	10
California	137
Colorado	45
Connecticut	30
Delaware	3
Florida	5
Georgia	23
Idaho	8
Illinois	149
Indiana	78
Kansas	62
Louisiana	10
Maine	35
Maryland [1]	26
Massachusetts	189
Michigan	114
Minnesota	70
Mississippi	27
Missouri [2]	49
Montana	8
Nebraska	87
New Jersey	46
New Mexico	14
New York	158
North Carolina	93
Oklahoma [3]	41
Oregon	13
Pennsylvania	265
Rhode Island	22
South Carolina	41
South Dakota	25
Tennessee	53
Texas	31

[1] Week ended Friday.
[2] Exclusive of Kansas City.
[3] Exclusive of Oklahoma City and Tulsa.

SCARLET FEVER—continued

	Cases
Utah [1]	8
Vermont	10
Washington	53
West Virginia	48
Wisconsin	64
Wyoming	10

SMALLPOX

Alabama	5
Arkansas	2
California	10
Colorado	2
Illinois	8
Indiana	2
Kansas	7
Louisiana	3
Michigan	10
Minnesota	1
Mississippi	1
Montana	22
Nebraska	1
New Mexico	3
New York	7
North Carolina	14
Oklahoma [2]	24
Oregon	8
South Carolina	4
South Dakota	10
Tennessee	6
Texas	1
Utah [1]	11
Washington	13
West Virginia	6
Wisconsin	10
Wyoming	1

TYPHOID FEVER

Alabama	50
Arizona	3

TYPHOID FEVER—continued

	Cases
Arkansas	15
California	16
Colorado	14
Connecticut	4
Delaware	2
Florida	19
Georgia	19
Idaho	1
Illinois	57
Indiana	10
Kansas	17
Louisiana	22
Maine	4
Maryland [1]	31
Massachusetts	16
Michigan	22
Minnesota	6
Mississippi	4
Missouri [2]	23
Montana	1
Nebraska	3
New Jersey	11
New Mexico	25
New York	59
North Carolina	16
Oklahoma [2]	70
Oregon	28
Pennsylvania	35
South Carolina	51
South Dakota	1
Tennessee	36
Texas	17
Utah [1]	6
Vermont	1
Washington	4
West Virginia	36
Wisconsin	6
Wyoming	1

[1] Week ended Friday.
[2] Exclusive of Kansas City.
[3] Exclusive of Oklahoma City and Tulsa.

Reports for Week Ended October 15, 1927

DIPHTHERIA

	Cases
District of Columbia	15
North Dakota	4

MEASLES

District of Columbia	2

MENINGOCOCCUS MENINGITIS

North Dakota	1

POLIOMYELITIS

	Cases
District of Columbia	2
North Dakota	1

SCARLET FEVER

District of Columbia	13
North Dakota	21

TYPHOID FEVER

District of Columbia	2
North Dakota	2

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
August, 1927										
Delaware	0	2	----	1	7	----	1	3	0	16
September, 1927										
Alabama	3	253	45	834	91	56	3	96	11	274
Colorado	1	104	----	1	22	----	18	83	5	61
Florida	3	74	7	30	10	4	7	24	13	29
Minnesota	12	177	----	----	17	----	89	289	2	25
New Jersey	6	330	8	1	25	----	155	179	6	73
New York	23	676	----	34	164	----	309	451	26	300
North Dakota	1	29	----	----	9	----	5	68	4	7
Tennessee	9	163	96	718	142	71	17	186	17	425
Vermont	0	8	----	----	39	----	4	31	9	10

August, 1927

Delaware: Cases

Anthrax	1
Chicken pox	5
Mumps	1
Ophthalmia neonatorum	1
Whooping cough	3

September, 1927

Anthrax:

Colorado	3
New York	1

Chicken pox:

Alabama	6
Colorado	19
Florida	2
Minnesota	57
New Jersey	90
New York	217
North Dakota	1
Tennessee	50
Vermont	40

Dengue:

Alabama	4
Florida	1

Dysentery:

Florida	6
New Jersey	2
New York	20
Tennessee	24

German measles:

New Jersey	11
New York	29

Hookworm disease:

Florida	105

Impetigo contagiosa:

Colorado	4

Lethargic encephalitis:

Alabama	4
Florida	1
Minnesota	3
New York	21
Tennessee	1

Mumps:

Alabama	28
Colorado	5
Florida	11
New York	305
Tennessee	10
Vermont	62

Ophthalmia neonatorum: Cases

New Jersey	6
New York	1

Paratyphoid fever:

Colorado	5
New Jersey	1
New York	8
Tennessee	4

Puerperal fever:

New York	13
Tennessee	4

Rabies in animals:

New York	7

Rabies in man:

New Jersey	1
New York	1

Rocky Mountain spotted or tick fever:

Colorado	1

Septic sore throat:

New York	4
Tennessee	5

Tetanus:

Colorado	1
Florida	2
Minnesota	2
New York	9

Trachoma:

Minnesota	8
New Jersey	9
New York	4

Tularaemia:

Minnesota	2

Typhus fever:

Alabama	14
Florida	4

Vincent's angina:

New York	77

Whooping cough:

Alabama	84
Colorado	61
Florida	20
Minnesota	99
New Jersey	458
New York	1,032
North Dakota	10
Tennessee	76
Vermont	77

PLAGUE PREVENTION WORK IN CALIFORNIA

Los Angeles.—The rodent division of the Los Angeles Board of Health reports 7,676 rodents collected and 4,474 examined in laboratory from August 21 to October 8, 1927. None was found plague infected during this period.

San Francisco.—The weekly reports of plague suppressive measures in California during the period August 21 to September 24, 1927, show a total of 4,138 rodents received and 3,617 examined. The last case of human plague was reported as occurring on July 17, 1927, in Contra Costa County. The last rodent infection was reported by the State board of health as occurring on August 10, 1927, in Contra Costa County.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 100 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of about 30,870,000. The estimated population of the 94 cities reporting deaths is more than 30,190,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended October 8, 1927, and October 9, 1926

	1927	1926	Estimated expectancy
Cases reported			
Diphtheria:			
40 States	2,130	1,931	----
100 cities	850	928	936
Measles:			
39 States	908	1,319	----
100 cities	238	181	----
Poliomyelitis:			
41 States	564	96	----
Scarlet fever:			
40 States	1,922	1,977	----
100 cities	611	648	577
Smallpox:			
40 States	176	127	----
100 cities	30	15	25
Typhoid fever:			
40 States	890	1,376	----
100 cities	148	195	179
Deaths reported			
Influenza and pneumonia:			
94 cities	407	384	----
Smallpox:			
94 cities	0	0	----

City reports for week ended October 8, 1927

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 nonepidemic 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 1918 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, 1925, 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	75,333	1	1	0	0	0	4	2	0
New Hampshire:									
Concord	22,546	0	0	0	0	0	0	0	0
Manchester	82,687	0	4	2	0	1	0	2	3
Vermont:									
Barre	10,008	0	0	0	0	0	0	0	0
Massachusetts:									
Boston	779,620		37	31	2	0	44		14
Fall River	128,993	0	4	4	0	0	1	0	1
Springfield	142,065	0	2	7	0	0	0	2	0
Worcester	190,757	4	6	4	0	0	0	1	1
Rhode Island:									
Pawtucket	69,760	0	1	4	0	0	0	0	1
Providence	267,918	0	4	4	0	1	1	0	3
Connecticut:									
Bridgeport	(1)	3	8	7	1	1	0	0	1
Hartford	160,197	0	5	6	0	0	0	0	9
New Haven	178,927	0	3	0	0	0	1	3	5
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	11	16	8		1	2	3	5
New York	5,873,356	26	110	143	4	7	23	12	87
Rochester	316,786	0	8	6		2	1	2	3
Syracuse	182,003	4	7	2		0	5	0	4
New Jersey:									
Camden	128,642	14	6	3	0	0	0	0	4
Newark	452,513	4	9	22	5	0	3	17	5
Trenton	132,020	0	4	1	0	0	0	0	4
Pennsylvania:									
Philadelphia	1,979,364	8	52	51		2	3	15	15
Pittsburgh	631,563	6	28	26		1	77	5	17
Reading	112,707	4	2	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,338	4	13	6	0	0	2	0	4
Cleveland	936,485	10	41	47	4	0	1	10	11
Columbus	279,836	1	7	5	4	1	0	1	2
Toledo	287,380	5	13	3	1	1	9	2	2
Indiana:									
Fort Wayne	97,846	0	3	11	0	0	0	0	2
Indianapolis	358,819	3	13	12	0	0	2	12	10
South Bend	80,091	0	2	1	0	0	1	0	1
Terre Haute	71,071	0	1	1	0	0	0	0	0
Illinois:									
Chicago	2,995,239	14	78	62	4	0	4	11	33
Springfield	63,923	1	2	1	0	0	0	2	0
Michigan:									
Detroit	1,245,824	19	60	54	1	0	1	10	15
Flint	130,316	2	11	8	0	0	0	7	1
Grand Rapids	153,698	0	5	0	0	0	3	0	1

[1] No estimate made.

