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BREEDING PLACES OF ANOPHELES IN THE YAZOO-MISSISSIPPI DELTA

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In the southern States the term "Delta" is not restricted to the land included between the several channels of the Mississippi River at its mouth, but is applied also to the broad alluvial plain of the river extending from Missouri and Illinois southward. The part of the plain included between the Yazoo and Mississippi Rivers is known as the Yazoo-Mississippi Delta, the greater part of which is located in the State of Mississippi. This district was originally wooded and subject to overflow from the rivers. It is now partially protected by levees and is under cultivation, except for some swamp and forest areas, which are gradually being drained and cleared. The soil is deep and composed of varying amounts of clay and sand, as is commonly the case with river-formed lands.

The numerous rivers and creeks of this region are sluggish and turbid during most of the year. As in all level alluvial regions, the streams have frequently changed their courses, leaving behind them narrow "ox-bow" lakes or ponds. These gradually become filled up with earth or vegetation and are transformed into wooded swamps and finally into mere depressions in the ground, which contain water only during rainy seasons. These ancient stream beds in one stage or another constitute a large proportion of the more permanent *Anopheles* breeding places of the region. Along the eastern border of the Delta, swamps and ponds are also formed by springs or spring-fed streams issuing from the hills. Away from the hills, springs are uncommon except in the beds of some of the larger streams.

Among artificial breeding places, those formed by borrow pits and artesian wells are most important. The artesian wells of this region flow the year around, forming small streams and pools and rendering permanent many bodies of water which otherwise would dry up during late summer.

TABLE 1.—*Anopheles collected as larvæ or pupæ in certain breeding places of the Yazoo-Mississippi Delta*

	January			February			March			April			May			June			July		
	P.	Q.	C	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.
Artesian wells	-----	-----	-----	-----	-----	-----	-----	-----	-----	17	8	1	71	58	5	10	15	4	38	32	2
Ponds	-----	-----	-----	-----	-----	-----	22	3	4	163	30	8	53	22	6	54	24	1	17	42	4
Pools	-----	-----	-----	-----	-----	-----	38	-----	-----	175	-----	1	216	-----	10	17	-----	-----	-----	16	-----
Borrow pits	-----	-----	-----	1	-----	1	-----	1	-----	10	14	-----	11	81	16	10	174	3	-----	38	-----
Stream pools	-----	-----	-----	-----	-----	-----	4	-----	-----	39	-----	-----	196	9	1	401	24	-----	1	14	-----
Wooded swamps	-----	-----	-----	-----	-----	-----	-----	-----	-----	88	2	4	6	28	21	-----	147	10	-----	-----	-----
Springs	5	-----	32	155	2	11	313	38	45	190	2	42	139	13	75	376	13	27	389	68	95
Total	5	-----	32	156	2	12	377	42	49	682	56	56	692	211	134	868	397	45	445	210	101

	August			September			October			November			December			Total		
	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.	P.	Q.	C.
Artesian wells	1	2	-----	2	14	-----	23	35	-----	-----	-----	-----	2	-----	-----	164	164	12
Ponds	15	421	-----	24	-----	-----	67	2	-----	32	-----	-----	-----	-----	-----	447	544	23
Pools	4	5	-----	6	33	-----	21	56	2	3	2	-----	1	-----	-----	481	113	12
Borrow pits	1	30	-----	-----	-----	-----	99	103	7	7	-----	-----	-----	-----	-----	139	441	27
Stream pools	21	-----	-----	31	15	-----	806	62	-----	127	-----	-----	-----	-----	-----	1,626	124	1
Wooded swamps	-----	-----	-----	-----	-----	-----	75	32	1	37	3	-----	-----	-----	-----	903	212	36
Springs	171	20	27	131	16	63	326	19	80	107	3	13	-----	-----	-----	2,248	234	524
Total	213	478	27	194	78	63	1,417	309	90	313	8	13	3	-----	-----	5,311	1,832	635

P.=*Anopheles punctipennis.*
Q.=*Anopheles quadrimaculatus.*
C.=*Anopheles crucians.*

Many of the breeding places are well shaded by timber, but are none the less productive of *Anopheles*. In these shaded waters masses of algæ or other conspicuous aquatic growths may be lacking. But here, as in the more open waters also, leaves, fine driftwood, and floating sticks and logs afford an excellent nidus for anopheline larvæ. *Anopheles* in this region also breed well in waters exposed to the sun, in which algæ and other aquatic growths may be abundant. Peat swamps are uncommon in the Delta, if they exist there at all.

The reaction of the anopheline-breeding waters is generally alkaline. The relation of the hydrogen-ion concentration of waters to the breeding of *Anopheles* will be the subject of a special paper. It may be stated here that the pH does not seem to determine the choice of breeding place by different species of *Anopheles* in the Delta.

We made most of our collections of *Anopheles* in Leflore County, Miss., which is typical of the lowland counties, or at least of those situated at the eastern border of the Delta near the hills. We also made many collections in Carroll County, a hill region adjoining the lowlands. It is probable that the border region which we surveyed contains a greater variety of mosquitoes than do counties situated away from the hills.

In Table 1 we have listed the collections of four years, 1925 to 1929, by species of *Anopheles*, month of collection, and type of breeding place. We have included only mosquitoes bred out in the laboratory and identified in the adult stage.

In our classification of types of breeding place (Table 1), the "ponds" and "wooded swamps" are mostly ancient river beds. The two terms might be used interchangeably so far as the contour and depth of the water are concerned (they are both locally known as "bayous"), but they differ as to the character of vegetation and exposure to the sun, and we have made two categories of them. The "stream pools" occur in the broad sandy beds of certain streams the most of which originate in the hills. These pools vary greatly in size and are supplied with water by seepage through the sand. "Springs" and "artesian wells" may include the small streams and pools formed by them. These streams and pools contain clear water and a type of vegetation differing from that of ordinary collections of rain or overflow water, so we have classified collections made in them with those made in springs and artesian wells at their source.

We visited some of the breeding places at nearly every month in the year, but we could not give that much attention to all of them. Sometimes drought or overflow rendered certain places nonproductive or inaccessible, and in certain types, as wooded swamps, a few collections gave a sufficient indication of their character without the necessity of more frequent visits. In general, however, we have made enough collections in the various breeding places to give a fair

idea of their productiveness and of the species of *Anopheles* found in them. The proportion of *punctipennis* and of *crucians* in our collections (Table 1) is larger than that actually obtaining in this region, especially in midsummer, for we made larger and more frequent collections in the breeding places of these two species.

A. quadrimaculatus is by far the most common anopheline species of this region. We found larvæ occasionally in February and March, more plentiful in April, and abundant in May. They begin to decline in October and November. From May to November they are found in nearly every breeding place we have listed. As compared with other species they are least common in stream pools, artesian wells, and springs, but they may occur in large numbers in these waters. Undoubtedly the great bulk of *A. quadrimaculatus* in this region is produced by the wooded swamps, owing probably to the greater abundance and area of that type of breeding place rather than to any peculiarity of the water which would make it more attractive to this species. Borrow pits or mere depressions in the ground may become filled by summer rains and produce enormous numbers of *A. quadrimaculatus*. There is no type of water at all fit for *Anopheles* in this region which does not harbor this species, at least in midsummer. The adults are much more numerous than those of any other species, especially during the warmer months of the year.

Larvæ of *A. punctipennis* may be found throughout the entire season, but they have a wider range in spring and autumn, when they may occur in certain swamps and borrow pits usually reserved for *quadrimaculatus* in midsummer. A characteristic breeding place of *punctipennis* in early spring is that provided by the shallow pools in the woods, which often occur in woodland roads, and mostly dry up during the summer. In midsummer we have found this species common in the outflow from springs and artesian wells and in the stream pools we have described above. They often occur in the streams themselves, usually in those with sandy beds and water relatively free from the products of vegetable decay. The water is often turbid in these flowing streams, and its temperature may reach 97° F. in summer. *A. quadrimaculatus* may be associated with *punctipennis* in both stream pools and flowing streams. Sometimes in the bed of the same creek the newer stream pools will contain nearly a "pure culture" of *punctipennis*, while older ones, partly overgrown with vegetation, will harbor for the most part *quadrimaculatus*.

We have found *punctipennis* constantly present in a certain breeding place very different from those places just described. This is a shallow pond situated in the woods and overgrown with water chinquapin (*Nelumbo lutea*). Its water supply is impounded rain water; none of it comes from springs. *Punctipennis* has been found there

year after year, and from March to November, inclusive. It is often associated with *quadrimaculatus* and *crucians*, but is the predominant species during every month.

On the whole, *punctipennis* has a relatively restricted range in this region, and it is a puzzle as to what determines its habitat. The fact that it is commonly found in springs and shaded pools and that its range is wider in the cooler months of the year would suggest that it prefers water of a lower temperature. On the other hand, it flourishes throughout the summer in stream pools situated in the open sun, where the daytime temperature often exceeds 100° F.; and it is often plentiful in the flowing water of sandy streams the temperature of which is also high. It is possible that the products of decomposition of aquatic vegetation may be a factor. In nearly all of the *punctipennis* breeding places of this region there is some interchange of water which prevents the accumulation of such products of decomposition, the odor of which might deter the female mosquito in her choice of a place to lay her eggs. It is true that the temperature of the water at nighttime might also affect such choice; but considering the variety of temperature in *punctipennis* breeding places it would seem that in this region at least the quality of the water, rather than its temperature alone, determines the distribution of this species. Temperature, of course, may be a secondary factor, for it may affect both the quantity and the quality of the products of decomposition.

A. crucians is far less common in this region than either of the other species named. It can be found at all times of the year in a certain pond. It occurs occasionally in pools formed by artesian wells, but is generally rare, especially in midsummer.

We have found larvæ of *A. barberi* once or twice in their characteristic habitat—water contained in hollow trees.

As may be seen in Table 1, the association of two or more species in the same habitat is not uncommon. Since *A. quadrimaculatus* is found in almost every breeding place, one naturally finds it associated with the other species at some time during the year. A certain pond usually contains all three of the commoner species during a large part of the year. This pond is partially exposed to the sun and contains much vegetation—algæ, *Azolla*, grass, smartweed, brush, and trees. It is fed by a large perennial spring. *A. quadrimaculatus* is usually the only species present during midsummer in certain borrow pits and wooded swamps. *A. punctipennis* and *quadrimaculatus* are often associated in stream pools, where *crucians* is rarely found.

A. quadrimaculatus is certainly the most important vector of malaria in the Delta region, and may be the only one. We have found adult *punctipennis* abundant in certain localities throughout the summer,

but it is unlikely that this species plays much part in the transmission of malaria in this region.

If larvicidal work were attempted in this district, practically all breeding places of *Anopheles* would have to receive treatment, for *quadrimaculatus* is present in, or can adapt itself to, nearly every sort of breeding place suitable for *Anopheles* and may occur in large numbers in all of the commoner breeding waters. The only common types of water courses in which this species occurs less plentifully are springs, sandy streams, and stream pools; but we have found them in large numbers in water below springs and in both streams and stream pools, especially when other breeding places had dried up.

The drainage of wooded swamps or bayous for the reclamation of land has undoubtedly diminished the production of *Anopheles* in this district. This work is now being continued wherever there is sufficient demand for new land to warrant the cost. In view of the expense of such drainage it is unlikely that it can be profitably undertaken as a purely antimalaria measure, at all events for the protection of a scattered rural population. The canals which drain these swamps may produce many *Anopheles*—principally *punctipennis*, but often *quadrimaculatus* as well. However, their area is much less than that of the swamps they drain, and they are more accessible to larvicidal work than wide swamps covered by brush and trees.

According to our surveys the malaria-parasite index of school children of this region is approximately 10 per cent. Rural negro children, who represent nearly one-half of the population of the district, give a rate of approximately 15 per cent.

SUMMARY

The incidence of *Anopheles* in the breeding places of a district situated at the eastern edge of the Yazoo-Mississippi Delta is described. The collections of four years are shown by month, species of *Anopheles*, and type of breeding place. *A. quadrimaculatus* is by far the most common species, and its larvæ may be found in almost every month of the year. This species shows much adaptability to various types of breeding places and may occur in large numbers in most of them. Since it is the most important vector of malaria in this region, any larvicidal operations would have to be directed against all types of breeding places of considerable area. Drainage may greatly reduce the available breeding places of *A. quadrimaculatus*—the drainage canals would not afford a difficult problem; but such drainage is expensive and can hardly be undertaken except as a means of the reclamation of land. *A. punctipennis* is common in this region and may be found in a considerable variety of breeding places. *A. crucians* and *A. barberi* are comparatively rare.

