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THE PREVALENCE AND TREND OF MENINGOCOCCUS MENINGITIS IN THE UNITED STATES[1]

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The reports received by the United States Public Health Service from State health officers for the past five years indicate that there has been a progressive increase in the number of cases of meningococcus meningitis that have been recorded. It is true that the actual number of cases is not large when compared with the total population. It is significant, however, that each year there has been an increase over the preceding year and that this rise has continued for five years.

When the prevalence of meningococcus meningitis increased during the period 1915 to 1917, the number of cases rose in Europe before the movement occurred in the United States; but after the World War the number of cases did not rise noticeably in Europe until 1929, and then the increase was not general and the rates were not high.

Incomplete reports for the first three months of 1930 show rates higher than the normal for England and Wales, Scotland, The Netherlands, and Poland, but no figures from Europe have been found indicating a general increase in the prevalence of this disease comparable with that in the United States.

There was an outbreak of meningococcus meningitis early this year in the Anglo-Egyptian Sudan, and reports from the French Protectorate of Morocco show some increase in cases in March. Recent reports from Asia do not show anything unusual in the prevalence of the disease. Canada has reported comparatively few cases, but there has been a slight increase in incidence in Mexico.

The nomenclature relative to meningococcus meningitis has been changed several times, the disease having been variously designated cerebrospinal meningitis, epidemic meningitis, and other similar terms. For this reason earlier figures are not exactly comparable with the later ones.

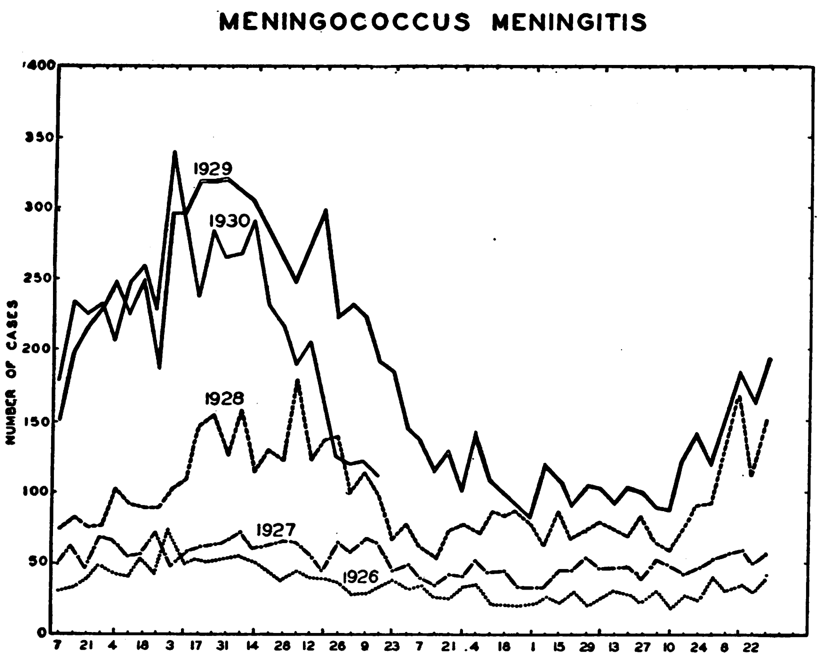
The death rates from meningococcus meningitis in the registration area of the United States increased gradually from 0.4 per 100,000

[1] Presented at the Twenty-eighth Annual Conference of State and Territorial Health Officers with the United States Public Health Service, Washington, D. C., June 19, 1930 (held jointly with the Forty-fifth Annual Conference of State and Provincial Health Authorities of North America).

population in 1910 to 3.9 in 1917. Then the rate decreased to 1.0 per 100,000 in 1922, remained stationary at 1.0 to 1.1 until 1926, when it rose to 1.3. In 1927, it was 1.6, and in 1928, 2.6 per 100,000.

The rise in incidence of meningococcus meningitis during the past five years has been accompanied by sharp local outbreaks in various sections of the country. In most of these outbreaks the death rate has been relatively high.

Although there have been considerable differences in various parts of the country in the incidence of meningococcus meningitis, and also wide fluctuations in the numbers of cases reported in the same States



Graphical representation of the number of cases of meningococcus meningitis reported weekly by State health officers to the United States Public Health Service for the years 1926 to 1930

at different times, yet the increase in the prevalence of the disease since 1925 has extended to all sections of the country.

In 1925, the States reporting the highest case rates were Utah, with 11 cases per 100,000 population; Oregon, 10 cases; Nevada, 8 cases, and Wyoming and Washington, each with 4 cases per 100,000.

In 1926, the highest case rates were in Washington, 16 per 100,000; Idaho, 14; Oregon, 11; Montana, 6; California, Nevada, and Wyoming, each with 5 cases per 100,000.

In 1927, the highest case rates for the disease were as follows: Montana, 23 per 100,000; Washington, 13; Wyoming, 12; Wisconsin, 11; Oregon, 10, Idaho, 9; California, Minnesota, Nevada, and North Dakota, 6 per 100,000.