City reports for week ended October 8, 1927—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									
Wisconsin:									
Kenosha	50,891	3	1	0	0	0	0	6	0
Madison	46,385	2	1	0	0	0	0	0	1
Milwaukee	509,192	16	15	5	0	0	3	8	7
Racine	67,707	0	2	2	0	0	0	0	0
Superior	39,671	0	1	1	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	4	2	1	0	0	1	0	0
Minneapolis	425,435	21	27	19	0	0	0	3	6
St. Paul	246,001	10	18	3	0	0	0	5	7
Iowa:									
Davenport	52,469	0	2	1	0	-------	0	0	-------
Des Moines	141,441	0	8	0	0	-------	0	0	-------
Sioux City	76,411	2	2	0	0	-------	0	0	-------
Waterloo	36,771	0	0	0	0	-------	0	0	-------
Missouri:									
Kansas City	367,481	4	9	4	1	2	1	7	4
St. Joseph	78,342	1	2	2	0	0	0	0	1
St. Louis	821,543	1	40	28	0	0	2	0	-------
North Dakota:									
Fargo	26,403	2	0	0	0	0	0	1	0
Grand Forks	14,811	1	0	0	0	-------	0	0	-------
South Dakota:									
Aberdeen	15,036	0	0	0	0	-------	0	1	-------
Sioux Falls	30,127	0	0	0	0	-------	0	0	-------
Nebraska:									
Lincoln	60,941	5	1	4	0	0	0	3	0
Omaha	211,768	1	14	1	0	0	1	0	1
Kansas:									
Topeka	55,411	0	1	8	0	0	0	0	1
Wichita	88,367	1	3	7	0	0	1	1	0
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	0	2	2	0	0	0	0	2
Maryland:									
Baltimore	796,296	11	22	30	2	1	2	1	12
Cumberland	33,741	0	1	0	0	0	0	0	1
Frederick	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	497,906	0	12	22	1	0	3	0	7
Virginia:									
Lynchburg	30,305	0	2	5	0	0	0	0	0
Norfolk	(1)	1	3	1	0	0	0	1	2
Richmond	186,403	0	20	15	0	1	0	0	1
Roanoke	58,208	0	6	3	0	0	2	0	0
West Virginia:									
Charleston	49,019	0	2	0	0	0	0	0	0
Wheeling	56,208	3	2	2	0	0	3	0	2
North Carolina:									
Raleigh	30,371	0	5	2	0	0	0	0	0
Wilmington	37,061	0	1	0	0	0	1	0	0
Winston-Salem	69,031	0	5	0	0	0	3	0	1
South Carolina:									
Charleston	73,125	0	1	1	17	0	0	0	0
Columbia	41,225	0	2	0	0	-------	1	0	4
Greenville	27,311	0	2	0	0	0	0	0	0
Georgia:									
Atlanta	(1)	2	8	6	6	0	2	2	2
Brunswick	16,809	0	0	0	0	0	0	0	0
Savannah	93,134	-------	2	-------	-------	-------	-------	-------	-------
Florida:									
Miami	69,754	1	-------	0	0	-------	0	1	-------
St. Petersburg	26,847	-------	0	-------	-------	0	-------	-------	0
Tampa	94,743	0	1	4	0	0	0	2	1

City reports for week ended October 8, 1927—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	58,309	0	2	0	0	0	0	0	3
Lexington	46,895	0	----	1	0	0	0	0	2
Louisville	305,935	0	10	4	0	0	0	0	7
Tennessee:									
Memphis	174,533	0	7	3	0	1	11	0	2
Nashville	136,220	0	5	4	0	0	0	0	3
Alabama:									
Birmingham	205,670	0	8	12	0	1	0	0	1
Mobile	65,955	0	2	2	0	0	0	0	0
Montgomery	46,481	0	3	5	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	0	2	0	0	----	0	0	----
Little Rock	74,216	0	2	1	0	0	1	0	0
Louisiana:									
New Orleans	414,493	1	8	9	1	2	0	0	5
Shreveport	57,857	2	0	6	0	0	0	1	1
Oklahoma:									
Oklahoma City	(1)	0	3	2	3	0	1	0	5
Tulsa	124,478	0	----	1	0	----	0	0	----
Texas:									
Dallas	194,450	0	9	15	0	0	0	0	2
Galveston	48,375	0	0	1	0	0	0	0	0
Houston	164,954	0	3	9	0	0	0	0	4
San Antonio	196,089	0	1	6	0	0	1	0	4
MOUNTAIN									
Montana:									
Billings	17,971	0	0	0	0	0	0	0	0
Great Falls	29,883	1	1	0	0	0	0	0	1
Helena	12,087	0	0	0	0	0	0	0	0
Missoula	12,668	0	0	0	0	0	1	0	1
Idaho:									
Boise	23,042	1	0	0	0	0	0	5	0
Colorado:									
Denver	280,911	14	17	6	----	3	2	1	6
Pueblo	43,787	1	3	2	0	1	0	1	0
New Mexico:									
Albuquerque	21,000	2	1	1	0	0	0	0	1
Utah:									
Salt Lake City	130,948	15	4	6	0	1	0	0	0
Nevada:									
Reno	12,065	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	(1)	10	7	1	0	----	0	0	----
Spokane	106,897	7	4	0	0	----	0	0	----
Tacoma	104,455	2	4	2	0	1	2	0	1
Oregon:									
Portland	282,383	2	8	6	0	1	5	0	3
California:									
Los Angeles	(1)	1	36	23	14	0	1	7	14
Sacramento	72,200	2	3	1	0	0	0	0	2
San Francisco	557,580	16	16	11	0	0	5	3	3

[1] No estimate made.

City reports for week ended October 8, 1927—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	1	1	0	0	0	0	1	1	0	2	17
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	0	6
Manchester	1	2	0	0	0	0	0	0	0	0	27
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	0
Massachusetts:											
Boston	24	38	0	0	0	8	3	7	0	----	214
Fall River	1	1	0	0	0	1	2	0	1	1	32
Springfield	4	2	0	0	0	2	0	0	0	3	32
Worcester	6	9	0	0	0	2	0	0	0	5	47
Rhode Island:											
Pawtucket	0	0	0	0	0	1	0	0	0	0	15
Providence	3	6	0	0	0	1	1	2	0	0	64
Connecticut:											
Bridgeport	3	1	0	0	0	1	0	0	0	0	22
Hartford	2	1	0	0	0	1	2	0	0	1	38
New Haven	3	1	0	0	0	0	2	0	0	3	38
MIDDLE ATLANTIC											
New York:											
Buffalo	11	16	0	0	0	4	2	0	0	6	116
New York	80	110	0	0	0	[1] 68	35	31	1	110	1,158
Rochester	4	6	1	0	0	1	1	3	0	1	60
Syracuse	5	2	0	0	0	3	2	0	0	6	44
New Jersey:											
Camden	3	0	0	0	0	1	2	0	0	0	22
Newark	6	4	0	0	0	5	2	4	0	41	96
Trenton	0	2	0	0	0	4	0	0	0	1	57
Pennsylvania:											
Philadelphia	36	42	1	0	0	24	15	4	2	40	400
Pittsburgh	25	21	0	0	0	9	3	1	0	9	130
Reading	1	1	0	0	0	0	1	0	0	2	13
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	8	0	1	2	0	5	1	4	0	2	107
Cleveland	18	10	0	0	0	16	3	1	0	22	171
Columbus	6	13	1	0	0	2	1	1	0	0	36
Toledo	8	8	0	0	0	5	2	1	0	5	----
Indiana:											
Fort Wayne	1	4	0	0	0	2	0	0	0	3	17
Indianapolis	6	17	1	0	0	0	2	7	0	2	80
South Bend	2	1	0	0	0	2	0	0	0	2	11
Terre Haute	1	1	0	0	0	0	0	0	0	0	19
Illinois:											
Chicago	55	31	1	0	0	41	7	4	0	22	638
Springfield	2	2	0	0	0	1	1	1	0	0	19
Michigan:											
Detroit	45	32	2	0	0	11	6	5	0	71	232
Flint	7	18	0	0	0	0	0	2	0	2	26
Grand Rapids	5	7	0	0	0	0	1	0	0	0	24
Wisconsin:											
Kenosha	1	1	0	0	0	1	0	0	0	2	7
Madison	0	3	0	0	0	0	0	0	0	0	5
Milwaukee	16	10	1	0	0	5	1	0	0	11	120
Racine	3	1	1	0	0	0	0	0	0	3	----
Superior	1	5	0	0	0	0	1	1	0	0	3
WEST NORTH CENTRAL											
Minnesota:											
Duluth	5	1	0	0	0	2	0	2	0	2	16
Minneapolis	20	13	1	0	0	5	1	3	0	1	90
St. Paul	13	7	2	0	0	3	2	0	0	1	49
Iowa:											
Davenport	0	1	0	0	----	----	0	0	----	0	----
Des Moines	5	6	0	2	----	2	0	0	----	0	28
Sioux City	1	0	0	0	----	----	0	0	----	0	----
Waterloo	2	0	0	0	----	----	0	0	----	1	----

[1] Pulmonary tuberculosis only.

