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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES [1]

July 19–August 15, 1931

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the Public Health Service, is summarized in this report. The underlying statistical data are published weekly in the Public Health Reports under the section entitled "Prevalence of Disease."

Poliomyelitis.—A considerable outbreak of poliomyelitis has been in progress for some weeks. According to daily reports of cases in New York City the epidemic has been on the decline since August 5, when the peak incidence was reached, 111 cases being reported on that day. This was slightly more than half of the incidence on the peak day in New York City in the epidemic of 1916. During the weeks ended August 15 and 22, 1931, there were 512 and 422 cases reported in New York City, as compared with 591 during the peak week ending August 8.

Of 3,936 cases of poliomyelitis reported in the United States since the first of this year, 2,899 were in the Middle Atlantic and New England States; of these 2,083 were in New York State, of which 1,825 were in New York City, and of these approximately 1,100 were in Brooklyn.

The 3,936 cases of poliomyelitis reported in the country as a whole since January 1 may be compared with 2,081 and 917 in the corresponding periods of 1930 and 1929, respectively. The year 1929 had a low incidence of poliomyelitis, but the disease was epidemic in the central and western parts of the United States in 1930. Table 1 shows the cases reported in broad geographic areas during recent weeks with corresponding data for 1930 and 1929.

[1] From the Office of Statistical Investigations, U. S. Public Health Service. The number of States included for the various diseases are as follows: Typhoid fever, 47; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 45; diphtheria, 47; scarlet fever, 47; influenza, 39 States and New York City. The District of Columbia is counted as a State in these reports.

TABLE 1.—*Number of poliomyelitis cases reported in different geographic areas in 1931 with comparative data in 1930 and 1929*

Geographic divisions	Total Jan. 1–Aug. 15	Week ended—											
		Aug.			July				June				May
		15	8	1	25	18	11	4	27	20	13	6	30
All regions:													
1931	3,936	1,040	1,029	598	307	116	90	45	40	37	38	26	23
1930	2,081	256	224	221	196	213	173	120	105	70	52	41	26
1929	917	109	65	64	70	51	34	25	22	30	29	18	18
New England and Middle Atlantic:													
1931	2,899	890	919	525	253	82	56	16	15	10	8	7	5
1930	282	61	32	30	22	17	5	8	7	6	3	2	1
1929	249	40	19	19	20	14	5	7	7	9	7	4	3
East North Central:													
1931	389	95	48	40	28	17	5	13	6	4	6	1	4
1930	178	28	21	9	13	10	20	9	0	6	3	1	5
1929	141	13	11	6	3	2	5	2	2	2	5	4	5
West North Central:													
1931	179	31	24	13	7	3	4	3	2	3	6	3	3
1930	195	52	25	26	19	18	11	2	2	4	0	2	0
1929	61	2	3	4	4	1	2	1	3	5	3	2	2
South Atlantic:													
1931	133	15	12	8	6	3	10	3	7	6	4	3	1
1930	140	11	10	7	9	8	8	7	7	3	7	7	3
1929	232	37	20	25	30	19	12	6	2	5	8	2	3
South Central:													
1931	131	3	9	6	6	7	8	4	5	7	5	1	7
1930	422	47	61	54	29	50	37	16	34	15	5	11	5
1929	104	11	7	4	13	6	5	6	3	4	1	1	1
Mountain and Pacific:													
1931	205	6	17	6	7	4	7	6	5	7	9	11	3
1930	864	57	75	95	104	110	92	78	54	36	34	18	12
1929	130	6	5	6	6	9	5	3	5	5	5	5	4

Considering the situation in broad geographic areas, there were in the New England and Middle Atlantic States about the same number of cases in 1930 as in 1929, but the number of cases reported in 1931 (January 1–August 15) is nearly 12 times the number for the corresponding period of 1929.

In the East North Central States there was little excess in 1930 over 1929, but up to August 15, 1931, there have been 2.8 times as many cases as in the corresponding period of 1929.

In the South Atlantic States the number of cases reported since January 1, 1931, is less than the number reported in either 1930 or 1929, and the number reported in 1930 was less than in 1929.

In the West North Central States both 1931 and 1930 are materially above 1929, the ratios of occurrence in those years to that for the corresponding part of 1929 being 2.9 and 3.2, respectively.

In the South Central States the number of cases reported in 1931 represents only a slight excess over the corresponding part of 1929, but in 1930 there were 4.1 times as many cases as in the corresponding part of 1929.

In the Mountain and Pacific States the 1931 reports are only 1.6 times the corresponding period of 1929, but in 1930 there were 6.7 times as many cases as in 1929.

To summarize, in the New England and Middle Atlantic States the incidence of poliomyelitis was about normal in 1930, but a very sharp and considerable epidemic is in progress in 1931. In the South Central and Western regions the incidence in 1930 was considerably above normal, but there has as yet been little increase in the cases in 1931. In the North Central States poliomyelitis was somewhat above normal in both 1930 and 1931.

Table 2 shows the number of cases of poliomyelitis reported in each State during the recent weeks since the epidemic began.

TABLE 2.—*Number of poliomyelitis cases reported in recent weeks in each State*

State	Week ending—											
	Aug. 15	Aug. 8	Aug. 1	July 25	July 18	July 11	July 4	June 27	June 20	June 13	June 6	May 30
New England and Middle Atlantic:												
Maine	2	7	4	1	0	0	2	0	0	0	0	0
New Hampshire	3	0	1	0	1	0	0	0	0	0	0	0
Vermont	5	0	0	0	1	0	1	0	0	0	0	0
Massachusetts	90	67	25	16	16	6	5	5	2	2	3	1
Rhode Island	18	16	8	0	0	1	0	0	0	0	0	0
Connecticut	67	97	37	11	5	7	2	2	0	0	1	0
New York City	512	591	404	195	53	31	5	6	4	4	1	2
New York State, except New York City	88	85	29	9	4	5	0	1	2	1	0	2
New Jersey	97	55	16	14	1	3	0	1	0	0	1	0
Pennsylvania	8	1	1	7	1	3	1	0	2	1	1	0
East North Central:												
Ohio	9	5	1	1	1	0	5	2	0	1	0	2
Indiana	3	1	0	0	0	0	0	1	1	0	0	0
Illinois	26	15	15	12	3	2	4	2	0	1	0	1
Michigan	33	17	13	9	7	0	2	1	3	3	1	0
Wisconsin	24	10	11	6	6	3	2	0	0	1	0	1
West North Central:												
Minnesota	29	13	10	3	1	1	0	1	1	2	0	2
Iowa	1	3	1	1	0	0	0	0	0	0	1	0
Missouri	0	7	2	0	0	0	1	0	1	1	1	1
North Dakota	0	1	0	0	0	0	0	1	1	2	0	0
South Dakota	1	0	0	0	1	2	0	0	0	1	0	0
Nebraska	0	0	0	0	0	1	0	0	0	0	0	0
Kansas	0	0	0	3	1	0	2	0	0	0	1	0
South Atlantic:												
Delaware	0	1	0	0	0	0	0	0	0	0	0	0
Maryland	1	1	0	1	0	0	0	0	0	0	0	0
District of Columbia	1	1	1	0	0	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia	2	1	1	1	0	0	0	2	0	0	1	0
North Carolina	10	5	1	2	1	4	2	2	1	0	0	1
South Carolina	0	0	3	2	2	4	0	1	5	3	1	0
Georgia	1	3	1	0	0	1	1	1	0	1	1	0
Florida	0	0	1	0	0	1	0	1	0	0	0	0
East and West South Central:												
Kentucky	0	2	0	0	0	0	0	1	0	0	0	1
Tennessee	0	2	1	1	1	0	0	0	0	1	0	0
Alabama	0	0	0	1	1	4	0	1	1	1	1	0
Mississippi	1	0	1	0	2	4	0	0	3	0	0	3
Arkansas	0	0	0	0	0	0	1	0	0	1	0	0
Louisiana	0	0	1	1	0	0	1	2	0	1	0	3
Oklahoma	1	1	1	2	1	0	0	1	2	1	0	0
Texas	1	4	2	1	2	0	2	0	1	0	0	0
Mountain and Pacific:												
Montana	1	2	1	1	0	0	0	1	1	1	0	0
Idaho	0	0	0	0	0	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	1	0	0	0	0	0
Colorado	0	0	1	0	0	0	0	0	0	2	0	0
New Mexico	0	1	1	0	0	0	0	0	0	0	0	0
Arizona	0	1	0	0	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0	0	0	2	0
Washington	3	4	0	2	1	1	0	0	0	1	0	0
Oregon	0	0	0	0	0	0	0	0	0	0	0	0
California	2	9	3	4	3	6	5	4	6	5	9	3

Typhoid fever.—The usual seasonal increase of typhoid fever continued through the current 4-week period. Each geographic area contributed to the increase, but the disease seemed most prevalent in States along the Atlantic coast and in the Mississippi Valley areas. For the country as a whole, the number of cases reported (3,620) very closely approximated the number recorded for the corresponding period in 1930, but was about 13 per cent higher than the figure for 1929.

Meningococcus meningitis.—An increase of about 6 per cent was noted in the number of cases of meningococcus meningitis reported for the 4-week period ended August 15 over the preceding 4-week period. The South Central group of States and States on the Pacific coast seemed mostly responsible for this increase. In the former group the number of cases increased from 27 during the 4 weeks ended July 15 to 42 during the current 4-week period. Alabama reported 18 out of the 42 cases. In the Mountain and Pacific group the number of cases increased from 16 to 27; in California the cases rose from 7 to 14. For the whole reporting area, however, the total number of cases was only 75 per cent of the cases occurring in the corresponding period in 1930 and 54 per cent of the incidence for the same period in 1929.

Scarlet fever.—The number of cases of scarlet fever reported (3,362) during the current 4-week period was about 15 per cent in excess of the number that occurred during the same period in 1930. For this period in 1929, the number of cases totaled 4,118. The New England and Middle Atlantic States showed an increase of 36 per cent over the corresponding period in 1930 and the South Central group an excess of 27 per cent over last year's figure. Other areas either equalled last year's record or showed slight decreases.

Influenza.—For the current 4-week period there were 832 cases of influenza reported, as compared with 525 for the corresponding period in 1930 and 833 cases in 1929.

Measles.—A decrease in measles of approximately 20,000 cases occurred during the 4-week period ended August 15, as compared with the preceding 4-week period. The number of cases reported (6,337) was about 15 per cent below the number reported for the corresponding period in each of the two preceding years. All areas shared in the decline except the North Central and the South Atlantic States. The former group reported a 20 per cent increase and the latter a 35 per cent increase over the same period of last year. Decreases in the various areas ranged from 9 per cent to 61 per cent.

Smallpox.—The current reported incidence of smallpox (652 cases) was less than 50 per cent of the incidence for the corresponding period in each of the years 1930 and 1929. The only region showing an excess over last year was the New England and Middle Atlantic.

There the number of cases was more than three times the number reported during the same period last year. The disease continued unusually prevalent in Vermont. Ten of the 22 cases reported from this region occurred in Vermont.

Diphtheria.—The incidence of diphtheria remained at the low level that has prevailed throughout the current year. The reported number of cases was 1,997, as compared with 2,344 in 1930 and 3,520 in 1929 in the corresponding periods. Decreases in the various geographic areas varied from 15 to 26 per cent. The South Central group alone showed an increase (42 per cent) over last year's figure for the same period.

Mortality, all causes.—The average death rate from all causes in large cities, as reported in the Weekly Health Index of the Bureau of the Census, was 10.3 per 1,000 population (annual basis) for this period, as compared with 11.0 for the corresponding period of 1930.

EXPANSION OF INVESTIGATIONS ON TICK-BORNE DISEASES BY THE UNITED STATES PUBLIC HEALTH SERVICE[1]

By R. R. SPENCER, *Surgeon, United States Public Health Service*

The recent acquisition of knowledge in the field of insect-borne diseases by workers of the United States Public Health Service brings to my mind the well-known epigram, "Knowledge is like the surface of a sphere; the larger it grows the more it comes in contact with the unknown." We are therefore permitted now to visualize new opportunities for research in medical entomology.

Before indicating what these researches might be, let us review briefly a few observations of the investigations of the Public Health Service other than those splendid contributions upon typhus and Rocky Mountain spotted fever which have been described by the preceding speakers, Doctors Dyer, Rumreich, and Badger. When all these observations are brought together and correlated they lead us inevitably to the necessity for a logical growth and expansion of our efforts in this very important subject of insect-borne diseases.

The Public Health Service has for many years conducted investigations upon Rocky Mountain spotted fever in the western United States. These investigations have been well worth while, we believe, not only because of the knowledge gained concerning Rocky Mountain spotted fever but also because of entirely unexpected observations upon other conditions.

For example, prior to 1922, tularæmia was not known to be a tick-borne disease. In that year R. R. Parker and the writer, while looking

[1] Presented at the Twenty-ninth Annual Conference of State and Territorial Health Officers with the United States Public Health Service, Washington, D. C., Apr. 28, 1931.

for spotted fever infection in wild ticks collected in the field, observed in guinea pigs, following the injection of ground-up ticks, a condition which in no way resembled spotted fever. The resemblance of the lesions in these animals to tularæmia was very striking, and when tissues and cultures were sent to Dr. Edward Francis here in Washington its identity as such was established.

As a matter of course we now know that the tick is an important, if not the most important, intermediate host responsible for the maintenance of tularæmia in nature. Experimentally, the tick is capable of holding the infection many months and can transmit the condition through the eggs to the second generation of ticks. This has not been found to be the case with deer-flies and other insects that have been used in experimentation and which are capable of transmitting tularæmia directly.

In the West human cases of tularæmia following tick bite had been occurring all the while, but had been diagnosed simply as tick fever without rash. For years past in Idaho we have found that certain physicians in the Snake River Valley had distinguished two types of tick fever—the glandular type without rash and the spotted type without glandular enlargement.

As to Rocky Mountain spotted fever investigations, it is admitted that no entirely satisfactory means for combating the disease has yet been found, although studies have been conducted from time to time for the past 30 years. However, in 1924 we developed a vaccine, or prophylactic inoculation, which has now been used for seven seasons and which we believe has a definite field of usefulness. If a steadily increasing demand for this vaccine is any indication, it is certainly the most effective weapon yet developed to use against Rocky Mountain spotted fever.

At first it was difficult to persuade people to take this vaccine, chiefly because of the unsightly material of which it is made; in the spring of 1924, when the vaccine was first prepared, no one would take it.

In 1925, on the west side of the Bitterroot River in western Montana, where our field laboratory is located, 34 people were vaccinated. All of these were among State and Public Health Service employees. In this same area we have vaccinated persons as follows:

Year	Number of persons vaccinated	Year	Number of persons vaccinated
1926	654	1929	985
1927	1,296	1930	1,597
1928	812	1931	[1] 2,000

[1] To date.

In this small area in western Montana the fatality rate among the nonvaccinated population has averaged 89 per cent over a period of 12 years. In six of these years it was 100 per cent. Since the use of the vaccine it has been reduced to 17 per cent among vaccinated persons. Among laboratory workers before the use of the vaccine the fatality rate was 100 per cent (6 cases, 6 deaths); with the use of the vaccine we have had 12 laboratory cases with but 1 death, and the 1 fatal case occurred in a patient who had received only one of the two usual doses of vaccine.

In Idaho, Wyoming, Colorado, Utah, eastern Montana, eastern Oregon, and eastern Washington, over 20,000 people have been vaccinated during the past five years. Only one case (nonfatal) has occurred in this group, and that one case was in an old man who had received only one dose. These data indicate that the vaccine confers complete protection against the mild type of the disease and greatly reduces the mortality against the highly fatal type. The duration of the immunity following vaccination is not long and varies considerably in different individuals. Vaccination each spring for several years appears to confer a better immunity.

In 1927 the Montana State Legislature appropriated $60,000 for the construction of a new laboratory at Hamilton in the Bitterroot Valley, primarily for the purpose of providing ample space for the manufacture of this vaccine and for further studies upon Rocky Mountain spotted fever. Part of this building was especially designed for the rearing of infected ticks on a huge scale, with a special feature designed to minimize the danger to the workers. In spite of these precautions all three of the men engaged in tick rearing have contracted Rocky Mountain spotted fever, but fortunately had only mild attacks and survived—due, we feel sure, to the fact that they had been previously protected by the vaccine.

The Public Health Service would gladly turn over the manufacture of this vaccine to any State or to any private institution engaged in the manufacture of biological products. Such activities are not the usual function of the Public Health Service, but we have here a new and unique situation. No State or firm would undertake this work for three reasons: (*a*) The manufacture of this vaccine is a dangerous procedure; (*b*) the process of manufacture is entirely different from that of any other vaccine and requires a highly trained and specialized personnel; (*c*) the cost of manufacture is high, while the amount of vaccine used each year is relatively small, and it would never be a commercially feasible undertaking. Therefore, the Public Health Service is forced to continue in the business of manufacturing this biologic product. In all the Western States in which spotted fever is endemic, the demand for the vaccine is increasing each year, and at the last session of Congress (71st) those States sponsored a

bill which was introduced by Senator Walsh of Montana, and which provided that the Treasury Department be authorized to purchase from the State of Montana the laboratory at Hamilton, with its equipment. An appropriation of $75,000 was authorized for the purchase of the property and an additional sum of $75,000 for constructing and equipping, on the ground so acquired, another building, for the making of alterations to the existing laboratory, and for the construction of the necessary out-buildings. This act was approved by the President, March 4, 1931.

Plans for the new building are now being drawn, and it is hoped that work will be begun this summer. In the light of past experience we expect to be able to provide much better and much safer facilities for the routine manufacture of the vaccine and to carry on extensive investigations upon Rocky Mountain spotted fever and other tick-borne diseases. In this new building provision will be made for three complete and separate research units. Each unit is planned for the use of one investigator and an attendant, and consists of a suite of three rooms—a small office, a laboratory, and an experimental animal room. Each unit will be fully equipped, so that the investigator will have his own materials and laboratory apparatus and will not be dependent on others.

The special quarters for the rearing of infected ticks, about 200,000 each year, will be so constructed that the escape of ticks through windows will be impossible. The workers must change their clothes completely upon entering. When leaving the tick-rearing rooms they are required to place their working clothes in a hot air sterilizer, take a shower bath, and search for ticks before putting on their street clothes. These precautions are taken to prevent the men from carrying infected ticks to their families or to others with whom they come in contact. Such precautions are rather troublesome, but experience has taught that they are necessary.

Having indicated some of the observations that have been made in the past six or seven years, let me briefly outline the lines of study that will be undertaken when our new laboratory at Hamilton, Mont., is completed.

1. Continued studies upon Rocky Mountain spotted fever:
   (*a*) Ways and means of improving the potency and keeping qualities of the tick vaccine.
   (*b*) Studies to determine the causes for the various degrees of virulence encountered in nature, and the relationship between the eastern and western type of the disease.
   (*c*) Studies upon the life history and habits of the rabbit tick (*Haemaphysalis leporis-palustris*), and the rôle played by this tick in the maintenance of the disease in nature. It

should be explained that the rabbit tick transmits spotted fever from rabbit to rabbit but does not infest man.

(*d*) Clinical and epidemiological studies upon human cases. Complete studies of this kind have never been made, and in some States cases are not even reported.

(*e*) A continuation of the tick parasite studies started by the Montana State Board of Entomology. This small fly is an obligate tick parasite, and its distribution throughout the affected areas may greatly reduce the number of ticks, since all ticks parasitized invariably die.

2. With reference to studies upon tick paralysis we recognize that this condition is of little public health significance, because there are so few cases each year and because the method of prevention is known. However, it is a very obscure malady. Nothing is known of the nature of the causative agent, nor of the source from which the tick obtains it. Its study has been delayed on account of the difficulty of securing ticks known to harbor the causative agent, and the finding of a suitable experimental animal.

3. Colorado tick fever is perhaps the most interesting problem of all. So far as information is available we have here an infection that is always preceded by a history of tick bite. The seasonal occurrence is coincident with the appearance of ticks in the spring of the year, and the prodromal symptoms resemble very closely those of Rocky Mountain spotted fever. It differs from spotted fever, however, in that it is rarely, if ever, fatal, produces no rash, and the sera of cases do not give a positive Weil-Felix reaction as do the sera of Rocky Mountain spotted fever and typhus fever. Does this condition represent a mild form of Rocky Mountain spotted fever, or a distinct disease entity hitherto undescribed? We do not yet know, but it should be a relatively simple matter to determine it. Until now no serious efforts have been made to study these cases clinically, epidemiologically, or from an experimental or laboratory point of view.

Finally, I believe that it may be of interest to many of you to learn that a single species of the western tick, *Dermacentor andersoni*, transmits to man by its bite not less than four diseases, namely: Rocky Mountain spotted fever, tularaemia, tick paralysis, and Colorado tick fever. Here, we believe, is a rare opportunity for those of use who are working in this field to add considerably more to our knowledge of these diseases. In so far as tick paralysis and Colorado tick fever are concerned, we are entering a practically virgin field; and in view of what has already been accomplished, and with our new facilities, we have every reason to believe that some success will attend our efforts. At least we are undertaking these studies with a great deal of hope and enthusiasm.