HEART DISEASE A PUBLIC HEALTH PROBLEM

By Taliaferro Clark, *Senior Surgeon, United States Public Health Service*

It is an unfortunate psychological experience, from the standpoint of health promotion, that people are more impressed by new and startling events than by more serious conditions that develop slowly over a considerable period of time. The occurrence of a few deaths from smallpox in a community will usually result in wholesale vaccination as a preventive measure, while the greater number of preventable deaths that occur in any one year from other diseases excites no comment whatever. Few people realize the growing menace to life of heart disease and that its importance as a public health problem is greater than that of tuberculosis or cancer.

Special reports obtained by the United States Public Health Service from certain States, for 1928, with an aggregate population of approximately 25,000,000, showed that 228 persons out of every 100,000 died from heart disease, as compared with 106 from kidney disease, 105 from cancer, and 100 from pneumonia—the four great killers of mankind. Moreover, these figures do not tell the whole story, because the number of deaths from heart disease is increasing. During the eight years from 1917 to 1925, in the registration area of the United States, the population increased by about one-third, deaths from heart disease practically doubled, and the number caused by heart diseases as a contributing factor increased 81 per cent, although the number of deaths from all causes increased only about 14 per cent.

Heart disease is particularly a disease of early life. Practically 75 per cent of all cases of heart disease develop in children under 10 years of age, as compared with about 12 per cent in persons over 40 years of age.

In the period 1921 to 1927, 20 out of every 100,000 children from 5 to 19 years of age died of heart disease annually in the registration area of 1920. In other words, in the area comprising 37 States and 82 per cent of the total population of the country, heart disease was the third highest in the list of the causes of death among children. Moreover, of 17,974 school children carefully examined by medical officers of the United States Public Health Service in Florida, Illinois, and Missouri, over 3 out of every 100 had heart disease in the proportion of two functional disorders to one due to an organic lesion.

Heart disease may be congenital or acquired. Little can be done to prevent the development of congenital cases beyond increasing attention to the supervision of expectant mothers. Acquired heart disease is most frequently due to improper habits of living and to the infections, particularly those of the rheumatic group. It has been shown that the incidence of certain infections and rheumatic

diseases in association with damaged hearts is very high—scarlet fever in 12 per cent, diphtheria in 16 per cent, chorea in 15 per cent, rheumatism in 44 per cent, and tonsillitis in 66 per cent of the cases.

Diphtheria may act in two ways; in one way, to cause permanent damage to the heart, and in the other, by paralyzing the enervation of the heart, to cause sudden death. Therefore, special watchful supervision should be maintained over children recovering from diphtheria to prevent any undue strain, either physical or mental, for some weeks after an attack of diphtheria. Neglect of this precaution has resulted in the sudden death of children who apparently were far advanced toward recovery.

Faults of personal hygiene and improper habits, such as lack of exercise, overindulgence in stimulants, and improper food, are very conducive to degenerative changes in the heart muscle. Just how these causative factors operate is not exactly understood. However, they do furnish the clue to the measures to be employed for the prevention and relief of heart disease. The chief factors in the development of heart damage are rheumatism and the conditions associated with this disease. Rheumatism is now believed to be a germ disease. The infecting organism seems to have certain favored portals of entry to the body, particularly through defective teeth and diseased tonsils. The tabulation of physical records of approximately 5,000 school children, under the supervision of the United States Public Health Service for a period of four years, showed that among the children whose tonsils had been removed, indicating serious tonsillar infection in the past, 20 out of every 100 had attacks of rheumatism and 4 out of every 100 had heart disease. Of the children with defective tonsils, 17 out of every 100 had rheumatism and approximately 3 out of every 100 had heart disease. On the other hand, of the children who had normal tonsils, only 12 out of every 100 presented any rheumatic symptoms and only 9 per 1,000 had heart disease. These records, which could be extended from other sources, emphasize the importance of rheumatism as a factor in the developing heart disease.

In regard to prevention, an understanding of the underlying causes is of primary importance to the institution of measures to prevent the occurrence and to prolong the lives of those who have developed heart disease. The health habits of all children must be carefully supervised to maintain nutrition, secure adequate rest and sleep, limit activity when necessary, and to avoid infection.

The very marked association of rheumatism with heart disease clearly indicates the importance of the prevention and proper treatment of the rheumatic affections. Children with dental decay or who are subject to repeated attacks of tonsillitis most frequently are subject to rheumatic attacks. Special care must be given, therefore, to the removal of the so-called portals of entry, such as adenoids,

diseased tonsils, and decayed teeth. Moreover, since chorea and the so-called "growing pains" of children are most probably manifestations of rheumatic infection, children presenting these symptoms should be placed under constant medical supervision and subjected to repeated examinations in order to minimize any potential damage to the heart.

As for treatment, many persons with chronic heart disease maintain a fair condition of health for years under favorable conditions. A diseased heart, however, performs its work under a special handicap requiring increased exertion. The exercise of a muscle within healthful limits is followed by increased size and power. However, there is a limit to the ability of a muscle to accommodate itself to long continued and increasing strain, and if subjected too much to overstrain it becomes weaker, thinner, and less able to function. In the case of heart muscle, the increase in size and strength in response to the greater demand on the energy in diseased conditions is called compensation. The process of thinning with lessened ability to function is called decompensation, which is characterized by breathlessness, pallor, and rapid pulse on slight exertion. The treatment of heart disease depends largely on the presence or absence of symptoms of decompensation. Therefore, for the purposes of treatment, heart cases have been classified into:

1. Cases without symptoms of insufficiency or decompensation;
2. Cases that previously presented symptoms of decompensation but do not now present them;
3. Cases in which symptoms are present;
4. Cases of possible heart disease characterized by abnormal heart sounds and irregular action without definite structural lesions; and
5. Potential heart disease in persons having rheumatic symptoms, chorea, frequent attacks of tonsillitis, decayed teeth, and the like.

The actual treatment, depending on the classification, comprises:

1. Limiting physical activities.
2. Avoiding emotional excitement.
3. Rest in bed for a prescribed number of hours each day.
4. Avoiding the use of drugs except under the supervision of a physician.
5. Improving nutrition by attention to the diet.

The class to which a case of heart disease belongs must be considered carefully when prescribing exercise. Children who are without symptoms of decompensation and have never presented such symptoms should be encouraged to lead normal lives with the habitual amount of physical activity. However, they should not be allowed to participate in competitive exercises and physical contests.

Cardiac cases that presented symptoms at some time previously should indulge in diminished activity, slightly diminished if the symptoms are mild and greatly diminished if the symptoms are marked.

Regulated exercise is of distinct benefit in the treatment of properly selected cardiac cases. The amount of exercise to be given at any one time is determined by the appearance of the symptoms of decompensation. This is known as "tolerance." When the tolerance of an individual case for exercise is once determined, regulated exercises are carried out systematically with improvement, and to an increased extent as determined by the tolerance.

Rest in bed is of special importance in the treatment of cardiac cases presenting symptoms of decompensation, such as shortness of breath, pallor, and rapid heart action. It is much better that the period of rest should be one with prolonged rest in bed, thus giving the damaged heart greater time to recover its tone, than for the rest to be broken into short intervals with more or less prolonged intermissions. In severe cases, rest in a hospital is a better procedure than rest in the average home, depending on the amount of intelligent cooperation that may be expected of the parents. Whenever possible, the period of rest in bed should be followed by recuperative treatment in a convalescent home or similar establishment. Another important consideration in the case of children with cardiac disease is attention to their nutrition. The heart of a growing child increases in size proportionately with the body. Therefore, nutritional conditions which interfere with the proper growth and development of the body, exercise a harmful influence upon the heart itself. No treatment of heart affections in children will be completely successful without careful supervision of their diet with the view to promoting body nutrition as greatly as possible. It has been found in examinations of school children that a much higher percentage classified as undernourished have heart disease than children who are properly nourished.

The successful treatment of heart disease also includes the removal of foci of infection, such as decayed teeth and other septic mouth conditions, and the removal of adenoids and diseased tonsils.

Possible and potential cardiac cases must be considered as active cases and subjected to repeated examination and reexamination by the physician for proper classification, and exercise and rest.

The provision of adequate school health supervision in a community and the regular medical examination of the children is an important factor in the control of heart disease among children. Mention has been made of the large percentage of cardiac diseases in children under the tenth year of age. The discovery of children who have had heart disease, or who have heart disease, or who are potential cases should be followed by the application of proper relief measures and the necessary systematic supervision, appropriate exercise, proper diet and environment.

From the community standpoint, the school nurse and her follow-up work in the home is of great value in safeguarding the lives of the little ones. The duties of the nurse in the home are (1) to emphasize the importance of school examinations and reexaminations for the proper classification of the condition, from time to time, so that the suitable remedial measures may be applied; and (2) to inform parents of the abnormal condition and the necessity for rest in bed when prescribed, the kind of diet needed, the amount of exercise that should be permitted, and the freedom from emotional excitement that is demanded. She should emphasize that every child with a cardiac condition, however mild, should be considered an active case and a candidate for periodic reexaminations.

CLINICAL OBSERVATIONS ON EARLY OR MODERATELY ADVANCED LEPROSY

The Public Health Service has recently issued a report on leprosy,[1] from the leprosy research station in Hawaii, that is of considerable general interest and should be of special value to physicians who are concerned with diseases of the skin and of the nervous system.

The report states that leprosy is by no means always the repulsive condition that it is traditionally regarded as being, but that often the signs and symptoms are so slight or so indefinite that there is required great discrimination upon the part of the physician, and perhaps he may require repeated examinations before coming to a decision in some cases. The microscope is often of valuable aid in the making of a diagnosis.

The general public is accustomed to regard leprosy as abhorrent in every respect, whereas in fact many lepers might mingle with the public without attracting the slightest attention.

The Public Health Service study is based upon the careful investigation of 250 cases by experts, and it is emphasized that the onset of leprosy is usually insidious and that perhaps two years on an average will elapse before the patient is admitted to a hospital.

Another point of interest is that there are long periods of quiescence of the disease during which the victim is apparently free from any signs of the infection. Perhaps to the layman the most striking feature of the report is that spontaneous arrest of the disease, of greater or less duration, is a common occurrence.

The report concludes by comparing certain features of leprosy with tuberculosis and the suggestion is made that means of handling the disease similar to those that have been successful in tuberculosis may prove of value.

[1] Public Health Bulletin No. 189.

COURT DECISION RELATING TO PUBLIC HEALTH

Provisions in ordinance regulating sale of bakery products held void.—(Texas Court of Civil Appeals; A–Loaf Baking Co. *v.* Pace, Mayor, et al., 19 S. W. (2d) 459; decided June 19, 1929.) Article 2 of an ordinance of the city of Borger relating to the manufacture and sale of bakery products provided as follows:

> It shall be unlawful for any person, firm or corporation, or employee thereof, to sell or offer for sale or cause to be sold any bread, rolls, cakes or other bakery products within the city of Borger, Texas, without the same shall first be held unwrapped ready for inspection by the said health office of the city of Borger, Texas, for at least one hour and thereafter to sell, or offer for sale, or cause to be sold any such bread, rolls, cakes or other bakery products, without the same shall before being sold, or offered for sale, or caused to be sold, [be] securely wrapped and sealed in individual waxed-paper packages. * * *

The plaintiff's bakery was located in the city of Amarillo, and the plaintiff was forbidden by the defendants, the city of Borger and its officers, to sell in Borger the bakery products produced in Amarillo without unwrapping and holding them for inspection in Borger for one hour and then rewrapping each product in waxed paper before selling same. In a suit to enjoin the defendants from enforcing the ordinance, the plaintiff attacked the validity of same and especially of article 2.

The court of civil appeals decided that article 2 was void because unreasonable. The court also declared that the penalty provision of the ordinance was void because of noncompliance with the city charter, which provided that "No ordinance shall provide a greater or less penalty than is prescribed for like offense by the law of the State of Texas." Violation of the State law regulating the sale of bakery products was punishable by a fine of not less than $25 nor more than $200, but the penalty prescribed by the ordinance of the city of Borger was a fine of not less than $25 nor more than $100.