City reports for week ended October 8, 1927—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	7	8	0	0	0	4	3	3	1	2	75
St. Joseph	3	2	0	6	0	0	0	0	0	0	23
St. Louis	21	10	0	1	0	12	6	5	0	13	220
North Dakota:											
Fargo	1	3	0	0	0	0	0	0	0	0	4
Grand Forks	1	1	0	0	---	---	0	0	---	0	---
South Dakota:											
Aberdeen	2	1	0	0	---	---	0	0	---	0	---
Sioux Falls	1	0	0	0	---	---	0	0	---	0	5
Nebraska:											
Lincoln	1	0	0	0	0	0	0	0	0	5	15
Omaha	3	2	0	0	0	3	1	0	0	0	34
Kansas:											
Topeka	2	3	0	0	0	0	1	0	1	4	15
Wichita	2	5	1	0	0	1	1	1	0	0	22
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	0	0	0	0	0	1	0	0	0	22
Maryland:											
Baltimore	9	11	0	0	0	7	10	7	0	15	209
Cumberland	0	1	0	0	0	0	0	0	0	0	15
Frederick	1	0	0	0	0	0	0	0	0	0	1
District of Col.:											
Washington	9	11	0	0	0	7	4	4	0	1	124
Virginia:											
Lynchburg	1	0	0	0	0	0	1	4	0	1	6
Norfolk	1	1	0	0	0	3	1	0	0	19	---
Richmond	7	8	0	0	0	7	1	1	0	0	57
Roanoke	2	4	0	0	0	0	1	0	0	0	11
West Virginia:											
Charleston	2	4	0	0	0	1	1	2	0	0	13
Wheeling	4	2	0	0	0	0	1	0	0	3	17
North Carolina:											
Raleigh	2	2	0	0	0	2	0	0	0	0	8
Wilmington	1	0	0	0	0	0	0	0	0	1	17
Winston-Salem	2	2	1	0	0	2	1	1	1	0	15
South Carolina:											
Charleston	0	1	0	0	0	2	1	1	1	0	26
Columbia	1	2	0	1	---	2	1	2	---	0	22
Greenville	1	1	0	0	0	1	0	1	0	0	5
Georgia:											
Atlanta	6	13	0	1	0	3	2	2	1	4	64
Brunswick	0	0	0	0	0	1	0	0	0	5	7
Savannah	1	---	0	---	---	---	1	---	---	---	---
Florida:											
Miami	---	2	---	0	---	---	---	1	---	0	---
St. Petersburg	0	---	0	---	0	0	0	---	0	---	5
Tampa	0	5	0	0	0	1	0	0	0	0	30
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	1	0	0	0	2	1	0	0	0	20
Lexington	---	0	---	0	0	0	---	0	0	0	12
Louisville	3	4	0	0	0	3	5	0	0	3	66
Tennessee:											
Memphis	3	5	0	0	0	5	4	1	0	0	74
Nashville	4	0	0	0	0	0	3	1	0	0	33
Alabama:											
Birmingham	5	2	1	0	0	1	3	1	2	1	54
Mobile	1	0	0	0	0	0	0	0	0	0	21
Montgomery	1	1	0	0	0	0	0	1	0	0	---
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0	---	---	0	2	---	1	---
Little Rock	1	2	0	0	0	6	1	0	0	0	---
Louisiana:											
New Orleans	3	4	0	0	0	20	3	3	0	1	158
Shreveport	0	1	0	0	0	2	0	1	0	0	23

City reports for week ended October 8, 1927—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											
Oklahoma:											
Oklahoma City	2	2	0	2	0	0	2	3	0	0	24
Tulsa		2		0				1		0	
Texas:											
Dallas	3	6	0	1	0	2	2	7	1	5	35
Galveston	0	0	0	0	0	1	0	0	0	0	9
Houston	0	2	0	0	0	5	0	2	0	0	58
San Antonio	1	1	0	0	0	9	1	2	1	0	58
MOUNTAIN											
Montana:											
Billings	0	1	0	1	0	0	0	0	0	1	9
Great Falls	1	1	0	0	0	1	0	0	0	0	9
Helena	0	0	0	3	0	0	0	0	0	0	3
Missoula	0	0	1	1	0	0	0	0	0	0	3
Idaho:											
Boise	0	0	0	0	0	0	0	0	0	0	6
Colorado:											
Denver	6	6	0	0	0	11	2	2	1	9	78
Pueblo	0	5	0	0	0	0	1	2	0	0	11
New Mexico:											
Albuquerque	1	0	0	0	0	3	2	0	0	0	10
Utah:											
Salt Lake City	2	1	0	1	0	0	3	2	1	7	20
Nevada:											
Reno	1	0	0	0	0	0	0	0	0	0	1
PACIFIC											
Washington:											
Seattle	8	4	1	0			2	0		4	
Spokane	5	1	2	10			2	0		2	
Tacoma	2	1	0	0	0	0	1	0	0	3	16
Oregon:											
Portland	7	7	3	4	0	4	2	2	0	4	45
California:											
Los Angeles	10	7	3	0	0	13	4	0	0	18	276
Sacramento	1	2	1	1	0	0	1	1	0	2	24
San Francisco	7	14	1	1	0	5	1	2	0	6	157

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									
Maine:									
Portland	0	1	0	0	0	0	0	1	0
Massachusetts:									
Boston	0	0	0	0	2	1	2	35	4
Springfield	0	0	0	0	0	0	0	1	1
Worcester	0	0	0	0	0	0	1	5	0
Rhode Island:									
Pawtucket	0	0	0	0	0	0	0	1	0
Providence	1	1	0	1	0	0	0	4	0
Connecticut:									
Hartford	0	0	0	0	0	0	0	1	0
MIDDLE ATLANTIC									
New York:									
New York	0	1	11	0	0	0	14	32	3
New Jersey:									
Newark	0	0	0	0	0	0	0	2	0
Pennsylvania:									
Philadelphia	0	0	0	0	0	0	1	1	1
Pittsburgh	0	0	0	0	0	0	1	0	1

City reports for week ended October 8, 1927—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:									
Cincinnati	0	0	0	0	0	0	0	6	0
Cleveland	0	0	7	0	0	0	1	2	1
Toledo	0	0	0	0	0	0	1	1	0
Indiana:									
Indianapolis	0	1	0	0	0	0	0	0	0
Illinois:									
Chicago	1	2	0	0	1	1	4	11	1
Michigan:									
Detroit [1]	0	0	0	0	0	0	1	3	1
Wisconsin:									
Milwaukee	4	2	0	0	0	0	0	1	1
Racine	0	0	0	0	0	0	0	2	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	0	0	0	0	0	0	0	0	1
Minneapolis	3	1	0	0	0	0	0	1	0
Iowa:									
Sioux City	0	----	0	----	0	----	0	1	----
Waterloo	0	----	0	----	0	----	0	1	----
Missouri:									
Kansas City	0	0	0	0	0	0	1	4	1
St. Louis	0	0	0	0	0	0	1	1	0
South Dakota:									
Sioux Falls	0	----	0	----	0	----	0	1	----
Nebraska:									
Omaha	0	0	0	0	0	0	1	2	1
Kansas:									
Topeka	0	0	0	0	0	0	0	1	1
Wichita	0	0	0	0	0	0	0	3	2
SOUTH ATLANTIC									
Maryland:									
Baltimore	1	1	0	1	0	0	1	0	0
District of Columbia:									
Washington	0	0	0	0	0	0	0	1	0
Virginia:									
Lynchburg	0	0	0	0	0	0	0	0	1
Roanoke	0	0	0	0	0	0	0	1	0
West Virginia:									
Wheeling	0	0	0	0	0	0	0	4	1
North Carolina:									
Winston-Salem	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston [2]	0	0	0	0	2	2	0	0	0
Columbia	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta [3]	0	0	0	0	2	2	0	2	0
Brunswick	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville	0	0	0	0	0	0	0	1	0
Tennessee:									
Nashville	0	0	0	0	0	0	0	2	0
Alabama:									
Birmingham	0	0	0	0	1	1	0	0	0

[1] Rabies (human), 1 death at Detroit, Mich.
[2] Dengue: 7 cases at Charleston, S. C.
[3] Typhus fever: 1 case at Atlanta, Ga.