A SURVEY OF THE WORK OF EMPLOYEES' MUTUAL BENEFIT ASSOCIATIONS

By DEAN K. BRUNDAGE, *Statistician, Office of Industrial Hygiene and Sanitation, United States Public Health Service*

The work of employees' mutual benefit societies is attracting the attention of persons interested in the public health as these societies extend their usefulness by attempting to solve some of the major problems of sickness other than those occasioned by the loss of wages during periods of incapacitation. The industrial sick-benefit movement began as a substitution for "passing the hat" at times when disabling illness or accident to the breadwinner threatened to impoverish his family. Generally speaking, some form of sickness insurance has tended to supplant the time-worn custom of "taking up a collection." But in recent years certain industrial sick-benefit societies have become dissatisfied with a rôle restricted to that of a thrift organization. They have visualized possibilities for making available to members better medical attention and nursing care than the individual member ordinarily obtained, especially for hospitalization when the need for such was indicated, and even for a program aimed at the prevention of sickness. A few mutual benefit societies have thus become quasi public health agencies, and as such should be studied to determine what they have accomplished and the lines along which preventive and curative work could be most advantageously extended.

For the purpose of ascertaining to what extent the employees' mutual benefit association has gone beyond its primary function of providing a certain fraction of wages when sickness causes a suspension of earning power, to a broader program of health improvement and better care of its disabled members, and to obtain certain other facts of interest, questionnaires were sent by the National Conference on Mutual Benefit Associations [1] to all companies in the United States which were thought to have employees' organizations for sickness insurance. In all 1,500 questionnaries were mailed. The National Conference on Mutual Benefit Associations prepared the questionnaire and collected the information discussed in the present report. The work of tabulating and analyzing the statistical material was done by the Public Health Service. Up to April 1, 1931, replies had been received from 602 companies, or about 40 per cent of those addressed. Two hundred and twenty-three companies wrote that they had no form of mutual benefit association. Twenty-seven others stated that the association had been discontinued, the most frequent reason being that group life and sickness insurance policies had been taken out with insurance companies. Twenty-three other

[1] The officers of the National Conference on Mutual Benefit Associations are Harold A. Ley, chairman, and Meyer Bloomfield and Henry Bruère, vice chairmen.

companies had never had a sick-benefit society, but were now purchasing sickness insurance for their employees from life insurance companies. Fourteen companies reported that they had relief departments or sick-benefit plans operated and financed entirely by the corporation. The content of the letters from the remainder of the companies or their benefit associations, totaling 315, affords the subject matter of the present report.

WHO ANSWERED QUESTIONNAIRE

Before taking up the questions which were asked of companies having sick-benefit organizations, it appears desirable to ascertain whether the answers were given by company executives, by clerks, or by the officers of the mutual benefit associations. Among those who gave their title or position in replying to the questionnaire, 67 per cent appeared to be company executives, 13 per cent were in some clerical capacity, and 20 per cent were officers of the employee mutual benefit. About 20 per cent of the answers represented the views of the employment or personnel department, 16 per cent the president or vice president of the company, 14 per cent the company's secretary, assistant secretary, treasurer, or assistant treasurer, and 8 per cent the opinion of the general manager, the assistant manager, or the superintendent. It is apparent, therefore, that a majority of the answers should reflect the views of executives of the company rather than the opinion of the rank and file of the members or even of their officers. Inasmuch as most of the questionnaires were directed to the companies, it is to be expected that the replies would come from them rather than from the beneficial associations; nevertheless, the source of the replies should be kept in mind when considering the answers to those questions which were propounded to elicit opinions.

AGE OF MUTUAL BENEFIT ASSOCIATIONS

The average age of the 312 funds which reported their age was 21 years. The largest number of associations in any one age group was found in the 10 to 14 year old group. Two per cent were founded more than 50 years ago. It is possible, of course, that a smaller proportion of the newer associations may be represented in the replies to the questionnaires, since they may be less well known than the older organizations; but the error in this direction appears small, on account of the effort made to obtain the name and address of every mutual benefit association in the United States. It is apparent that the industrial sickness relief association in this country is not a recent development nor an untested experiment. It has survived the vicissitudes of a considerable number of years; it may be said, at least, to have passed its probationary period.

TABLE 1.—*Age of mutual benefit societies* [1]

Age in years	Number of societies	Per cent of total societies	Age in years	Number of societies	Percent of total societies
Total	315		20–24	43	14
Total for which age was reported	312	100	25–29	31	10
			30–34	29	9
Less than 5	21	7	35–39	14	4
5–9	34	11	40–44	24	8
10–14	55	18	45–49	9	3
15–19	44	14	50 and over	8	2

[1] The average age is 21 years.

SCALE OF BENEFITS AND THEIR ADEQUACY

The scale of benefits of the associations which replied to the questionnaire is, roughly, as follows: One-fourth of the benefit classes provided by the funds pay less than $7 per week; about one-half of them pay $7 to $13 ($1 to $2 per day), and one-fourth pay more than $13 per week.

Associations having more than one class of benefits were counted in each benefit class provided; therefore the unit used in Table 2 was not the fund, but the benefit class. A number of societies provide two or three classes; several have as many as 10 or 12. Quite frequently the rate of payment to female members is considerably less than the rate paid to males.

More funds provide benefits of $9–$11 per week than any other amount. This group is composed chiefly of societies paying $9 or $10 per week. Less than 10 per cent of the benefit classes pay exactly $12 per week, although that rate appeared to be rather favorably regarded, as shown in the answers to a subsequent question concerning suggested changes in the scale of benefits.

Few considered cash benefits adequate when they were less than $5 per week. About two-thirds of the benefit classes providing payments of $5 to $6.99 per week, about three-fourths paying $7 to $8.99 per week, and about five-sixths of those paying $9 to $12.99 per week stated that the benefits appeared to be sufficient. Nearly all of the funds which paid more than $15 per week reported that the rate was adequate. Attention should be called to the point that the opinions concerning adequacy of benefits were, in general, those of company executives and not of the wage-earning members.

TABLE 2.—*Number of benefit classes paying specified amounts weekly as provided by associations, classified according to maximum period for which benefits may be paid,*[1] *and per cent of classes which were regarded by the associations as adequate*

Cash benefits per week	Maximum period for which benefits may be paid at rate indicated										
	All weeks	5, 6, 7	8, 9	10	12	13	26	52	104	Other periods	Period not stated
	Number of benefit classes paying specified amounts per week for maximum period indicated										
Total	512	21	21	39	37	116	42	41	5	76	114
Less than $3	5					1	1	2		1	
$3.00–$4.99	18	1	3	1	2	1	2	3	1	2	2
$5.00–$6.99	101	3	7	10	10	24	9	3	1	16	18
$7.00–$8.99	76	3	3	6	5	16	7	6		14	16
$9.00–$10.99	122	4	6	11	9	30	7	7	1	14	33
$11.00–$12.99	51	4	1	6	4	15	5	2		4	10
$13.00–$14.99	21	1			1	6		3	1	5	4
$15.00–$16.99	34	3		2	2	4	3	3		7	10
$17.00–$18.99	17	1		1	2	4		4	1	1	3
$19.00–$20.99	20					5	2	2		5	6
$21.00–$22.99	3					2	1				
$23.00–$24.99	7			1		3				1	2
$25.00 and over	5			1		1				2	1
Fraction of wages:											
One-half to three-fifths	16	1			2	2	2	4		2	3
Two-thirds	6					1	2	1			2
Three-fourths to four-fifths	8					1	1	1		1	4
Full pay	2		1							1	
	Per cent of benefit classes in which payments were considered adequate										
Total	81	75	94	66	63	84	78	100		89	83
Less than $3											
$3.00–$4.99	50		100	0	0	0		100		100	50
$5.00–$6.99	68	50	83	71	60	71	40			75	69
$7.00–$8.99	74	0	100	33	60	69	75	100		90	85
$9.00–$10.99	83	67	100	75	78	92	80	100		80	79
$11.00–$12.99	85	100		67	60	86	75			100	100
$13.00–$14.99	89	100			0	83	100	100		100	100
$15.00–$16.99	91	100		100	50	100	100			100	89
$17.00–$18.99	100	100		100	100	100		100			100
$19.00–$20.99	93					100	100	100		100	83
$21.00–$22.99	100					100					
$23.00–$24.99	100			100		100				100	100
$25.00 and over	100			100		100				100	100
Fraction of wages:											
One-half to three-fifths	100	100			100	100	100	100		100	100
Two-thirds	100					100	100	100			100
Three-fourths to four-fifths	80									100	75
Full pay	100		100								

[1] Thirty-four funds continue paying benefits beyond the period indicated, but at a lower rate per week.

From Table 2 it may be seen that a wide range exists not only in the scale of benefits, but also in the maximum period for which benefits may be paid. Apparently, establishments made widely different choices in working out their plans for sickness relief. Viewing the matter superficially, one may say that it looks as if individualism of plan has prevailed oftener than was necessary, and that a moderate amount of standardization might be advantageous from several points of view.

CHANGES SUGGESTED IN THE SCALE OF BENEFITS

A majority favored no change in the scale of benefits. From the few instances in which reasons were reported for this attitude, it appears that a fairly wide discrepancy between the scale of sick benefits and the wage scale was considered desirable to prevent malingering. Several firms reported that some of their employees carried additional sickness insurance, especially through membership in fraternal organizations, so that the industrial sick benefit merely supplemented other disability insurance. One employer pointed out that the number of malingerers ordinarily was small, but that malingering was encouraged, manifestly, when sick benefits approximated or exceeded wages. It seems somewhat surprising, in view of the importance which appeared to be attached to the problem of malingering, that only two establishments suggested the payment of all medical costs of sickness with only a small weekly payment in cash to the disabled member. Three other companies suggested that the society pay at least part of the cost of hospitalization without changing the weekly rate of cash benefits.

Most of the suggestions for changes in benefits were concerned with (*a*) the amount under a single scale of dues and benefits, (*b*) the amount in proportion to wages either as a definite percentage or in classes according to wages, (*c*) the maximum period for which benefits may be paid, and (*d*) the size of the death benefit.

Under the first-mentioned plan an increase in benefits to about $12 per week ($2 per day) appeared to be most favored. An increase to $8 or $10 per week was suggested by almost as many companies, while a much smaller number advocated benefits of $15 to $20 per week.

A fairly large group of the reporting establishments appeared to favor paying benefits in proportion to wages either as a definite percentage of the wage or according to classes roughly corresponding to the principal wage groups. A ratio of benefits to wages of two-thirds or more was favored by several companies. For associations which preferred benefit classes rather than a specific proportion of the wages, scales extending from $6 or $8 to $20 or $24 per week were suggested. Several felt that additional classes should be provided in the upper range of the scale, especially for benefits between $15 and $24 per week.

Concerning suggested changes in the maximum period for which benefits are payable, two considered a reduction desirable and four favored increasing the length of the period. The reductions suggested were, specifically, from 14 to 8 and from 26 to 13 weeks, respectively, while the recommended increases were rather vague,

such as "should be more than 10 weeks in any 12 months," "more than 13 weeks," and "more than 16 weeks."

Obviously, cases occur which extend beyond the limit of the benefit period, no matter where the practical limit is placed. Perhaps for this reason one establishment suggested special provision for certain long illnesses such as those due to tuberculosis, cancer, and major operations.

Four firms suggested that the death benefit be abolished. The reason for such opinion was not reported, although a cue may be taken from the recommendation of another establishment to the effect that a fixed sum be established for burial. It appears that a tendency may be in evidence for an undue proportion of the death benefit to be spent for burial purposes.

Widely divergent were opinions on the death benefit that should be provided, ranging all the way from $50 to $2,000 or more. The death benefit was felt to be too high in at least two instances, i. e., if death was due to a nonindustrial accident, the benefit was two-thirds of a year's wages; and in death from any cause, when payable to the widow of a member, the benefit was 30 per cent of the wages, payable annually until her death or remarriage.

TABLE 3.—*Changes suggested in the scale of benefits*

	Number
Answering question	251
In favor of no change	142
Total suggestions for changes (some offered more than one suggestion)	126
Would pay part of cost of hospitalization	3
Would pay small weekly cash benefit in addition to all medical expense	2
Recommending that present benefits be increased to about—	
$5–$7 per week	6
$8–$10 per week	17
$12 per week	20
$15 per week	3
$18–$20 per week	6
Benefits should be about the same as industrial accident compensation	1
Benefits should be in proportion to wages—	
No specific scale suggested	7
About two-thirds of wages	3
Should be more than 75 per cent of wages	3
Full pay much too liberal	1
Present scale of $3 to $7.50 per week should be increased	1
Present scale of $3, $6, $9, and $12 per week should be increased	1
Present scale of $7.50, $11.25, and $15 per week should be increased	1
Scale of benefits should be $8, $12, and $16 per week	1
Scale of benefits should be $10, $15, and $20 per week	1
Scale of benefits should run from $6 to $24 per week	1
A class paying more than $9 per week should be provided	1
Total suggestions for changes—Continued.	
Benefits should be in proportion to wages—Continued.	
Classes paying $13 and $20 per week should be provided	1
Class of $17.50 or $20 should be added instead of having the highest class $15 per week	1
Scale of $5, $9, and $12 should be reduced to $4, $7.50, and $10	1
Benefits of $15 per week should be reduced among those earning less than $20 per week	1
Advances to higher classes should be compulsory when wages are increased	1
Benefits should be based upon dependency	1
Benefit period should be reduced—	
From 14 to 8 weeks	1
From 26 to 13 weeks	1
Benefit period should be extended—	
From 5 to 6 weeks	1
Beyond limit of 10 weeks in any 12 months	1
Beyond limit of 13 weeks in any 12 months	1
Beyond limit of 16 weeks in any 12 months	1
Beyond 15 weeks for tuberculosis, cancer, major operations	1
Would reduce premium	1
Would pay for the first week when disability lasts more than 7 days	1
Would abolish death benefit	4
Fixed sum should be made available for burial	1

TABLE 3.—*Changes suggested in the scale of benefits*—Continued

	Number		Number
Total suggestions for changes—Continued.		Total suggestions for changes—Continued.	
Death benefit should be more than—		Death benefit should be—Continued.	
$50	1	$500	2
$75	2	$500–$1,000	1
$100	2	$1,000	3
$200	2	$2,000	1
$500	2	One year's earnings	1
$600	1	Death benefit should be reduced when—	
$1,000	2	Two-thirds of year's wages for death from nonindustrial accident	1
$1,250	1	30 per cent of husband's wages payable annually to widow until her death or remarriage	1
Death benefit should be—			
$50	1		
$100	2		
$200	1		

OPINIONS CONCERNING IMPROVEMENT IN EMPLOYEES' HEALTH WHICH THE MUTUAL BENEFIT ASSOCIATION HELPED BRING ABOUT

That the mutual benefit association was not organized for health improvement was the statement of 5 per cent of the companies replying to the question "What improvement in employees' health has the mutual benefit work helped to bring about?" That there was no improvement, or no important health results, was the opinion of 32 per cent of the men answering this question. Another 20 per cent stated that no data were available for measuring improvement. The remainder (43 per cent) reported that improvement in health had probably resulted from the work of the sick-benefit association. The principal reasons advanced for such a belief were that the benefit society afforded machinery for obtaining early diagnosis and appropriate medical treatment; that the physical examinations conducted by the association, and especially the periodic health examination, uncovered physical defects and pathological conditions the correction of which in many instances the society had helped to finance; and that health was safeguarded through the patient's feeling of security which membership in the association engendered, resulting in more complete recuperation before a return to work was attempted.

TABLE 4.—*Opinions concerning improvement in employees' health which the mutual benefit association helped bring about*

	Number	Per cent
Answering question	227	100
Stating that benefit association was not organized for health improvement	11	5
Reporting no improvement or no important health results	74	32
Reporting no data as a basis for measuring health improvement	45	20
Believing that improvement in health has resulted from the work of the association	97	43
(*a*) Through machinery for obtaining early diagnosis and appropriate medical treatment of cases	31	13
(*b*) Through patients' feeling of security, permitting more complete recuperation before returning to work	14	6
(*c*) Through correction of physical defects which association helped finance or which resulted from association's physical examinations	12	5
(*d*) Other reasons as basis for belief in improvement	9	4
(*e*) Reporting improvement, but giving no reason for belief	31	14

OPINIONS CONCERNING IMPROVEMENT IN CUTTING DOWN ABSENCES DUE TO ILLNESS WHICH THE MUTUAL BENEFIT ASSOCIATION HELPED BRING ABOUT

As is to be expected, the answers concerning improvement in cutting down absences due to illness which the benefit society helped bring about arrayed themselves in a fashion not unlike the answers to the preceding question. A somewhat smaller proportion of the informants, however, stated that absences on account of illness had been reduced than stated that improvement in health had resulted from the work of the benefit association (36 as against 43 per cent).

More persons reported no important reduction in absences due to illness than stated that absences had been reduced through the work of the mutual benefit. Two organizations reported an increase in absences due to sickness, especially among persons belonging to more than one sick-benefit fund. Among those who reported reduction in absenteeism, 20 attributed it to the ability of patients to return to work sooner, because the association had been instrumental in providing proper medical service and care; and 10 ascribed the reduction to a decline in the number of unnecessary absences and malingering resulting from the work of visiting nurses or investigators.

TABLE 5.—*Opinions concerning improvement in cutting down absences due to illness which the mutual benefit association helped bring about*

	Number	Per cent
Answering question	208	100
Stating that benefit association was not organized for such purpose	9	4
Reporting that results have not been measured	38	18
Reporting no improvement, or no important reduction in absences due to illness	84	41
Reporting increase in absences due to sickness, especially when members belong also to other sick-benefit funds	2	1
Stating that absences have been reduced	75	36
(a) Through ability of patients to return to work sooner, because association has been instrumental in providing proper medical service and care	20	9
(b) Through reduction of unnecessary absences and malingering by visiting nurses or by investigators	10	5
(c) No reason given for statement	45	22

FINANCIAL CONTRIBUTION OF THE COMPANY

Thirty-seven per cent of the sick-benefit funds which answered the question in regard to financial contribution stated that the company contributed nothing. Among the 63 per cent of the funds to which the company was a contributor, the method and amount of contribution varied widely.

Two per cent of the companies confine their sick-benefit contribution to donations to found or reorganize the association. Two per cent guarantee the payment of benefits or contribute in times of emergency. Another 2 per cent assist the association in the opera-

tion of store or cafeteria and 4 per cent contribute to the extent of permitting the association's administrative work to be executed on company time. Two per cent make nominal contributions yearly and 1 per cent stated that loans are made to the association in emergencies. If these companies making more or less nominal contributions are added to the number contributing nothing, the total is found to be exactly one-half of the mutual benefit funds which replied to the question.

Seven per cent of the companies pay part or all of the administrative expense of the benefit society, and an additional 4 per cent give a substantial contribution of one kind or another in addition to meeting the expenses of administration. One of these pays the cost of the first call of the physician, a plan which may stimulate the treatment of disease in its incipiency.

Another plan of contribution, which 3 per cent of the companies follow, is the donation of a fixed sum periodically or a certain amount per member per month. Sometimes the amount is determined by certain conditions, such as the attainment of a goal in membership.

But by far the most popular plan of company contribution is payment in proportion to the amount of dues collected from the members. About one-fourth of all the firms which gave information concerning the financial contribution of the company follow such a plan. A number contribute 25 to 50 per cent of the dues paid by the members, but one-half of all the companies which follow a plan of contribution in proportion to the members' contribution match the employee's dues dollar for dollar. Ten companies pay much more than 100 per cent of the dues collected.

About 2 per cent of the companies in which there is a sick-benefit organization pay part of the cost of group life insurance and 3 per cent pay the entire cost of group life.

The great diversity in the amount and method of contribution by the company to the sickness insurance plan is perhaps the most striking characteristic revealed in Table 6.

TABLE 6.—*Financial contribution of the company*

	Number	Per cent of companies which answered question
Replying to question	304	100
Companies contributing	192	63
1. More or less nominal contributions, as noted below	39	13
(*a*) Permit administrative work of association on company time	12	4
(*b*) Guarantee sick-benefits or contribute in emergencies	7	2
(*c*) Sum to found or reorganize association	6	2
(*d*) Sum to found plus financial assistance during flu epidemic	1	----
(*e*) Nominal contributions per year	6	2
(*f*) Assist association in operation of cigar stand, store, cafeteria, or entertainments	4	2
(*g*) Loan to association in emergencies	2	1
(*h*) Deductions from salary on account of tardiness of employees	1	----

TABLE 6.—*Financial contribution of the company*—Continued

	Number	Per cent of companies which answered question
Companies contributing—Continued.		
2. More than nominal contribution	153	50
(*a*) Part or all administrative expenses of the fund	20	7
(*b*) All administrative expenses plus financial support or contributions in emergencies	4	2
(*c*) All administrative expenses plus cash contribution periodically	3	1
(*d*) All administrative expenses plus part or all costs of group life insurance	3	1
(*e*) All administrative expenses plus cost of first call of physician	1	
(*f*) Fixed sum or certain amount per member per month	10	3
(*g*) Contributing periodically as conditions require	6	2
(*h*) Contributing in proportion to dues collected from members	82	27
Less than 25 per cent of dues from members	3	1
25–33⅓ per cent of dues	9	3
25–33⅓ per cent of dues and cost of death benefits	2	1
25 per cent of dues and total cost of administration	1	
25 per cent of dues when surplus is below $3,000	1	
40–50 per cent of dues	9	3
50 per cent of dues and administrative expenses	1	
58–80 per cent of dues	6	2
66 per cent of dues and cost of group life insurance	1	
100 per cent of dues (dollar for dollar of employee dues)	39	13
100 per cent of dues and all costs of administration	2	1
100 per cent of dues and $500 for each death	1	
125 per cent of dues	2	
133 per cent of dues, administrative costs, and loans to association in emergencies	1	
Twice amount contributed by employees and entire cost of group life insurance	1	
Three times amount contributed by employees	1	1
Five times amount contributed by employees	2	1
(*i*) Part of cost of group life insurance	7	2
(*j*) Total cost of group life insurance	9	3
(*k*) Total cost of group life insurance plus sum to found association	1	
(*l*) Total cost of group life insurance plus payment of deficits of sick benefits	1	
(*m*) Contributing according to other arrangements	6	2

CONDITIONS ATTACHED TO COMPANY CONTRIBUTIONS

No conditions appeared to be attached to the contributions of about 63 per cent of the companies which contributed something to the mutual benefit organizations in their establishments. In addition, probably no conditions were attached to at least a portion of the 20 per cent of contributing companies which did not answer this question.