DEATHS DURING WEEK ENDED SEPTEMBER 28, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended September 28, 1929, and corresponding week of 1928. (From the Weekly Health Index, October 2, 1929, issued by the Bureau of the Census, Department of Commerce)

	Week ended Sept. 28, 1929	Corresponding week, 1928
Policies in force	74, 762, 355	71, 769, 909
Number of death claims	12, 587	12, 623
Death claims per 1,000 policies in force, annual rate	8. 8	9. 2

Deaths from all causes in certain large cities of the United States during the week ended September 28, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, October 2, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Sept. 28, 1929		Annual death rate per 1,000, corresponding week, 1928	Death under 1 year		Infant mortality rate, week ended Sept. 28, 1929 [2]
	Total deaths	Death rate [1]		Week ended Sept. 28, 1929	Corresponding week, 1928	
Total (63 cities)	6,434	11.4	10.9	694	687	[3] 61
Akron	45			4	10	41
Albany [4]	46	20.0	14.8	4	4	79
Atlanta	82	16.8	15.0	12	9	125
White	41			6	5	
Colored	41	(5)	(5)	6	4	
Baltimore [4]	201	12.7	15.0	24	28	77
White	151			17	21	68
Colored	50	(5)	(5)	7	7	111
Birmingham	58	13.6	11.5	7	8	63
White	29			3	6	45
Colored	29	(5)	(5)	4	2	92
Boston	198	13.0	11.0	26	16	72
Bridgeport	28			4	1	69
Buffalo	160	15.1	13.3	15	16	65
Cambridge	26	10.8	7.5	4	2	72
Camden	32	12.4	9.3	6	4	104
Chicago [4]	636	10.5	10.7	64	62	57
Cincinnati	137			21	24	123
Cleveland	172	8.9	8.6	13	27	38
Columbus	61	10.7	10.7	7	8	66
Dallas	49	11.8	9.8	7	8	
White	35			5	7	
Colored	14	(5)	(5)	2	1	
Dayton	50	14.2	10.5	7	6	111
Denver	58	10.3	13.2	2	15	19
Des Moines	33	11.4	10.0	2	3	36
Detroit	295	11.2	10.1	44	42	71
Duluth	23	10.3	10.7	3	4	72
El Paso	26	11.5	10.7	10	3	
Erie	21			1	2	20
Fall River [4]	19	7.4	9.7	1	3	19
Flint	37	13.0	10.5	11	8	134
Fort Worth	27	8.3	8.6	5	4	
White	20			3	4	
Colored	7	(5)	(5)	2	0	
Grand Rapids	39	12.4	9.9	3	4	45
Houston	63			4	5	
White	48			2	4	
Colored	15	(5)	(5)	2	1	
Indianapolis	100	13.7	11.1	13	10	104
White	83			9	7	83
Colored	17	(5)	(5)	4	3	239
Jersey City	91	14.7	7.6	8	4	62
Kansas City, Kans	26	11.5	9.7	1	1	22
White	16			1	1	25
Colored	10	(5)	(5)	0	0	0
Kansas City, Mo	94	12.6	11.0	5	9	42
Knoxville	24	11.9	14.9	1	8	22
White	15			0	6	0
Colored	9	(5)	(5)	1	2	211
Los Angeles	210			11	28	32
Lowell	26			3	2	68
Lynn	24	11.9	8.9	0	1	0
Memphis	58	15.9	17.9	3	3	35
White	24			1	1	19
Colored	34	(5)	(5)	2	2	63
Milwaukee	113	10.9	9.6	17	11	75
Minneapolis	92	10.6	8.3	4	1	25
Nashville	44	16.5	16.5	4	2	65
White	28			4	0	87
Colored	16	(5)	(5)	0	2	0
New Bedford	22			3	2	64
New Haven	39	10.9	9.2	2	5	31
New Orleans	145	17.7	16.3	17	20	84
White	81			8	15	56
Colored	64	(5)	(1)	9	4	151

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended September 28, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928—Continued

City	Week ended Sept. 28, 1929		Annual death rate per 1,000, corresponding week, 1928	Death under 1 year		Infant mortality rate, week ended Sept. 28, 1929 [2]
	Total deaths	Death rate [1]		Week ended Sept. 28, 1929	Corresponding week, 1928	
New York	1,227	10.7	10.6	137	134	56
Bronx Borough	178	9.8	8.8	13	10	38
Brooklyn Borough	396	9.0	8.6	45	50	46
Manhattan Borough	499	14.9	15.0	67	52	82
Queens Borough	109	6.7	8.0	8	19	33
Richmond Borough	45	15.6	16.7	4	3	72
Newark, N. J	89	9.8	7.5	16	7	84
Oakland	49	9.3	8.4	4	4	44
Oklahoma City	28			7	1	140
Omaha	56	13.1	12.4	1	3	12
Paterson	27	9.7	12.6	4	3	71
Philadelphia	406	10.3	9.8	50	49	71
Pittsburgh	194	15.1	10.7	29	20	100
Portland, Oreg	70			0	2	0
Providence	63	11.5	9.1	5	6	44
Richmond	60	16.1	13.4	5	8	70
White	38			1	3	21
Colored	22	(5)	(5)	4	5	164
Rochester	64	10.2	9.7	8	5	68
St. Louis	194	12.0	11.6	7	18	24
St. Paul	44			4	3	41
Salt Lake City [4]	27	10.2	11.0	4	4	62
San Antonio	53	12.7	11.3	7	11	
San Diego	36			4	1	77
San Francisco	146	13.0	14.4	2	4	13
Schenectady	19	10.6	11.2	2	2	64
Seattle	67	9.1	11.1	4	3	42
Somerville	23	11.7	4.6	0	0	0
Spokane	23	11.0	11.0	0	1	0
Springfield, Mass	36	12.6	8.7	5	1	83
Syracuse	41	10.8	15.7	5	2	60
Tacoma	21	9.9	11.8	1	1	26
Toledo	73	12.2	9.7	13	7	121
Trenton	36	13.5	13.2	1	5	18
Utica	34	17.1	21.1	8	4	204
Washington, D. C	117	11.1	11.0	10	13	59
White	71			6	9	51
Colored	46	(5)	(5)	4	4	76
Waterbury	12			4	4	102
Wilmington, Del	23	9.4	8.1	5	2	130
Worcester	33	8.7	12.2	1	5	13
Yonkers	24	10.3	7.8	2	3	47
Youngstown	31	9.3	7.2	6	3	86

[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 71 cities.
[4] Deaths for week ended Friday.
[5] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; 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 Weeks Ended September 28, 1929, and September 29, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 28, 1929, and September 29, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928
New England States:								
Maine	4	1	----	2	2	20	0	0
New Hampshire	----	1	----	9	9	15	0	0
Vermont	3	----	----	----	----	2	0	0
Massachusetts	66	34	2	8	32	50	2	1
Rhode Island	8	7	----	----	----	----	0	0
Connecticut	10	17	1	2	6	11	0	2
Middle Atlantic States:								
New York	100	50	[1] 5	[1] 11	83	88	17	18
New Jersey	72	80	2	5	7	12	8	4
Pennsylvania	123	163	----	----	68	103	14	3
East North Central States:								
Ohio	57	83	11	6	28	65	4	8
Indiana	30	46	----	23	5	10	0	0
Illinois	130	100	14	17	73	40	9	9
Michigan	62	82	----	2	85	17	14	6
Wisconsin	13	10	66	15	43	27	1	0
West North Central States:								
Minnesota	30	30	1	1	----	7	2	0
Iowa	8	12	1	----	17	----	0	0
Missouri	36	36	3	6	14	3	4	2
North Dakota	6	13	----	2	3	3	1	9
South Dakota	1	----	----	----	1	1	0	0
Nebraska	29	10	----	----	8	1	2	0
Kansas	30	16	1	1	23	4	3	0
South Atlantic States:								
Delaware	1	1	----	----	----	----	0	0
Maryland [2]	12	25	2	4	5	13	2	0
District of Columbia	8	12	2	----	1	4	0	0
Virginia	----	----	----	----	----	----	----	----
West Virginia	7	20	12	11	30	12	2	1
North Carolina	214	147	----	----	2	5	3	0
South Carolina	61	59	250	664	----	----	0	0
Georgia	27	28	31	118	8	----	1	1
Florida	32	12	----	12	3	1	0	0

[1] New York City only.

[2] Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 28, 1929, and September 29, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928
East South Central States:								
Kentucky	15	27			19		0	1
Tennessee	48	66	20	27	1		0	2
Alabama	68	75	7	46		73	3	1
Mississippi	46	33					1	0
West South Central States:								
Arkansas	9	14	3	34	4	9	1	0
Louisiana	26	23	13	20			0	0
Oklahoma [3]	50	85	14	18	7	8	1	1
Texas	33	26	21	19	1	6	0	0
Mountain States:								
Montana		2			112	4	3	0
Idaho						1	1	1
Wyoming			1		4	1	1	0
Colorado	9	12		2	6	1	0	3
New Mexico	6	13		1		6	0	0
Arizona	5						2	0
Utah [2]	2	3	5	2	1		0	0
Pacific States:								
Washington	17	12	1	2	5	19	2	3
Oregon	4	11	6	2	6	7	0	1
California	39	69	21	21	23	33	7	6

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928
New England States:								
Maine	0	3	20	24	0	0	6	4
New Hampshire	0	2	16	1	0	0	0	0
Vermont	1	1	2	4	0	0	1	0
Massachusetts	3	20	81	99	0	0	8	9
Rhode Island	0	0	2	3	0	0	2	1
Connecticut	0	2	23	14	0	0	5	2
Middle Atlantic States:								
New York	42	63	70	91	0	0	31	78
New Jersey	3	1	32	30	0	0	11	20
Pennsylvania	7	11	95	116	0	0	30	77
East North Central States:								
Ohio	9	19	192	134	18	4	34	60
Indiana	2	2	54	34	15	4	9	14
Illinois	3	1	180	114	22	16	33	46
Michigan	8	3	93	161	16	18	20	14
Wisconsin	0	1	44	53	7	3	4	6
West North Central States:								
Minnesota	0	14	52	56	6	0	7	3
Iowa	6	3	33	21	11	0	6	8
Missouri	1	0	29	61	8	8	14	37
North Dakota	0	4	9	29	4	0	1	3
South Dakota	0	0	6	9	8	8	5	1
Nebraska	0	2	15	24	3	79	1	4
Kansas	2	2	9	70	6	3	9	2
South Atlantic States:								
Delaware	0	0	1	4	0	0	1	4
Maryland [2]	1	13	21	16	0	0	25	46
District of Columbia	0	0	4	7	0	0	0	1
Virginia	17	1						
West Virginia	6	11	17	41	4	1	24	27
North Carolina	5	0	102	70	5	5	22	36
South Carolina	1	2	26	6	0	0	35	51
Georgia	2	0	41	11	0	0	11	28
Florida	1	0	2	4	0	0	0	3

[2] Week ended Friday.
[3] Figures for 1929 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 28, 1929, and September 29, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928	Week ended Sept. 28, 1929	Week ended Sept. 29, 1928
East South Central States:								
Kentucky	0	0	27	43	0	0	36	20
Tennessee	12	1	52	33	0	1	48	71
Alabama	2	4	51	28	0	1	17	47
Mississippi	0	0	19	23	0	1	17	14
West South Central States:								
Arkansas	0	0	8	22	0	0	18	30
Louisiana	0	0	14	10	1	3	24	36
Oklahoma [3]	0	0	39	47	6	6	28	79
Texas	0	1	17	10	7	0	96	22
Mountain States:								
Montana	0	5	18	10	11	12	56	9
Idaho	1	1	6	7	1	11	0	1
Wyoming	0	0	5	8	2	1	3	0
Colorado	1	2	10	12	1	2	8	2
New Mexico	0	1	3	13	1	10	12	13
Arizona	0	0	2	2	5	0	2	0
Utah [2]	0	0	15	9	0	1	0	1
Pacific States:								
Washington	0	11	24	20	12	23	10	7
Oregon	1	2	5	12	4	15	5	8
California	6	6	99	84	27	26	5	22

[2] Week ended Friday.
[3] Figures for 1929 are exclusive of Oklahoma City and Tulsa.

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
July, 1929										
Hawaii Territory	7	26	26	----	41	----	0	----	0	7
August, 1929										
Alabama	5	149	28	2,879	47	116	6	102	1	156
Nevada	----	----	----	----	----	----	----	----	16	----
Oregon	2	23	10	4	46	1	5	20	40	23
South Dakota	1	6	----	----	10	----	1	27	28	23
Virginia	3	189	273	142	71	34	93	113	6	175
Washington	18	25	16	1	76	----	1	37	71	32
Wisconsin	10	96	48	----	288	----	3	127	36	34

July, 1929

Hawaii Territory:	Cases
Chicken pox	4
Conjunctivitis (follicular)	10
Leprosy	4
Mumps	11
Plague	3
Tetanus	1
Whooping cough	51

August, 1929

Chicken pox:	Cases
Alabama	14
Oregon	20
South Dakota	7
Virginia	64
Washington	62
Wisconsin	124
Dengue:	
Alabama	2
Dysentery:	
Oregon	1
Washington	1
Dysentery and diarrhea:	
Virginia	1,015
German measles:	
Washington	7
Wisconsin	10

	Cases
Impetigo contagiosa:	
Oregon	4
Lethargic encephalitis:	
Washington	1
Wisconsin	2
Mumps:	
Alabama	6
Oregon	31
South Dakota	3
Washington	116
Wisconsin	75
Rocky Mountain spotted or tick fever:	
Oregon	1
Washington	1
Septic sore throat:	
Oregon	7
Washington	1
Tularaemia:	
Nevada	15
Oregon	4
Virginia	3
Typhus fever:	
Alabama	11
Virginia	1
Undulant fever:	
Wisconsin	1
Vincent's angina:	
Washington	2
Whooping cough:	
Alabama	102
Oregon	40
South Dakota	19
Virginia	665
Washington	179
Wisconsin	1,212

PLAGUE-INFECTED GROUND SQUIRRELS IN CALIFORNIA

Under date of September 27, 1929, plague infection was reported proved in two ground squirrels from the northern part of Santa Clara County, Calif., 35 miles east of San Jose. The district is in the Mount Hamilton section and adjacent to Alameda County.