In 1928, Wyoming reported 34 cases per 100,000 population; Montana, 32; Nevada, 22; Colorado, 21; Idaho, 18; North Dakota and Arizona, 16; New York, 11 (New York City had a case rate of 18); and Washington and Missouri, 9 per 100,000.

Reports are not yet complete for 1929. The Mountain States show case rates from 18 to 59 per 100,000 and the Pacific States from 7 to 19. Michigan reported 40 cases per 100,000; North Dakota, 21; Missouri, 18; and New York, 10. New York City had a case rate of about 16 per 100,000 in 1929.

For the United States as a whole during the first two months of the year 1930 more cases of meningococcus meningitis were reported than were reported for the same period of 1929, but early in March the graph representing the 1930 incidence fell below the graph for last year, although it is still above the incidence for any other recent year.

During the first 22 weeks of 1930, 5,400 cases of meningococcus meningitis were reported to the Public Health Service by 47 States. For the same period of 1929, 5,900 cases were reported, but in 1928 the same States reported only 2,600 cases for the 22 weeks.

In general, the States which reported considerable numbers of cases of meningococcus meningitis during the first five months of last year show decreased prevalence this year, but some States which in prior years have had comparatively few cases, report decided increases in the prevalence of the disease this year.

For the first 22 weeks of 1930, the Pacific States reported 327 cases of meningococcus meningitis, as compared with 667 cases for the corresponding period in 1929. Seven of the Mountain States reported 456 cases this year (for 22 weeks) and 776 cases last year.

Illinois reported 273 cases for the 22 weeks this year and 342 cases last year; Michigan 643 cases this year, 1,085 last year; North Dakota 59 cases and 93 cases, respectively. For Missouri the figures are 305 and 428 cases; New York State, 402 cases in 1930 and 721 in 1929.

The following are some of the States which reported an increase during the first 22 weeks of 1930 over the same period of 1929: Massachusetts, 114 cases this year, 81 cases last year; Indiana, 346 cases this year and only 7 last year. In Indiana the number of cases reported increased suddenly in December, 1929, many of the cases being in Indianapolis.

Tennessee reported 389 cases of meningococcus meningitis for the 22 weeks this year and 37 cases last year; Mississippi, 254 cases as compared with 15 cases last year; and Kentucky, 54 cases this year as compared with 15 in 1929.

The total number of cases of meningococcus meningitis reported throughout the United States for the past five years is as follows:

Year	Cases	Year	Cases
1925	1,859	1928	5,781
1926	2,226	1929	9,660
1927	3,204		

In considering these figures the difficulties of obtaining accurate reports should be borne in mind.

From the standpoint of the public health officer, the control of meningococcus meningitis is an extremely difficult problem. Studies conducted in various sections of the country have failed to produce any new methods of importance. Dr. Sara E. Branham, a worker of the Public Health Service, has recently reported a new meningococcus-like organism (*Neisseria flavescens* n. sp.) from cases of epidemic meningitis (Public Health Reports, April 18, 1930).

Apparently the most important measures to be considered in connection with the control and prevention of meningococcus meningitis are: (1) Prompt recognition of cases of the disease; (2) prompt reporting to the health authorities; (3) avoidance of overcrowding; (4) maintenance of high standards of bodily vigor; (5) sterilization of dishes and eating utensils; (6) optimum of fresh air and sunshine for carriers and convalescents.

RECENT PROGRESS IN STUDIES OF UNDULANT FEVER [1]

By H. E. Hasseltine, *Surgeon, United States Public Health Service*

During the year elapsed since the last meeting of this conference the Public Health Service has continued field investigations of undulant fever along two lines: (1) A reasonably complete epidemiologic investigation in the State of Iowa by Acting Assistant Surgeon A. V. Hardy, in conjunction with the Iowa State Department of Health and the University of Iowa; and (2) a general survey of the disease in various States, with investigations of sufficient individual cases to indicate the various methods of transmission of the disease. This survey has been carried out largely by myself, with excellent cooperation from all State and local health authorities.

Doctor Hardy has studied approximtely 200 cases occurring in Iowa in 1929, which, with those he had previously investigated, makes his total about 375 cases. I have investigated 109 cases in 14 different

[1] Presented at the Forty-fifth Annual Conference of State and Provincial Health Authorities of North America, Washington, D. C., June 18, 1930 (held jointly with the Twenty-eighth Annual Conference of State and Territorial Health Officers with the United States Public Health Service).

States, some of which are chiefly agricultural States and others that are largely made up of urban communities.

Hardy has collected epidemiologic data on 333 cases and I have done the same on 109 cases. These 442 cases can be divided into 3 main groups: (*a*) Those without significant exposure to livestock or carcasses (mostly urban cases); (*b*) rural cases having direct contact with livestock; and (*c*) urban cases having direct contact with livestock or carcasses.

These may be referred to as the milk, farm, and meat groups.

Group I, the milk group, had 198 cases (103 males, 95 females).

Group II, the farm group, had 200 cases (191 males, 9 females).

Group III, the meat group, had 44 cases (43 males, 1 female).

Age.—Thirteen cases were in children under 10 years of age; all in this age group had no contact with livestock. The decade from 35 to 44 had the greatest number of cases, 118; the age groups between 20 and 50 furnished 296 cases (67 per cent).