Among the 17 per cent which stated that conditions were attached to the contributions, no uniformity in requirements was in evidence. Conditions imposed by several companies were that the company be represented on the association's board or executive committee, that the original donation or any property loaned be returned to the company if the society dissolves, or that the company reserves the right to terminate cooperation at any time.

There was no uniformity in any of the other conditions attached to the company contributions. All but one or two, however, appeared to be reasonable requirements.

TABLE 7.—*Conditions attached to company contributions*

	Number
Reporting that company contributed	192
Not stating conditions of contribution, if any	39
No conditions attached to contribution	121
Conditions attached to contributions as noted below	32
Company representation on association's board or executive committee	8
Original donation or property loaned to be returned to company if society dissolves	8
Company reserves right to terminate cooperation at any time	5
Expenditures of association must be for legitimate purposes	2
Company to be represented at any meeting of the society with privilege of making suggestions, but to have no vote in the board	1
Association must keep a company doctor employed	1
Association must be conducted on business-like basis	1
Scale of dues and benefits must be approved by company	1
Changes in constitution or by-laws must be approved by company	1
Association must live up to by-laws	1
Size of contribution dependent upon percentage of eligible members who belong to association	1
Membership must be at least 65 per cent of eligible members, and in case of dissolution, company to receive the sum initially donated	1
Membership compulsory and affairs of association managed by company	1

CRITICISM OF THE AVERAGE MUTUAL BENEFIT SOCIETY

To the question "What is your criticism of the average mutual benefit society?," a large proportion of those who answered (48 per cent) had no unfavorable criticism to offer.

Nearly one-third of those who criticized stated that the benefits were inadequate or the benefit period was too short. More persons apparently were in agreement on this point than on any other. Surprisingly, the next largest number of criticisms was leveled at the competency of management of mutual benefit societies. Four of the 12 men making such observation signed the questionnaire as association officers, the others signing as corporation executives of one kind or another. Relating also to management was the judgment of another group of eight persons that the check up of claims tended to be inadequate. Eight others reported that the sick-benefit organization suffered from members' lack of interest, and two that it lacked active company support. All 10 who commented on lack of interest were either officers of the company or department managers.

Six reported that societies generally were not on a sound actuarial basis, and several others stated that reserve funds were insufficient to meet claims during severe epidemics. Three complained that certain corporations tended to dictate policies so that the society was virtually a *company* institution rather than a *mutual benefit* organization. Another went so far as to state that results were satisfactory only when the association was managed exclusively by the employees, and decisions for benefits were made by a committee elected by the members. Only four reported insufficient attention to sickness prevention.

TABLE 8.—*Criticism of the average mutual benefit society*

	Number
Answering question	199
Giving no specific criticism	95
Criticizing adversely, as noted below	104
1. Benefits inadequate and (or) benefit period too short	33
2. Management incompetent	12
3. Inadequate check on claims	8
4. Organization suffers from members' lack of interest	8
5. Organization suffers from company's lack of interest	2
6. Not on sound actuarial basis	6
7. Reserve fund insufficient to provide for epidemics	4
8. Scope of activity too limited	5
9. Too little attention given to sickness prevention	4
10. Membership should be compulsory to cover those most in need of sickness insurance	3
11. Employees not allowed enough leeway in operating society; tends to become *company* institution instead of *mutual benefit* association	3
12. Too much delay in payment of claims	2
13. Tendency toward malingering when injured employees draw compensation from several sources	2
14. Associations of doubtful benefit or advantage	2
15. They try to pay too much which encourages malingering	1
16. Employees do not have same feeling toward organization when part of dues is paid for them	1
17. Results satisfactory only when association is managed exclusively by the employees, and decisions for benefits made by a committee elected by the members	1
18. A fair standard difficult in deciding who shall and who shall not be entitled to benefits	1
19. Work of association tends to overlap that of medical and personnel departments	1
20. Some associations have insufficient waiting period	1
21. "Too much detail"	1
22. Associations often undertake obligations which they can not perform	1
23. Failure of company usually puts benefit society out of business	1
24. "Not enough provision for prevention of lay-offs"	1

OPINION AS TO WHAT STEPS WOULD MAKE SICK-BENEFIT SOCIETY A BETTER HEALTH AND INDUSTRIAL EFFICIENCY PROMOTER

Health promotion was not regarded as a function of an industrial sick-benefit society by six reporting funds. Two others reported complete satisfaction with the present plan of activity. There were, however, 118 suggestions for making the benefit society a better health and industrial efficiency promoter.

The largest number of suggestions related to the administration of curative and preventive medicine, especially the latter. Most favored, as judged from the number of suggestions, was the periodic health examination when followed by correction of the physical defects uncovered in the examination. A sizable proportion of the opinions were in advocacy of a health educational program, including lectures and periodic bulletins. Eleven persons felt that dues and benefits should be increased to cover more adequately the cost of necessary surgical operations, and of dental, optical, and other corrective services. Visiting-nursing service was also recommended.

Some dissatisfaction with sick-benefit association management was indicated by the suggestions for "improvement in management," for closer check-up on members receiving benefits, for more liberal policy except with malingerers, for more home visits by the visiting nurse, for greater supervision to insure adequacy of medical care, and for a paid secretary. Two associations made a plea for more friendship, good will, and personal assistance in time of distress.

Other suggestions included requiring physical examination for membership in society, a study of health, establishing a medical clinic, extending hospitalization to include member's family, consolidating various mutual benefit societies to form a city-wide organization, forming a safety and sanitation committee to improve working conditions, and creating a small-loan service to members, especially for those in need of dental or surgical attention.

TABLE 9.—*Opinions as to what steps would make benefit society a better health and industrial efficiency promoter*

	Number
Expressing an opinion	126
Reporting that health promotion is not a function of industrial sick-benefit societies	6
Expressing complete satisfaction with present plan	2
Giving specific suggestions, as noted below	118
1. Periodic health examinations and correction of physical defects	27
2. Health educational program including lectures and periodic bulletins	18
3. Curative and preventive medicine administered by benefit society, or cooperation in such work by the company medical department and the benefit society	15
4. Increase of dues and benefits to cover more adequately the cost of necessary surgical operations, dental, optical, and other corrective services	11
5. Extension of service, i. e., dental, optical, etc	1
6. Improvement in management	6
7. Closer check up on members receiving benefits	4
8. Examination for membership in society	6
9. Employment of visiting nurse	5
10. More home visits by visiting nurse	1
11. Study of health	3
12. Purchase of insurance from outside organization which provides nursing and other services	3
13. Promotion of friendship, good will, and personal assistance in time of distress	2
14. Supervision to insure adequacy of medical care	2
15. Paid secretary	2
16. Small-loan service to members, especially for those in need of dental or surgical attention	2
17. Medical clinic	1
18. Extension of hospitalization to include member's family	1
19. Safety and sanitation committee to improve working conditions	1
20. Voluntary instead of compulsory membership	1
21. Compulsory instead of voluntary membership	1
22. More liberal policy except with malingerers	1
23. Elimination of death benefit	1
24. Backing by the company	1
25. Consolidation of various mutual benefit societies to form city-wide organization	1
26. What should be done dependent upon existing relationship between company and benefit society	1

STEPS TAKEN TO KEEP DOWN THE COST OF SICKNESS AND DEATH BENEFITS

About 30 per cent of those answering the question concerning steps taken to keep down the net cost of sickness and death benefits stated that no steps had been taken. This proportion may represent an understatement, inasmuch as a number of those who did not answer the question probably had taken no steps in this direction. Those who had worked on the problem naturally would be more inclined to answer than those who had not done so.

Of those reporting that steps had been taken to reduce costs, nearly one-half (49 per cent) mentioned only general methods, such as those covered by "proper administration" or investigation and follow up of cases. Forty-two per cent indicated some form of

organization or service for the treatment and prevention of sickness as a method of reducing the net cost of sickness insurance. Services mentioned were those of visiting nurses, the work of the factory medical department, health educational work, immediate medical attention in illness and medical supervision to prevent sickness, periodic health examinations, hospitalization of cases, special attention to employees' working conditions, special physical examinations when needed, and active cooperation in safety work.

Nine per cent mentioned some restrictive policy to keep down the cost. Policies most frequently mentioned were requiring an examination of applicants for membership, and the preemployment examination by the company. Confining the membership to males, excluding pensioners, eliminating Sunday benefits, limiting sick benefits to certain specific amounts, and paying no salaries to officers of the association were also mentioned. One society stated that the payment of one-half instead of all hospital expenses had stopped a tendency of members to impose upon the association.

Although 16 per cent of the establishments reported experience with periodic health examinations, as shown in Table 12, only 3 per cent of those reporting some attempt at reducing the net cost of sickness and death benefits mentioned the health examination as a method of attaining such a goal.

TABLE 10.—*Steps taken to keep down the cost of sickness and death benefits*

	Number	Per cent
Answering question	229	-------
Reporting no steps taken	69	-------
Reducing net cost by methods noted below	160	100
1. General methods	78	49
(*a*) "Proper administration"	66	41
(*b*) Investigation and follow up	12	8
2. Organization for treatment and prevention	68	42
(*a*) Visiting nursing service	23	14
(*b*) Factory medical department	15	9
(*c*) Immediate medical attention in illness and medical supervision to prevent sickness	12	7
(*d*) Health educational work	8	5
(*e*) Periodic health examinations	4	3
(*f*) Special physical examinations when needed	2	1
(*g*) Cooperation in safety work	2	1
(*h*) Hospitalization of cases	1	1
(*i*) Special attention to employees' working conditions	1	1
3. Restrictive policies	14	9
(*a*) Examination of applicants for membership	5	3
(*b*) Preemployment examinations by company	3	2
(*c*) Confining membership to males	1	1
(*d*) Limiting sick benefits to certain specific amounts	1	1
(*e*) Excluding pensioners	1	1
(*f*) No salaries to officers of association	1	1
(*g*) Eliminating Sunday benefits	1	-------
(*h*) Paying one-half instead of all hospital expenses stopped tendency of members to impose upon association	1	-------

EXTENT TO WHICH THE COMPANY LOOKS TO THE MUTUAL BENEFIT FUND TO COVER THE SALARIES OF EMPLOYEES IN THE SALARIED DIVISION

Apparently, only a few companies look to the mutual benefit fund to cover the salaries of disabled employees in the salaried division. Customarily such workers receive full salary during illnesses of moderate duration. Probably not more than 2 to 3 per cent of the reporting companies could be regarded as leaning somewhat heavily on the sickness fund for benefits in lieu of salaries to incapacitated office workers. Among such companies, three paid full salaries during the waiting period only (usually the first week of disability), sick benefits being substituted for salaries from then on. These three companies, however, paid in to the fund as much as the employees contributed. Two companies which paid nothing to their associations unless the surplus was nearly exhausted, reported that they looked to the fund for 75 per cent of the salaries of employees in the salaried division. One other company, a retail store, which contributed to the sick-benefit society only if the occasion required it, paid its salaried workers only for the first two days of disability.

The answers of 28 companies were so worded it was evident that disabled salaried workers received sick benefits in addition to full salary for a certain length of time. Fourteen others reported that the company paid regular salary for a certain period, but did not state whether benefits were paid in addition to salary. Nine stated that no benefits were paid as long as salary was continued, while nine other companies paid the difference between sick benefits and regular salary. The largest group, 122, simply stated that the company did not look to the benefit fund to cover the salaries of employees in the salaried division.

TABLE 11.—*Extent to which the company looks to the mutual benefit fund to cover the salaries of employees in the salaried division*

	Number	Per cent
Answering question	250	
Answers irrelevant or indicating that question was misunderstood	51	
Reporting that salaried employees are not eligible for membership	10	
All other answers	189	100
Stating "to no extent"	122	65
Members receive sick benefits in addition to full salary for a certain period	28	15
Company pays regular salary for a certain period (information not given as to whether benefits are paid in addition to salary)	14	7
No benefits paid as long as salary is continued	9	5
Company pays the difference between sick benefits and salary	9	5
Company pays salaries during waiting period only	3	2
Company pays one-fourth salary during disability	2	1
Company pays salary only for first 2 days of disability	1	
Each case determined on its own merits	1	

EXPERIENCE WITH THE PERIODIC HEALTH EXAMINATION WHEN GIVEN UNDER THE SUPERVISION OF THE MUTUAL-BENEFIT ASSOCIATION AND WHEN UNDER THE SUPERVISION OF THE COMPANY'S MEDICAL DEPARTMENT

Accurate determination of the percentage of total associations which have had experience with the periodic health examination was not possible, because it appeared to be confused in certain instances with the preemployment examination, the examination for membership in the association, and examination for diagnostic purposes. Although the answers were studied rather carefully, a decision was frequently impossible as to whether such confusion did or did not exist. It is felt that the figure of 16 per cent which appeared to have had experience with the periodic health examination errs on the side of overstatement rather than understatement. More reliable, perhaps, is the ratio of nearly five to one in favor of supervision of the health examination by the company's medical department rather than by the mutual-benefit association. In this connection attention should be called to the position of the persons answering the questionnaire, previously referred to.

Four companies appeared to have had experience with both plans, three of which reported results as being practically the same under the supervision of either. The per cent of total companies reporting good results was also much the same under either plan of supervision.

TABLE 12.—*Experience with the periodic health examination when given under the supervision of the mutual-benefit association and when under the supervision of the company's medical department*

	Number	Per cent
Answering questionnaire	315	----
Reporting experience with periodic health examinations	51	----
Under supervision of company's medical department	38	75
Under supervision of benefit association	8	15
Experience under both plans of supervision	4	8
Plan of supervision not stated	1	2
Good results reported under supervision of company's medical department	16	42
Good results reported under supervision of the mutual-benefit association	4	50

OPINION, AMONG THOSE WHO HAVE NOT HAD EXPERIENCE WITH THE PERIODIC HEALTH EXAMINATION, AS TO WHETHER SUCH EXAMINATIONS SHOULD BE MADE UNDER THE SUPERVISION OF THE MUTUAL BENEFIT SOCIETY OR THE COMPANY'S MEDICAL DEPARTMENT

Among those not having experience with periodic health examinations, but who volunteered opinion as to which organization should supervise such examinations, nearly three-fourths favored the company medical department for this purpose. About 10 per cent of those favoring supervision by the company medical department signed

the questionnaire as an officer of the benefit association, while about 50 per cent of those favoring supervision by the mutual benefit society signed as an executive of the corporation. Company executives, therefore, were not unanimously in favor of having the company medical department supervise the periodic health examinations.

The advantages ascribed to supervision by the company were that all employees of the company would benefit instead of only those who belonged to the association, enforcement would be easier if the authority of the company was behind the plan, there would be less change in the administering body, and health examinations could be made a condition of employment.

About one-fourth of those expressing an opinion on the subject favored supervision by the benefit association. The reasons given were that men are more likely to respond when there is no danger of dismissal on account of physical condition, that supervision by the employees' own organization would develop a finer spirit of cooperation, that a more honest picture of conditions as they actually exist would be obtained, that the company should get some benefit from its monthly contribution to the association, and that the work could be more efficiently handled by the benefit society.

Two organizations opined that results would probably be the same either way. Among those who did not answer this question, four stated as the reason that they were not in favor of periodic health examinations.

TABLE 13.—*Opinion, among those who have not had experience with the periodic health examination, as to whether supervision of such examinations should be under the mutual benefit association or the company's medical department*

	Number	Per cent
Number expressing an opinion	84	100
1. In favor of supervision by company medical department	61	73
(*a*) Because all employees do not belong to mutual benefit society	3	
(*b*) More feasible to enforce if authority of company is behind plan	2	
(*c*) Because such examination could be made a condition of employment	1	
(*d*) Less change in administering body	1	
(*e*) No reason given	54	
2. In favor of supervision by benefit association	21	25
(*a*) Because men more likely to respond when no danger of dismissal on account of physical condition	4	
(*b*) Because work would be more efficiently handled by benefit association	1	
(*c*) Because develops finer spirit of cooperation	1	
(*d*) Because company should get some benefit from its monthly contribution to association	1	
(*e*) Much more honest picture obtained of conditions as they actually exist	1	
(*f*) No reason given	13	
3. Regarding results the same either way	2	2

CONCLUSIONS

From the replies received, certain general conclusions in regard to sick-benefit associations in the United States appear warranted, as follows:

1. As a time-tested organization attempting to meet the needs arising from certain contingencies in the life of the wage earner, the employees' sick-benefit association appears to have found a place for itself in many industrial and mercantile concerns. In recent years a number have gone beyond the original plan in an attempt to explore and develop new fields of service and usefulness to their members. One of these relatively untilled fields consists of organized effort to obtain accurate diagnosis followed by appropriate medical attention and nursing care, including hospitalization if needed, and to secure such in the early stages of disease so that the duration of disability may be shortened as much as possible. Another important field which the more audacious organizations are beginning to till is that of disease prevention, including (*a*) the discovery and correction of physical impairments which, if neglected, may cause disability, and (*b*) health educational activity, especially in the hygiene of living.

2. Only a small fraction of the sick-benefit funds, however, at present are venturing into new fields; as a whole they are still essentially insurance organizations, making no attempt to control either the incidence or the severity of the illnesses afflicting their members. In fulfilling their primary function of providing cash benefits they seldom err on the side of overinsurance. One-fourth of the funds pay less than $1 per day, and one-half pay from $1 to $2 per day, with $9 to $11 per week the most popular rate of benefits. The criticism most frequently expressed in the questionnaires was the inadequacy of the payment.

3. Virtually no attempt has been made to insure against the uneven costs of treatment of different diseases. A case in which radium treatment is indicated for skin cancer or in which rare skill in surgery is required, ordinarily receives no larger cash benefit than a case of whooping cough causing absence from work for the same length of time. Moreover, insurance against the uneven costs of treating different diseases would dispel the bugaboo of malingering.

4. Virtually as many industrial sick-benefit associations are purely employees' societies as are cooperative organizations of employer and employee. At least 37 per cent of the reporting funds receive no help whatsoever from the company, and an additional 13 per cent receive nominal assistance or contributions only when the fund is in financial difficulties. It seems a reasonable assumption, therefore, that a number of companies might to their profit, i. e., through improved physical conditions of their workers, substitute active company support of the work of the association for a policy of mere passive recognition.

COMPARATIVE CURRENT STATE MORTALITY STATISTICS[1]

The present report on mortality from certain causes covers, for a majority of the States included, the months January to June, 1931. For some of the States the data for all of these months are not available. The present plan is to publish about three current reports during the year, covering periods of approximately 3 months, 6 months, and 9 months, respectively, with a more complete annual summary of death rates for the calendar year at as early a date as possible in the following year. It is impossible to present data for all of the States on this basis of 3, 6, and 9 months, but each State is included in each report for as many months as possible with rates in each case for the "year to date" and comparative rates for the same period in preceding years. This arrangement makes it possible to compare the mortality of the current calendar year with the mortality of preceding years in the same State.

The rates are computed from current and generally preliminary reports furnished by State departments of health. Because of (*a*) some lack of uniformity in the method of classifying deaths according to cause, (*b*) some delayed death certificates, and (*c*) various other reasons, these preliminary rates can not be expected to agree in all instances with final rates published by the Bureau of the Census, which are based on a complete review and retabulation of the individual death certificates from each State. The preliminary rates given in the accompanying table are intended to serve only as a current index of mortality until final figures are issued by the Bureau of the Census.

Populations used in computing rates are estimates as of July 1 of each year, based on the 1920 and 1930 censuses.

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[1] From the Office of Statistical Investigations, United States Public Health Service.