PATIENTS IN INSTITUTIONS FOR THE FEEBLE-MINDED, OCTOBER TO DECEMBER, 1928

Reports for the fourth quarter of the year 1928 have been received by the Public Health Service from 27 institutions for the care of the feeble-minded located in 24 States, including one institution for females only with more than 1,200 patients. The total number of patients in these institutions on December 31, 1928, including those on temporary leave or otherwise absent but still on the books, was 32,556.

The first admissions were as follows:

	Male	Female	Total
October	289	176	465
November	189	129	318
December	157	84	241
Total	635	389	1,024

Of the first admissions during the three months, 62 per cent were males and 38 per cent were females, the ratio being 163 males per 100 females.

On December 31, 1928, there were 16,514 male patients and 16,042 female patients.

During the three months 487 patients were discharged, 222 male patients and 265 female patients.

One hundred and nineteen male patients and 74 female patients died.

The annual death rates based on the estimated number of patients on the books of the institutions the middle of November were: Males, 28.8 per 1,000; females, 18.3 per 1,000; persons, 23.6 per 1,000.

The following table shows the numbers of patients in the institutions and on temporary leave on October 1 and at the end of each month of the fourth quarter of 1928, and the percentage of the total patients who were on leave:

	Oct. 1, 1928	Oct. 31, 1928	Nov. 30, 1928	Dec. 31, 1928
Patients in institutions:				
Male	13,793	14,019	14,141	13,934
Female	13,977	14,118	14,173	14,005
Total	27,770	28,137	28,314	27,939
Patients on temporary leave:				
Male	2,409	2,341	2,346	2,580
Female	1,972	1,951	1,951	2,037
Total	4,381	4,292	4,297	4,617
Total patients on books:				
Male	16,202	16,360	16,487	16,514
Female	15,949	16,069	16,124	16,042
Total	32,151	32,429	32,611	32,556
Per cent of total patients on temporary leave:				
Male	14.9	14.3	14.2	15.6
Female	12.4	12.1	12.1	12.7
Total	13.6	13.2	13.2	14.2

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 97 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,480,000. The estimated population of the 90 cities reporting deaths is more than 29,900,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended September 21, 1929, and September 22, 1928

	1929	1928	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	1,283	1,246	----
97 cities	451	470	653
Measles:			
45 States	433	483	----
97 cities	90	106	----
Meningococcus meningitis:			
45 States	90	67	----
97 cities	43	50	----
Poliomyelitis:			
46 States	127	305	----
Scarlet fever:			
46 States	1,349	1,247	----
97 cities	411	374	417
Smallpox:			
46 States	190	116	----
97 cities	32	7	7
Typhoid fever:			
46 States	752	934	----
97 cities	135	158	178
Deaths reported			
Influenza and pneumonia:			
90 cities	320	408	----
Smallpox:			
90 cities	0	0	----

City reports for week ended September 21, 1929

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 weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1920 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation 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, 1928, 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	78,600	1	0	0		0	0	0	0
New Hampshire:									
Concord	(1)	0	0	0		0	0	0	0
Nashua	(1)	0	0	0		0	0	0	0
Vermont:									
Barre	(1)	1	0	0		0	1	0	1
Massachusetts:									
Boston	799,200	4	25	14	1	1	8	9	1
Fall River	134,300	1	2	0		0	0	1	2
Springfield	149,800	4	2	3		0	0	0	1
Worcester	197,600	1	4	1		0	4	0	1
Rhode Island:									
Pawtucket	73,100	0	1	0		0	0	0	1
Providence	286,300	0	5	2	1	0	1	0	1
Connecticut:									
Bridgeport	(1)	0	5	2		0	0	0	3
Hartford	172,300	1	3	0		0	0	0	1
New Haven	187,900	1	1	0		0	0	0	1
MIDDLE ATLANTIC									
New York:									
Buffalo	555,800	3	12	10		0	1	0	8
New York	6,017,500	12	100	44	6	0	9	17	68
Rochester	328,200	0	4	1		0	0	0	4
Syracuse	199,300	0	3	0		0	0	4	0
New Jersey:									
Camden	135,400	0	2	6		0	0	2	2
Newark	473,600	6	9	23	1	0	1	5	4
Trenton	139,000	1	2	2		0	0	0	2
Pennsylvania:									
Philadelphia	2,064,200	3	38	14	1	0	3	6	22
Pittsburgh	673,800	7	16	10		0	1	2	12
Reading	115,400	0	2	2		0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	413,700	0	7	6		0	1	0	5
Cleveland	1,010,300	22	29	6	5	2	1	1	8
Columbus	299,000	1	3	0		0	1	2	4
Toledo	313,200	1	5	0		0	5	0	3
Indiana:									
Fort Wayne	105,300	0	3	1		0	0	0	0
Indianapolis	382,100	5	7	7		0	3	1	8
South Bend	86,100	0	1	0		0	0	0	1
Terre Haute	73,500	3	0	0		0	0	0	2
Illinois:									
Chicago	3,157,400	12	55	84	2	0	7	1	28
Springfield	67,200	0	0	0		0	0	1	1
Michigan:									
Detroit	1,378,900	7	38	44	2	1	3	1	9
Flint	148,800	3	4	0		0	4	0	3
Grand Rapids	164,200	0	2	0		0	0	1	0

[1] No estimate of population made.

City reports for week ended September 21, 1929—Continued

Division, State, and city	Population, July 1, 1928, 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	56,500	0	1	0	----	0	0	0	0
Madison	50,500	0	1	0	----	0	1	2	0
Milwaukee	544,200	7	9	2	----	0	4	6	4
Racine	74,400	1	1	0	----	0	1	0	0
Superior	(1)	1	0	0	----	0	2	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	116,800	1	0	0	----	0	0	0	0
Minneapolis	455,900	11	19	3	----	0	0	6	4
St. Paul	(1)	1	13	1	----	0	0	0	4
Iowa:									
Davenport	(1)	0	1	0	----	----	0	0	----
Des Moines	151,900	0	3	0	----	----	1	0	----
Sioux City	80,000	0	1	3	----	----	0	3	----
Waterloo	37,100	2	1	0	----	----	0	0	----
Missouri:									
Kansas City	391,000	1	4	3	----	1	0	0	1
St. Joseph	78,500	0	1	0	----	0	0	0	1
St. Louis	848,100	2	24	16	----	----	0	1	----
North Dakota:									
Fargo	(1)	1	0	0	----	0	0	0	0
Grand Forks	(1)	0	0	0	----	----	0	0	----
South Dakota:									
Aberdeen	(1)	0	0	0	----	----	0	2	----
Sioux Falls	(1)	0	0	0	----	----	0	0	----
Nebraska:									
Omaha	222,800	2	12	5	----	0	2	0	2
Kansas:									
Topeka	62,800	0	1	1	----	1	0	1	0
Wichita	99,300	0	2	1	----	0	1	0	1
SOUTH ATLANTIC									
Delaware:									
Wilmington	128,500	0	1	0	----	0	0	0	0
Maryland:									
Baltimore	830,400	5	17	7	----	0	1	0	15
Cumberland	(1)	0	0	0	----	0	0	0	0
Frederick	(1)	0	0	0	----	0	0	0	0
District of Columbia:									
Washington	552,000	2	9	7	----	0	1	0	4
Virginia:									
Lynchburg	38,600	0	2	3	----	0	0	0	1
Norfolk	184,200	0	1	1	----	0	0	1	2
Richmond	194,400	1	16	20	----	0	1	0	2
Roanoke	64,600	0	5	1	----	0	0	0	0
West Virginia:									
Charleston	55,200	1	1	0	----	0	0	0	1
Wheeling	(1)	0	1	0	----	0	0	0	1
North Carolina:									
Raleigh	(1)	0	3	3	----	0	0	0	1
Wilmington	39,100	0	0	5	----	0	0	0	1
Winston-Salem	80,000	0	3	6	----	0	0	0	0
South Carolina:									
Charleston	75,900	0	0	0	17	0	0	0	1
Columbia	50,600	0	1	0	----	0	0	0	5
Georgia:									
Atlanta	255,100	0	6	3	6	1	0	1	2
Brunswick	(1)	0	0	0	----	0	0	0	0
Savannah	99,900	0	1	2	1	0	1	0	1
Florida:									
Miami	156,700	0	2	4	----	0	0	1	3
Tampa	113,400	0	1	4	----	0	0	0	0

[1] No of estimate population made.

City reports for week ended September 21, 1929—Continued

Division, State, and city	Population, July 1, 1928, 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	59,000	0	1	0		0	0	0	0
Louisville	329,400	0	4	1	1	0	1	0	1
Tennessee:									
Memphis	190,200	0	3	8		0	0	0	3
Nashville	139,600	0	6	2		0	0	0	3
Alabama:									
Birmingham	222,400	0	4	4	1	1	1	0	2
Mobile	69,600	0	1	2	1	0	0	0	1
Montgomery	63,100	0	2	4			0	0	
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	(1)	0	0	1			0	0	
Little Rock	79,200	0	1	0		0	0	0	0
Louisiana:									
New Orleans	429,400	0	7	10		0	2	0	6
Shreveport	81,300		0						
Oklahoma:									
Oklahoma City	(1)	0	2	2		0	0	0	1
Tulsa	170,500	0	1	0			0	0	
Texas:									
Dallas	217,800	3	7	12		0	0	0	2
Fort Worth	170,600	0	2	3		0	0	0	2
Galveston	50,600	0	0	0		0	0	0	1
Houston	(1)	2	4	7		0	0	0	2
San Antonio	218,100	0	2	7		0	0	0	2
MOUNTAIN									
Montana:									
Billings	(1)	1	0	0		0	0	1	0
Great Falls	(1)	4	0	0		0	0	10	1
Helena	(1)	0	0	0		0	0	0	0
Missoula	(1)	0	0	0		0	0	0	0
Idaho:									
Boise	(1)	0	0	0		0	0	0	1
Colorado:									
Denver	294,200	5	17	6		1	2	1	8
Pueblo	44,200	0	2	0		0	0	0	0
New Mexico:									
Albuquerque	(1)	1	0	0		0	0	0	0
Utah:									
Salt Lake City	138,000	1	3	2		0	1	12	0
Nevada:									
Reno	(1)	0	0	0		0	0	0	2
PACIFIC									
Washington:									
Seattle	383,200	10	4	0			0	9	
Spokane	109,100	1	1	0			0	0	
Tacoma	110,500	2	3	1		0	0	0	2
Oregon:									
Portland	(1)	4	6	1		0	0	1	4
Salem	(1)	1	0	0		0	0	1	0
California:									
Los Angeles	(1)	8	29	6	5	1	4	10	11
Sacramento	75,700	2	2	0		0	0	4	2
San Francisco	585,300	10	14	1	2	2	17	11	3

[1] No estimate of population made.