City reports for week ended October 8, 1927—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	4	0	1	0
Louisiana:									
New Orleans	0	0	0	0	5	1	0	0	0
Texas:									
Dallas	0	0	0	0	1	1	0	1	0
Houston	0	0	0	0	0	0	0	1	0
San Antonio	1	0	0	0	0	0	0	0	0
MOUNTAIN									
Montana:									
Great Falls	0	0	0	0	0	0	0	1	0
Missoula	1	0	0	0	0	0	0	1	0
Colorado:									
Denver	1	0	0	0	0	0	0	2	1
New Mexico:									
Albuquerque	0	0	0	0	0	0	0	1	0
Utah:									
Salt Lake City	0	0	0	0	0	0	0	2	1
PACIFIC									
Washington:									
Seattle	1	----	0	----	0	----	1	0	----
Spokane	3	----	0	----	0	----	0	0	----
Tacoma	0	0	0	0	0	0	0	14	1
Oregon:									
Portland	0	0	0	0	0	0	0	2	0
California:									
Los Angeles	2	2	0	0	0	0	1	5	0
Sacramento	0	0	0	0	1	1	0	2	0
San Francisco	1	0	1	0	0	0	0	0	0

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended October 8, 1927, compared with those for a like period ended October 9, 1926. The population figures used in computing the rates are approximate estimates as of July 1, 1926 and 1927, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had estimated aggregate populations of approximately 30,445,000 in 1926 and 30,966,000 in 1927. The 95 cities reporting deaths had nearly 29,785,000 estimated population in 1926 and nearly 30,296,000 in 1927. 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, September 4 to October 8, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Sept. 11, 1926	Sept. 10, 1927	Sept. 18, 1926	Sept. 17, 1927	Sept. 25, 1926	Sept. 24, 1927	Oct. 2, 1926	Oct. 1, 1927	Oct. 9, 1926	Oct. 8, 1927
101 cities	75	94	84	101	107	[2] 103	127	[3] 129	159	[4] 144
New England	38	93	35	53	73	91	66	109	66	132
Middle Atlantic	53	90	63	106	70	96	81	123	119	129
East North Central	78	90	95	82	128	105	133	[5] 130	188	158
West North Central	75	64	95	125	127	87	143	123	177	145
South Atlantic	136	109	110	112	127	105	162	165	214	[4] 174
East South Central	103	107	109	117	134	82	269	66	253	153
West South Central	86	151	77	138	69	206	210	197	176	197
Mountain	173	153	237	225	137	234	292	[6] 143	173	126
Pacific	91	92	99	92	212	[2] 72	174	120	198	99

MEASLES CASE RATES

101 cities	27	20	28	20	38	[2] 27	37	[3] 26	31	[4] 40
New England	35	63	19	30	38	39	21	53	33	118
Middle Atlantic	11	16	10	14	9	30	10	33	11	56
East North Central	20	15	23	18	24	18	25	[5] 13	29	11
West North Central	10	10	12	28	28	20	10	6	26	12
South Atlantic	19	14	9	14	11	36	13	29	15	[4] 32
East South Central	16	10	16	10	10	15	5	20	5	56
West South Central	4	17	4	17	0	0	0	4	0	8
Mountain	100	36	73	45	118	45	109	[6] 0	109	27
Pacific	158	34	212	45	308	[2] 53	327	47	179	45

SCARLET FEVER CASE RATES

101 cities	58	52	65	69	79	[2] 67	100	[3] 84	111	[4] 103
New England	80	53	75	102	71	123	104	102	144	139
Middle Atlantic	32	30	44	46	56	42	51	59	57	101
East North Central	61	65	60	89	80	69	98	[5] 102	120	102
West North Central	93	91	129	87	153	60	198	79	216	107
South Atlantic	56	60	48	78	78	107	110	107	99	[4] 127
East South Central	109	97	119	46	83	46	98	117	145	66
West South Central	47	46	30	42	52	50	69	105	69	67
Mountain	73	54	82	99	118	153	319	[6] 72	301	126
Pacific	88	31	118	55	118	[2] 75	174	76	158	76

SMALLPOX CASE RATES

101 cities	2	4	2	5	3	[2] 6	1	[3] 4	3	[4] 5
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	2	3	0	0	1	1	0	[5] 1	1	1
West North Central	2	12	0	22	2	8	2	12	2	14
South Atlantic	2	2	9	4	6	0	4	4	0	[4] 4
East South Central	0	10	0	0	0	10	0	0	10	0
West South Central	0	4	4	4	13	0	0	8	4	4
Mountain	0	9	0	27	0	162	9	[6] 108	9	54
Pacific	16	13	19	37	19	[2] 22	5	24	19	31

[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, 1926 and 1927, respectively.
[2] Tacoma, Wash., not included.
[3] Kenosha, Wis., and Denver, Colo., not included.
[4] Savannah, Ga., not included.
[5] Kenosha, Wis., not included.
[6] Denver, Colo., not included.

Summary of weekly reports from cities, September 4 to October 8, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Sept. 11, 1926	Sept. 10, 1927	Sept. 18, 1926	Sept. 17, 1927	Sept. 25, 1926	Sept. 24, 1927	Oct. 2, 1926	Oct. 1, 1927	Oct. 9, 1926	Oct. 8, 1927
101 cities	45	30	53	33	44	[2] 28	42	[2] 19	33	[4] 25
New England	17	39	33	46	9	63	17	12	17	23
Middle Atlantic	34	27	55	37	45	24	28	18	27	21
East North Central	20	7	29	16	26	10	33	[6] 8	23	17
West North Central	50	32	26	24	26	14	40	20	22	28
South Atlantic	104	58	80	31	91	45	114	20	76	[4] 47
East South Central	284	112	248	153	165	87	129	117	145	20
West South Central	39	75	69	38	77	71	47	17	21	71
Mountain	18	63	82	36	36	36	82	[6] 54	64	54
Pacific	27	8	35	16	21	[2] 14	19	18	21	8

INFLUENZA DEATH RATES

95 cities	4	4	4	5	6	[3] 3	6	[3] 6	4	[4] 5
New England	0	5	0	0	5	0	2	0	0	5
Middle Atlantic	4	3	3	4	3	2	2	4	3	6
East North Central	4	4	3	2	3	1	5	[5] 5	2	1
West North Central	0	0	4	4	8	2	0	8	6	4
South Atlantic	9	6	6	9	9	11	9	4	6	[4] 4
East South Central	0	10	5	0	10	10	10	25	5	10
West South Central	18	13	22	17	22	9	35	22	13	9
Mountain	36	9	0	9	9	0	18	[6] 0	18	45
Pacific	0	7	7	10	7	[2] 0	7	7	0	3

PNEUMONIA DEATH RATES

95 cities	51	62	53	60	65	[3] 59	69	[3] 56	64	[4] 65
New England	40	65	54	39	75	70	87	58	33	81
Middle Atlantic	65	67	51	60	70	70	71	62	76	71
East North Central	37	59	40	53	45	44	59	[5] 41	54	58
West North Central	30	44	51	46	55	25	70	33	63	42
South Atlantic	44	50	55	77	79	66	66	66	61	[4] 59
East South Central	41	112	52	102	98	82	109	87	83	82
West South Central	97	66	115	60	93	69	66	95	68	69
Mountain	64	90	118	99	86	54	155	[6] 72	55	72
Pacific	57	52	53	86	78	[2] 63	28	45	53	69

[2] Tacoma, Wash., not included.
[3] Kenosha, Wis., and Denver, Colo., not included.
[4] Savannah, Ga., not included.
[5] Kenosha, Wis., not included.
[6] Denver, Colo., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1926 and 1927, 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	
			1926	1927	1926	1927
Total	101	95	30, 443, 800	30, 908, 700	29, 783, 700	30, 295, 900
New England	12	12	2, 211, 000	2, 245, 900	2, 211, 000	2, 245, 900
Middle Atlantic	10	10	10, 457, 000	10, 567, 000	10, 457, 000	10, 567, 000
East North Central	16	16	7, 650, 200	7, 810, 600	7, 650, 200	7, 810, 600
West North Central	12	10	2, 585, 500	2, 626, 600	2, 470, 600	2, 516, 000
South Atlantic	21	20	2, 799, 500	2, 878, 100	2, 757, 700	2, 835, 700
East South Central	7	7	1, 008, 300	1, 022, 500	1, 008, 300	1, 022, 500
West South Central	8	7	1, 213, 800	1, 243, 300	1, 181, 500	1, 210, 400
Mountain	9	9	572, 100	580, 000	572, 100	580, 000
Pacific	6	4	1, 946, 400	1, 991, 700	1, 475, 300	1, 512, 800

FOREIGN AND INSULAR

THE FAR EAST

Report for week ended October 1, 1927.—The following report for the week ended October 1, 1927, 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:

Maritime towns	Plague		Cholera		Smallpox		Maritime towns	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Iraq: Basra	0	0	0	0	2	2	Dutch East Indies:						
Ceylon: Colombo	2	1	0	0	0	0	Banjermasin	0	0	0	0	29	0
British India:							French Indo-China:						
Tuticorin	----	0	1	1	0	0	Turane	0	0	3	4	0	0
Negapatam	----	0	----	0	1	1	China:						
Madras	----	0	----	3	3	0	Amoy	0	0	10	----	0	0
Calcutta	----	0	----	15	3	2	Shanghai (Int. S.)	0	0	----	6	0	0
Bassein	----	1	----	0	0	0	Canton	0	0	6	6	0	0
Rangoon	----	3	----	3	2	1	Tientsin	0	0	2	0	0	0
Siam: Bangkok	0	0	3	3	0	0	Kwangtung: Dairen [1]	0	0	0	0	0	0
Straits Settlements:													
Singapore	0	0	0	0	1	0							

[1] 1 cholera carrier was found during the week.