Death rates from certain causes in stated period of 1931, with comparative data for corresponding periods in preceding years

State	Period	Year	Rate per 1,000 population, all causes	Rate per 1,000 live births			Rates per 100,000 population (annual basis)																			
				Infant mortality																						
					All except malformations and early infancy	Maternal mortality (143–150)	Typhoid fever (1)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Poliomyelitis (22)	Lethargic encephalitis (23)	Meningococcus meningitis (24)	Tuberculosis, all forms (31–37)	Cancer, all forms (43–49)	Diabetes (57)	Diseases of the nervous system (70–86)	Cerebral hemorrhage, apoplexy (74)	Diseases of the circulatory system (87–96)	Diseases of the heart (87–90)	Diseases of the respiratory system (97–107)	Pneumonia, all forms (100–101)	Diseases of the digestive system (108–127)	Diarrhea and enteritis under 2 years (113)	Nephritis (128, 129)
10 States*	Jan.–June	1931	11.8	68	35	7.4	2.0	5.4	2.7	4.1	3.1	51.6	.4	1.1	4.4	73.7	86.1	17.0	124.3	98.0	221.2	193.3	120.7	108.9	67.3	7.6	84.5
		1930	12.0	68	34	7.4	2.2	6.5	2.5	6.4	4.4	30.9	.5	1.1	7.8	79.6	82.7	17.0	125.0	93.1	221.4	194.5	122.0	106.3	75.7	12.3	91.1
Alabama	Jan.–June	1931	11.1	71	45	8.0	2.4	11.4	1.3	3.5	3.4	64.5	.8	1.5	4.2	83.0	59.6	10.2	93.3	61.3	132.3	121.8	127.3	116.8	62.9	11.4	93.4
		1930	11.7	78	47	8.5	3.6	4.3	.8	11.1	3.6	49.0	.6	.8	1.7	85.9	49.5	9.3	99.7	62.2	150.2	138.2	124.6	112.0	77.9	24.7	101.3
		1929	13.2	86	55	9.3	4.5	3.8	1.0	9.5	4.2	212.3	1.2	1.3	1.3	83.8	45.6	9.4	99.2	57.9	139.7	130.4	128.9	121.4	94.9	22.2	91.5
		1928	12.3	82	49	8.6	4.3	13.5	.3	7.4	4.7	81.8	.9	(1)	(1)	91.9	45.5	9.7	(1)	59.0	(1)	128.3	(1)	137.4	(1)	20.9	83.3
		1927	10.1	66	37	7.5	7.5	5.1	.8	15.4	3.6	34.5	.7	(1)	(1)	88.6	46.5	7.6	(1)	47.4	(1)	98.8	(1)	73.5	(1)	27.0	72.0
Arizona	Jan.	1931	16.6	182	131	13.5	2.6	15.8	(2)	5.3	10.5	84.1	(2)	2.6	18.4	346.9	39.4	7.9	113.0	57.8	165.6	123.8	349.5	247.0	81.5	15.8	63.1
		1930	16.3	132	97	4.2	8.1	(2)	2.7	8.1	10.7	43.0	(2)	2.7	56.4	351.9	51.0	13.4	145.1	61.8	163.9	150.4	314.3	263.3	86.0	37.6	37.6
		1929	14.6	119	78	3.2	13.7	(2)	(2)	5.5	(2)	11.0	(2)	2.7	11.0	316.1	41.2	(2)	79.7	96.7	142.9	131.9	112.7	74.2	236.4	151.2	44.0
California	Jan.–Mar.	1931	12.3	61	30	6.4	1.0	2.7	1.6	2.2	2.5	26.8	.9	.8	4.0	99.7	121.7	21.8	116.9	82.9	316.0	281.7	115.2	99.9	71.2	6.3	87.9
		1930	12.4	56	27	6.3	1.4	4.3	2.5	2.4	4.4	15.1	.6	1.1	5.2	110.9	117.8	27.7	123.4	89.3	310.7	238.5	115.3	100.5	73.8	10.0	87.3
		1929	13.2	71	38	5.0	1.5	.5	1.9	5.2	2.9	49.6	.5	1.6	9.9	119.8	115.1	23.0	125.5	87.3	323.6	287.0	127.7	113.5	72.6	7.5	97.5
		1928	12.8	65	36	5.8	1.4	.7	1.2	3.0	7.1	20.1	2.1	.9	2.1	117.7	116.8	19.6	123.7	86.9	297.5	255.5	122.5	109.2	69.9	8.7	100.9
Connecticut	Jan.–May	1931	11.2	61	(1)	(1)	.3	4.4	1.2	2.2	1.5	34.0	.4	.7	.9	56.4	109.2	23.4	(1)	(1)	(1)	218.7	(1)	114.1	(1)	6.1	89.8
		1930	12.2	71	(1)	(1)	.6	.2	3.3	2.6	3.6	26.1	.8	1.5	1.7	66.1	118.6	21.0	(1)	(1)	(1)	209.0	(1)	139.9	(1)	8.6	82.7
		1929	13.2	81	(1)	(1)	.5	6.1	1.4	3.3	3.8	82.3	(2)	1.5	1.7	70.5	114.3	19.0	(1)	(1)	(1)	221.7	(1)	168.6	(1)	8.8	89.3
		1928	12.5	73	(1)	(1)	.9	5.2	2.2	6.9	6.9	36.1	.6	1.5	.9	73.2	105.3	(1)	(1)	(1)	(1)	173.9	(1)	162.1	(1)	5.8	(1)
		1927	11.8	67	(1)	(1)	.8	2.2	2.0	3.8	5.0	31.9	.3	(2)	.5	78.7	107.3	(1)	(1)	(1)	(1)	199.6	(1)	119.8	(1)	8.3	(1)
Dist. of Col.	Jan.–June	1931	16.8	70	36	6.7	2.0	4.9	.8	1.2	5.7	31.1	.8	.8	9.0	118.2	136.2	31.1	171.0	113.7	387.4	321.9	222.1	194.3	94.5	7.4	155.4
		1930	15.8	68	33	10.2	1.2	(2)	2.9	4.1	3.7	7.8	(2)	.4	2.1	127.7	136.4	29.3	143.8	103.7	399.5	345.9	170.3	145.5	92.6	6.6	175.2
		1929	16.9	69	34	6.0	1.3	(2)	3.3	5.4	7.9	38.0	.4	(2)	2.1	133.9	131.0	29.2	147.7	91.4	410.6	350.9	219.5	193.7	91.0	5.8	183.2
		1928	16.1	(1)	(1)	(1)	1.7	5.9	1.7	3.4	9.2	22.3	.8	.8	.8	131.1	129.0	32.4	154.2	110.1	361.0	321.1	200.9	172.3	92.0	10.5	180.5
		1927	16.1	(1)	(1)	(1)	1.3	(2)	.8	4.3	7.3	34.5	.4	2.1	.8	140.9	128.1	20.9	171.3	118.8	349.3	309.9	181.8	155.0	90.5	5.5	197.1
Florida	Jan.–June	1931	12.7	69	35	10.3	5.8	3.2	.3	2.2	3.7	68.7	.1	.5	1.1	71.1	70.2	14.1	134.0	112.1	221.8	205.6	85.6	70.3	86.9	10.4	124.8
		1930	12.9	69	35	10.2	4.9	7.0	.3	4.0	3.7	31.0	.8	.5	.4	71.9	73.8	16.2	133.5	111.7	214.6	187.1	92.2	72.5	92.7	18.1	127.6

*The States included are Alabama, District of Columbia, Florida, Idaho, Indiana, Iowa, Maryland, Michigan, Tennessee, and Virginia.

[1] Not available.

[2] No deaths.

Death rates from certain causes in stated periods of 1931, with comparative data for corresponding periods in preceding years—Continued

State	Period	Year	Rate per 1,000 population, all causes	Rate per 1,000 live births		Rates per 100,000 population (annual basis)																		
				Infant mortality	All except malformations and early infancy	Maternal mortality (143–150)	Typhoid fever (1)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Poliomyelitis (22)	Lethargic encephalitis (23)	Meningococcus meningitis (24)	Tuberculosis, all forms (31–37)	Cancer, all forms (43–49)	Diabetes (57)	Diseases of the nervous system (70–86)	Cerebral hemorrhage, apoplexy (74)	Diseases of the circulatory system (87–90)	Diseases of the heart (87–90)	Diseases of the respiratory system (97–107)	Pneumonia, all forms (100–101)	Diseases of the digestive system (108–127)	Diarrhea and enteritis under 2 years (113)	Nephritis (128, 129)
Georgia	Jan.–Apr.	1931	11.3	78	(1)	11.1	4.5	3.0	1.9	3.9	4.0	98.8	.4	.5	2.7	73.4	48.0	9.8	119.8	(1)	150.2	137.6	139.3	130.1	49.6	4.8	103.4
		1930	11.9	84	(1)	10.2	3.7	7.0	1.2	7.5	3.7	63.3	1.5	.4	5.1	76.0	47.8	12.8	128.1	(1)	153.7	140.1	146.0	132.7	58.6	6.1	143.1
		1929	12.5	(1)	(1)	(1)	3.4	2.3	1.3	5.0	3.8	218.5	(1)	(1)	(1)	73.6	42.7	10.6	(1)	(1)	(1)	114.5	(1)	119.5	(1)	7.9	135.5
Hawaii	Jan.–June	1931	10.4	77	(1)	(1)	3.2	14.2	(2)	(2)	7.4	13.2	1.1	(2)	2.6	107.9	47.9	14.7	(1)	62.7	(1)	115.3	(1)	120.0	117.9	51.1	78.5
		1930	11.5	89	(1)	(1)	2.2	7.3	(2)	6.8	13.5	7.9	(2)	(1)	6.8	107.0	61.4	14.1	(1)	47.9	(1)	131.8	(1)	138.0	158.9	91.8	82.2
		1929	14.1	114	(1)	(1)	4.6	7.5	(2)	49.7	11.0	27.2	.6	(2)	36.4	112.1	67.0	12.7	(1)	52.6	(1)	131.2	(1)	190.1	195.9	121.9	(1)
		1928	12.0	(1)	(1)	(1)	6.3	2.3	1.7	2.3	14.4	15.9	(2)	(2)	4.6	127.3	62.2	5.8	(1)	61.7	(1)	114.7	(1)	172.2	142.3	77.2	(1)
Idaho	Jan.–June	1931	10.3	61	30	3.2	1.8	3.2	1.8	11.3	2.3	14.0	.9	3.2	7.7	29.3	65.9	10.8	137.6	112.8	197.1	174.1	111.4	102.9	56.8	2.3	37.0
		1930	10.0	49	22	4.7	2.7	1.8	2.3	3.6	2.3	13.1	(2)	(2)	8.6	36.2	60.1	7.7	106.7	68.7	200.2	174.5	142.9	122.5	52.4	.9	41.6
Illinois	Jan.–Feb.	1931	(1)	(1)	(1)	(1)	.8	6.4	6.6	2.3	6.3	59.3	.6	.5	3.6	62.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	144.1	(1)	(1)	(1)
		1930	(1)	(1)	(1)	(1)	1.2	1.4	7.9	2.3	13.6	19.7	.2	.8	4.3	59.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	103.9	(1)	(1)	(1)
		1929	(1)	(1)	(1)	(1)	2.0	2.8	4.9	3.0	7.4	208.9	(2)	.3	4.7	69.9	(1)	(1)	(1)	(1)	(1)	(1)	(1)	201.0	(1)	(1)	(1)
		1928	(1)	(1)	(1)	(1)	1.8	.6	2.9	3.7	10.0	(1)	(1)	(1)	1.8	68.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	128.2	(1)	(1)	(1)
Indiana	Jan.–June	1931	12.4	63	32	6.6	1.3	8.5	4.9	4.3	3.5	56.4	.5	.7	7.0	60.5	105.8	16.4	(1)	114.4	(1)	182.3	(1)	118.8	(1)	5.4	80.3
		1930	12.5	57	25	6.5	1.3	2.5	2.7	4.2	3.6	25.1	.3	.8	12.8	73.7	104.6	17.9	(1)	117.4	(1)	202.6	(1)	106.9	(1)	7.3	91.0
		1929	13.3	70	(1)	7.8	1.6	7.2	4.7	6.5	4.2	101.1	.3	.6	1.5	78.0	97.9	15.1	(1)	116.1	(1)	218.9	(1)	131.8	(1)	8.3	87.5
		1928	12.5	66	(1)	6.0	2.0	3.5	2.8	5.0	5.3	61.6	(1)	(1)	(1)	77.3	101.0	(1)	(1)	117.4	(1)	182.5	(1)	127.2	(1)	8.0	82.1
		1927	11.9	62	(1)	7.1	2.7	3.1	3.3	6.7	6.2	36.1	(1)	(1)	(1)	77.6	101.2	(1)	(1)	102.7	(1)	173.4	(1)	96.2	(1)	7.4	84.6
Iowa	Jan.–June	1931	11.2	60	27	6.1	.6	.2	2.8	2.8	1.5	43.6	.3	2.5	4.0	29.3	119.0	23.3	142.3	112.7	253.2	224.5	105.2	91.6	69.3	4.1	43.8
		1930	11.0	60	25	7.5	1.1	14.5	3.9	4.6	2.1	35.5	.1	2.8	3.8	34.3	108.6	23.2	140.9	97.0	261.2	210.4	111.3	101.8	68.2	3.0	44.3
		1929	11.2	60	25	6.3	1.3	1.6	2.7	5.0	.8	90.4	.7	1.6	2.3	35.7	110.8	19.9	140.4	101.9	268.9	323.4	95.0	77.9	62.1	3.8	55.3
		1928	10.5	60	23	6.5	1.9	(2)	2.5	3.2	2.6	54.2	.5	1.4	1.0	36.5	106.6	19.3	138.3	102.0	248.7	222.7	96.5	85.0	61.1	3.3	54.8
Kansas	Jan.–May	1931	10.5	64	32	9.8	.9	.6	1.5	1.9	2.0	55.1	.8	1.0	1.7	38.9	91.8	24.6	127.9	100.5	206.5	150.4	94.0	83.7	64.5	6.0	105.1
		1930	11.0	58	27	8.2	1.2	7.2	3.6	5.0	4.0	49.6	.4	.3	3.9	39.2	92.8	24.1	134.8	102.2	213.7	184.9	92.1	80.9	65.1	7.2	108.5
		1929	11.5	72	39	6.9	1.4	3.4	5.0	5.2	3.1	98.7	.3	.9	3.6	47.4	91.3	22.9	150.8	120.7	204.8	179.4	101.0	87.8	69.0	7.4	97.4
		1928	11.8	64	31	9.4	.4	1.2	3.6	6.3	2.6	93.0	.5	1.0	1.6	44.3	98.2	22.3	155.0	118.5	219.3	190.7	99.4	82.8	69.7	7.4	99.5
Maryland	Jan.–June	1931	14.3	76	41	6.4	1.8	10.5	2.3	5.4	2.3	36.4	.4	1.5	1.9	102.7	113.4	24.6	153.0	121.7	315.6	285.5	192.5	177.2	69.5	12.3	145.7
		1930	13.7	64	32	5.6	2.1	.6	3.3	5.4	3.1	15.7	.1	.9	2.2	111.3	110.7	23.7	148.5	110.7	299.3	264.4	168.0	151.2	67.6	12.5	162.1

Michigan	Jan.-June	1931	10.6	62	27	6.9	.8	.9	3.6	4.3	3.5	28.2	.2	.9	3.5	58.8	91.6	18.8	122.6	99.4	248.3	221.1	97.2	82.4	68.1	5.6	62.6
		1930	11.4	69	31	6.6	1.1	8.6	3.9	3.8	7.9	17.2	.4	1.2	12.4	66.1	89.7	19.0	127.8	96.4	246.8	218.0	114.2	95.2	75.1	8.4	66.2
		1929	13.0	74	38	6.7	1.4	4.8	4.6	6.5	10.9	66.4	.7	1.6	25.4	74.4	91.2	21.8	141.5	100.8	271.8	239.2	144.4	125.7	83.4	12.0	71.7
Minnesota	Jan.-May	1931	10.4	56	22	3.8	.3	.4	1.3	2.2	1.1	40.8	.6	1.2	2.0	42.8	119.1	21.5	105.7	81.2	211.7	192.2	108.5	99.9	69.1	3.7	56.2
		1930	10.2	47	18	5.5	1.0	7.1	2.5	3.4	1.5	23.0	.4	1.5	3.0	50.2	116.5	19.9	110.6	85.3	203.2	185.8	95.7	92.0	67.7	5.8	56.5
		1929	11.1	59	25	4.8	.3	5.0	3.7	6.4	2.7	79.3	.5	2.5	2.2	60.6	112.7	21.0	112.7	83.7	217.5	165.6	101.9	94.4	67.3	4.1	62.8
		1928	10.8	(1)	(1)	(1)	.6	.6	3.7	2.1	3.1	51.3	.3	2.3	1.6	63.8	113.2	23.8	(1)	(1)	(1)	164.8	(1)	92.6	(1)	(1)	65.7
Mississippi	Jan.-May	1931	10.9	(1)	(1)	(1)	3.6	.2	.4	2.7	4.2	78.6	.2	.1	2.6	85.6	47.6	8.4	(1)	82.3	(1)	105.4	(1)	94.4	(1)	5.8	91.1
		1930	11.5	(1)	(1)	(1)	3.7	2.6	.5	9.7	3.8	50.9	.7	(2)	13.0	86.0	45.6	9.2	(1)	71.1	(1)	105.8	(1)	94.7	(1)	7.0	100.6
		1929	13.1	(1)	(1)	(1)	5.0	8.7	(2)	10.3	2.9	228.8	.6	.6	.6	79.7	43.7	7.6	(1)	66.7	(1)	96.3	(1)	92.0	(1)	10.8	91.0
Nebraska	Jan.-April	1931	10.2	55	26	5.5	.4	(2)	2.8	4.8	3.1	43.8	1.1	.7	3.5	26.5	95.8	23.4	129.5	103.2	203.4	177.7	101.2	92.3	66.0	4.2	68.6
		1930	10.3	49	20	5.9	1.1	13.2	4.0	3.5	3.3	29.5	.2	.9	4.2	27.5	112.6	26.2	117.0	91.4	206.2	182.8	111.7	99.1	71.6	5.5	57.7
		1929	11.5	70	40	6.5	1.3	1.6	7.8	3.1	4.4	108.3	.2	1.1	4.4	35.7	91.3	24.8	130.9	99.7	216.9	194.5	115.9	101.7	77.1	6.4	60.0
New Jersey	Jan.-June	1931	11.3	64	(1)	5.9	.8	4.3	3.5	2.7	4.4	22.3	.2	1.1	2.3	69.5	110.7	26.5	114.3	84.8	287.0	257.1	122.1	103.3	66.6	7.3	104.0
		1930	11.4	63	(1)	6.0	.8	5.4	2.3	2.5	11.5	12.2	.2	1.0	2.0	73.9	104.5	25.9	114.7	85.0	273.2	247.9	117.7	106.8	71.0	8.9	105.6
		1929	12.6	67	(1)	5.6	.7	1.4	1.5	6.2	12.0	44.5	.4	1.5	2.8	76.5	107.8	24.6	120.2	87.8	297.4	273.2	163.4	146.5	71.9	8.5	109.5
		1928	12.4	(1)	(1)	(1)	.9	11.3	2.2	5.1	14.4	18.9	(1)	(1)	(1)	77.6	105.4	(1)	122.2	(1)	271.8	(1)	156.6	89.3	70.6	10.6	110.9
		1927	11.9	(1)	(1)	(1)	.7	.9	4.4	3.9	9.8	17.6	(1)	(1)	(1)	80.5	102.5	(1)	130.3	(1)	250.5	(1)	135.5	74.8	77.0	14.3	102.1
New York [1]	Jan.-May	1931	13.6	70	30	6.6	.5	2.0	3.8	3.4	2.2	26.1	.2	1.1	1.1	68.5	132.8	32.0	140.3	112.8	390.0	350.7	132.0	115.0	68.2	7.8	123.8
		1930	13.5	66	29	6.6	1.1	2.2	2.1	4.2	3.3	16.2	.2	.8	1.3	72.8	124.3	30.8	140.6	106.6	381.3	331.2	138.2	122.1	72.5	8.4	133.6
		1929	15.4	76	35	6.3	.7	4.6	3.2	4.8	3.4	81.3	.4	1.0	1.4	81.2	127.0	29.9	170.0	130.7	416.0	365.5	183.1	161.8	71.7	9.1	124.7
		1928	14.3	72	32	7.5	1.4	5.0	3.1	4.3	5.1	25.7	.3	1.1	.9	80.7	125.1	27.6	168.6	130.3	384.5	334.9	153.9	137.3	77.9	11.3	122.4
		1927	13.8	72	32	6.5	2.2	4.7	2.4	4.7	4.8	21.9	.3	.7	.2	85.4	124.4	26.6	160.0	120.3	355.1	306.7	143.6	122.4	76.8	11.9	123.6
N. Carolina	Jan.-May	1931	11.0	80	(1)	8.1	1.6	5.0	2.0	4.8	5.4	68.6	.3	.4	.4	74.4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	137.5	(1)	6.8	(1)
		1930	12.1	82	(1)	7.5	.9	.1	1.1	9.9	5.2	42.1	.3	.7	1.1	84.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	131.1	(1)	16.0	(2)
		1929	12.8	(1)	(1)	(1)	2.2	1.1	2.0	7.5	7.0	162.2	.9	(1)	.5	87.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	128.6	(1)	14.0	(2)
		1928	11.3	(1)	(1)	(1)	1.8	33.1	1.7	7.5	6.7	52.7	.7	.9	(1)	82.7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	134.8	(1)	13.0	(1)
Ohio	Jan.-June	1931	12.0	62	26	6.7	1.2	3.5	4.4	1.7	2.0	48.5	.6	1.0	2.0	67.5	105.4	21.9	141.0	116.5	271.0	237.6	119.1	107.2	61.3	4.4	79.3
		1930	12.0	60	25	6.5	1.7	5.1	2.8	3.8	3.0	26.0	.5	1.1	2.3	70.8	107.1	23.0	122.9	111.9	273.1	242.6	108.5	96.6	60.1	6.5	84.3
		1929	13.7	(1)	(1)	(1)	1.1	6.3	2.8	10.4	3.3	107.4	.6	(1)	3.3	76.0	103.6	(1)	(1)	116.3	(1)	242.2	(1)	121.8	(1)	6.2	90.2
		1928	12.7	(1)	(1)	(1)	1.1	4.9	2.6	3.2	6.0	51.3	.7	(1)	2.2	79.2	101.7	(1)	(1)	104.4	(1)	(1)	(1)	115.4	(1)	6.4	95.4
Pennsylvania	Jan.-May	1931	12.8	78	44	6.4	.8	8.1	3.7	2.5	4.0	54.2	.3	1.2	2.7	62.0	89.5	27.8	121.2	91.2	296.8	264.1	165.6	148.2	68.0	11.1	101.6
		1930	12.5	80	45	6.2	1.1	3.6	2.8	5.0	6.1	31.3	.4	.9	2.9	68.1	94.9	23.7	122.1	91.0	290.1	259.2	152.2	135.4	70.6	12.8	111.9
		1929	14.3	86	49	7.0	1.3	6.8	3.6	7.2	8.1	115.9	.4	1.4	2.7	72.7	103.0	26.0	162.1	99.2	300.7	271.6	182.5	159.9	73.9	13.8	118.8
		1928	13.6	82	45	6.5	1.1	8.0	3.8	3.9	11.4	48.6	.7	1.3	1.1	77.8	99.6	24.7	(1)	98.9	(1)	255.1	(1)	162.2	(1)	17.2	121.8
		1927	13.1	81	43	7.1	2.0	4.1	4.0	6.5	9.7	42.1	(1)	1.1	.5	80.9	97.3	21.3	(1)	95.4	(1)	245.7	(1)	145.9	(1)	17.4	117.6
S. Carolina	Jan.-June	1931	(1)	(1)	(1)	(1)	6.0	3.5	.7	5.0	2.8	114.1	1.2	1.2	3.0	68.8	44.6	10.2	(1)	(1)	280.2	(1)	(1)	134.6	(1)	(1)	125.0
		1930	(1)	(1)	(1)	(1)	9.3	.4	.2	14.9	4.5	54.8	.9	2.6	5.6	80.1	36.9	8.3	(1)	(1)	328.4	(1)	(1)	125.0	(1)	(2)	117.9
		1929	(1)	(1)	(1)	(1)	9.3	.1	.6	13.1	5.0	135.4	.6	3.1	2.8	82.8	41.5	7.7	(1)	(1)	309.7	(1)	(1)	112.3	(1)	(1)	102.2
		1928	(1)	(1)	(1)	(1)	7.7	30.9	.1	12.5	5.3	65.4	.9	3.2	1.9	90.6	44.3	9.4	(1)	(1)	300.1	(1)	(1)	142.9	(1)	(1)	108.2
		1927	(1)	(1)	(1)	(1)	15.1	3.5	(2)	10.1	3.8	25.7	1.3	3.5	1.6	92.4	39.9	7.9	(1)	(1)	293.9	(1)	(1)	127.8	(1)	(1)	94.2
So. Dakota	Jan.-March	1931	8.9	70	38	3.3	1.7	(2)	1.2	5.2	2.9	49.2	2.9	(2)	(2)	33.0	75.3	20.9	109.5	70.1	159.9	137.3	106.6	91.5	64.3	5.2	40.6
		1930	7.8	64	29	7.6	1.2	2.9	1.8	2.9	1.8	31.6	.6	(2)	(2)	35.2	68.0	20.5	76.8	46.9	137.7	114.3	85.0	73.8	48.6	7.0	53.9
		1929	10.2	82	47	7.7	2.4	3.5	4.1	3.0	.6	143.5	2.4	.6	4.7	54.3	57.3	23.6	89.2	55.5	160.0	144.7	121.0	105.1	63.8	4.7	34.8
		1928	8.9	71	34	4.9	1.8	1.8	3.0	4.7	3.0	37.8	(1)	(1)	(1)	79.1	62.5	17.7	96.2	54.9	141.1	118.6	99.7	85.0	66.1	10.6	36.0