City reports for week ended September 21, 1929—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	0	0	0	10
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	0	5
Nashua	0	0	0	0	0	0	0	0	0	0	11
Vermont:											
Barre	0	0	0	0	0	1	0	0	0	1	4
Massachusetts:											
Boston	19	15	0	0	0	9	3	4	1	23	138
Fall River	1	0	0	0	0	2	1	0	0	6	20
Springfield	2	0	0	0	0	2	0	0	0	3	33
Worcester	4	0	0	0	0	2	0	0	0	0	44
Rhode Island:											
Pawtucket	1	0	0	0	0	0	0	0	0	0	8
Providence	2	4	0	0	0	5	0	2	0	2	49
Connecticut:											
Bridgeport	2	1	0	0	0	0	0	0	0	0	22
Hartford	1	0	0	0	0	0	1	0	0	1	39
New Haven	2	1	0	0	0	1	2	0	0	2	28
MIDDLE ATLANTIC											
New York:											
Buffalo	7	3	0	0	0	4	2	0	1	13	100
New York	39	23	0	0	0	84	41	25	7	57	1,139
Rochester	2	0	0	0	0	0	1	0	0	2	38
Syracuse	3	1	0	0	0	1	1	0	0	39	42
New Jersey:											
Camden	1	0	0	0	0	0	1	0	0	0	27
Newark	5	5	0	0	0	7	2	0	0	30	89
Trenton	0	2	0	0	0	3	1	1	0	1	37
Pennsylvania:											
Philadelphia	26	10	0	0	0	33	12	2	3	54	384
Pittsburgh	18	5	0	0	0	7	4	2	0	31	140
Reading	0	2	0	0	0	0	1	0	0	8	20
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	6	12	0	0	0	6	2	1	0	2	104
Cleveland	14	16	0	0	0	9	3	3	1	42	149
Columbus	4	6	0	0	0	5	0	1	1	8	76
Toledo	5	0	0	0	0	2	2	0	0	6	68
Indiana:											
Fort Wayne	1	3	0	3	0	1	1	0	0	0	19
Indianapolis	5	7	1	2	0	5	3	1	1	5	93
South Bend	2	0	0	0	0	0	0	0	1	0	13
Terre Haute	0	0	0	0	0	0	1	0	0	0	23
Illinois:											
Chicago	38	88	0	0	0	39	8	6	0	77	565
Springfield	1	0	0	0	0	1	1	0	0	2	21
Michigan:											
Detroit	33	37	0	1	0	20	4	4	0	57	261
Flint	6	6	0	10	0	3	1	0	0	6	49
Grand Rapids	4	2	0	0	0	1	0	0	0	8	23
Wisconsin:											
Kenosha	1	0	0	0	0	1	0	0	0	5	4
Madison	0	1	0	2	0	0	0	0	0	14	----
Milwaukee	13	5	0	0	0	6	1	2	0	29	112
Racine	3	4	0	0	0	0	0	0	0	10	9
Superior	1	3	0	0	0	0	0	0	0	2	6
WEST NORTH CENTRAL											
Minnesota:											
Duluth	5	3	0	0	0	2	0	0	0	7	23
Minneapolis	22	7	0	0	0	3	1	0	0	6	69
St. Paul	9	9	1	0	0	2	2	0	0	16	52
Iowa:											
Davenport	1	0	0	1	----	----	0	1	----	2	----
Des Moines	3	5	0	0	----	----	0	0	----	0	23
Sioux City	0	0	0	0	----	----	0	0	----	3	----
Waterloo	1	1	0	1	----	----	1	0	----	2	----

City reports for week ended September 21, 1929—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—contd.											
Missouri:											
Kansas City	5	11	0	0	0	3	2	0	0	2	86
St. Joseph	0	0	1	0	0	2	0	0	0	0	39
St. Louis	14	4	0	0	0	13	6	3	0	16	175
North Dakota:											
Fargo	1	0	0	0	0	0	0	0	0	0	4
Grand Forks	0	0	0	0	---	---	0	0	---	0	---
South Dakota:											
Aberdeen	0	0	0	0	---	---	0	0	---	7	---
Sioux Falls	1	0	0	0	---	---	1	0	---	0	6
Nebraska:											
Omaha	2	2	0	0	0	3	0	0	0	3	40
Kansas:											
Topeka	2	9	0	2	0	0	0	0	0	6	10
Wichita	2	2	0	0	0	1	2	0	0	3	34
SOUTH ATLANTIC											
Delaware:											
Wilmington	1	1	0	0	0	0	1	0	0	2	25
Maryland:											
Baltimore	7	12	0	0	0	9	10	2	0	38	170
Cumberland	0	1	0	0	0	0	0	2	0	0	6
Frederick	0	0	0	0	0	0	0	0	0	0	1
District of Columbia:											
Washington	7	3	0	0	0	7	4	2	0	6	122
Virginia:											
Lynchburg	0	0	0	0	0	0	0	0	0	22	7
Norfolk	1	2	0	0	0	1	1	0	0	2	---
Richmond	5	5	0	0	0	3	2	0	0	0	34
Roanoke	2	2	0	0	0	1	1	0	0	0	13
West Virginia:											
Charleston	2	1	0	0	0	0	1	2	0	0	7
Wheeling	2	0	0	0	0	0	1	0	0	3	15
North Carolina:											
Raleigh	0	2	0	0	0	0	0	0	0	5	13
Wilmington	1	1	0	0	0	1	0	0	0	0	8
Winston-Salem	2	3	0	0	0	2	1	0	0	11	13
South Carolina:											
Charleston	0	0	0	0	0	1	3	5	1	2	14
Columbia	0	1	0	0	0	2	1	0	0	11	22
Georgia:											
Atlanta	5	3	0	0	0	3	3	1	0	2	64
Brunswick	0	0	0	0	0	0	0	0	0	0	2
Savannah	0	0	0	0	0	0	0	0	0	0	25
Florida:											
Miami	0	0	0	0	0	2	1	0	0	2	21
Tampa	0	0	0	0	0	0	1	0	0	0	17
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	1	0	0	0	1	0	0	0	0	18
Louisville	3	1	0	0	0	6	5	1	0	3	71
Tennessee:											
Memphis	2	1	0	0	0	0	5	0	0	3	72
Nashville	2	0	0	0	0	4	4	0	1	3	41
Alabama:											
Birmingham	4	4	0	0	0	6	4	0	0	2	56
Mobile	0	0	0	0	0	3	0	0	0	0	23
Montgomery	0	1	0	0	---	---	0	0	---	0	---
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0	---	---	0	4	---	0	---
Little Rock	0	0	0	0	0	2	2	1	0	0	---
Louisiana:											
New Orleans	2	10	0	0	0	11	4	2	0	1	120
Shreveport	0	---	0	---	---	---	0	---	---	---	---

City reports for week ended September 21, 1929—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—contd.											
Oklahoma:											
Oklahoma City	1	4	0	1	0	0	2	2	0	0	26
Tulsa	2	2	0	0			1	0		3	
Texas:											
Dallas	3	2	0	0	0	4	3	2	1	1	40
Fort Worth	1	1	0	1	0	1	0	0	0	0	27
Galveston	0	0	0	0	0	0	0	0	0	0	11
Houston	1	3	0	0	0	2	0	12	0	0	48
San Antonio	0	3	0	0	0	5	1	1	0	0	40
MOUNTAIN											
Montana:											
Billings	1	1	0	0	0	0	0	0	0	0	9
Great Falls	1	0	0	0	0	0	1	1	0	0	12
Helena	0	0	0	0	0	1	0	29	2	0	5
Missoula	1	1	0	4	0	0	0	7	0	0	4
Idaho:											
Boise	0	0	0	0	0	1	0	0	0	0	7
Colorado:											
Denver	5	5	0	0	0	5	2	1	1	6	79
Pueblo	0	0	0	0	0	1	2	0	0	0	14
New Mexico:											
Albuquerque	1	0	0	0	0	6	2	0	0	0	9
Utah:											
Salt Lake City	1	6	0	2	0	1	2	1	0	8	37
Nevada:											
Reno	0	0	0	0	0	1	0	0	0	0	7
PACIFIC											
Washington:											
Seattle	4	1	0	0			2	0		10	
Spokane	3	3	1	1			0	0		20	
Tacoma	1	2	1	0	0	1	0	0	0	1	18
Oregon:											
Portland	5	2	3	0	0	2	1	0	0	1	62
Salem	0	0	0	0	0	0	1	0	0	2	
California:											
Los Angeles	10	12	1	1	0	15	3	2	0	26	
Sacramento	2	2	1	0	0	5	1	0	0	1	24
San Francisco	7	8	0	5	0	8	1	1	0	5	154

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston	0	0	0	1	0	0	4	1	1
Worcester	1	0	0	0	0	0	0	0	0
Rhode Island:									
Providence	0	0	0	0	0	1	1	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo	0	0	0	0	0	0	0	0	3
New York	10	4	2	0	0	0	19	1	1
Rochester	0	0	0	0	0	0	1	1	0
Syracuse	0	0	0	0	0	0	1	1	0

City reports for week ended September 21, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC—continued									
New Jersey:									
Newark	2	0	1	0	0	0	1	0	0
Pennsylvania:									
Philadelphia	3	0	0	0	0	0	2	1	0
Pittsburgh	1	1	0	0	0	0	1	1	0
EAST NORTH CENTRAL									
Ohio:									
Cleveland	3	0	1	0	0	0	2	3	0
Columbus	0	0	0	0	0	0	0	2	1
Indiana:									
Fort Wayne	1	1	0	0	0	0	0	0	0
Illinois:									
Chicago	3	1	1	0	0	0	6	2	0
Michigan:									
Detroit	3	4	1	0	0	0	3	3	1
Grand Rapids	0	0	0	0	0	0	0	1	0
Wisconsin:									
Milwaukee	0	0	0	0	0	0	0	1	1
WEST NORTH CENTRAL									
Minnesota:									
St. Paul	0	0	0	0	0	0	1	1	0
Iowa:									
Des Moines	0	0	0	0	0	0	1	1	0
Sioux City	[1] 1	0	0	0	0	0	0	0	0
Missouri:									
Kansas City	1	0	0	0	0	0	0	0	0
St. Louis	5	4	0	0	0	0	1	0	0
Kansas:									
Wichita	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore	0	0	1	1	0	0	2	0	0
Virginia:									
Lynchburg	0	0	0	0	0	0	0	1	0
Richmond	0	0	0	0	0	0	1	5	0
Roanoke	0	0	0	0	0	0	0	6	0
North Carolina:									
Raleigh	0	0	0	0	2	0	0	0	0
South Carolina:									
Charleston	0	0	0	0	1	1	0	0	0
Columbia	0	1	0	0	0	0	0	0	0
Georgia:									
Atlanta	2	1	0	0	3	2	0	0	0
Savannah	0	0	0	0	3	3	0	1	1
EAST SOUTH CENTRAL									
Kentucky:									
Louisville	0	0	0	0	0	1	1	0	0
Tennessee:									
Memphis	1	0	0	0	3	0	0	0	0
Alabama:									
Montgomery	0	0	0	0	0	0	0	1	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	1	0	0	0
Louisiana:									
New Orleans	0	0	0	0	1	0	0	0	0
Texas:									
Dallas [2]	0	0	0	0	2	2	1	0	0
Galveston	0	0	0	0	0	1	0	0	0

[1] Nonresident.
[2] Typhus fever; 1 case at Dallas, Tex.

City reports for week ended September 21, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MOUNTAIN									
Utah:									
Salt Lake	2	1	0	0	0	0	0	1	0
PACIFIC									
Washington:									
Seattle	1	0	0	0	0	0	1	0	0
Oregon:									
Portland	0	0	0	0	0	0	0	1	0
California:									
Los Angeles	0	1	1	0	0	0	1	3	2
Sacramento	1	1	0	0	0	0	0	0	0
San Francisco	1	0	0	0	0	1	0	0	0

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended September 21, 1929, compared with those for a like period ended September 22, 1928. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have an estimated aggregate population of more than 31,000,000. The 91 cities reporting deaths have nearly 30,000,000 estimated population. 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, August 18 to September 21, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Aug. 24, 1929	Aug. 25, 1928	Aug. 31, 1929	Sept. 1, 1928	Sept. 7, 1929	Sept. 8, 1928	Sept. 14, 1929	Sept. 15, 1928	Sept. 21, 1929	Sept. 22, 1928
98 cities	61	65	62	[2] 57	[3] 64	51	66	[4] 75	[5] 75	79
New England	63	62	45	37	[6] 51	34	48	87	50	67
Middle Atlantic	58	66	54	59	45	49	41	58	54	63
East North Central	69	67	75	[2] 61	85	51	95	67	96	92
West North Central	25	65	25	51	[7] 39	70	58	98	63	92
South Atlantic	75	86	90	73	[8] 92	48	133	[4] 113	114	92
East South Central	54	49	115	35	75	42	115	154	136	182
West South Central	146	65	142	101	138	77	63	142	[5] 156	93
Mountain	26	44	17	44	70	53	26	35	70	62
Pacific	30	41	27	20	35	49	22	49	20	54

[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, 1929 and 1928, respectively.
[2] South Bend, Ind., not included.
[3] Pawtucket and Providence, R. I., Topeka, Kans., and Brunswick, Ga., not included.
[4] Lynchburg, Va., not included.
[5] Shreveport, La., not included.
[6] Pawtucket and Providence, R. I., not included.
[7] Topeka, Kans., not included.
[8] Brunswick, Ga., not included.