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

ASIA

Aden Protectorate.—Perim, Kamaran.
Arabia.—Bahrein.
Persia.—Bender-Abbas, Bushire, Lingah.
India.—Karachi, Chittagong, Cochin, Moulmein.
Portuguese India.—Nova Goa.
Federated Malay States.—Port Swettenham.
Straits Settlements.—Penang.
Dutch East Indies.—Batavia, Pontianak, Semarang, Cheribon, Padang, Belawan-Deli, Tarakan, Palembang, Menado, Sabang, Surabaya, Makassar, Balikpapan.
Sarawak.—Kuching.
British North Borneo.—Sandakan, Jesselton, Kudat, Tawao.
Portuguese Timor.—Dilly.
Philippine Islands.—Iloilo, Jolo, Cebu, Zamboanga, Manila.
French Indo-China.—Haiphong, Saigon and Cholon.
China.—Tsingtao.
Hong Kong.
Macao.
Wei-hai-wei.
Formosa.—Keelung, Takao.
Chosen.—Chemulpo, Fusan.
Manchuria.—Yingkow, Antung, Harbin, Mukden, Changchun, Newchang.
Kwantung.—Port-Arthur, Dairen.
Japan.—Nagasaki, Yokohama, Niigata, Shimonoseki, Moji, Tsuruga, Kobe, Osaka, Hakodate.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island, Cairns, Port Moresby.
New Guinea.—Port Moresby.
New Britain Mandated Territory.—Rabaul and Kokopo.
New Zealand.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.
Western Samoa.—Apia.
New Caledonia.—Nouméa.
Fiji.—Suva.
Hawaii.—Honolulu.
Society Islands.—Papeete.

AFRICA

Egypt.—Alexandria, Port Said, Suez.
Anglo-Egyptian Sudan.—Port Sudan, Suakin.
Eritrea.—Massaua.

French Somaliland.—Djibouti.
British Somaliland.—Berbera.
Italian Somaliland.—Mogadiscio.
Kenya.—Mombasa.
Zanzibar.—Zanzibar.
Tanganyika.—Dar-es-Salaam.
Seychelles.—Victoria.
Portuguese East Africa.—Mozambique, Beira, Lourenço-Marques.
Union of South Africa.—East London, Port Elizabeth, Cape Town, Durban.
Mauritius.—Port Louis.
Reunion.—Saint Denis.
Madagascar.—Majunga, Diégo-Suarez, Tamatave.

AMERICA

Panama.—Colon, Panama.

Reports had not been received in time for publication from:

Aden Protectorate.—Aden.
India.—Bombay, Vizagapatam.
Persia.—Mohammerah.
Dutch East Indies.—Samarinda.
Union of Socialist Soviet Republics.—Vladivostok.

Belated information:

Week ended September 17: *Pondicherry* and *Karikal*—Nil.

Movement of infected ships

Singapore.—The mail steamer *Janssens* arrived October 1 from Banjermassin infected with smallpox.

ANGOLA

Communicable diseases—July, 1927.—During the month of July, 1927, communicable diseases were reported in Angola, as follows:

Disease	Coast districts	Interior	Land frontier	Total	Disease	Coast districts	Interior	Land frontier	Total
Anchylostomiasis	9	1	----	10	Puerperal fever	2	1	1	4
Beriberi	10	----	1	11	Recurrent fever	----	1	1	2
Chicken pox	9	----	----	9	Smallpox	5	17	20	42
Dysentery	27	8	8	43	Tetanus	4	----	----	4
Influenza	76	153	276	505	Trypanosomiasis	41	33	35	109
Leprosy	1	3	4	8	Tuberculosis	9	1	5	15
Malaria	287	181	147	614	Typhoid fever	1	----	----	1
Measles	----	1	----	1	Whooping cough	9	1	----	10
Mumps	1	----	----	1	Yaws	93	76	43	212
Pneumonia	49	8	9	66					

Population: 4,119,000.

CANADA

Communicable diseases—Week ended October 8, 1927.—The Canadian Ministry of Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended October 8, 1927, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Influenza	5	----	----	3	----	----	----	8
Poliomyelitis	3	----	----	6	1	1	16	27
Smallpox	----	----	----	26	2	----	4	32
Typhoid fever	3	13	32	36	2	3	1	90

Communicable diseases—Ontario—September, 1927 (comparative).—During the month of September, 1927, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	September, 1927		September, 1926		Disease	September, 1927		September, 1926	
	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis	3	3	4		Influenza	1	2	6	
Chancroid	1		3		Measles	109	1	149	
Chicken pox	150		123		Mumps	118		15	
Diarrhea	13	4			Pneumonia		53		88
Diphtheria	246	23	239	18	Poliomyelitis	10	1	22	
Dysentery	3	5			Scarlet fever	165		141	
Erysipelas	1				Syphilis	129		89	
German measles	10		7		Smallpox	50		23	
Goiter	1				Tuberculosis	119	59	117	43
Gonorrhea	144		133		Typhoid fever	67	1	94	3
					Whooping cough	288	2	232	10

Smallpox.—Smallpox was reported during the month of September, 1927, in 10 localities in the Province of Ontario, the greatest number of cases, viz, 38, being reported at Ottawa. At six localities one case each was reported.

Typhoid fever—Montreal—January 2–October 15, 1927.—The following table gives the cases of typhoid fever and deaths from this disease reported at Montreal, Quebec, Canada, since January 1, 1927:

Week ended—	Cases	Deaths	Week ended—	Cases	Deaths
Jan. 8, 1927	3	1	June 4, 1927	239	37
Jan. 15, 1927	4	3	June 11, 1927	128	36
Jan. 22, 1927	1	2	June 18, 1927	86	
Jan. 29, 1927	3	1	June 25, 1927	75	23
Feb. 5, 1927	1	0	July 2, 1927	66	21
Feb. 12, 1927	0	0	July 9, 1927	52	10
Feb. 19, 1927	1	2	July 16, 1927	39	4
Feb. 23, 1927	1	1	July 23, 1927	22	9
Mar. 5, 1927	9	1	July 30, 1927	23	10
Mar. 12, 1927	203	4	Aug. 6, 1927	16	5
Mar. 19, 1927	383	14	Aug. 13, 1927	20	5
Mar. 26, 1927	568	22	Aug. 20, 1927	14	4
Apr. 2, 1927	649	48	Aug. 27, 1927	8	3
Apr. 9, 1927	386	40	Sept. 3, 1927	27	
Apr. 16, 1927	175	38	Sept. 10, 1927	17	
Apr. 23, 1927	125	43	Sept. 17, 1927	13	2
Apr. 30, 1927	105	23	Sept. 24, 1927	6	3
May 7, 1927	106	19	Oct. 1, 1927	18	
May 14, 1927	367	16	Oct. 8, 1927	14	1
May 21, 1927	770	26	Oct. 15, 1927	5	1
May 28, 1927	353	38			

Communicable diseases—Quebec—Week ended October 8, 1927.—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the week ended October 8, 1927, as follows:

Disease	Cases	Disease	Cases
Chicken pox	11	Scarlet fever	54
Diphtheria	68	Tuberculosis	42
Influenza	2	Typhoid fever	32
Measles	18	Whooping cough	6

Poliomyelitis—Fernie, British Columbia—September 24, 1927.—A case of poliomyelitis was reported September 24, 1927, at Fernie, British Columbia. It was stated that the schools had been closed and the attendance of children under 16 at public gatherings prohibited.

CHINA

Pneumonic plague—Tungliao—Railway line—October 15, 1927.—An outbreak of pneumonic plague was reported October 15, 1927, at Tungliao, Manchuria, China, occurring on a branch railway line.

CZECHOSLOVAKIA

Communicable diseases—August, 1927.—During the month of August, 1927, communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax	9		Paratyphoid fever	18	2
Cerebrospinal meningitis	10	6	Puerperal fever	39	18
Diphtheria	422	31	Scarlet fever	862	20
Dysentery	111	12	Trachoma	236	
Malaria	113		Typhoid fever	1,007	46

ECUADOR

Plague—Smallpox—August, 1927.—During the month of August, 1927, seven cases of plague were reported at Guayaquil, Ecuador, and two cases of smallpox.

Plague-infected rats found.—During the same period, of 24,120 rats examined at Guayaquil, 11 rats were found plague-infected.

ESTONIA

Communicable diseases—August, 1927.—During the month of August, 1927, communicable diseases were reported in the Republic of Estonia as follows:

Disease	Cases	Disease	Cases
Diphtheria	16	Tuberculosis	112
Measles	26	Typhoid fever	102
Scarlet fever	145		

Population, estimated: 1,107,059.