[1] Not available.

[2] No deaths.

Death rates from certain causes in stated periods of 1931, with comparative data for corresponding periods in preceding years—Continued

State	Period	Year	Rate per 1,000 population, all causes	Rate per 1,000 live births			Rates per 100,000 population (annual basis)																			
				Infant mortality	All except malformations and early infancy	Maternal mortality (143–150)	Typhoid fever (1)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Poliomyelitis (22)	Lethargic encephalitis (23)	Meningococcus meningitis (24)	Tuberculosis, all forms (31–37)	Cancer, all forms (43–49)	Diabetes (57)	Diseases of the nervous system (70–86)	Cerebral hemorrhage, apoplexy (74)	Diseases of the circulatory system (87–96)	Diseases of the heart (87–90)	Diseases of the respiratory system (97–107)	Pneumonia, all forms (100–101)	Diseases of the digestive system (108–127)	Diarrhea and enteritis under 2 years (113)	Nephritis (128, 129)
Tennessee	Jan.–June	1931	10.8	73	48	8.3	3.3	7.0	2.4	4.2	2.7	63.6	.5	.4	6.6	110.5	54.7	10.4	98.4	61.3	131.8	116.9	126.5	115.4	61.7	9.0	67.4
		1930	11.6	76	48	9.2	4.2	7.7	1.5	6.3	3.4	47.9	.8	1.0	15.8	122.4	54.6	10.7	104.2	61.5	137.3	121.8	122.1	110.6	80.0	16.5	81.7
		1929	13.0	88	61	8.7	3.7	.5	2.4	6.7	4.2	189.7	1.0	.5	2.1	136.2	54.8	10.2	103.4	58.6	47.8	136.2	129.3	111.9	68.2	11.6	70.7
		1928	12.1	(1)	(1)	(1)	4.8	14.5	1.6	5.7	3.4	80.6	1.1	.6	.5	134.7	57.8	10.2	(1)	(1)	(1)	120.8	(1)	133.1	(1)	13.8	(1)
		1927	11.4	(1)	(1)	(1)	9.9	6.5	1.8	15.8	4.1	43.7	.5	.5	.6	140.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	99.2	(1)	22.3	(1)
Virginia	Jan.–June	1931	12.7	76	(1)	8.6	2.6	5.6	1.7	5.3	3.1	84.0	.3	.7	2.7	94.5	62.8	16.9	134.4	107.7	234.2	215.5	125.4	113.2	57.4	8.9	112.3
		1930	12.3	73	(1)	7.0	2.0	6.6	1.4	14.0	4.7	41.8	.8	1.2	3.2	91.3	62.9	15.7	132.1	100.4	217.9	197.2	119.6	104.2	72.3	18.1	112.9
		1929	13.3	83	(1)	7.8	2.7	2.5	.9	10.5	4.5	170.0	.5	1.4	1.8	98.9	63.1	11.0	136.1	96.3	214.2	194.7	105.0	92.7	63.1	12.0	102.6
West Virginia	Jan.–June	1931	9.9	(1)	(1)	5.2	4.7	2.9	1.9	7.5	3.0	58.7	.5	.3	.9	59.2	56.3	10.7	97.3	70.0	138.9	114.6	122.3	113.0	59.6	12.8	61.4
		1930	10.0	(1)	(1)	6.4	5.2	7.7	2.6	15.3	4.5	36.5	.3	.3	1.7	71.1	55.3	12.7	90.4	58.6	154.1	120.5	112.5	103.6	62.5	20.1	58.2
		1929	11.5	(1)	(1)	6.2	8.0	6.3	1.2	12.5	3.4	167.0	.7	.7	1.0	72.6	60.3	9.2	91.2	52.6	169.0	118.1	125.7	105.4	65.5	20.3	98.5
Wisconsin	Jan.–June	1931	11.0	61	(1)	5.0	.3	2.5	3.0	2.2	2.1	29.7	.3	2.0	1.8	52.3	115.8	(1)	(1)	(1)	(1)	(1)	(1)	93.6	(1)	8.0	(1)
		1930	10.8	61	(1)	5.1	.4	5.7	4.3	3.7	2.4	20.0	.3	.8	2.6	55.4	113.7	(1)	(1)	(1)	(1)	(1)	(1)	89.4	(1)	7.9	(1)
		1929	11.7	71	(1)	(1)	1.0	4.1	3.2	4.4	2.6	74.8	.4	1.9	5.7	57.5	103.2	(1)	(1)	(1)	(1)	(1)	(1)	98.7	(1)	12.7	(1)
		1928	(1)	66	(1)	(1)	.8	.6	2.9	1.9	3.6	44.7	.6	1.9	4.1	63.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	105.9	(1)	12.4	(1)

[1] Not available.

COURT DECISION RELATING TO PUBLIC HEALTH

Recovery of salary as city health officer allowed.—(Maine Supreme Judicial Court; Mahoney *v.* City of Biddeford, 155 A. 560; decided June 17, 1931.) The plaintiff brought an action to recover an amount alleged to be due him as salary as health officer of the city of Biddeford for the months of June and July, 1930. He was duly elected and qualified as health officer of the defendant city for three years beginning January 1, 1926. The applicable statute (Revised Statutes, 1930, ch. 22, sec. 8) provided that "Every city, town, and organized plantation shall employ an official who shall be known as the local health officer and who shall be appointed by the officers of the municipality subject to the approval of the State commissioner of health." In the city charter there was a provision that "All of the subordinate officers and agents shall hold the offices during the ensuing year and until others are elected and qualified in their stead unless sooner removed by the city council." Regarding this charter provision the supreme court said:

> It is agreed that the health officer is a subordinate officer within the meaning of this provision, and the phrase "ensuing year" may properly be construed to mean the term for which the officer is elected.

The plaintiff had never been removed by the city council. After his term expired, two attempts were made to choose a successor. The first appointee was elected on January 7, 1929, but he did not qualify and never undertook to perform the duties of the office. The plaintiff therefore continued to act and was paid the regular salary during the next five months, and after that had been at all times ready, willing, and able to act as health officer but had been prevented by the defendant from so doing. On June 2, 1930, a second appointee was elected, but his selection was not approved by the State commissioner of health. Lacking that approval, the supreme court held that such appointee had not qualified. "Until and unless such approval is secured, he has no authority to act."

The court gave judgment for the plaintiff, saying:

> In view of the provisions of the statute and city ordinance already quoted, plaintiff was, at the date of the writ, health officer of defendant city and, holding the legal title to that office, was entitled to the salary.
>
> "The person who holds the legal title to an office is entitled to the legal right to the salary." Andrews *v.* Portland, 79 Me. 484, 10 A. 458, 10 Am. St. Rep. 280.

DEATHS DURING WEEK ENDED AUGUST 15, 1931

Summary of information received by telegraph from industrial insurance companies for the week ended August 15, 1931, and corresponding week of 1930. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended August 15, 1931	Corresponding week, 1930
Policies in force	74, 988, 817	75, 808, 527
Number of death claims	12, 927	13, 653
Death claims per 1,000 policies in force, annual rate	9. 0	9. 4
Death claims per 1,000 policies, first 33 weeks of year	10. 1	9. 9

Deaths [1] from all causes in certain large cities of the United States during the week ended August 15, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

[The rates published in this summary are based upon mid-year population estimates derived from the 1930 census]

City	Week ended Aug. 15, 1931				Corresponding week, 1930		Death rate [2] for the first 33 weeks	
	Total deaths	Death rate [2]	Deaths under 1 year	Infant mortality rate [3]	Death rate [2]	Deaths under 1 year	1931	1930
Total (82 cities)	6,717	9.8	650	[4] 51	10.0	688	12.5	12.4
Akron	41	8.3	2	20	10.0	6	8.1	8.1
Albany [5]	30	12.1	2	40	12.2	5	14.1	15.3
Atlanta	73	13.7	12	123	15.0	15	15.5	16.5
White	37		9	143		10		
Colored	36	(6)	3	86	(6)	5	(6)	(6)
Baltimore [5]	180	11.5	19	64	11.9	6	15.1	14.5
White	146		16	69		3		
Colored	34	(6)	3	47	(6)	3	(6)	(6)
Birmingham	58	11.2	4	40	13.4	5	14.1	14.3
White	24		2	34		4		
Colored	34	(6)	2	49	(6)	1	(6)	(6)
Boston	168	11.2	12	34	11.2	24	14.6	14.6
Bridgeport	28	9.9	0	0	3.6	1	11.6	11.5
Buffalo	106	9.5	5	20	12.5	12	13.6	13.4
Cambridge	18	8.2	0	0	9.6	2	12.6	12.3
Camden	32	14.0	4	70	7.9	2	14.8	14.1
Canton	22	10.7	0	0	7.4	0	10.6	10.4
Chicago [5]	603	9.1	59	52	7.6	52	11.3	10.7
Cincinnati	114	13.0	10	60	14.3	14	16.5	16.0
Cleveland	181	10.3	14	41	7.7	11	11.6	11.5
Columbus	66	11.6	8	78	10.6	10	14.2	16.4
Dallas	59	11.3	8		12.1	10	11.8	12.1
White	45		7			8		
Colored	14	(6)	1		(6)	2	(6)	(6)
Dayton	35	8.8	3	42	13.2	8	12.2	10.5
Denver	67	12.0	9	87	14.8	10	14.4	14.9
Des Moines	15	5.4	1	18	8.8	3	11.5	12.2
Detroit	172	5.4	25	40	6.9	28	8.6	9.7
Duluth	27	13.8	3	74	7.2	1	11.2	11.4
El Paso	28	13.9	7		18.7	11	16.6	18.2
Erie	28	12.4	1	19	13.9	4	10.8	11.5
Fall River [5 7]	22	10.0	0	0	6.8	0	11.8	12.6
Flint	19	6.0	2	26	8.6	5	7.3	9.5
Fort Worth	26	8.1	1		12.7	3	11.2	11.4
White	18		0			3		
Colored	8	(6)	1		(6)	0	(6)	(6)
Grand Rapids	30	9.1	3	44	7.4	2	9.4	10.7

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended August 15, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued

City	Week ended Aug. 15, 1931				Corresponding week, 1930		Death rate [2] for the first 33 weeks	
	Total deaths	Death rate [2]	Deaths under 1 year	Infant mortality rate [3]	Death rate [2]	Deaths under 1 year	1931	1930
Houston	52	8.7	6		10.4	13	11.3	12.4
White	39		5			10		
Colored	13	(6)	1		(6)	3	(6)	(6)
Indianapolis	90	12.7	7	58	12.8	5	14.3	15.1
White	79		6	56		3		
Colored	11	(6)	1	67	(6)	2	(6)	(6)
Jersey City	65	10.6	13	115	8.5	6	12.1	11.8
Kansas City, Kans	21	8.9	1	21	7.7	0	13.3	11.4
White	17		1	25		0		
Colored	4	(6)	0	0	(6)	0	(6)	(6)
Kansas City, Mo	74	9.4	4	30	12.5	12	13.8	13.6
Knoxville	20	9.5	5	107	10.8	6	12.9	14.4
White	15		5	119		6		
Colored	5	(6)	0	0	(6)	0	(6)	(6)
Long Beach	26	8.9	0	0	11.2	1	10.1	10.1
Los Angeles	215	8.5	17	49	11.2	25	11.0	11.3
Louisville	57	9.6	7	60	15.9	6	14.7	14.2
White	43		6	59		5		
Colored	14	(6)	1	66	(6)	1	(6)	(6)
Lowell [7]	18	9.3	4	102	9.8	1	12.9	14.0
Lynn	11	5.6	1	26	6.6	3	10.2	11.1
Memphis	76	15.3	17	180	14.0	9	16.8	18.0
White	37		11	183		4		
Colored	39	(6)	6	174	(6)	5	(6)	(6)
Miami	11	5.1	0	0	9.4	0	12.1	11.6
White	7		0	0		0		
Colored	4	(6)	0	0	(6)	0	(6)	(6)
Milwaukee	99	8.8	10	43	7.4	7	9.8	9.9
Minneapolis	75	8.3	4	26	8.6	6	11.8	10.9
Nashville	54	18.1	8	119	20.3	8	17.4	17.2
White	31		5	100		7		
Colored	23	(6)	3	177	(6)	1	(6)	(6)
New Bedford [7]	14	6.5	2	53	8.3	2	12.8	11.5
New Haven	35	11.2	5	95	9.6	1	12.6	13.5
New Orleans	133	14.8	19	104	15.5	18	17.4	18.0
White	79		10	83		10		
Colored	54	(6)	9	147	(6)	8	(6)	(6)
New York	1,235	9.1	117	49	8.5	103	11.7	11.3
Bronx Borough	184	7.2	11	25	6.5	15	8.6	8.2
Brooklyn Borough	395	7.8	47	50	7.7	43	10.8	10.3
Manhattan Borough	476	13.7	42	72	12.4	40	17.8	16.9
Queens Borough	135	6.1	12	33	5.2	9	7.6	7.4
Richmond Borough	45	14.4	5	90	12.8	2	14.1	14.8
Newark, N. J	69	8.1	8	42	8.8	12	12.1	12.6
Oakland	67	12.0	5	64	8.8	1	10.8	11.2
Oklahoma City	34	9.0	6	83	13.6	7	11.4	10.8
Omaha	47	11.3	5	56	11.7	5	14.4	14.3
Paterson	26	9.8	4	69	10.5	2	13.8	12.7
Peoria	27	13.0	4	105	12.3	3	13.2	12.9
Philadelphia	401	10.6	35	51	11.5	50	13.8	13.1
Pittsburgh	111	8.6	14	48	10.2	16	15.2	14.3
Portland, Oreg	61	10.4	1	12	9.5	3	11.9	12.6
Providence	45	9.2	1	9	10.1	3	13.2	13.7
Richmond	45	12.7	8	117	13.7	1	16.2	15.5
White	23		3	66		1		
Colored	22	(6)	5	217	(6)	0	(6)	(6)
Rochester	61	9.6	3	27	9.8	7	12.3	11.9
St. Louis	180	11.3	15	50	14.3	17	16.1	14.9
St. Paul	55	10.4	6	62	6.3	4	11.2	10.4
Salt Lake City [8]	30	10.9	1	15	7.8	3	12.4	12.8
San Antonio	61	13.2	9		12.5	11	15.2	17.6
San Diego	33	11.0	0	0	12.2	2	13.9	14.6
San Francisco	153	12.3	7	46	10.6	6	13.2	13.2
Schenectady	23	12.5	0	0	8.7	1	10.8	11.5
Seattle	66	9.3	3	28	10.1	4	11.6	11.1
Somerville	14	6.9	1	37	5.5	1	9.4	10.2

Deaths from all causes in certain large cities of the United States during the week ended August 15, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued

City	Week ended Aug. 15, 1931				Corresponding week, 1930		Death rate [2] for the first 33 weeks	
	Total deaths	Death rate [2]	Deaths under 1 year	Infant mortality rate [3]	Death rate [2]	Deaths under 1 year	1931	1930
South Bend	5	2.4	1	25	5.5	2	8.3	9.2
Spokane	30	13.4	6	156	13.1	2	12.6	12.6
Springfield, Mass	28	9.6	2	31	9.4	1	12.3	12.6
Syracuse	38	9.3	2	24	8.2	6	12.0	12.0
Tacoma	16	7.7	0	0	12.2	1	12.4	12.9
Toledo	48	8.5	3	28	8.8	4	12.4	13.0
Trenton	33	13.9	3	52	17.7	1	17.2	17.3
Utica	29	14.8	1	26	4.6	0	14.6	15.5
Washington, D. C	128	13.5	18	100	13.9	18	16.3	15.7
White	87		12	98		9		
Colored	41	(6)	6	103	(6)	9	(6)	(6)
Waterbury	15	7.8	5	151	8.9	1	9.8	10.3
Wilmington, Del.[7]	24	11.7	1	22	15.7	2	14.5	14.8
Worcester	35	9.3	3	41	7.7	1	12.8	13.3
Yonkers	23	8.6	6	157	6.9	0	8.8	8.4
Youngstown	27	8.1	2	28	7.9	2	10.7	10.5

[1] Deaths of nonresidents are included. Stillbirths are excluded.
[2] These rates represent annual rates per 1,000 population, as estimated for 1931 and 1930 by the arithmetical method.
[3] Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.
[4] Data for 77 cities.
[5] Deaths for week ended Friday.
[6] For the cities for which deaths are shown by color, the percentage of colored population in 1920 was as follows: 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; Miami, 31; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.
[7] Population Apr. 1, 1930; decreased 1920 to 1930, no estimate made.