Summary of weekly reports from cities, August 18 to September 21, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928—Continued

MEASLES CASE RATES

	Week ended—									
	Aug. 24, 1929	Aug. 25, 1928	Aug. 31, 1929	Sept. 1, 1928	Sept. 7, 1929	Sept. 8, 1928	Sept. 14, 1929	Sept. 15, 1928	Sept. 21, 1929	Sept. 22, 1928
98 cities	20	29	14	[2] 22	[3] 13	20	16	[4] 18	[5] 15	18
New England	38	85	20	90	[6] 24	55	16	39	32	48
Middle Atlantic	13	21	8	16	7	18	12	15	7	15
East North Central	33	31	22	[2] 28	16	24	20	24	17	20
West North Central	8	16	8		[7] 2	2	6	14	6	18
South Atlantic	0	34	13	4	[8] 2	6	7	[4] 12	7	17
East South Central	14	14	7	14	14	0	7	14	7	7
West South Central	4	0	8	0	4	4	12	0	[5] 8	4
Mountain	52	9	44	18	26	35	61	44	26	0
Pacific	40	31	20	13	47	28	40	13	52	10

SCARLET FEVER CASE RATES

98 cities	41	34	41	[2] 32	[3] 52	37	54	[4] 57	[5] 68	63
New England	45	30	38	64	[6] 94	46	52	78	50	101
Middle Atlantic	15	18	16	14	25	18	16	28	25	24
East North Central	62	44	63	[2] 32	69	44	90	88	120	91
West North Central	56	49	44	55	[7] 63	39	58	68	92	104
South Atlantic	34	34	45	33	[8] 64	50	47	[4] 45	66	71
East South Central	68	63	34	91	41	70	95	105	48	56
West South Central	67	53	75	45	36	57	95	45	[5] 76	28
Mountain	44	62	61	35	17	27	70	27	113	53
Pacific	52	33	47	31	80	59	75	64	70	77

SMALLPOX CASE RATES

98 cities	3	2	4	[2] 1	[3] 4	1	3	[4] 1	[5] 5	1
New England	0	0	0	0	[6] 0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	4	5	10	[2] 1	10	1	4	0	10	1
West North Central	6	0	4	0	[7] 2	4	8	4	6	4
South Atlantic	0	0	0	0	[8] 0	0	2	[4] 0	0	0
East South Central	0	0	0	0	0	0	0	0	0	0
West South Central	8	0	4	0	0	0	0	4	[5] 0	4
Mountain	26	9	0	0	9	9	9	9	52	0
Pacific	17	0	15	5	15	8	12	3	17	5

TYPHOID FEVER CASE RATES

98 cities	30	31	27	[2] 29	[3] 18	24	21	[4] 28	[5] 22	27
New England	27	16	29	23	[6] 3	16	16	14	14	21
Middle Atlantic	34	23	27	18	20	25	18	29	14	23
East North Central	12	18	13	[2] 15	13	13	10	14	11	16
West North Central	13	25	23	39	[7] 12	20	17	25	6	31
South Atlantic	51	52	52	46	[8] 34	36	34	[4] 39	28	33
East South Central	102	231	102	175	54	105	88	140	0	112
West South Central	91	53	51	73	16	28	51	28	[5] 93	69
Mountain	70	62	17	44	44	80	70	18	340	27
Pacific	5	26	12	26	15	13	20	38	7	18

[2] South Bend, Ind., not included.
[3] Pawtucket and Providence, R. I., Topeka, Kans., and Brunswick, Ga., not included.
[4] Lynchburg, Va., not included.
[5] Shreveport, La., not included.
[6] Pawtucket and Providence, R. I., not included.
[7] Topeka, Kans., not included.
[8] Brunswick, Ga., not included.

Summary of weekly reports from cities, August 18 to September 21, 1929—Annual rates per 100,000 population, compared with rates for the corresponing period of 1928—Continued

INFLUENZA DEATH RATES

	Week ended—									
	Aug. 24, 1929	Aug. 25, 1928	Aug. 31, 1929	Sept. 1, 1928	Sept. 7, 1929	Sept. 8, 1928	Sept. 14, 1929	Sept. 15, 1928	Sept. 21, 1929	Sept. 22, 1928
91 cities	3	4	2	[2] 3	[2] 3	3	3	[4] 5	[5] 2	4
New England	2	2	0	0	[6] 0	0	0	0	2	2
Middle Atlantic	3	3	2	3	2	2	2	4	0	5
East North Central	4	3	2	[2] 3	6	2	2	5	2	4
West North Central	0	0	0	3	[7] 0	3	6	15	6	3
South Atlantic	2	10	2	4	[8] 4	8	2	[4] 8	2	4
East South Central	0	0	0	8	7	23	7	23	7	15
West South Central	8	17	4	4	0	8	12	8	[5] 0	0
Mountain	9	0	9	18	0	0	9	0	9	4
Pacific	0	3	0	3	3	7	0	3	10	0

PNEUMONIA DEATH RATES

91 cities	54	58	55	[2] 56	[2] 58	58	55	[4] 65	[5] 54	68
New England	25	44	50	30	[6] 46	48	36	62	29	76
Middle Atlantic	60	68	61	61	75	56	66	69	59	74
East North Central	47	41	51	[2] 50	44	60	47	64	47	59
West North Central	48	52	33	46	[7] 53	34	45	64	39	61
South Atlantic	73	61	56	75	[8] 64	71	52	[4] 70	66	84
East South Central	37	115	52	100	74	69	89	38	67	69
West South Central	69	87	101	67	32	58	57	71	[5] 56	12
Mountain	52	44	44	53	52	44	70	44	104	71
Pacific	52	51	30	40	33	78	43	61	59	91

[2] South Bend, Ind., not included.
[3] Pawtucket and Providence, R. I., Topeka, Kans., and Brunswick, Ga., not included.
[4] Lynchburg, Va., not included.
[5] Shreveport, La., not included.
[6] Pawtucket and Providence, R. I., not included.
[7] Topeka, Kans., not included.
[8] Brunswick, Ga., not included.

Number of cities included in summary of weekly reports and aggregate population of cities of each group, approximated as of July 1, 1929 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total	98	91	31, 568, 400	31, 052, 700	29, 995, 100	29, 498, 600
New England	12	12	2, 305, 100	2, 273, 90[illegible]	2, 305, 100	2, 273, 900
Middle Atlantic	10	10	10, 809, 700	10, 702, 200	10, 809, 700	10, 702, 200
East North Central	16	16	8, 181, 900	8, 001, 300	8, 181, 900	8, 001, 300
West North Central	12	9	2, 712, 100	2, 673, 300	1, 736, 900	1, 708, 100
South Atlantic	19	19	2, 783, 200	2, 732, 900	2, 783, 200	2, 732, 900
East South Central	6	5	767, 900	745, 500	704, 200	682, 400
West South Central	8	7	1, 319, 100	1, 289, 900	1, 285, 000	1, 256, 400
Mountain	9	9	598, 800	590, 200	598, 800	590, 200
Pacific	6	4	2, 090, 600	[illegible], 043, 500	[illegible], 590, 300	1, 55[illegible], 200

FOREIGN AND INSULAR

BRAZIL

Para—Yellow fever—December, 1928, to July, 1929.—From December 28, 1928, to July 14, 1929, 12 cases of yellow fever, with 8 deaths, were reported at Para, Brazil. The diagnosis of three of the cases was doubtful, and one of the deaths occurred at Manaos, although the infection was acquired at Para. Yellow fever had been unknown at Para for many years before these cases occurred. Many of the cases of yellow fever are not reported.

CANADA

Provinces—Communicable diseases—Week ended September 14, 1929.—The Department of Pensions and National Health reports cases of certain communicable diseases in Canada for the week ended September 14, 1929, as follows:

Province	Cerebrospinal fever	Lethargic encephalitis	Poliomyelitis	Smallpox	Typhoid fever
Prince Edward Island					
Nova Scotia					9
New Brunswick					4
Quebec					12
Ontario		1	76	3	14
Manitoba			2		4
Saskatchewan			8		3
Alberta	1				9
British Columbia			3	3	2
Total	1	1	89	6	57

Quebec Province—Communicable diseases—Four weeks ended August 31, 1929.—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the four weeks ended August 31, 1929, as follows:

Disease	Week ended—			
	Aug. 10	Aug. 17	Aug. 24	Aug. 31
Cerebrospinal meningitis	2		1	1
Chicken pox	11	6	6	7
Diphtheria	23	27	9	21
German measles	2	1	3	1
Influenza	2	1		
Measles	18	7	4	2
Mumps	4	4	1	
Poliomyelitis	2		5	11
Scarlet fever	30	31	35	36
Smallpox	1	1		
Tuberculosis	52	53	49	37
Typhoid fever	16	16	21	14
Whooping cough	49	43	75	76

CHINA

Manchuria—Plague—August, 1929.—A report dated September 4, 1929, from the North Manchurian Plague-Prevention Service states that plague has been found in at least five villages north of Tungliao. The mortality is said to be high. The predominating type of plague is bubonic, with some septicemic. No pneumonic plague has been noted. Cases were reported during August, 1929, as follows:

Village	Date	Cases
Wu Chia Tze	Aug. 21–22, 1929	[1] 5
San Chia Tze	Aug. 21–24, 1929	10
Small San Chia Tze	Aug. 9–25, 1929	11
Si Chia Gan Tu Li Ka	Aug. 25–27, 1929	8
Pa Yin Ta La	Aug. 17–26, 1929	3
Total		37

[1] See Public Health Reports, Sept. 20, 1929, p. 2294, for earlier cases.

DENMARK

Communicable diseases—July, 1929.—During the month of July, 1929, cases of certain communicable diseases were reported in Denmark as follows:

Disease	Cases	Disease	Cases
Bronchopneumonia	1,106	Mumps	935
Cerebrospinal meningitis	4	Paratyphoid fever	43
Chicken pox	18	Poliomyelitis	3
Diphtheria and croup	214	Puerperal fever	16
Erysipelas	195	Scabies	540
German measles	4	Scarlet fever	129
Influenza	1,814	Tetanus	2
Jaundice	79	Typhoid fever	21
Lethargic encephalitis	4	Undulant fever [1]	50
Measles	413	Whooping cough	635

[1] Reported from State serum laboratory.

JAMAICA

Communicable diseases—Four weeks ended September 14, 1929.—During the four weeks ended September 14, 1929, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island of Jamaica outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chicken pox	3	3	Poliomyelitis	----	1
Dysentery	3	9	Puerperal fever	----	2
Erysipelas	----	1	Tuberculosis (pulmonary)	25	39
Leprosy	----	1	Typhoid fever	25	124
Paratyphoid fever	----	1			

MEXICO

Vera Cruz—Deaths from communicable diseases—Six weeks ended September 21, 1929.—During the six weeks ended September 21, 1929, deaths from certain communicable diseases were reported in Vera Cruz, Mexico, as follows:

Disease	Week ended—					
	Aug. 17	Aug. 24	Aug. 31	Sept. 7	Sept. 14	Sept. 21
Bronchitis				1		
Cancer				1	1	1
Cerebrospinal meningitis			1		1	1
Dysentery					1	
Gastrointestinal disorders	14	7	8	5	9	7
Hookworm disease						1
Malaria	1	3			3	3
Pneumonia	2		1	1	3	
Syphilis	1					3
Tetanus			1			
Tuberculosis	2	6	3	3	5	2
Typhoid fever	1		1	1		1

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

From medical officers of the Public Health Service, American consuls, International Office of Public Hygiene, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following table must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21
Ceylon	C			3													
	D			3													
Colombo	C		1	3	1												
	D			3	1												
China:																	
Amoy	C				4	1	2	4		1							
Canton	C	3	3	2	10	3	1		2	1	2	2			1		
	D		3	1	5	3	1		1	1		2			1		
Manchuria—																	
Kwantung—Dairen	C										1						
Newchwang	C														P		
Shanghai	C					1		1			9	797	500	483	360	139	
	D							1	2	4	24	41	29	30	23		
Swatow	C				P												
	D				4	2	1	3	1	2	5	3	2	1	20		P
Tientsin	C															P	
Chosen: Chemulpo	C																
India	C	9,046	18,521	30,616	29,449	7,315	6,946	8,271	9,549								
	D	4,997	11,069	20,311	19,910	4,783	4,431	5,166	4,963								
Bassein	D	45	118	38	2					3		3					
Bombay	C	6	3		2					1	1						
	D	2		2	2					1							
Calcutta	C	552	788	924	354	82	69	59	65	65		64	41				
	D	307	461	605	176	41	29	59	28	24	28	36	18	13	15		
Karachi	C										1	3	6	1	4		
Madras	C			1				1									
	D							1	1								
Moulmein	D	7	6	31	5			1									
Negapatam	C				1			1									
Rangoon	C	15	8	13	8			1		1							
	D	37	10	7	8			1		1							

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

CHOLERA—Continued

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21
India—Continued.																	
Tuticorin	C				34	4	2										
	D				30		2										
Vizagapatam	D							1									
India (French):																	
Chandernagor	C	3	3	3	3	1	1				1						
	D	3	1	3	3	1			1								
Karikal	C	20	3								1						
	D	15	3														
Pondicherry Province	C	46		3	3												
	D	38		3	3												
India: Portuguese	C											1					
	D											1					
Indo-China (see also table below):																	
Pnompenh	C	13	15	14	11	2	2	3				1	2		2		
	D	10	9	10	4	1	1	2	1			1	2		2		
Saigon and Cholon	C	12	13	71	188	0	6	1	2	2							
	D	2	8	37	139	8	4	1	1	2							
Japan:																	
Kobe	C											P	2	4			
Osaka	C											1	4	18			
Shimonoseki	C												P	2			
Siam	C	397	619	619	469	214	49	54	54	123	29	13	15	12			
	D	269	404	436	285	112	38	26	26	80	17	10	5	11			
Anthoang	C								4				10				
	D								4				3				
Ayudhaya	C	1	29	2	25			6	11		2						
	D	1	19		11			3	8								
Bangkok	C	38	111	131	30	2	2	1	2		2	3	4	1	3	4	
	D	21	74	77	13		1					2	1	1	2	1	
Chaxoengsao	C			1													
	D			1													
Dhannapuri	C		17														
	D		7														