GERMANY

Epidemic poliomyelitis—Southeastern cities and towns—October 6, 1927.—Under date of October 6, 1927, epidemic poliomyelitis was reported present in cities and towns of southeastern Germany, the center of the infected region being apparently in the vicinity of Leipzig. The mortality rate was stated to be high. Public schools were reported closed in Leipzig and other localities.[1]

[1] Public Health Reports, Oct. 21, 1927, p. 2628.

HAWAII TERRITORY

Plague-infected rat—Hamakua—August 30, 1927.—A plague-infected rat was reported found at Hamakua, Hawaii, August 30, 1927.

MALTA

Communicable diseases—August, 1927.—During the month of August, 1927, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia	1	Pneumonia	2
Diphtheria	4	Puerperal fever	4
Erysipelas	1	Scarlet fever	4
Lethatgic encephalitis	2	Trachoma	19
Malaria	1	Tuberculosis	18
Malta (undulant fever)	80	Typhoid fever	88
Measles	1	Whooping cough	16

Population, civil (estimated): 227,440.

MEXICO

Typhoid fever—Sarie Valley.—Under date of October 9, 1927, Acting Asst. Surg. John M. Hardy reports four cases of typhoid fever in the Sarie Valley, Mexico, about 20 miles south of Sasabe, Ariz.

PERU

Mortality from communicable diseases—Lima—June-July, 1927.—During the months of June and July, 1927, mortality from certain communicable diseases was reported as follows at the city of Lima, Peru:

Disease	June, 1927, deaths	July, 1927, deaths	Disease	June, 1927, deaths	July, 1927, deaths
Cerebrospinal meningitis	11	9	Plague	1	3
Diphtheria		1	Tuberculosis	86	96
Gastroenteritis	33	26	Typhoid fever	6	1
Influenza		10	Typhus fever	2	8

Population: 196,767.

SENEGAL

Plague—Yellow fever—September 26–October 2, 1927.—During the week ended October 2, 1927, plague and yellow fever were reported in Senegal, West Africa, as follows:

Plague.—In the interior of the country, in the Baol region, in two cantons, cases, 39; deaths, 26; in the Cayor region, cases, 101; deaths, 57. At Dakar, one case.

Yellow fever.—Five fatal cases, of which four were in Europeans and one in a Syrian. The occurrence was distributed as follows: Gueoul, 1; Khombole, 1; Louga, 1 (in Syrian); St. Louis and Thies, 1 each. A suspect case in a European was reported at Gueoul. Many Europeans and Syrians were stated to be under observation at Dakar and Thies.

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

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.

Reports Received During Week Ended October 28, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Amoy	Sept. 4–10	21	2	
Canton	do	17	10	
Foochow	do			Several.
Hong Kong	Aug. 28–Sept. 3	1	1	Imported.
Shanghai	Sept. 4–17	5	43	Cases, foreign population; deaths foreign and native in International concessions.
India:				
Bombay	Sept. 4–10	1	1	
Calcutta	do	19	13	
Madras	Sept. 11–17	15	6	
Siam				Aug. 28–Sept. 3, 1927: Cases, 4; deaths, 3. Apr. 1–Sept. 3, 1927: Cases, 707; deaths, 486.
Bangkok	Aug. 28–Sept. 3	1		

PLAGUE

China:				
Tungliao	Oct. 15			Outbreak. On branch railway line, Manchuria.
Ecuador:				
Guayaquil	Aug. 1–31	7		Rats taken: 24,120; found infected, 11.
Greece:				
Patras	Sept. 25–Oct. 1	1	1	
Hawaii:				
Hamakua	Aug. 30			1 plague rat.
India:				
Bombay	Sept. 4–10	1	1	
Rangoon	Aug. 28–Sept. 3	2	2	
Java:				
Batavia	Sept. 4–10	14	14	Province.
East Java and Madura—				
Surabaya	Aug. 21–27	10	10	
Peru:				
Lima	June 1–30		1	
Do	July 1–31		3	
Senegal:				
Interior—				
Baol	Sept. 26–Oct. 2	39	26	In two cantons.
Cayor	do	101	57	
Urban—				
Dakar	do	1		
Turkey:				
Constantinople	Sept. 18–24	1		

SMALLPOX

Algeria:				
Oran	Sept. 21–30	12		
Angola				July, 1927: Cases, 42. Coast districts, 5; interior, 17; land frontier, 20.
British South Africa:				
Northern Rhodesia	Sept. 3–9	18		Natives.
Canada:				
Alberta	Oct. 2–8	4		
Manitoba	do	2		
Ontario	do	26		September, 1927: Cases, 50; corresponding period, year 1926—cases, 23.
Ottawa	Oct. 9–15	23		
Toronto	Oct. 2–8	3		
Windsor	Oct. 2–15	9		Includes Windsor, Walkerville, Ford, Sandwich, and Ojibway.
Saskatchewan—				
Regina	Oct. 2–8	5		
China:				
Foochow	Sept. 4–10			Present.
Hong Kong	Aug. 28–Sept. 3	2	1	

[1] From medical officers of the Public Health Service, American consuls, and other sources.

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

Reports Received During Week Ended October 28, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Ecuador:				
Guayaquil	August, 1927	2		
Great Britain:				
England and Wales	Sept. 25–Oct. 1			Cases, 122.
Birmingham	Sept. 24–30	1		
Leeds	Sept. 25–Oct. 1	3		
Newcastle on Tyne	do	1		
India:				
Bombay	Sept. 4–10	3	2	
Calcutta	do	6	5	
Madras	Sept. 11–17	3	1	
Portugal:				
Lisbon	Sept. 18–24	1		
Siam				Aug. 28–Sept. 3, 1927: Cases, 24; deaths, 14. Apr. 1–Sept. 3, 1927: Cases, 247; deaths, 66.
Spain:				
Valencia	Sept. 25–Oct. 1	1		

TYPHUS FEVER

Algeria:				
Algiers	Sept. 11–20	5		Europeans. In sourrounding country, cases, 12.
Chosen:				
Chemulpo	Aug. 1–31	2		
Seoul	do	3		
Egypt:				
Port Said	Sept. 24–30	1		
Palestine	Sept. 19–26	5		Haifa, Safad, Tel Aviv, each one case; Reineh, 2 cases.
Peru:				
Lima	June 1–30		2	
Do	July 1–31		8	
Poland				Aug. 21–Sept. 3, 1927: Cases, 20; deaths, 1.

YELLOW FEVER

Senegal				Sept. 26–Oct. 2, 1927: Cases, 5; deaths, 5. Europeans, 4; Syrian, 1.
Geoul	Sept. 26–Oct. 2	1	1	
Khombole	do	1	1	
Louga	do	1	1	Syrian.
St. Louis	do	1	1	
Thies	do	1	1	At Dakar and Thies many Europeans and Syrians stated to be under observation.

Reports Received from June 25 to October 21, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Amoy	May 22–Sept. 3	49	9	
Canton	May 1–Sept. 3	57	29	
Foochow	July 24–Aug. 27			Present.
Hong Kong	July 17–23	2	2	
Kulangsu	June 21	1		
Shanghai	June 19–25	2		
Do	July 31–Sept. 3		61	In international settlement and French concession.
Swatow	May 15–Sept. 10	138	13	
Tientsin	Aug. 27–Sept. 10	4		
India	Apr. 17–Aug. 13			Cases, 148,274; deaths, 82,048.
Bombay	May 8–Sept. 3	125	56	
Calcutta	do	669	397	
Karachi	May 29–June 4	1	1	
Madras	June 19–Sept. 10	797	421	
Rangoon	May 8–Aug. 13	18	14	

[1] From medical officers of the Public Health Service, American consuls, and other sources.

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

CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
India, French settlements in	Mar. 30-July 16	171	109	
Indo-China (French)	Apr. 1-Aug. 10			Cases, 13,640.
Annam	do	2,936		
Cambodia	do	335		
Cochin-China	do	1,519		
Saigon	June 4-July 21	10	4	
Laos	July 11-Aug. 10	137		
Tonkin	Apr. 1-Aug. 10	9,713		
Iraq:				
Baghdad	July 24-30	29	18	
Basra	July 17-Sept. 17	383	288	
Japan:				
Yokohama	July 31-Aug. 6	1	1	
Persia:				
Abadan	July 24-Aug. 13	215	183	
Ahwaz	July 31-Aug. 13	20	13	
Minab	Aug. 7-13		23	
Mohammerah	July 17-Aug. 27	194	155	
Nasseri	July 19-31		10	
Philippine Islands:				
Manila	July 17-Aug. 27	2		
Bulacan Province	June 7-July 8	3	2	
Leyte Province—				
Barugo	June 29	1	1	
Carigara	June 23	1	1	Final diagnosis not received.
Palo	May 18	1		
Siam	May 1-Aug. 27			Cases, 316; deaths, 192.
Bangkok	do	45	14	
On vessel:				
S. S. Adrastus	Reported Aug. 6	1	1	At Yokohama, Japan.
S. S. Morea	Sept. 2			At Hong Kong; plague-infected.
S. S. War Mehtar (oil tanker).	Aug. 4	1	1	At Saffagha, Egypt.