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 August 22, 1931, and August 23, 1930

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended August 22, 1931, and August 23, 1930

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930
New England States:								
Maine	5	3	----	----	5	6	0	0
New Hampshire	1	2	----	8	2	----	0	0
Vermont	3	2	----	----	2	5	0	0
Massachusetts	31	44	1	2	29	44	2	5
Rhode Island	1	1	----	----	16	----	0	0
Connecticut	2	10	3	----	6	6	0	1
Middle Atlantic States:								
New York	39	51	----	[1] 4	158	70	7	9
New Jersey	13	38	----	1	16	35	3	4
Pennsylvania	49	37	----	----	69	91	18	12
East North Central States:								
Ohio	19	7	2	4	13	12	0	1
Indiana	8	11	4	6	1	5	3	10
Illinois	36	56	4	4	39	17	6	6
Michigan	14	17	----	----	22	37	15	2
Wisconsin	12	11	7	3	32	45	1	2
West North Central States:								
Minnesota	8	6	1	1	5	2	0	2
Iowa	4	1	----	----	2	----	0	1
Missouri	16	12	----	1	5	10	2	3
North Dakota	1	1	----	----	9	----	0	1
South Dakota	6	4	----	----	2	3	0	0
Nebraska	3	2	----	----	4	1	0	0
Kansas	5	9	----	----	2	4	1	5
South Atlantic States:								
Delaware	----	3	----	----	----	6	0	0
Maryland [1 2]	11	9	2	1	3	4	0	1
District of Columbia	1	3	----	----	1	8	0	1
West Virginia	7	9	2	4	21	11	0	0
North Carolina [2]	31	77	----	2	9	2	1	0
South Carolina	6	11	100	86	12	1	6	0
Georgia [2]	8	5	9	9	----	4	1	2
Florida	----	1	1	2	----	1	0	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended August 22, 1931, and August 23, 1930—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930
East South Central States:								
Kentucky	16				12		1	1
Tennessee	19	10	18	2	3	3	3	3
Alabama [3]	17	12	2	3	12	6	2	4
Mississippi	31	10					1	5
West South Central States:								
Arkansas	1	3		2	1		0	0
Louisiana	21	14	2	3			1	1
Oklahoma [3]	22	4		4	1	3	0	0
Texas [2]	15	16	2			15	1	2
Mountain States:								
Montana	1	2			6	1	1	0
Idaho	1				2	1	0	1
Wyoming					2		2	0
Colorado	5	5			2	4	0	0
New Mexico	1	5					0	2
Arizona	2	5				2	1	0
Utah [1]			6	3	8	1	0	0
Pacific States:								
Washington	8	3			6	21	3	0
Oregon	7	6	6	6	5	13	0	2
California	49	36	8	13	29	59	6	5

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930
New England States:								
Maine	7	2	7	12	0	0	4	3
New Hampshire	7	1	1	0	0	0	1	0
Vermont	7	0	4	1	8	0	0	0
Massachusetts	115	27	74	42	0	0	3	23
Rhode Island	22	1	9	2	0	0	0	0
Connecticut	115	2	10	4	0	0	0	2
Middle Atlantic States:								
New York	555	72	86	61	1	0	38	30
New Jersey	78	5	18	17	0	0	13	12
Pennsylvania	10	8	78	48	0	0	37	46
East North Central States:								
Ohio	2	13	61	40	6	8	34	47
Indiana	3	3	15	16	11	15	18	9
Illinois	36	8	60	57	8	17	26	44
Michigan	68	5	55	28	2	8	10	20
Wisconsin	26	3	17	26	0	9	5	6
West North Central States:								
Minnesota	31	12	22	7	3	3	4	7
Iowa	8	6	10	11	5	15	7	1
Missouri	3	8	11	10	1	7	18	28
North Dakota	2	2	0	3	2	1	6	2
South Dakota	0	5	8	2	4	0	1	2
Nebraska	0	4	2	4	3	2	1	3
Kansas	1	30	17	14	3	7	10	17
South Atlantic States:								
Delaware	0	0	1	1	0	0	3	6
Maryland [1 2]	2	1	9	5	0	0	40	70
District of Columbia	2	1	6	4	0	0	2	2
West Virginia	5	0	16	8	0	2	26	39
North Carolina [2]	8	4	25	34	0	5	40	52
South Carolina	1	0	4	3	0	0	77	65
Georgia [3]	0	0	15	12	7	0	49	39
Florida	0	0	1	1	0	0	5	4

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended August 22, 1931, and August 23, 1930—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930	Week ended Aug. 22, 1931	Week ended Aug. 23, 1930
East South Central States:								
Kentucky	4	0	6	8	0	9	47	73
Tennessee	1	0	34	10	5	0	112	97
Alabama [2]	4	1	11	16	0	1	47	41
Mississippi	0	1	14	5	7	2	41	31
West South Central States:								
Arkansas	0	7	0	9	3	6	45	28
Louisiana	0	10	12	8	0	0	69	22
Oklahoma [3]	0	17	9	8	1	4	46	60
Texas [2]	0	4	13	10	3	3	23	32
Mountain States:								
Montana	3	0	4	6	0	1	3	2
Idaho	1	0	3	0	0	1	1	2
Wyoming	0	3	2	7	0	0	0	2
Colorado	1	1	4	6	0	1	7	8
New Mexico	1	1	4	3	0	0	0	4
Arizona	0	2	2	0	0	1	5	4
Utah [1]	0	0	1	4	0	0	1	1
Pacific States:								
Washington	3	0	15	3	3	7	7	3
Oregon	0	0	6	7	9	5	7	1
California	3	62	36	34	8	9	18	19

[1] Week ended Friday.
[2] Typhus fever: 1931, 6 cases; 1 case in Maryland; 2 cases in North Carolina; 1 case in Georgia; 1 case in Alabama; and 1 case in Texas.
[3] Figures for 1931 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States 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, 1931										
Colorado	-------	27	-------	-------	50	-------	1	29	7	24
Illinois	31	299	345	144	1,780	2	29	444	123	79
Louisiana	3	63	40	38	3	485	2	22	14	209
Minnesota	6	15	5	2	168	2	15	88	4	11
Missouri	10	57	1	46	102	1	4	81	28	100
New Mexico	-------	8	-------	16	20	5	1	3	3	16
New York	32	398	-------	3	3,660	-------	667	684	37	81
North Carolina	1	60	2	-------	513	886	10	83	1	228
Oklahoma [1]	2	23	31	207	10	106	3	33	42	123
Pennsylvania	22	233	-------	2	2,520	3	13	728	2	90
Washington	6	24	28	-------	87	-------	5	43	60	19
Wisconsin	7	36	28	-------	1,073	-------	36	125	16	23

[1] Exclusive of Oklahoma City and Tulsa.

July, 1931	Cases
Anthrax:	
Louisiana	1
Missouri	1
Pennsylvania	2
Botulism:	
Washington (March, 1931)	2
Chicken pox:	
Colorado	51
Illinois	361
Louisiana	6
Minnesota	115
Missouri	28
New Mexico	18
New York	919
North Carolina	42
Oklahoma [1]	8
Pennsylvania	691
Washington	99
Wisconsin	504
Dysentery:	
Illinois	51
Illinois (bacillary)	7
Minnesota (amebic)	6
Missouri	2
New Mexico	2
New York	10
Oklahoma [1]	37
Enteritis:	
Washington (under 2 years)	8
Washington (over 2 years)	7
German measles:	
Colorado	3
Illinois	25
New York	233
North Carolina	50
Pennsylvania	95
Washington	6
Wisconsin	36
Hookworm disease:	
Louisiana	35
Impetigo contagiosa:	
Colorado	1
Oklahoma [1]	1
Lead poisoning:	
Illinois	5
Leprosy:	
Illinois	1
Missouri	1
Lethargic encephalitis:	
Illinois	7
Louisiana	1
Minnesota	1
New Mexico	1
New York	12
Pennsylvania	7
Washington	3
Wisconsin	2
Mumps:	
Colorado	58
Illinois	274
Louisiana	6
Missouri	37
New Mexico	25
New York	669
Oklahoma [1]	6
Pennsylvania	639
Washington	52
Wisconsin	791
Ophthalmia neonatorum:	
Illinois	12
Missouri	3
New York	3
North Carolina	2
Oklahoma [1]	3
Pennsylvania	15
Wisconsin	1
Paratyphoid fever:	
Colorado	2
Illinois	2
Louisiana	12
New Mexico	1
New York	7
North Carolina	5
Puerperal septicemia:	
Illinois	11
New York	17
Pennsylvania	21
Washington	5
Rabies in animals:	
Illinois	16
Louisiana	3
Missouri	5
New York [2]	7
Rabies in man:	
Pennsylvania	1
Septic sore throat:	
Illinois	9
Louisiana	1
Missouri	16
New York	56
North Carolina	11
Oklahoma [1]	22
Tetanus:	
Illinois	5
Louisiana	4
Minnesota	1
Missouri	5
New York	9
Oklahoma [1]	2
Pennsylvania	9
Trachoma:	
Illinois	11
Minnesota	1
Missouri	84
Oklahoma [1]	17
Pennsylvania	2
Wisconsin	3
Trichinosis: New York	3
Tularaemia:	
Colorado	1
Illinois	1
Louisiana	1
Minnesota	1
Missouri	1
Oklahoma [1]	2
Typhus fever:	
New York	3
North Carolina	2

[1] Exclusive of Oklahoma City and Tulsa.

Undulant fever:	Cases
Colorado	24
Illinois	16
Louisiana	4
Minnesota	5
Missouri	20
New Mexico	1
New York	8
Oklahoma [1]	1
Pennsylvania	1
Washington	1
Wisconsin	6
Vincent's angina:	
Colorado	7
Illinois	1
New Mexico	1
Vincent's angina—Continued.	Cases
New York [2]	66
Oklahoma [1]	1
Whooping cough:	
Colorado	170
Illinois	1,365
Louisiana	18
Minnesota	184
Missouri	532
New Mexico	15
New York	2,029
North Carolina	734
Oklahoma [1]	49
Pennsylvania	1,468
Washington	321
Wisconsin	849

[1] Exclusive of Oklahoma City and Tulsa.

[2] Exclusive of New York City.

PLAGUE-INFECTED GROUND SQUIRRELS IN CALIFORNIA

The director of public health of the State of California reported, under date of August 17, 1931, that plague had been proved by animal inoculation in four ground squirrels from ranches in San Benito County, Calif., about 22 miles south of Hollister. The last report of plague-infected squirrels in this vicinity was dated July 31, 1931. (Public Health Reports, August 14, 1931, p. 1954.)

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 92 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 32,520,000. The estimated population of the 86 cities reporting deaths is more than 31,010,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended August 15, 1931, and August 16, 1930

	1931	1930	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	555	572	----
92 cities	207	187	378
Measles:			
45 States	884	738	----
92 cities	246	260	----
Meningococcus meningitis:			
46 States	69	101	----
92 cities	32	51	----
Poliomyelitis:			
46 States	1,040	303	----
Scarlet fever:			
46 States	724	642	----
92 cities	213	184	243
Smallpox:			
46 States	113	214	----
92 cities	7	16	12
Typhoid fever:			
46 States	965	1,044	----
92 cities	135	128	165
Deaths reported			
Influenza and pneumonia:			
86 cities	292	324	----
Smallpox:			
86 cities	0	0	----

City reports for week ended August 15, 1931

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 nonepidemic 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 1922 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	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	0	0	0	----------	0	0	0	0
New Hampshire:								
Concord	0	0	0	----------	0	0	0	0
Nashua	0	0	0	----------	0	0	0	0
Vermont:								
Barre	0	0	0	----------	0	0	0	0
Massachusetts:								
Boston	3	15	12	1	0	4	4	5
Fall River	0	1	2	----------	0	1	1	0
Springfield	0	1	0	----------	0	3	1	1
Worcester	0	2	0	----------	0	2	5	1
Rhode Island:								
Pawtucket	0	0	0	----------	0	0	0	0
Providence	0	3	2	----------	0	19	2	1
Connecticut:								
Bridgeport	11	2	1	----------	0	4	0	1
Hartford	0	1	0	----------	0	0	0	2
New Haven	1	1	0	----------	0	0	2	1
MIDDLE ATLANTIC								
New York:								
Buffalo	3	7	2	----------	0	2	1	6
New York	17	93	47	2	2	41	10	79
Rochester	0	2	0	----------	0	14	0	3
Syracuse	0	1	1	----------	0	2	0	1
New Jersey:								
Camden	0	2	0	----------	0	0	1	2
Newark	2	7	2	2	2	0	3	6
Trenton	0	1	0	----------	0	0	0	4
Pennsylvania:								
Philadelphia	5	27	6	----------	1	11	14	17
Pittsburgh	1	10	1	----------	1	1	9	6
Reading	0	0	0	----------	0	0	1	1
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	0	3	0	----------	1	2	1	4
Cleveland	0	15	1	6	0	24	22	4
Columbus	1	2	2	1	1	0	4	6
Toledo	6	2	1	----------	0	6	2	1
Indiana:								
Fort Wayne	0	1	1	----------	0	0	0	0
Indianapolis	1	2	1	----------	0	0	0	8
South Bend	----------	1	----------	----------	----------	----------	----------	----------
Terre Haute	----------	0	----------	----------	----------	----------	----------	----------
Illinois:								
Chicago	15	49	31	2	1	46	6	25
Springfield	4	0	0	----------	0	0	0	1
Michigan:								
Detroit	5	23	10	----------	0	8	1	5
Flint	0	1	1	----------	0	3	0	2
Grand Rapids	1	1	0	----------	0	3	0	3
Wisconsin:								
Kenosha	0	0	0	----------	0	0	8	0
Madison	2	0	0	----------	----------	2	8	----------
Milwaukee	9	6	2	1	1	14	19	1
Racine	9	1	0	----------	0	0	4	0
Superior	1	0	0	----------	0	0	1	1

City reports for week ended August 15, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST NORTH CENTRAL								
Minnesota:								
Duluth	1	0	0		0	1	0	0
Minneapolis	2	9	7		1	0	4	1
St. Paul	1	3	5		0	0	1	3
Iowa:								
Davenport	0	0	1			0	0	
Des Moines	0	1	0			0	0	
Sioux City	0	0	0			0	0	
Waterloo	0	0	1			0	0	
Missouri:								
Kansas City	0	1	0		0	2	2	3
St. Joseph	0	0	0		0	1	0	1
St. Louis	1	13	3			0	1	6
North Dakota:								
Fargo	0	0	0		0	0	0	0
Grand Forks	0	0	0			0	0	
South Dakota:								
Sioux Falls	0	0	0			0	0	
Nebraska:								
Omaha	0	2	1		0	1	0	0
Kansas:								
Topeka	2	1	1		0	0	7	0
Wichita	0	0	1		0	1	1	1
SOUTH ATLANTIC								
Delaware:								
Wilmington	0	0	0		0	1	1	3
Maryland:								
Baltimore	4	9	4	2	1	3	1	12
Cumberland	0	0	0		0	0	0	1
Frederick	0	0	0		0	0	0	0
District of Columbia:								
Washington	0	5	6		0	1	0	4
Virginia:								
Lynchburg	0	1	0		0	0	0	1
Norfolk	0	0	0		0	0	0	1
Richmond	0	3	2		1	0	0	0
Roanoke	0	0	1		0	0	0	0
West Virginia:								
Charleston	1	0	0		0	0	0	0
Wheeling	0	0	0		0	0	0	1
North Carolina:								
Raleigh		1						
Wilmington	0	0	4		0	0	0	0
Winston-Salem	0	1	1		0	0	4	1
South Carolina:								
Charleston	0	0	0	4	0	0	0	1
Columbia	0	0	0		0	0	0	1
Greenville	0	0	0		0	0	0	0
Georgia:								
Atlanta	0	2	1	1	0	0	1	2
Brunswick	0	0	0		0	0	0	0
Savannah	0	0	1	5	0	0	0	0
Florida:								
Miami	0	0	0		0	1	1	0
Tampa	0	1	2	1	0	0	0	1
EAST SOUTH CENTRAL								
Kentucky:								
Covington		0						
Tennessee:								
Memphis	1	1	0		1	0	0	3
Nashville	0	1	1		0	2	1	2
Alabama:								
Birmingham	0	2	2	3	0	2	0	2
Mobile	0	0	0		0	0	0	1
Montgomery	0	0	0			0	1	
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith		0						
Little Rock	0	0	0		0	0	0	0

City reports for week ended August 15, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST SOUTH CENTRAL—continued.								
Louisiana:								
New Orleans	0	5	6	2	2	0	0	5
Shreveport	0	0	0		0	0	0	1
Oklahoma:								
Muskogee	0	0	1		0	0	0	0
Oklahoma City	0	0	2	1	1	0	0	2
Texas:								
Dallas	0	4	1		0	0	0	3
Fort Worth	0	1	2		0	0	0	0
Galveston	0	0	0		0	0	0	1
Houston	0	2	5		0	0	0	2
San Antonio	0	1	2		0	0	0	3
MOUNTAIN								
Montana:								
Billings	0	0	0		0	4	0	0
Great Falls	1	0	1		0	2	0	1
Helena	0	0	0		0	0	0	0
Missoula	0	0	0		0	0	0	0
Idaho:								
Boise	0	0	0		0	0	0	0
Colorado:								
Denver	2	6	8		1	0	8	2
Pueblo	0	1	0		0	0	0	0
New Mexico:								
Albuquerque	0	0	0		0	0	0	0
Arizona:								
Phoenix	0	0	0		0	0	0	0
Utah:								
Salt Lake City	0	1	0		0	1	1	0
Nevada:								
Reno	0	0	0		1	0	0	2
PACIFIC								
Washington:								
Seattle	5	1	1			3	0	
Spokane	0	1	0			0	0	
Tacoma	1	1	0		0	0	1	0
Oregon:								
Portland	5	3	0		0	2	0	1
Salem	0	0	0		0	0	1	0
California:								
Los Angeles	5	20	12	7	1	13	7	5
Sacramento	1	0	2		0	4	0	0
San Francisco		6						

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	0	0	0	0	0	0	1	0	0	18
New Hampshire:											
Concord	0	0	0	0	0	0	0	0	0	0	8
Nashua	0	0	0	0	0	0	0	0	0	0	
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	2
Massachusetts:											
Boston	15	12	0	0	0	15	3	2	0	24	168
Fall River	1	1	0	0	0	0	1	1	0	0	22
Springfield	0	1	0	0	0	0	0	1	0	2	21
Worcester	2	3	0	0	0	1	0	0	0	0	35

City reports for week ended August 15, 1931—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—continued											
Rhode Island:											
Pawtucket	0	0	0	0	0	0	0	0	0	0	14
Providence	3	2	0	0	0	3	1	6	1	1	45
Connecticut:											
Bridgeport	2	0	0	0	0	3	1	0	0	4	28
Hartford	1	3	0	0	0	1	1	0	0	7	39
New Haven	0	0	0	0	0	10	1	0	0	8	35
MIDDLE ATLANTIC											
New York:											
Buffalo	5	4	0	0	0	9	1	1	0	15	102
New York	25	23	0	0	0	66	29	22	1	229	1,235
Rochester	2	10	0	0	0	4	1	0	0	3	58
Syracuse	1	2	0	0	0	2	0	1	0	16	38
New Jersey:											
Camden	1	2	0	0	0	0	0	0	0	4	32
Newark	3	3	0	0	0	7	1	3	0	93	80
Trenton	1	2	0	0	0	3	0	1	0	0	33
Pennsylvania:											
Philadelphia	14	23	0	0	0	33	32	4	0	88	401
Pittsburgh	7	1	0	0	0	7	2	0	0	54	111
Reading	0	0	0	0	0	0	0		0	3	20
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	4	10	0	0	0	9	2	2	0	6	114
Cleveland	9	16	0	0	0	23	3	1	1	47	181
Columbus	2	1	0	0	0	2	0	1	0	1	66
Toledo	2	1	0	0	0	4	2	0	0	20	48
Indiana:											
Fort Wayne	1	0	0	0	0	1	0	0	0	0	14
Indianapolis	2	2	1	0	0	4	0	2	1	13	----
South Bend	0	----	0	----	----	----	0	----	----	----	----
Terre Haute	0	----	0	----	----	----	1	----	----	----	----
Illinois:											
Chicago	27	24	0	0	0	48	5	2	2	154	603
Springfield	0	0	0	0	0	1	0	1	0	0	10
Michigan:											
Detroit	22	15	1	0	0	17	4	1	0	119	172
Flint	4	2	0	0	0	1	0	1	0	7	19
Grand Rapids	2	2	0	0	0	0	0	0	0	0	30
Wisconsin:											
Kenosha	1	3	0	0	0	0	0	0	0	5	6
Madison	1	0	0	0	----	----	0	0	----	3	----
Milwaukee	5	2	1	0	0	9	0	0	0	81	99
Racine	1	0	0	0	0	0	0	1	0	8	10
Superior	1	1	0	0	0	0	0	0	0	0	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth	3	0	0	0	0	1	0	0	0	2	27
Minneapolis	9	3	0	0	0	3	1	0	0	3	75
St. Paul	6	2	0	0	0	2	0	3	0	12	55
Iowa:											
Davenport	0	0	0	0	----	----	0	0	----	2	----
Des Moines	2	0	0	2	----	----	0	0	----	0	15
Sioux City	0	1	0	0	----	----	0	0	----	4	----
Waterloo	1	2	0	0	----	----	0	0	----	3	----
Missouri:											
Kansas City	2	1	0	0	0	1	2	1	0	11	74
St. Joseph	0	0	0	0	0	1	0	0	0	0	40
St. Louis	7	2	0	0	0	17	5	3	0	37	180
North Dakota:											
Fargo	1	0	0	2	0	0	0	0	0	18	2
Grand Forks	0	0	0	0	----	----	0	0	----	0	----
South Dakota:											
Sioux Falls	1	1	0	0	----	----	0	0	----	0	10
Nebraska:											
Omaha	1	1	0	2	0	2	1	0	0	9	47
Kansas:											
Topeka	1	0	0	0	0	1	0	0	0	4	21
Wichita	1	0	0	0	0	1	0	0	0	0	16

City reports for week ended August 15, 1931—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		
SOUTH ATLANTIC											
Delaware:											
Wilmington	0	1	0	0	0	2	0	0	0	2	24
Maryland:											
Baltimore	4	3	0	0	0	13	7	7	1	98	180
Cumberland	0	0	0	0	0	1	1	1	0	0	20
Frederick	0	0	0	0	0	0	0	0	0	0	2
District of Col.:											
Washington	3	1	1	0	0	12	3	1	1	19	128
Virginia:											
Lynchburg	0	0	0	0	0	0	1	3	1	1	14
Norfolk	0	1	0	0	0	0	1	1	1	0	
Richmond	2	4	0	0	0	3	2	2	0	0	42
Roanoke	1	1	0	0	0	2	1	1	0	2	18
West Virginia:											
Charleston	0	0	0	0	0	0	2	1	0	8	17
Wheeling	1	0	0	0	0	0	0	0	0	0	11
North Carolina:											
Raleigh	0		0				0				
Wilmington	0	0	0	0	0	0	0	0	0	4	4
Winston-Salem	1	0	0	0	0	3	2	2	0	14	17
South Carolina:											
Charleston	0	0	0	0	0	5	2	3	1	0	26
Columbia	0	0	0	1	0	1	1	3	0	4	35
Greenville	0	1	0	0	0	0	1	0	0	1	
Georgia:											
Atlanta	2	1	1	0	0	5	4	12	1	3	73
Brunswick	0	0	0	0	0	0	0	0	0	0	4
Savannah	0	0	0	0	0	3	0	3	0	0	28
Florida:											
Miami	0	0	0	0	0	0	0	1	0	1	11
Tampa	0	0	0	0	0	0	1	0	0	0	16
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0		0				0				
Tennessee:											
Memphis	1	4	0	0	0	2	10	5	0	26	76
Nashville	1	0	1	0	0	2	6	2	0	3	54
Alabama:											
Birmingham	1	3	0	0	0	6	5	4	1	0	58
Mobile	0	0	0	0	0	0	1	1	1	2	18
Montgomery	0	0	0	0			1	0		0	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	0		0				0				
Little Rock	0	1	0	0	0	0	1	0	0	0	
Louisiana:											
New Orleans	3	2	1	0	0	8	4	[1]5	5	3	133
Shreveport	0	0	0	0	0	0	1	3	0	3	22
Oklahoma:											
Muskogee	0	1	0	0	0	0	0	1	0	0	
Oklahoma City	1	3	1	2	0	2	3	0	0	2	34
Texas:											
Dallas	3	1	0	0	0	4	3	4	0	13	59
Fort Worth	1	1	0	0	0	2	1	3	1	0	26
Galveston	0	0	0	0	0	3	1	0	0	0	19
Houston	1	0	0	0	0	3	1	0	0	2	52
San Antonio	1	1	0	0	0	5	1	1	0	0	61
MOUNTAIN											
Montana:											
Billings	0	0	0	0	0	0	0	0	0	1	15
Great Falls	1	0	0	0	0	0	0	0	0	0	11
Helena	0	0	0	0	0	0	0	0	0	0	4
Missoula	0	0	0	0	0	0	0	0	0	0	1

[1] 3 nonresident.