Lobpuri	C		1										2	3				
	D		1										2	3				
Nagara Pathom	C		36	13														
	D		20	10														
Nagara Rajsima	C							21	36									
	D							12	17									
Smud Songram	C							2	1									
	D							2	1									
Sridharmaraj Province [1]	C									2	13							
	D									2	11							
On vessel:																		
S. S. Angby, at Saigon-Cholon	C				1													
	D				1													
S. S. Cap. St. Jacques, at Singapore, from Saigon-Cholon	C					P												
S. S. Elephanta, at Penang, from Calcutta	C	P																
S. S. Erinpura, at Madras	C			2														
S. S. Media, at Colombo, from Calcutta	C			1														
S. S. Saka Maru, at Calcutta	C			6														
S. S. Shinsei, at Shanghai	D															3		
S. S. Tilawa, at Penang, from Singapore	C	P																
S. S. Tokushima, at Hong Kong	C				2													
	D				2													
S. S. Texas Maru, at Nagasaki, from Shanghai	C												1					

Place		February, 1929	March, 1929	April, 1929	May, 1929	June, 1929			July, 1929			August, 1929		
						1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31
Indo-China (French) (see also table above):														
Annam	C		6	20	[2] 20				2	5	2		3	14
Cambodia	C	69	29	84	[2] 215				55	71	60		21	14
Cochin-China	C	223	183	88	[2] 123				146	123	46		45	15
Laos	C								1		12			
Tonkin	C				5	4								

[1] There were 98 cases of cholera with 16 deaths in Nagara Sridharmaraj Province, Siam, from May 16 to July 7, 1929.
[2] Reports incomplete.

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

PLAGUE

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929				August, 1929					September, 1929			
						6	13	20	27	3	10	17	24	31	7	14	21	28
Algeria:																		
Algiers	C														1	1		
Philippeville	C								3	3								
Argentina:																		
Buenos Aires	C	2	1															
	D	2																
Rosario	C	31	5															
Azores: St. Michaels Island	C	1						1										
Belgian Congo:																		
Blukwa	C				3													
	D				3													
Buki	C					1	1											
	D					1	1											
Djugu	C			2	3				5			1						
	D			3	3				5			1						
Rekwa	C					2												
	D					2												
Brazil: Porto Alegre	C		1															
British East Africa (see also table below): Uganda	C	130	231	450	1,437	255	357	393	432	296	270							
	D	124	219	409	1,072	220	359	301	319	263	235							
Canary Islands: Tenerife	D						1											
Laguna	C			1														
Ceylon:																		
Colombo	C	4	5	7	2		P	P							1			
	D	1	4	6	3										1			
Plague-infected rats			1				1		5				1	7				
Galle	C						1	1	1					1	3			
	D						1	1	1					1	2			
Kandy	C												1	1				
	D												1	1				
Matara	C						7	4	1									
	D						3	3	5									
China:																		
Amoy	C									P								
Foochow	C								P		P							
Hong Kong	C												1		1			
	D												1		1			

Plague-infected rats														3					
Manchuria—Tungliao District	C									P	13	3							
Dutch East Indies:																			
Java—																			
Batavia and West Java	C	64	63	58	47		12	15	42	33	33								
	D	65	63	56	47		11	16	41	33	32								
Plague-infected rats		5	8																
East Java and Madura	C	3							3		2								
	D	3							3		2								
Surabaya	C				3	2	5	4		3									
	D				3	2	5	4		3									
Ecuador (see table below).																			
Egypt:																			
Alexandria	C			1	1	2		3	2	1		1	3	3	2	4	2	3	
	D				1	1		1	1		1			1	1	2	1	1	
Assuan	C						1	1	2							1			
	D						1	1	2										
Beheira	C								2										
	D								2										
Beni Suef	C	2	7		6	1	1	1	1	1						1			
	D	2	2		2														
Dakahlieh	C			9	1				1							2			
	D			1								1				2			
Gharbieh	C					1	5	1	2			1							
	D						1					1							
Girga	C					2	1												
Kena	C					1	1												
	D					1	1												
Menufieh Province	C								3										
Miniah	C							4	3			1							
Port Said	C		2	3	2	1	1	1		2	1	2	1	2					
	D		1	2	1	1			1	1		3		3					
Suez	C	2							1										
Greece (see also table below):																			
Patras	C													1		1	1		
Piræus	C													1	1	1			
Hawaii: Hamakua—Kukuihaele—Plague-infected rats				6	1														
India	C	16,011	6,884	1,394	677	222	366	507	717										
	D	12,592	5,623	1,205	414	120	236	312	391										
Bassein	C		1				3		6	4	3	2	4	2	1				
	D	6	2	2	4	1				5	3	2	4	1	1				
Bombay	C	8	8	1						1				1					
	D	6	6	1	4					1				1					
Plague-infected rats		57	81	44	35	6	7	4	6	7			3	9					
Madras Presidency	C	132	38	64	85	43		54		62	72								
	D	80	14	40	38	26		26		27	36								
Rangoon	C	12	11	2		2	9	9	4	5	4	3	3						
	D	9	15	3	9	3	3	8	4	5	2	3	2	4	2				
Plague-infected rats		15	10	5	6	4	2	3					10	7	6				
Indo-China (see also table below):																			
Pnompenh	C	10	8	5	4	5		2		1	5	2		1	1	2			
	D	10	8	3	3	5			3	1	5	2		1	1	2			

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

PLAGUE—Continued

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21	28
Indo-China—Continued																		
Saigon and Cholon	C				1	5			1	2	1		1		1			
	D								1	2	1		1					
Iraq:																		
Baghdad	C	11	8	14	12		1				1	1						
	D	3	7	5	2													
Plague-infected rats		14	2	1														
Diyalah Liwa	C		7	12	1	1												
	D		7	7														
Naudham	C				1		1											
Japan: Osaka—Plague-infected rats				2														
Madagascar (see also table below):																		
Tamatave	C			P	2	2	2		1									
	D	1	1		2													
Morocco	C	106	31	42	16	3	21	15					4	1				
	D	73	16	4	5		11	6										
Nigeria: Lagos	C	4	8	5	2			1			1	2	6		4			
	D	4	8	4	1			1			1	2	5		4			
Plague-infected rats		18	6	8	4	2	2	5	4	3	8	2						
Peru (see table below).																		
Senegal (see table below).																		
Siam	C	9	10	9	1			4			3							
	D	8	8	5	1			3			3							
Bangkok	C			2				1			3				1			
	D			1				1			3				1			
Nagara Pathom	C	4	2	3														
	D	4	2	2														
Straits Settlement: Singapore	C		1													1		
	D		1	1												1		
Tunisia: Tunis	C						P	P	P					4	4	2		
	D													1				
Turkey:																		
Adalia	C										1							
Constantinople	C				P			2										
Union of Socialist Soviet Republics:																		
Caucasia	C				1	3	1		3		2							
	D				1	3					1							
Ural–Kirghis	C				4													
	D				4													

Union of South Africa:																			
Cape Province	C	1	2					3											
	D	1	1					2											
Orange Free State	C	3	4																
	D	2	1																
Transvaal	C	8																	
	D	8																	
Uruguay: Montevideo	C	4																	
On vessel:																			
S. S. Chaban, at Port Said, from Jaffa	C													1					
	D													1					
S. S. Chenonceaux, at Singapore, from Colombo	C	1																	
	D	1																	
S. S. Tokio, at Shanghai, from Singapore	C								1										
	D								1										
S. S. Ganzan Maru, at Osaka, from Haipong	C			1															
S. S. Seigo Maru, at Osaka, from Bombay—Plague-infected rats				1															
S. S. Soudades, at Hamburg, from Rosario, Argentina—Plague-infected rats			2																
S. S. Sumatra, at Osaka, from Bombay	C		1	1															

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
British East Africa (see also table above):							
Kenya	C	10	4	22	69		
Uganda	C	121	282		1,215	1,203	
	D	113	264		932	973	
Ecuador: Guayaquil	C	26	19	2		1	6
	D	4	5	1			1
Plague-infected rats		14	13	3	1		4
Greece (see also table above)	C		1			3	
	D					1	
Indo-China (see also table above)	C	3	13			42	
Madagascar (see also table above)	C	196	92			14	
	D	194	88			14	
Ambositra Province	C	90	8				
	D	90	8				
Antisirabe Province	C	13				2	
	D	13				2	
Itasy Province	C	8	2				
	D	7	2				
Moramanga Province	C	5	3				
	D	5	3				
Tananarive Province	C	120	78		11	13	
	D	119	74		11	13	

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
Peru	C	35		10	16	11	
	D	13		5	8	3	
Senegal:							
Baol [1]	C	6	1	21	43	22	14
	D	3	1	6	18	9	3
Dakar [1]	C		6	17	67	62	45
	D		4	11	45	45	39
Louga [1]	C					59	95
	D					39	49
Rufisque [1]	C					22	
	D					7	
Thies [1]	C	4	20	6	10	61	30
	D	3	20	3	6	34	21
Tivaouane [1]	C			22	93	161	116
	D			10	50	96	77

[1] Incomplete reports.

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

SMALLPOX

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21	28
Algeria:																		
Algiers	C	3	5	5	6	1	2	2	2		1							
Cherchell	C	42	1		1													
Oran	C	1	2	5	1				1									
Angola (see table below).																		
Arabia: Aden	C	30	69	40	110	18	21	42	22	11	17	6	4	1	2			
	D	8	20	20	20	18	4	17	17	20	10	4	3	1				
Australia: Fremantle Quarantine Station	C								1									
Bermuda: Hamilton	C				1													
Brazil:																		
Porto Alegre	C			1										3				
Rio de Janeiro	C			3														
British East Africa (see also table below):																		
Tanganyika	C		3	4	7	2	2	2	4		2							
British South Africa:																		
Northern Rhodesia	C							73										
	D							4										
Southern Rhodesia	C	69	13	12				5										
Canada:																		
Alberta	C	7	8		12					1	2	1						
Calgary	C		2							1	1							
Edmonton	C	12	5		4							1						
British Columbia—Vancouver	C	64	46	23	13	4	8	2		5		2	1		2	3		
Manitoba	C	3	12	6	6			1										
Winnipeg and vicinity	C				2													
New Brunswick	C	3																
Nova Scotia	C		1							2								
Ontario	C	57	113	40	84	25	5	13	14		2	5		5	4	3		
Niagara Falls	C	1		3														
North Bay	C		3	8	2	2	2	2	1								3	
Ottawa	C				1				1		1							
Toronto	C	2	1		5	5		1	1					1	1		1	1
Windsor	C		3	3	2	1	1											
Prince Edward Island	C									1	1							

Quebec	C	14	34	12	10	2				1	1	1						
Montreal	C	4	4	1	1													
Quebec	C	3	1	1	2					1								
Riviere du Loup	C		1						2									
Saskatchewan	C	13	13	14								1		1	3			
Moose Jaw	C	1																
Saskatoon	C	1												1				
China:																		
Amoy	C	3	4	2														
Canton	C	135	85	46	16	5	3	3	1	2								
	D	15	12	4	1	1	1											
Chefoo	C		P	P														
Foochow	C	P	P						P		P							
Hong Kong	C	92	53	29	10		1			1		3	1		1			
	D	137	97	25	6	3	2				1	2	1		1			
Manchuria—																		
Changshun	C		1															
Harbin	C	1	4								1							
Kwantung—																		
Dairen	C	1	11	21	11	4	6	4										
	D		4	8	3	4	2	3			1							
Port Arthur	C			3														
Mukden	C	1																
Nanking	C							P	P	P	P	P	P	P				
Shanghai—																		
Foreigners only	C	4	1	6	7	1	1	1										
Including natives	D	25	16	16	5			1										
Swatow	D	33	93	62	24	2	6	5	2	2								
Tientsin	C	8	6	12														
Tsingtao	C	P	P	P	P													
Yunnanfu	C	P	P															
Chosen (see table below).																		
Colombia: Barranquilla	D							2										
Curacao (alastrim)	C		1															
Dutch East Indies:																		
Balikpapan	C	5	3	4	1													
Belawan Deli	C	7	4		1		1		1				1	1				
	D	2							1									
Borneo—Samarinda	C	2	1		3	9	2	2		7								
	D	3			1													
Celebes—Makassar	C	6	39	43	20	6	4	5	6	2	1		1	1	5			
	D	2	25	33	15	3	3	3	2	1	1		1	1	1			
Java—																		
Batavia and West Java	C			1	6		6	1	1	1	2				1			
	D				1			2		1	2				1			
East Java and Madura	C									1	2							
	D									1								
Sumatra—																		
Baros	C	16																
	D	2																
Medan	C	7	2	1	1		1	1	1	1			1					
	D	3		1				1										