PLAGUE

Algeria:				
Algiers	Aug. 21-31	1		
Oran	Aug. 21-Sept. 10	5	4	
Argentina	Jan. 1-Aug. 2			Cases, 80; deaths, 44.
Buenos Aires	Apr. 10-May 7	4	3	
Cordoba	Jan. 11-Aug. 6	52	29	
Corrientes	June 1	1	1	
Entre Rios	Mar. 29-Aug. 13	8	1	
Santa Fe	Apr. 28-May 16	4	3	
Territory—				
Chaco—				
Barranqueras	May 29	2	2	
Formosa	June 25	3	2	
Pampa	July 27-Aug. 2	4		
Rio Negro	Aug. 6	1		
City—				
Merou	Reported July 14			Present.
Rosario	May 7	1	1	
Santa Fe	May 16	4	2	
Azores:				
St. Michaels Island	May 15-Aug. 27	6		
Ribeira Grande	June 12-18	1		
Brazil:				
Sao Paulo	June 3-9	1	1	
British East Africa:				
Kenya	Apr. 24-July 31	73	14	
Mombasa	July 24-30	1	1	
Nairobi	May 22-28	6		
Tanganyika	Mar. 29-May 28		37	
Do	July 24-Aug. 6		10	
Uganda	Jan. 1-Feb. 28	138	121	
Do	Mar. 27-June 18	366	300	
Canary Islands:				
Laguna district—				
Tejina	June 17	1		
Las Palmas	Oct. 8	4		
Ceylon:				
Colombo	May 1-Sept. 3	19	12	Plague rats, 4.
China:				
Amoy	July 3-23			Present in surrounding country.
Mongolia	Reported Oct. 11		200	Approximate.
Tientsin	Aug. 14-20	2		

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

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Ecuador:				
Guayaquil	June 1-July 31			Rats taken, 48,290; found infected, 34.
Egypt	May 1-Sept. 9			Cases, 16; deaths, 4.
Alexandria	June 4-Sept. 2	4		
Beni-Souef	June 4-July 13	5	2	
Biba	June 4-10	1		At Nama.
Dakhalia	June 24-July 9	6	1	
Minia	Aug. 8-9	4		
Port Said	June 24-July 21	4	1	
Suez	Sept. 4	1		
Tanta district	June 4-10	1		
Greece	May 1-June 30	4	3	
Athens	June 1-Aug. 29	3		Including Piraeus.
Mytilene	Aug. 9	1		
Patras	May 30-Sept. 4	8	1	
Hawaii Territory:				
Hamakua	July 15			1 plague rodent.
Honokaa	May 17-23	2	2	
Kukuihaele	Aug. 12-17	1	1	Do.
Pauuilo	July 26-Aug. 1		4	
India	Apr. 17-July 16			Cases, 22,523; deaths, 8,580.
Bombay	May 8-Sept. 3	98	83	
Calcutta	Aug. 21-Sept. 3	18	10	
Madras	May 1-Aug. 20	982	430	
Rangoon	May 8-Sept. 3	64	58	
Indo-China (French)	Apr. 1-Aug. 10	50		
Kwang-Chow-Wan	May 21-July 31	73		
Iraq:				
Baghdad	Apr. 8-May 28	12	1	
Java:				
Batavia	May 1-Sept. 3	261	262	Province.
East Java and Madura	May 22-July 16	28	27	
Pasoeroean Residency	May 9			Outbreak reported at Nagdiwano.
Surabaya	Apr. 17-Aug. 20	60	59	
Madagascar				Mar. 16-Apr. 30, 1927: Cases, 256; deaths, 135.
Province—				
Ambositra	Mar. 16-July 31	99	92	
Antisrabe	Mar. 16-May 15	8	8	
Miarinarivo (Itasy)	Mar. 16-July 31	69	63	
Moramanga	May 16-July 31	28	27	
Tananarive	Mar. 16-July 31	233	204	
Tananarive Town	Mar. 16-June 30	22	20	
Mauritius:				
Port Louis	May 1-June 30	1	1	
Nigeria	Mar. 1-May 31	228	177	
Peru	Apr.-May 31			Cases, 22; deaths, 8.
Departments—				
Ica	Apr. 1-30	1		
Lambayeque	do	1		
Libertad	Apr. 1-May 31	7	4	
Lima	do	13	4	
Lima City	Apr. 1-30	5	1	
Senegal	May 23-Sept. 25			Cases, 1,090; deaths, 606.
Baol	June 2-Sept. 25	140	69	
Cayor Frontier	July 4-Sept. 25	816	473	
Dakar	June 20-Sept. 25	146	94	
Facel	July 6	17	8	
Guindel	June 20-26	11	2	
Louga District	Sept. 18-25	5	4	
M'Bour	July 6-10	28	23	
Medina	June 13-19	2	2	
Pout	July 4-10	1		
Rufisque	May 23-Sept. 25	223	167	
Thies district	do	34	15	
Tivaouane	June 2-July 17	50	32	
Siam	Apr. 1-Aug. 27			Cases, 10; deaths, 7.
Bangkok	May 8-June 11	2	1	
Syria:				
Beirut	June 11-July 10	3		
Tunisia	Apr. 21-July 10	144		
Tunis	July 25-Aug. 1	1		
Turkey:				
Constantinople	May 13-19	1		
Union of South Africa:				
Cape Province—				
Maraisburg district	May 1-14	2	2	Native.
Orange Free State—				
Edenburg district	July 17-26	3	3	Natives; on farm.
Rouxville district	July 24-Aug. 6	2	2	

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

Reports Received from June 25 to October 21, 1927—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
On vessel:				
S. S. Avoroff	June 24-30	1		On Greek warship at port of Athens.
S. S. Capafric	Aug. 23	3	1	At Duala, French Cameroons, from Nigeria.
S. S. Elcano	Aug. 19	1		At Piraeus, Greece.
S. S. Madonna	Aug. 24	1		At Dakar, Senegal, from ports south.
S. S. Ransholm	Aug. 5	3		At Gefle, Sweden, from Rufisque, Senegal.

SMALLPOX

Algeria	Apr. 21-July 31			Cases, 882.
Algiers	May 11-June 30	8		
Oran	May 21-Sept. 10	51		
Angola	June 1-July 15	18		
Arabia:				
Aden	July 17-Aug. 1	2	1	
Brazil:				
Bahia	Aug. 7-13	1		
Porto Alegre	July 1-Aug. 31	8		
Rio de Janeiro	May 22-Sept. 17	23	19	
British East Africa:				
Kenya	Apr. 24-May 14	7	14	
Tanganyika	Mar. 29-June 18	2	22	
Zanzibar	Apr. 1-May 31	19	7	
British South Africa:				
Northern Rhodesia	Apr. 30-Aug. 26	161	3	
Canada	June 5-Oct. 1			Cases, 563.
Alberta	June 12-Oct. 1			Cases, 115.
Calgary	June 12-Aug. 27	9		
British Columbia—				
Vancouver	May 23-Sept. 4	4		
Manitoba	June 5-Sept. 17			Cases, 38.
Winnipeg	June 12-Oct. 8	22		
Nova Scotia	Sept. 11-17	1		
Ontario	June 5-Oct. 1			Cases, 221.
Ottawa	June 12-Oct. 8	156		
Sarnia	Aug. 7-13	1		
Toronto	June 19-Sept. 24	11		
Quebec	June 19-Aug. 27	15		
Saskatchewan	June 12-Oct. 1			Cases, 132.
Moose Jaw	Aug. 14-Sept. 24	21		
Regina	July 17-Aug. 27	10		
Ceylon	May 1-7			Cases, 3; deaths, 1.
Colombo	July 31-Aug. 6	1	1	
China:				
Amoy	May 8-28	1		
Do	July 3-16			Present in surrounding country.
Antung	July 4-31	3		
Chefoo	May 8-14			Present.
Foochow	May 8-Aug. 27			Do.
Hong Kong	May 8-Aug. 20	20	19	
Manchuria—				
Anshan	May 22-28	1		
Changchun	May 15-July 30	8		
Dairen	May 2-July 3	10	5	
Fushun	May 15-July 30	10		
Harbin	June 13-July 10	4		
Kaiyuan	July 3-9	2		
Mukden	May 22-July 30	6		
Pensihu	July 3-9	1		
Ssupingkai	May 8-July 9	3		
Tientsin	May 8-Sept. 10	18	4	
Chosen	Feb. 1-June 30			Cases, 507; deaths, 205.
Chinnampo	Apr. 1-May 31	2		
Fusan	Apr. 1-30	1		
Gensan	May 1-31	1		
Seishin	Apr. 1-30	1		
Curaçao	May 29-June 4	1		Alastrim.
Ecuador:				
Guayaquil	June 1-30	2		
Egypt	May 7-July 29			Cases, 21; deaths, 3.
Alexandria	May 21-June 17	4	1	
Cairo	Jan. 22-Apr. 15	14	3	