City reports for week ended August 15, 1931—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		
MOUNTAIN—con.											
Idaho:											
Boise	0	1	0	1	0	0	0	0	0	0	5
Colorado:											
Denver	2	2	0	0	0	5	1	0	0	16	68
Pueblo	1	0	0	0	0	0	0	3	1	0	7
New Mexico:											
Albuquerque	0	0	0	0	0	3	0	0	0	0	16
Arizona:											
Phoenix	0	0	0	0	0	0	0	0	0	0	----
Utah:											
Salt Lake City	1	0	0	0	0	2	1	2	0	6	30
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	6
PACIFIC											
Washington:											
Seattle	2	1	0	1	----	----	1	0	----	27	----
Spokane	1	0	1	0	----	----	0	0	----	0	----
Tacoma	2	0	2	0	0	1	0	0	0	3	16
Oregon:											
Portland	2	2	3	4	0	3	1	0	0	2	61
Salem	0	0	0	1	0	0	0	0	0	5	----
California:											
Los Angeles	10	4	1	0	0	22	2	1	0	34	215
Sacramento	1	0	1	0	0	2	1	3	0	1	18
San Francisco	5	----	2	----	----	----	2	----	----	----	----

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland	0	0	0	0	0	0	0	1	0
Massachusetts:									
Boston	1	0	0	0	0	0	1	44	2
Fall River	0	0	0	0	1	0	0	5	1
Springfield	0	0	0	0	0	0	1	5	0
Worcester	0	0	0	0	0	0	0	1	0
Rhode Island:									
Providence	0	0	1	0	0	0	1	12	0
Connecticut:									
Bridgeport	0	0	0	1	0	0	1	1	0
Hartford	0	0	2	1	0	0	1	15	0
New Haven	0	0	0	0	0	0	0	14	0
MIDDLE ATLANTIC									
New York:									
Buffalo	1	0	1	0	0	0	1	1	0
New York	4	2	1	2	0	0	7	512	61
Rochester	1	0	0	0	0	0	1	0	0
New Jersey:									
Camden	0	0	0	0	0	0	0	0	2
Newark	2	0	0	0	0	0	1	9	3
Pennsylvania:									
Philadelphia	4	3	0	0	1	1	0	3	1
Pittsburgh	0	0	0	1	1	0	0	0	0

City reports for week ended August 15, 1931—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	0	0	0	0	0	0	0	0	1
Cleveland	1	0	0	0	0	1	1	2	0
Indiana:									
Indianapolis	2	0	0	0	0	0	0	0	0
Illinois:									
Chicago	2	2	0	0	0	0	1	13	3
Springfield	0	0	0	0	0	0	0	1	0
Michigan:									
Detroit	2	0	0	0	0	0	1	10	1
Grand Rapids	0	0	0	0	0	0	0	4	0
Wisconsin:									
Madison	0	0	0	0	0	0	0	3	0
Milwaukee	0	0	0	0	0	0	0	7	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	0	0	0	0	0	0	0	14	1
Minneapolis	0	0	0	0	0	0	0	2	0
St. Paul	1	0	0	0	0	0	0	4	0
Missouri:									
St. Joseph	0	0	0	0	0	0	0	0	1
St. Louis	1	0	0	0	0	0	0	0	0
North Dakota:									
Fargo	0	1	0	0	0	0	1	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore	2	0	0	0	0	0	1	0	0
District of Columbia:									
Washington	1	0	0	0	1	0	0	1	0
West Virginia:									
Wheeling	0	0	0	0	0	0	0	0	1
South Carolina:									
Charleston	0	0	0	0	0	2	0	0	0
Columbia	0	0	0	0	0	0	0	1	0
Georgia:[1]									
Atlanta	0	0	0	0	0	0	0	1	1
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	2	1	0	0	1	0	0	0	0
Alabama:									
Birmingham	4	0	0	0	1	2	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
Shreveport	0	0	0	0	0	1	0	1	0
Texas:									
Dallas	0	0	0	0	1	1	0	0	0
Galveston	0	0	0	0	0	1	0	0	0
Houston	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Missoula	0	0	0	0	0	0	0	1	0
New Mexico:									
Albuquerque	0	0	0	0	1	1	0	0	0
PACIFIC									
Washington:									
Tacoma	1	0	0	0	0	0	0	0	0
Oregon:									
Portland	0	0	1	1	0	0	0	0	0

[1] Typhus fever, 3 cases at Savannah, Ga.

The following tables give the rates per 100,000 population for 98 cities for the 5-week period ended August 15, 1931, compared with those for a like period ended August 16, 1930. The population figures used in computing the rates are estimated midyear populations for 1930 and 1931, respectively, derived from the 1930 census. The 98 cities reporting cases have an estimated aggregate population of more than 33,000,000. The 91 cities reporting deaths have more than 31,500,000 estimated population.

Summary of weekly reports from cities, July 12 to Aug. 15, 1931.—Annual rates per 100,000 population, compared with rates for the corresponding period of 1930 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	July 18, 1931	July 19, 1930	July 25, 1931	July 26, 1930	Aug. 1, 1931	Aug. 2, 1930	Aug. 8, 1931	Aug. 9, 1930	Aug. 15, 1931	Aug. 16, 1930
98 cities	42	48	33	37	[3] 36	38	[3] 32	37	[4] 33	31
New England	65	36	50	24	53	36	65	34	41	44
Middle Atlantic	35	46	34	33	31	34	26	32	26	22
East North Central	52	66	39	49	[5] 38	48	31	48	[6] 30	36
West North Central	31	39	33	35	17	35	[7] 32	29	36	27
South Atlantic	24	46	28	33	32	40	26	18	[8] 44	38
East South Central	29	12	12	24	12	6	41	18	[9] 19	30
West South Central	47	35	24	31	61	35	64	49	[10] 48	49
Mountain	61	70	35	70	35	35	26	18	78	18
Pacific	51	32	16	28	[11] 62	45	[11] 18	57	[11] 39	30

MEASLES CASE RATES

98 cities	181	147	133	105	[2] 94	67	[3] 60	49	[4] 39	32
New England	317	256	209	191	132	106	135	99	79	65
Middle Atlantic	142	195	111	144	84	87	57	61	32	39
East North Central	320	70	214	59	[5] 155	33	87	27	[6] 62	19
West North Central	61	50	34	64	27	43	[7] 15	52	11	31
South Atlantic	107	122	83	50	47	60	34	24	[8] 10	24
East South Central	116	42	105	54	47	36	12	18	[9] 25	18
West South Central	17	10	14	7	10	10	3	10	[10] 0	7
Mountain	122	247	174	176	209	159	70	115	61	44
Pacific	123	310	125	164	[11] 54	105	[11] 41	63	[11] 52	43

SCARLET FEVER CASE RATES

98 cities	70	53	53	49	[2] 47	38	[3] 47	31	[4] 34	30
New England	149	65	111	73	82	60	43	46	53	56
Middle Atlantic	64	35	56	34	52	21	51	20	31	17
East North Central	111	86	69	76	[5] 53	50	60	45	[6] 48	39
West North Central	42	43	29	31	31	48	[7] 21	27	23	29
South Atlantic	34	48	38	40	41	44	38	20	[8] 22	28
East South Central	23	18	6	48	35	6	41	12	[9] 44	48
West South Central	34	21	44	45	20	52	41	35	[10] 17	31
Mountain	26	79	0	26	61	62	61	70	26	44
Pacific	12	49	12	38	[11] 16	34	[11] 26	38	[11] 13	32

[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, 1931, and 1930, respectively.
[2] South Bend, Ind., and San Francisco, Calif., not included.
[3] St. Paul, Minn., and San Francisco, Calif., not included.
[4] South Bend and Terre Haute, Ind., Raleigh, N. C., Covington, Ky., Fort Smith, Ark., and San Francisco, Calif., not included.
[5] South Bend, Ind., not included.
[6] South Bend, and Terre Haute, Ind., not included.
[7] St. Paul, Minn., not included.
[8] Raleigh, N. C., not included.
[9] Covington, Ky., not included.
[10] Fort Smith, Ark., not included.
[11] San Francisco, Calif., not included.

Summary of weekly reports from cities, July 12 to Aug. 15, 1931.—Annual rates per 100,000 population, compared with rates for the corresponding period of 1930— Continued

SMALLPOX CASE RATES

	Week ended—									
	July 18, 1931	July 19, 1930	July 25, 1931	July 26, 1930	Aug. 1, 1931	Aug. 2, 1930	Aug. 8, 1931	Aug. 9, 1930	Aug. 15, 1931	Aug. 16, 1930
98 cities	3	6	3	7	[2] 2	4	[3] 3	3	[4] 1	3
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	4	10	2	8	[5] 1	2	2	6	[6] 8	3
West North Central	4	14	10	21	11	12	[7] 15	6	8	6
South Atlantic	0	4	0	2	2	4	2	2	[8] 2	0
East South Central	0	0	6	18	6	0	0	0	[9] 0	6
West South Central	7	7	0	3	3	14	0	7	[10] 0	3
Mountain	0	18	0	18	0	0	9	0	9	0
Pacific	22	18	20	22	[11] 5	22	[11] 18	4	[11] 3	12

TYPHOID FEVER CASE RATES

98 cities	13	16	16	18	[2] 27	18	[3] 22	17	[4] 22	20
New England	12	10	10	7	12	7	14	5	26	5
Middle Atlantic	7	4	8	7	13	5	16	10	14	14
East North Central	6	9	5	13	[5] 11	12	10	11	[6] 7	10
West North Central	2	23	19	48	31	23	[7] 21	19	13	29
South Atlantic	47	44	69	42	77	52	53	66	[8] 78	44
East South Central	35	60	47	66	64	108	29	60	[9] 75	132
West South Central	57	59	10	38	169	42	95	14	[10] 45	42
Mountain	26	26	0	18	17	26	44	35	44	26
Pacific	6	16	27	10	[11] 5	16	[11] 18	10	[11] 10	12

INFLUENZA DEATH RATES

91 cities	2	2	1	2	[2] 3	1	[3] 2	3	[12] 3	1
New England	0	0	0	0	2	0	2	0	0	0
Middle Atlantic	0	3	1	1	4	0	3	2	3	2
East North Central	4	2	2	3	[5] 2	1	1	1	[6] 2	0
West North Central	3	0	0	3	0	0	[7] 0	3	3	3
South Atlantic	4	0	2	4	6	6	0	10	[8] 4	0
East South Central	0	0	0	0	13	0	13	0	[9] 7	0
West South Central	3	11	3	11	0	0	3	0	7	0
Mountain	0	9	0	0	0	0	0	18	17	0
Pacific	0	5	2	2	[11] 7	2	[11] 7	5	[11] 3	0

PNEUMONIA DEATH RATES

91 cities	47	43	44	56	[2] 49	52	[3] 48	52	[12] 46	53
New England	50	39	31	44	41	41	34	46	29	41
Middle Atlantic	61	54	55	68	59	59	52	56	56	68
East North Central	32	32	32	38	[5] 30	43	35	47	[6] 37	27
West North Central	71	39	53	57	47	48	[7] 52	45	44	27
South Atlantic	39	54	43	86	65	66	79	72	[8] 56	74
East South Central	44	52	44	91	50	52	63	45	[9] 55	52
West South Central	45	46	52	71	59	75	62	53	52	85
Mountain	35	53	17	79	44	62	44	70	44	123
Pacific	24	15	43	7	[11] 51	35	[11] 34	35	[11] 17	40

[2] South Bend, Ind., and San Francisco, Calif., not included.
[3] St. Paul, Minn., and San Francisco, Calif., not included.
[4] South Bend and Terre Haute, Ind., Raleigh, N. C., Covington, Ky., Fort Smith, Ark., and San Francisco, Calif., not included.
[5] South Bend, Ind., not included.
[6] South Bend and Terre Haute, Ind., not included.
[7] St. Paul, Minn., not included.
[8] Raleigh, N. C., not included.
[9] Covington, Ky., not included.
[10] Fort Smith, Ark., not included.
[11] San Francisco, Calif., not included.
[12] South Bend and Terre Haute, Ind., Raleigh, N. C., Covington, Ky., and San Francisco, Calif., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended August 8, 1931.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended August 8, 1931, as follows:

Province	Cerebrospinal fever	Influenza	Lethargic encephalitis	Poliomyelitis	Smallpox	Typhoid fever
Prince Edward Island [1]						
Nova Scotia	2	1				2
New Brunswick [1]						
Quebec				11		16
Ontario	3			4	2	10
Manitoba						4
Saskatchewan			1		10	1
Alberta				2	1	1
British Columbia				3		
Total	5	1	1	20	13	34

[1] No case of any disease included in the table was reported during the week.

Ontario—Communicable diseases—Comparative—Four weeks ended July 25, 1931.—The Department of Health of the Province of Ontario, Canada, reports certain communicable diseases for the four weeks ended July 25, 1931, and the corresponding period of 1930, as follows:

Disease	1930		1931	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis	8	4	4	2
Chicken pox	556	0	328	0
Conjunctivitis	0	0	1	0
Diphtheria	165	6	103	7
Encephalitis	2	2	1	1
German measles	47	0	17	0
Goiter	4	0	0	0
Gonorrhea	181	0	296	0
Influenza	6	0	3	0
Measles	489	0	570	1
Mumps	40	0	132	0
Paratyphoid fever	8	1		2
Pneumonia				
Poliomyelitis	12	4	6	1
Puerperal septicemia	2	0	0	0
Scarlet fever	272	3	210	2
Septic sore throat	0	0	29	0
Smallpox	24	0	22	0
Syphilis	198	0	245	1
Tetanus	1	2	0	0
Tuberculosis	132	37	112	33
Typhoid fever	37	1	44	4
Undulant fever	10	0	22	0
Whooping cough	261	1	317	1

DENMARK

Communicable diseases—May, 1931.—During the month of May, 1931, cases of certain communicable diseases were reported in Denmark as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	8	Paratyphoid fever	3
Chicken pox	13	Puerperal fever	24
Diphtheria and croup	246	Scabies	599
Erysipelas	229	Scarlet fever	197
German measles	19	Syphilis	103
Gonorrhea	795	Tetanus	6
Influenza	5,364	Typhoid fever	6
Lethargic encephalitis	5	Undulant fever (Bac. abort. Bang)	46
Measles	2,309	Whooping cough	1,423
Mumps	377		

MANCHURIA

Fumigation of vessels at Dairen and Port Arthur.—Information has been received that the Marine Bureau of the Imperial Japanese Kwantung government, on July 1, 1931, established its own service for the fumigation of vessels calling at Dairen and Port Arthur, and that it now issues fumigation certificates. Fumigation was previously performed by the ships themselves under the supervision of the port authorities.

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 tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

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

Place		Feb. 8–Mar 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	May 3–30, 1931	Week ended— June, 1931 6	13	20	27	July, 1931 4	11	18	25	August, 1931 1	8	15	22
Ceylon: Colombo	C		1		1	1										1	
	D				1	1										1	
China:																	
Canton	C			1	2			1									
	D				1												
Shanghai	C										1						
Swatow	C						3	1	6	7							
Tientsin	C				1		2	8									
	D				1			1									
India	C	11,544	8,968	11,462	13,604	3,932	4,657	4,687	4,725								
	D	6,131	4,550	5,767	7,270	2,146	2,656	2,704	2,831								
Bombay	C			2							1	11	11				
	D			1								6	10				
Calcutta	C	170	436	310	265	94	74	50	74	72	62	55	48				
	D	112	256	176	149	57	47	26	38	35	34	58	28				
Karikal	C	9	12	19	12												
	D	8	12	14	7												
Madras	C	72	20	26	52	3	6			2	2						
	D	29	10	13	17		4										
Moulmein	C											1					
	D											1					
Negapatam	D	3															
Rangoon	C				2		2		2		1	2	1				
	D				1		1		1			1					
Tuticorin	C	1															
Vizagapatam	C								1								
India (French):																	
Chandernagor	C	5	7	6	4		1	2		1	1	1					
	D	5	6	5	4		1	2			1						
Pondicherry	C	100	100	24	17	1	1	1						1			
	D	34	18	4	7	1	1	1						1			
India (Portuguese)	C								1		2						
	D										1						

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

CHOLERA—Continued

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

Place		Feb. 8–Mar 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	May 3–30, 1931	Week ended— June, 1931 6	13	20	27	July, 1931 4	11	18	25	August, 1931 1	8	15	22
Indo-China (see also table below):																	
Cochin-China—Rachgia	C													P			
Pnompenh	C	9		2		1					1	4					
	D	5	1	1	2	1					1	1					
Saigon and Cholon	C	4	5	27	104	18	16	14	13	8	3	3					
	D	4	5	22	76	9	14	9	9	3	2	2					
Iraq:																	
Abulkhasib	C																6
	D																5
Amara	C																2
	D																1
Basra	C													3	9	263	148
	D													2	8	140	76
Persia: Rafsanjan [1]	C				36												
	D				14												
Philippine Islands: Provinces— [2]																	
Capiz	C	180	48	29	17	4											
	D	146	41	24	15	4											
Cebu	C														1	1	1
	D														1	1	1
Iloilo	C	95	7			8	7	5	6	24	3						
	D	65	4			6	5	6	4	22	3						
Masbate	C		21														
	D		9														
Negros, Occidental	C	4							2								
	D	4							1								
Pampanga	C				1												
Siam	C	1	10	16	14		1	3		1	1						
	D		2	4	5		1	1			1						
Ayudhaya District	C		1														
Bangkok	C	2	3	3	3				1	1			3				
	D	1	2	2	1				1				2				
Bismulok Province	C		8														
	D		2														

On vessel:																		
S. S. Arankola, at Rangoon from Calcutta	C				1													
S. S. City of Eastborne, at Calcutta from Cocanada	C					1												
S. S. Tairea, at Penang from Calcutta	C						1											
S. S. Bandar Shalpour, at Bushire, Persia, from Basra	C												1					
	D												1					
S. S. Kohistan, at Basra from Bushire, Persia	C												2					

Place		January, 1931	February, 1931	March, 1931	April, 1931			May, 1931			June, 1931			July, 1931	
					1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20
Indo-China (French) (see also table above):															
Cambodia [2]	C	62	125	79	36	22			44	40	83	96		72	82
Cochin-China [2]	C	24	29	105	22	40		1	52	75	71	69		66	80

PLAGUE

Place		Feb. 8-Mar. 7, 1931	Mar. 8-Apr. 4, 1931	Apr. 5-May 2, 1931	Week ended—														
					May, 1931				June, 1931				July, 1931				August, 1931		
					9	16	23	30	6	13	20	27	4	11	18	25	1	8	15
Algeria:																			
Algiers	C	1	1													2			
	D		1																
Bone	C								1										
Constantine, vicinity of	C	1																	
Philippeville	C																	1	
	D																	1	
Argentina:																			
Cordoba Province	C	2																	
Entre Rios Province—Diamante	C	2																	
Jujuy Province—Palpala	C	1																	
San Juan Province	C													P	P				
Santa Fe	C	2																	
Belgian Congo	C		2							1									
	D		2							1									

[1] From May 3 to 25, 1931, 152 cases of cholera with 75 deaths were reported in Rafsanjan and vicinity, Karman district, Persia.
[2] Figures for cholera in the Philippine Islands are subject to correction.
[3] Reports incomplete.