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

SMALLPOX—Continued

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21	28
Ecuador (see table below).																		
Egypt:																		
Port Said	C		1		1									3				
Suez	C		5															
France (see table below).																		
Great Britain:																		
England and Wales	C	1,156	1,423	1,179	789	153	115	144	129	129	114	120	139	131	150	96		
Ashton under Lyne	C								7		2	1						
Birmingham	C		1	1														
Bradford	C	3	1	4	4			2	1					1	3	1		
Bristol	C						1											
Cardiff	C	1	1	4									1					
Castleford	C	56	31	12	3		1											
Leeds	C	8	3		1				1				1		2			
Liverpool	C	1																
London	C	58	201	193	167	43	16	30	18	31	19		28	37	41	27		
London and Great Towns	C	598	888	656	496	103	64	109	87	73	60	74	90	79	81	59		
	D	3	6	3	1	1	2		1									
Newcastle-on-Tyne	C	10	3	37	20	9	4		2	1	2		1	2				
Nottingham	C	2																
Stoke-on-Trent	C	72	133	86	62	5	7	11	9	1	10	1	6	2	2	7		
West Ham	C								26	22	17	20						
Scotland—																		
Aberdeen	C		2															
Glasgow	C	1	19	1														
Greece (see table below).																		
Hedjaz	C	84	77	40	83	27	8	7	11	4	2		5	17	2	2		
	D	52	52	24	53	21	2	4	8	3	2		14	3	1			
Honduras: Puerto Castilla	C			1														
India	C	19,120	22,556	17,011	11,549	2,249	1,966	1,669	1,954									
	D	3,983	5,060	4,185	3,006	533	534	479	516									
Bombay	C	441	315	208	147	28	21	22	21	18	18	16	11	18	5			
	D	206	175	131	99	13	15	12	15	7	9	12	3	10	3			
Calcutta	C	127	101	39	27	6	3	2	5	13	2	9	7	2	7			
	D	77	74	36	24	4	3	1	3	11	2	3	6		7			

Cochin	C												4	2	1			
	D												1					
Karachi	C	206	144	84	35	6	3	12	4	6	1	2	6	5	6			
	D	70	59	59	25	6	1	6		1	1	1	4	1	6			
Madras	C	392	327	174	88	25	39	24	34	28	16	33	12	19	14			
	D	83	84	61	20	6	12	10	4	8	6	2	6	3	4			
Moulmein	C	18	7	8	6	1	4		5	2	3	1		2	1			
	D	4	6	6	5	1	3		1	1	3	1		1	1			
Negapatam	C	9	7	2	6	1	1	2					1	1				
	D	1																
Rangoon	C	13	7	1		1	2			1								
	D	6	3	1		1												
Tuticorin	C		1		1													
Vizagapatam	C	26	28	2	4	2			1		1							
	D	5	8		2				2									
India (French):																		
Karikal	C	2	2	3	5			1		2	10				8			
	D	2	2	3	5			1		2					7			
Pondicherry Province	C	70	60	32	18	5	4	8	4	6	3	2	1	2	2		2	
	D	60	51	30	15	5	4	3	4	1	3	2	1	2	2		2	
India (Portuguese)	C			3	9		1	1	2									
Indo-China (see also table below):																		
Pnompenh	C	68	40	22	8	5	1	3			2	1		1				
	D	33	24	12	2	1	1	1		1	1	1		1				
Saigon and Cholon	C	2	2	1					1									
	D			1	1													
Iraq:																		
Baghdad	C	6	6	3	1			1										
	D	1																
Basra	C	9	8	8	9			1										
	D	2	6	8	1													
Diyalah Liwa	C			48		8							13				4	
	D			13		2							12					
Mossoul	C				20	12				21			60	35	7	13	8	
	D									1			12	12		5		
Ivory Coast (see table below):																		
Jamaica (outside Kingston) (alastrim)	C		1	1			7											
Japan:																		
Niigata	C			12	2													
Osaka	C			1														
Shimane Province	C	16	3															
Tokyo	C			2	1													
Macao	D	32	20	5	2													
Mexico:																		
Acapulco	C		1	1	2		3			1	2							
	D		1	1	2		3			1	2							
Aguascalientes	D	5	9	6	17	3	5	2	1	2	3	1	1	3	1	2		
Chiapas Province	C	P																
Coahuila	D				1													
Jalisco (State): Guadalajara	D	13	12	15	11	5		1		1	2		2	5	1	2		
Juarez	D	3											3	P				

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

SMALLPOX—Continued

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21	28
Mexico—Continued.																		
Mexico City and surrounding territory	C	1		1	9	3	2	3	5	5	5	7	4	1	2			
	D				10	1			2		3	3			1			
Tampico	C	2																
Vera Cruz	D	2																
Morocco (see table below).																		
Netherlands: Rotterdam	C								40	30	53	58		33	31	21		
	D									1					4	2		
Nicaragua: Managua	C		P															
Nigeria: Lagos	C	1	1	2					1									
Norway: Stavanger	C		2															
Palestine	C			1														
Panama	C					7		7			1		4	4	14		77	
Panama Canal Zone	C	P		1	1													
Persia (see table below).																		
Poland	C		6	2	66							1	1					
	D				2													
Portugal:																		
Lisbon	C	3	4	1	6	3			1		1							
Oporto	C	1	2		2		2											
Senegal (see table below).																		
Siam	C		55	32	27	23	43	3	2	1	19	4	8					
	D		8	9	7	2	11	1		2	1	2	2					
Somaliland, British: Boales	C				11		1	3								3	1	
	D				4												2	
Somaliland, French: Jibuti	C			3	16	8	7	25	83	8	10	6	7	5	1			
	D			1	8	2	1	2	16	11	1	6	3	5	3	1		
Spain: Valencia	C	5			1													
Straits Settlements: Singapore	C	1																
Sudan (Anglo-Egyptian)	C	245	377	1,570	1,172	323	25	724	49	55	11	12	9	10	580			
	D	29	26	132	195	28	9	115	12	51	1	5	16	16	79			
Sudan (French) (see table below).																		
Syria (see table below).																		
Tunisia: Tunis	C		2		2	1												

Turkey (see table below).																			
Union of Socialist Soviet Republics: Vladivostok	C			2															
Union of South Africa:																			
Cape Province	C		P	P	P														
Transvaal	C	P	P	P	P														
Upper Volta	C	4	15	2	10														
On vessel:																			
S. S. Aorangi, at Sydney	C				1														
S. S. Assyria, at Suez, from Bombay	C			1															
S. S. City of Hereford, at Brisbane, from Calcutta	C							1											
S. S. City of Venice, at Suez, from Calcutta	C			1															
S. S. Fern, at Port Said, from Abadan	C			P															
S. S. British Birch, at Suez, from Abadan	C				1														
S. S. Keneh, at Suakim, from Jeddah	C				4														
S. S. Le Panto, at Suez, Egypt	C			4															
S. S. Lopez-Lopez, at Suez	C		1																
S. S. Malwa, at Suez	C		1																
S. S. Mancar, at Suez, from Calcutta	C		1																
Tantalus (motor ship), at Amsterdam	C	3																	
S. S. Tuscania, at Glasgow, from Bombay	C		P																

Place		February, 1929	March, 1929	April, 1929	May, 1929	June, 1929	July, 1929			August, 1929			September, 1929	
							1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20
Indo-China (see also table above)	C	364	561	755	410		87	72			123	140		
Ivory Coast	C		4						22		2			
Senegal	C	80	70	57	1									
	D	8	11	15										
Sudan (French)	C		26	83	2	57	2	13						
	D		3			15								
Syria: Beirut	C	48	12	18	12	36	26	1		16	6	7	4	5

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
British East Africa (see also table above):							
Kenya	C	23	91	38	45		
Chosen	C	121	127	97			
	D	12	41	29			
Ecuador: Guayaquil	C	2	2	1			

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
France	C	5	5	11	15		
Greece	C	2	4	5	2		
Morocco	C	8	12	39	2	9	10
Persia	D	8				51	
Turkey	C		1		11		1

[1] 106 cases of smallpox were reported from June 16 to Sept. 14, 1929, in Panama City, Panama.

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

TYPHUS FEVER

(C indicates cases; D, deaths; P, present)

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14
Algeria:																
Algiers	C	6	11	1	1		1	6	2		3	1			1	
Constantine Department	C	3			11						2					
Oran	C		8	14	5	3		6			2					
British South Africa: Northern Rhodesia	C			3												
	D			3												
Bulgaria	C	40	28	21	4	1	2	2	7					7		
	D	5	2	1	1		1	1								
Sofia	C							1								
Chile:																
Concepcion	C	2		1												
Valparaiso	C					1				1						
China:																
Manchuria	C	1														
Tientsin	C											1				
Chosen (see table below).																
Czechoslovakia (see table below).																
Egypt:																
Alexandria	C	1	1													
	D	1		1												
Beheira Province	C	67	50	159	13	5			3	25		6				6
	D	9	9	24	6	2			2							2
Cairo	C			2		1		1					4	1	1	
Dakahlieh Province	C	34														
Menoufieh Province	C		35													
Port Said	C			2	2	3	1			1	1					
Suez	C											1	1			
Greece (see table below).																
Hungary	C			1												
Indo-China (see table below).																
Ireland (Irish Free State):																
Cavan County—Carrickmacross	C			1												
Donegal County—																
Inishower	C		1													

Stranorlar	C				1												
Kerry County—																	
Dingle	C	2	2														
Killarney	C		2														
Tyrone County—Strabane.[1]																	
Latvia (see table below).																	
Lithuania (see table below).																	
Mexico:																	
Aguascalientes	D	5				1							1				
Mexico City, including municipalities in Federal District	C	4	4	8	14	4	2		5		7	2	2	3	3		
	D		1	2	1								1	2	3		
Morocco	C	19	28	5	12		27			3		3					
	D		4				11										
Norway: Oslo	C		12	2													
Palestine	C	2		2	2	1	1	1	1				1	1	3	1	
Persia	C				5	18	8	13	14								
	D				4	6	1		3								
Poland	C	295	314	264	177	25	24	25	16	16	12	12	8	2			
	D	20	25	19	7	1	1	2		3	1	3		1			
Portugal:																	
Lisbon	C				1												
Oporto	C				1							1					
Rumania	C	220	135	179	91	7	19	2	5		5		4				
	D	30	16	31	13	1	1				1						
Tunisia	C	20	19	22	23	1	2				4						
Turkey (see table below).																	
Union of South Africa:																	
Cape Province	C	P	P	P	P	P	P	P	P	1	P	P	P				
Natal	C	P	P	P	P												
Orange Free State	C		P	P	P	P			P		P	P					
Transvaal	C	P	P	P	P				P		P	P					
Yugoslavia (see table below).																	

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
Canada: Ontario	C				1		
Chosen	C	177	153	272			
	D	22	9	15			
Seoul	C	3	2	1	2		
Czechoslovakia	C	41	25	18	2	2	
	D	1		1			
Greece: Athens	C	4	2		3		
Indo-China: Tonkin	C		2				

Place		March, 1929	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929
Latvia	C	1	10	7	5		
Lithuania	C	62	101	63	27	10	7
	D	1	7	5	4	1	1
Turkey	C	11	3	7	10		3
	D			1	3		
Yugoslavia	C	7		19		3	7
	D			1		1	2

[1] During the period from Apr. 14 to May 21, 1929, 18 cases of typhus fever with 4 deaths were reported in Strabane, Tyrone County, Ireland.

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

YELLOW FEVER

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

Place		Mar. 10–Apr. 6, 1929	Apr. 7–May 4, 1929	May 5–June 1, 1929	June 2–29, 1929	Week ended— July, 1929 6	13	20	27	August, 1929 3	10	17	24	31	September, 1929 7	14	21	28
Belgian Congo: Tumba	C		1															
Brazil:																		
Bahia	C	1				1												
	D	1				1												
Nictheroy	C														1			
Para	C	2	1	2			1											
	D		1		1			1										
Pernambuco	C	4																
Porto Alegre	D			[1] 1														
Rio de Janeiro	C	252	180	70	7	0	1	0	0	0	0	0				1	0	0
	D	132	94	38	5		1											
Colombia:																		
Simacota	C								4									
Socorro [2]	C					6			6									
Liberia: Monrovia	C	10	2		4	4												
	D	4			3	1												
On vessel:																		
S. S. Skogland, at Porto Alegre, from Rio de Janeiro	C			1														

[1] Imported.
[2] From June 19 to July 8, 1929, 41 cases of yellow fever with 23 deaths were reported in Socorro, Colombia.