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

Reports Received from June 25 to October 21, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
France	Apr. 1–July 31			Cases, 201.
Lille	July 24–30	1		
Paris	May 21–July 31	14	2	
Gold Coast	Mar. 1–June 30	41	7	
Great Britain:				
England and Wales	May 22–Sept. 24			Cases, 3,215.
Birmingham	Aug. 14–20	1		
Bradford	May 29–June 11	2		
Cardiff	June 19–July 2	4		
Leeds	July 17–Sept. 3	13		
Liverpool	July 17–30	1		
London	May 15–June 18	2		
Newcastle upon Tyne	June 12–Aug. 13	5		
Sheffield	June 12–Sept. 24	26		
Stoke-on-Trent	Aug. 21–27	1		
Scotland—				
Dundee	May 29–Sept. 3	6		
Greece	June 1–30	14		
Salonika	July 12–Aug. 15		2	
Guatemala:				
Guatemala City	June 1–30		9	
Guinea (French)	June 4–10	9		
India	Apr. 17–Aug. 13			Cases, 72,048; deaths, 19,005.
Bombay	May 28–Sept. 3	239	155	
Calcutta	May 8–Sept. 3	394	303	
Karachi	May 15–Aug. 6	10	5	
Madras	May 22–Sept. 3	26	6	
Rangoon	May 8–Sept. 3	185	156	
India, French Settlements in	Mar. 20–June 18	174	111	
Indo-China (French)	Mar. 21–Aug. 10			Cases, 318.
Saigon	May 14–Aug. 19	3	1	
Iraq:				
Baghdad	Apr. 10–Sept. 4	3	1	
Basra	Apr. 10–Sept. 17	5	4	
Italy	Apr. 10–May 21	13		
Florence	Sept. 18–24	1		
Rome	June 13–July 10	2		
Jamaica	May 29–Sept. 24	37		Reported as alastrim.
Japan	Apr. 3–May 7			Cases, 19.
Nagasaki City	June 20–Aug. 14	26	7	
Taiwan Island	May 21–31	1		
Java:				
Batavia	May 22–Aug. 20	7		
East Java and Madura	Apr. 24–Aug. 20	17		
Latvia	Apr. 1–30	1		
Mexico	Mar. 1–May 31			Deaths, 557.
Durango	June 1–30		1	
La Oroya	Apr. 1–June 30			Present.
Monterey	July 1–31	6	4	
San Luis Potosi	May 29–Aug. 13		11	
Tampico	June 1–July 31	1	2	
Torreon	Aug. 7–Oct. 1		2	
Morocco	Apr. 1–July 31	207		
Netherlands India:				
Borneo—				
Holoe Soengei	Apr. 21			Epidemic in 2 localities.
Pasir Residency	Apr. 30–May 6			Epidemic outbreak.
Samarinda Residency	May 21–27			Do.
Nigeria	Mar. 1–June 30	2,352	570	
Paraguay:				
Asuncion	July 10–23		2	
Persia:				
Teheran	Feb. 21–June 22		14	
Poland	Apr. 10–Aug. 6	20	2	
Portugal:				
Lisbon	May 29–Sept. 17	19	1	
Oporto	Sept. 3–9	1		
Senegal:				
Medina	July 4–10	7		
Siam	Apr. 1–Aug. 27			Cases, 222; deaths, 82.
Bangkok	May 1–July 28	13	7	
Spain:				
Madrid	Aug. 1–31		1	
Valencia	May 29–June 4	2		
Straits Settlements	June 12–18			Cases, 3.
Singapore	Apr. 1–June 18	7	2	

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

Reports Received from June 25 to October 21, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Sumatra:				
Medan	June 5–Aug. 20	3		
Switzerland:				
Berne	June 26–July 2	1		
Syria:				
Damascus	Aug. 11–31	3		
Tunisia	Apr. 1–June 10			Cases, 10.
Tunis	June 1–10	1		
Union of South Africa:				
Cape Province	July 7–Aug. 20			Outbreaks.
Elliott district	May 11–June 10			Do.
Idutywa district	July 3–9			Do.
Kalanga district	May 11–June 10			Do.
Mount Ayliffe district	July 31–Aug. 6			Do.
Orange Free State	Aug. 7–13			Do.
Transvaal—				
Barberton district	May 1–7			Do.
Venezuela:				
Maracaibo	July 12–Sept. 12		3	

TYPHUS FEVER

Algeria	Apr. 21–July 20			Cases, 399; deaths, 39.
Algiers	May 11–Sept. 10	27		
Oran	May 21–Aug. 31	34		
Bulgaria	Mar. 1–July 10			Cases, 226; deaths, 20.
Sofia	June 4–Aug. 5	2		
Chile:				
Antofagasta	Apr. 16–May 31	1		
Concepcion	May 29–June 4		1	
La Calera	Apr. 16–May 31	1		
Ligua	Mar. 16–31	2		
Puerto Montt	Apr. 16–May 31	1		
Santiago	do	5	1	
Talcahuano	July 10–16		1	
Valparaiso	Apr. 16–Sept. 3	5	3	
China:				
Manchuria—				
Harbin	July 25–31	3		
Mukden	May 29–June 4	1		
Tientsin	July 10–16	1		
Chosen	Feb. 1–June 30			Cases, 721; deaths, 60.
Chemulpo	May 1–July 31	1		
Gensan	do	4		
Seoul	Apr. 1–July 31	32	3	
Czechoslovakia	do			Cases, 55.
Egypt	May 28–July 29			Cases, 120; deaths, 18.
Alexandria	May 21–Aug. 5	13	5	
Cairo	Jan. 15–June 24	42	16	
Estonia	Apr. 1–June 30			Cases, 5.
Greece	June 1–30	2		
Athens	June 1–July 31		9	
Guatemala:				
Guatemala	Aug. 25–31		1	
Iraq:				
Baghdad	Apr. 24–30	1		
Irish Free State:				
Cork County	July 3–9	1		In urban district.
Latvia	Apr. 1–July 31	32		
Lithuania	Feb. 1–July 31	347	42	
Mexico	Feb. 2–May 31			Deaths, 140.
Mexico City	May 29–Sept. 24	59		Including municipalities in Federal district.
San Luis Potosi	July 31–Aug. 6		1	
Morocco	Apr. 1–Aug. 20	952		
Palestine	May 24–Sept. 19			Cases, 24.
Haifa	May 24–Aug. 29	8		
Jaffa	Aug. 2–15	2		
Jerusalem	June 28–Aug. 15	3		
Manheim	May 17–23	1		In Safad district.
Nazareth	July 19–25	1		
Safad	May 17–Aug. 8	10		
Peru:				
Arequipa	Apr. 1–30		1	

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

Reports Received from June 25 to October 21, 1927—Continued

TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Poland	Apr. 10-Aug. 24	1,080	100	
Portugal:				
Lisbon	May 29-June 4	1		
Oporto	Aug. 20-27	1		
Rumania	Apr. 3-July 23	956	64	
Spain:				
Seville	Aug. 19-25		2	
Syria:				
Aleppo	Sept. 11-17	2		
Tunisia	Apr. 22-July 20			Cases, 158.
Tunis	July 5-Aug. 21	2		
Turkey:				
Constantinople	May 13-19		2	
Union of South Africa	Apr. 1-30			Cases, 55; deaths, 8, native. In Europeans, cases, 2.
Cape Province	Apr. 1-Aug. 27	42	5	Outbreaks.
Albany district	June 5-11			Do.
East London	May 22-28	1		Do.
Glen Gray district	May 1-7			Do.
Kentani district	June 26-July 2			
Port Elizabeth	Aug. 7-13	1		
Qumbu district	May 1-7			Do.
Umzimkulu district	June 26-July 2			Do.
Natal	Apr. 1-Aug. 6	7	3	
Impendhle district	June 5-11			Do.
Orange Free State	Apr. 1-July 23	5		
Transvaal	Apr. 1-30	1		
Johannesburg	July 3-Aug. 20	19	5	
Yugoslavia	May 1-Aug. 31			Cases, 24; deaths, 5.

YELLOW FEVER

Ashanti:				
Obuasi	Aug. 6	1	1	
Dahomey (West Africa):				
Porto Novo	July 1	1	1	In Syrian woman.
Gold Coast	Apr. 1-June 30	60	22	
Do	Aug. 4	2		
Ivory Coast	July 29	1	1	
Liberia:				
Monrovia	May 29-July 8	4	5	
Senegal	May 27-July 31			Cases, 5; deaths, 2.
Dakar	July 9	1		
Do	Aug. 8	2	2	
Do	Sept. 17			Present.
Island of Goree	Aug. 22-Sept. 4	2	2	
Khombole	Aug. 1-14	3		
M'Bour	May 27-June 19	5	5	
Ouakam	June 2-Aug. 14	4	2	
Pout	Sept. 19-25	1	1	
St. Louis	Aug. 1-14	2	2	
Thies	July 10	1	1	In European.
Do	Sept. 12-25	3	3	
Tiaroye	Aug. 22-Sept. 4	1	1	
Tivaouane	May 27-Sept. 11	6	5	
Togoland:				
Meiatza	Aug. 15-21	1	1	