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

PLAGUE—Continued

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

Place		Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931				June, 1931				July, 1931				August, 1931		
					9	16	23	30	6	13	20	27	4	11	18	25	1	8	15
British East Africa (see also table below):																			
Tanganyika	C	22	8	18	17	5	7	17	4	7	5	1							
	D	4	1	21	11	2	8	9	2	4	1	3							
Uganda	C	15	19	35	11	33	31	63		91	106	101							
	D	15	19	32	11	26	28	61		87	100	99							
Ceylon: Colombo	C	11	8	4	1	1		1		1		1				1	4		
	D	13	7	3	1	1		1		1		1				1	4		
Plague-infected rats		3	4	1			5										1		
China: Amoy [1]	C				1														
	D				1														
Dutch East Indies:																			
Batavia and West Java	C	141	84	74	18	12	14	15	15	25	11	15	21	18					
	D	128	80	71	18	12	14	15	15	25	11	15	21	18					
East Java and Madura	C	1	4	1	1														
	D	1	4	1	1														
Java and Madura	D	376	277	243	47	41	46	42	41	58	48	45	59	55					
Egypt:																			
Alexandria	C	2	1								3	1	1	1	2	9	4	3	1
	D										3	1	1			4	1	2	
Plague-infected rats		1																	
Assiout	C	41	13	32	4	5	8	1	4		5	2							
	D	11	6	17	2	4	1					1							
Beni-Suef	C			12	3		2												
	D			3	1		2												
Beheira	C																1		1
Cairo	C		1																
Dakahlia	C														1			2	
Deirout	C	16		3	7	1		2	3										
	D	4		1	2	2			1										
Gharbieh	C									1									
	D									1									
Girga	C		86	44	1	1		5					1						
	D		24	22	1	1													
Kena	C		5	3			1												
	D		2	1			1												
Manfalut	C	15	17																
	D	5	3																

Minieh	C		3	1	5		1		3				10		2				
	D		2		2		1		1				2		1	1			
Port Said	C									1	1	1	1	1	2	1	2		
	D						1				1	1	1						2
Tanta	C																		
Hawaii Territory:																			
Hawaii—Hamakua—Plague-infected rats							1												
Maui Island—Kula District	C																	1	
	D																	1	
India	C	5,457	9,139	6,142	434	139	130	49	39	24	9	16							
	D	3,661	7,037	5,199	385	143	131	33	25	14	2	10							
Bassein	C	1		1			1						1			3			
	D	1		1			1						1			2			
Bombay	C	1	4	11	5	1	1	1					1						
	D	1	3	11	4	1	1												
Plague-infected rats		32	70	137	26	30	17	21	10	10	10	7	11	16	9	12			
Calcutta	C			2															
	D			2															
Madras Presidency	C	74	23	3	1	1				1									
	D	46	21	2		1				1									
Rangoon	C		1	1	1			1		1					2				
	D		1	1	1			1		1					1				
Plague-infected rats		8	7	4	1	1	3	2		3			1	2	2	1			
Indo-China (see also table below): Pnompenh	C	1							1		1								
	D	4	6	4					1		1								
Iraq:																			
Baghdad	C	3	8	23	7	10	4	2	10	6	1	6	1	1	1				1
	D	2	5	8	3	4	2		1	4	1	3	1		1				
Maudhan	C							2											
Madagascar (see also table below): Tamatave	C																1		
Nigeria: Lagos	C			5															
	D			5															
Plague-infected rats				6															
Peru (see table below).																			
Senegal (see table below).																			
Siam	C	18	31	1	1			1	1										
	D	14	7	1	1			1	1										
Bangkok	C	6	29																
	D	5	6																
Nagara Rajsima	C	7	1																
	D	6																	
Syria: Beirut	C	1												1		1			
Tripolitania	C	1																	
Tunisia: Tunis	C	14	10	16	7		8	1		8	2	1							
	D	7	4	8	3					1									
Union of South Africa:																			
Cape Province	C			3															
Orange Free State	C	1	6	2			1	1											
	D	1	1	2				2											

[1] On July 27, 1931, 1,250 cases of plague were reported in Chiobe and Changchow, China, since April.

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

PLAGUE—Continued

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

Place		Feb., 1931	Mar., 1931	Apr., 1931	May, 1931	June, 1931	July, 1931
British East Africa (see also table above):							
Kenya	C	21	7	345	245	154	-------
Indo-China (see also table above)	C	-------	4	11	-------	2	-------
Madagascar (see also table above):							
Ambositra Province	C	92	70	30	19	15	-------
	D	88	66	29	18	15	-------
Antisirabe Province	C	84	83	48	7	7	-------
	D	79	74	47	7	-------	-------
Miarinarivo Province	C	31	19	6	2	-------	-------
	D	29	19	6	2	-------	-------
Moramanga Province	C	7	1	-------	2	-------	-------
	D	7	1	-------	2	-------	-------
Tananarive Province	C	145	90	41	18	2	-------
	D	139	81	40	18	1	-------
Peru	C	12	-------	-------	-------	-------	-------
	D	6	-------	-------	-------	-------	-------
Senegal:							
Baol[1]	C	-------	-------	-------	4	-------	9
	D	-------	-------	-------	3	-------	6
Dakar[1]	C	-------	-------	2	63	64	28
	D	-------	-------	1	49	53	17
Louga[1]	C	-------	14	1	5	-------	4
	D	-------	6	-------	2	-------	2
Rufisque[1]	C	2	-------	-------	1	2	24
Thies[1]	C	-------	-------	-------	-------	12	2
	D	-------	-------	-------	-------	3	2
Tivaouane[1]	C	-------	-------	4	19	3	3
	D	-------	-------	-------	11	2	2

SMALLPOX

Place		Jan. 11–Feb. 7, 1931	Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931				June, 1931				July, 1931				Aug. 1, 1931
						9	16	23	30	6	13	20	27	4	11	18	25	
Algeria:																		
Algiers	C	1	1	2	2	-------	-------	1	-------	-------	7	1	-------	-------	-------	1	-------	-------
Bone	C	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Constantine	C	-------	-------	1	-------	1	-------	-------	-------	-------	-------	-------	-------	1	-------	-------	-------	-------
Arabia: Aden	C	1	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Belgian Congo	C	50	-------	-------	-------	-------	7	10	30	-------	-------	-------	-------	-------	-------	-------	-------	-------
Belgium	C	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Bolivia[2]																		
Brazil: Porto Alegre (alastrim)	C	3	7	49	53	2	4	7	6	2	3	-------	-------	9	-------	-------	-------	-------
	D	-------	1	1	-------	-------	-------	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------

British East Africa: Tanganyika	C	70	91	8			13					1	6	37				
	D	6	13	3										7				
British South Africa: Southern Rhodesia	C	13									1							
Canada:																		
Alberta	C	7	1												1			
British Columbia	C	2	8													2		
Manitoba	C	1	1			4												
Winnipeg	C		1															
Nova Scotia	C	1		1														
Ontario	C	49	29	9	17	17	5		3		4	3	14	3	6	12		
Kingston	C	1	1		5													
North Bay	C		1															
Ottawa	C	3	1															
Sault Ste. Marie	C	30	2		4		1					1						
Toronto	C			2	4	1						1						
Quebec	C	2																
Saskatchewan	C	38	63	58	46	7	15	18	8	7	16	18	13	1	13	10		
Regina	C		1	2	2	2												
Canary Islands: Las Palmas	C			1														
Chile:																		
Antofagasta	C													1				
Chanaral	C								1									
China:																		
Amoy	C			1	2	2	1	1	2	1	2		1	1	1			
	D			1	1	1		1	1	1	1		1	1	1			
Canton	C		3	7	4			1	2			1		1				
Foochow	C	P	P	P	P				P		P							
Hankow	C													1				
Hong Kong	C	1	9	2	8				1									
	D		3	2	1	1			1									
Manchuria—																		
Harbin	C	1	4	2		1	1		1									
Kwantung—Dairen	C			2	2	1			1	1								
Nanking	C	P	P	P	P	P	P	P										
Shanghai—																		
Foreigners only	C	12	16	6	17	1	4	1	1	2	6	2	1	2	1			
Including natives	D	13	14	10	18	1		3	3	1	5	4	3	2	1	2	1	
Swatow	D	7	13	26	2													
Tientsin	C	1				2									2			
Chosen (see table below).																		
Colombia: Cali	D					1												
Dutch East Indies:																		
Batavia and West Java	C	20	2	1			1	1										
	D	2	1															
East Java and Madura	C								1									
Finland	C				1													
France (see table below).																		

[1] Reports incomplete.

[2] An epidemic of smallpox was reported on May 13 with 716 cases and 314 deaths since the middle of April, 1931, in Mendez Province, Bolivia.

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

SMALLPOX—Continued

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

Place		Jan. 11–Feb. 7, 1931	Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931 9	May, 1931 16	May, 1931 23	May, 1931 30	June, 1931 6	June, 1931 13	June, 1931 20	June, 1931 27	July, 1931 4	July, 1931 11	July, 1931 18	July, 1931 25	Aug. 1, 1931
Great Britain:																		
England and Wales	C	958	745	795	744	186	166	111	107	83	94	62	48	56	45	50	36	26
Bradford	C	4	1	2	6	1	3	1	3			5						
Leeds	C			1	2	1		1										
London	C	140	98	147	227	66	44	37	36	25	50	31	16	21	9	12	12	6
London and Great Towns	C	693	683	544	558	139	108	84	72	57	84	49	38	53	33	34	32	22
	D		1		2					1				1				
Sheffield	C	3	32	10	7													
Stoke-on-Trent	C	1	1															
Greece (see table below).																		
Honduras:																		
Amapala	C		1															
Ocotopeque and Gracias districts	C		P															
Puerto Castilla	C	11	3															
Tegucigalpa	C				1													
Tela	C				1													
India	C	9,623	12,222	11,791	14,265	3,422	2,836	2,477	2,068	2,170	1,856	1,622	1,665					
	D	2,245	2,660	2,261	2,923	709	572	538	530	465	474	376	389					
Bassein	C								1									
Bombay	C	7	6	10	8	2		6	1		2	1	3		1	3		
	D	1	3	4	5	1	1	1	1		1	1	3		1	3		
Calcutta	C	143	251	382	287	24	30	19	16	14	19	14		11	6	2		
	D	100	188	203	224	18	25	17	15	12	18	11		9	4	3		
Cochin	C	29	59	46	39	3												
	D		3															
Karachi	C	3	4	4	6							2						
	D	2		2								1						
Madras	C	16	8	22	19	1	3	3	1			1	1		2			
	D		1	3	5		1	5					1					
Moulmein	C	2																
Negapatam	C				3							2	1					
Rangoon	C		4	3	11	7	5		1		1	4	1	2		1		
	D			1	1	2	1	1	1		1		1	1				
Vizagapatam	C	1	8	2	10			5	1	2	1		3	2		2		
	D		2	1	2			1			1		1	1				

India (French):																			
Chandernagor	C	9	12	14	10	3		4				1		2		1			
	D	1	1	2	7	3		2						2					
Karikal	C	5	19	3	4	1	1	1	1	1	2		3	1	1	1			
	D	4	18		3	1	1	1	1	1	2		3	1	1	1			
Pondicherry Province	C	45	19	14	6	1	2	7	1	3	2	1	1	4	1				
	D	45	19	14	9	1	2	7	1	3	2	1	1	4	1				
India (Portuguese)	C	5	14	8	21			3											
	D		3	3	6			1											
Indo-China (see also table below):																			
Pnompenh	C	1		1				1		2									
	D	1						1											
Saigon and Cholon	C	6	4	8	1		1		1					1			2	1	
	D	4	1	8	1		1							1				1	
Iraq:																			
Baghdad	C		9		2			1	2		1								
	D								2										
Basra	C								2		1					1			
Mosul Liwa	C	3	5																
	D		1																
Ivory Coast (see table below).																			
Japan:																			
Kobe	C		2																
Nagoya	C															1			
Taiwan	C	1																	
Mexico (see also table below):																			
Jalisco (State)—Guadalajara	D	1		1	1	1		1			1			1	1		1		
Mexico City and surrounding territory	C		23	33	43	4	10	10	21	5	4	16		12	5	4	1	8	
	D	1	8	22	14	4	3	2	2	4	3	6		4	3	1		1	
Monterrey	C									1									
Torreon	C				1		1					1	2						
	D				2							1	1						
Vera Cruz	C		3	2	2	1													
Morocco (see table below).																			
Nigeria: Lagos	C			2															
Panama Canal Zone	C	2																	
Poland	C																		
Portugal: Lisbon	C	103	40	52	56	19	14	16	3	1	1		1		17		1		
									18	5	17	12	14	15	12	18		17	
Rumania (see table below).																			
Siam	C	4	2		1			3	3			4	1		1				
	D								1				1			1			
Spain	C	P	P	P															
Straits Settlements	C	7	2	4	10				2							7			
	D	1	1	1	5				2										
Sudan (Anglo-Egyptian)	C	11	97	8	3		3		1										
	D	7	10	2					1										
Sudan (French) (see table below).																			
Syria (see table below).																			
Tunisia: Tunis	C	8		4															
Turkey (see table below).																			

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

SMALLPOX—Continued

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

Place		Jan. 11–Feb. 7, 1931	Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931 9	May, 1931 16	May, 1931 23	May, 1931 30	June, 1931 6	June, 1931 13	June, 1931 20	June, 1931 27	July, 1931 4	July, 1931 11	July, 1931 18	July, 1931 25	Aug. 1, 1931
Union of South Africa:																		
Cape Province	C	P	P	P	P	P	P											
Orange Free State	C	P	P	P	P	P	P	P	P	P	P							
Transvaal	C	P	P	P														
Upper Volta	C		18	3	3	1	2		85	11		1						
	D			1					1									
On vessel:																		
S. S. Clan Mactoggart at Suez	C		2															
S. S. Matheran at Suez from Calcutta	C	1																
S. S. Clan Buchanan at Suez	C		2															
S. S. Rotterdam at Naples from Venice	C			1														
S. S. Clan McTavish at Manila from Chittagong	C				1													
S. S. Benevue at Sydney from Shanghai	C	1																
S. S. Clan MacBrayne at Cochin	C		1															
S. S. Chilka at Rangoon	C		1															
S. S. Taif (pilgrim ship) at Suakin from Jeddah	C				1													
S. S. Talodi at Suakin	C						1											

Place		Jan., 1931	Feb., 1931	Mar., 1931	Apr., 1931	May, 1931	June, 1931
Chosen	C	1		11		1	4
	D	1		3			
France	C	4	16	15			
Greece	C		4			3	1
Mexico (see also table above)	D		3		1	1	2

Place		Jan., 1931	Feb., 1931	Mar., 1931	Apr., 1931	May, 1931	June, 1931
Morocco	C		4	6	7	49	48
Rumania	C			1		1	
Turkey	C	63	37	1		9	1
	D	7	6				

Place		December, 1930	January, 1931	February, 1931	March, 1931			April, 1931			May, 1931			June, 1931		
					1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30
Indo-China (see also table above)	C	61	141	168	125	----	139	100	42	----	----	17	41	30	16	1
Ivory Coast	C	9	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Sudan (French)	C	139	----	----	4	----	P	----	----	----	----	----	----	----	----	----
	D	20	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Syria: Beirut	C	----	1	----	----	----	----	----	----	----	----	----	----	----	1	----

TYPHUS FEVER

Place		Jan. 11–Feb. 7, 1931	Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931				June, 1931				July, 1931				August, 1931	
						9	16	23	30	6	13	20	27	4	11	18	25	1	8
Algeria:																			
Algiers	C	----	2	3	3	3	----	1	3	4	4	----	1	----	----	1	----	----	----
Constantine Department	C	31	4	3	9	8	3	5	6	6	3	1	16	2	----	1	----	----	----
Oran	C	3	1	----	1	----	----	----	2	2	----	----	----	----	----	----	----	----	----
Australia, Western	C	----	----	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Bulgaria	C	13	5	9	30	----	5	8	3	11	10	6	3	----	----	----	----	----	----
	D	----	----	2	3	----	1	----	3	2	1	1	2	----	----	----	----	----	----
Chile: Valparaiso	D	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
China:																			
Canton	C	2	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Manchuria—Harbin	C	3	5	3	8	----	----	----	----	----	----	1	2	----	----	----	----	----	----
Shanghai	C	2	----	----	----	----	----	----	----	----	----	----	----	----	----	1	----	----	----
Tientsin	C	----	----	----	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Chosen (see table below).																			
Czechoslovakia (see table below).																			
Egypt:																			
Alexandria	C	----	----	----	1	----	----	----	----	----	1	1	----	1	----	----	----	----	----
Beheira Province	C	----	----	----	4	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	D	----	----	----	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Cairo	C	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Port Said	C	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Eritrea: Asmara	C	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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

TYPHUS FEVER—Continued

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

Place		Jan. 11–Feb. 7, 1931	Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931 9	16	23	30	June, 1931 6	13	20	27	July, 1931 4	11	18	25	August, 1931 1	8
Great Britain: Scotland	C	1																	
Fife County	C								1										
Glasgow	C	2																	
	D	1																	
Greece (see table below).																			
Guatemala [1]																			
Iraq: Baghdad	C		5	2		2													
	D		1			2													
Irish Free State:																			
Cork County—																			
Schull	C														1				
Skibbereen	C										1		1	1					
Kerry County—																			
Dingle	C					1													
Listowel	C												1						
Limerick County—																			
Limerick	C													2				1	
Michelstown	C													1					
Mayo County—Belmullet	C				1														
Japan	C												1						
Latvia (see table below).																			
Lithuania (see table below).																			
Mexico (see also table below).																			
Durango	D																1		
Mexico City, including municipalities in Federal District	C	39	35	216	170	16	27	17	15	7	12	27		28	9	7	9	7	
	D	34	16	84	56	9	7	7	10	4	4	11		4	3	2	3	5	
San Luis Potosi	D		5	5	3			1	1						1	3			
Morocco	C	8	28	7	13		13	29			31	42	28	37	20	24	21		
	D	2	1		1		2	2			2	3	1	4	4				
Palestine	C	2	3	5	5	2	1	1			2	3		2				3	3
Panama Canal Zone—Balboa	C						1	1											
Paraguay: Asuncion	D	4	1	1															
Poland	C	106	189	287	538	92	81	58	67		48	33	16	9	17	13	14		
	D	8	19	15	28	6	4	5	3		2	1	1	2	1	1	1		

Portugal: Oporto	C	1																	
Rumania	C	193	152	214	70	63	52	54		42	16	12	10	2	2	7			
	D	16	24	16	8	10	5	3		4	7	2		2	2	1			
Syria	C						1	3											
Tunisia:																			
Sbeitla, vicinity of	C			20	12														
	D			7															
Sfax	C			2															
Tunis	C	16	18	14	13	12	9	8			64	9		1			1		
	D					1	2				4								
Turkey (see table below).																			
Union of South Africa:																			
Cape Province	C	P	P	1	P	P	P	P	P	P	P	P		P	P				
Municipality of East London	C	3		P								1							
Natal	C	P	P	1	P	P		P	P	P	P	P							
Orange Free State	C	P	P	P	P		P	P	P	P	P	P		P	P				
Transvaal	C	P	P	P	P	P	P	P	P	P	P	P		P	P				
Yugoslavia (see table below).																			

Place		Jan., 1931	Feb., 1931	Mar., 1931	Apr., 1931	May, 1931	June, 1931
Chosen: Seoul	C	1		3	4		6
Czechoslovakia	C	60	26		5	11	2
Greece	C	10	17	8	22	6	9
	D	2	2	1	3		
Latvia	C		12				
Lithuania	C	26	3	99	34	10	13
	D	3	1	3	5		2

Place		Jan., 1931	Feb., 1931	Mar., 1931	Apr., 1931	May, 1931	June, 1931
Mexico (see also table above)	D	66	83				
Turkey	C	17	18	15		3	3
Yugoslavia	C	20	12	10	43	14	2
	D	2		1	5		

[1] On Feb. 27, 1931, the Director General of Public Health of Guatemala reported an unusual outbreak of typhus fever in a small village in Guatemala.

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

YELLOW FEVER

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

Place		Feb. 8–Mar. 7, 1931	Mar. 8–Apr. 4, 1931	Apr. 5–May 2, 1931	Week ended— May, 1931				June, 1931				July, 1931				August, 1931			
					9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22
Brazil:																				
Alagoas State	C																		1	
	D																		1	
Bahia State	C		1																	
Ceara State	C		2	2		1			1											1
	D			2		1														1
Minas Geraes State	C		2	5	1		1													
	D		1	2	1															
Rio de Janeiro State	C	1	2			1	1													
	D	1	2																	
Cambucy	C	2	1																	
	D	1																		
Padua	C	1																		
Sergipe State	C									1										
British Cameroons: Mamfe	C					3			1		1									
	D					2														
Colombia—Magdalena Province—near Cienaga	C														4					
Gold Coast:																				
Akuse	C												2							
	D												1							
Dagomba District	C																	2		
Kintampo	C														1					
	D														1					
Tamale	C													2						
	D													2						
Wale Wale	C																1			
	D																1			

Ivory Coast:																						
Bobo Dioulasso	C														1							
	D														1							
Grand Bassam	C																	4				
Kong Circle	C															4						
Nigeria: Abakaliki	C																		1			
	D																		1			
Senegal: Podor (Hinterland)	C																					1
	D																					1
Sudan (French)	C															4	P					
Upper Volta—Banfora	C																2					
	D																1					