Prevalence.—In 1929 the disease was recognized in every State of the Union. Simpson collected a total of 1,305 cases in the United States. An inquiry by means of a questionnaire as to the number of officially reported cases disclosed that 968 were so reported. Accepting these figures it appears that at least 25 per cent of the recognized cases are not reported, while the number that is not recognized can not be estimated with any degree of certainty. The year 1929 is the first year to show anything like a seasonal distribution, the number of reported cases increasing up to September, after which there was a rather sharp drop. Whether this will prove to be the true seasonal variation or not will require several years to establish. It corresponds roughly with the seasonal curve of Malta fever reported by the Royal military and naval authorities.

In the course of this work I have frequently been asked numerous pertinent questions and I believe that these can best be presented in interrogatory form, with such information as I may be able to give in reply.

Is there any evidence that Bangs' bacillus causes undulant fever?

By Bangs' bacillus is meant the so-called bovine strains of *Br. melitensis*, variety *abortus*, or, using the name proposed by Huddleson, *Br. abortus*. This question is frequently raised by a group that claim that undulant fever has not been caused by use of cow's milk. Hardy reports that cultural studies in his Iowa cases have yielded 49 strains of *Brucella* from 48 patients. Thirty-five of these have been determined to be the porcine variety and 14 have proved to be the bovine strain. From one patient both porcine and bovine strains were isolated. Admitting that these figures represent the true incidence of the organisms, we still have 30 per cent of our culturally proved undulant fever in Iowa due to the bovine organism. Those who have tried the isolation of *Brucella* from the blood stream agree that it is far more difficult to grow the bovine organism than the porcine or the caprine strains.

Hardy's investigations of the clinical aspect of cases in Iowa also show that those yielding porcine strains suffered more severely than those yielding bovine strains. This observation has also been suggested in my own work though in only a few instances have successful cultures been made.

A case of undulant fever occurred in the wife of a professional man of this city who lived in Maryland just outside the District. Though the case had recovered at the time my investigation was made, the epidemologic evidence pointed to the family cow as the source. The cow's blood had been tested by the veterinary department of the University of Maryland and found to react positively to the *abortus* agglutination test. By chance I happened to mention this case to Dr. W. E. Cotton, of the agricultural experiment station at Bethesda, Md., and as a result the cow was purchased by the experiment station. Subsequent cultural studies yielded an organism of the bovine strain from all four quarters of the cow's udder. The cow and her calf both appeared normal, no indication of any disease being discernible. The patient drank very little milk, but used cream freely and made butter from the excess cream. It is possible that she may have received the infection through the skin, but, nevertheless, it was a case due to infected dairy products. If an organism can enter through the skin, it can probably enter through a mucous membrane also.

It has been found that dropping *Brucella* organisms into the conjunctival sac of animals gives rise to infection as readily as by feeding the cultures.

In connection with the question of pathogenicity of the bovine organism it should be pointed out that there is good evidence that cows become infected with porcine or caprine strains and may transmit these organisms through the milk. In Waycross, Ga., I found that in eight out of nine investigated cases occurring in 1929 the patients had used raw milk from one dairy. From two of these an organism corresponding to the porcine strain was isolated. Neither of these cases had any contact with livestock. All nine cases showed a marked resemblance clinically, and probably all would have yielded the porcine strain if cultural studies had been made on them. The evidence obtained was quite suggestive, if not convincing, that cows had become infected with the porcine organism and they in turn passed the infection along in their milk.

There is also very suggestive evidence that the caprine strain of the organism may be present in cattle of the Northern States.

To us as health officials it makes no difference whether a patient receives a bovine, porcine, or caprine type of *Brucella* through the raw milk he consumes; the fact that he contracts a preventable disease through such channels is what makes the matter of first importance to us.

Is pasteurization of milk effective in protecting against Brucella infection?

In the January issue of the Health Messenger of the Illinois State Board of Health, it was reported that Arnold had found that 140° F. for 40 minutes was required to kill certain strains of *Br. abortus*. He did not give details, and it will be noted that the temperature he employed is 2 to 3 degrees below standard pasteurization temperature. On the other side numerous investigators have reported pasteurization temperature and exposure effective in killing the various strains of *Brucella*. On the practical side, how many of you State health officers have received reports of undulant fever in the cities of your respective States that have approximately all of their milk supply pasteurized? Though I have made no personal investigations of individual cases in California, Oregon, and Ohio, I have had full access to the records in their health departments and in those States the majority of cases are traced to raw milk. In cities having only a portion of their milk supply pasteurized, undulant fever has picked out the user of raw milk with as much precision as smallpox picks out the unvaccinated.

Two cities, Frederick, Md., and Waycross, Ga., have passed ordinances requiring pasteurization of all milk sold within their limits, undulant fever being the chief, if not the only, factor in bringing about this action. Waycross had only about one-half of its milk pasteurized when undulant fever was first recognized, yet the disease did not develop in those using pasteurized milk exclusively. After nearly two years of observation of these groups, each of which formed a valid control for the other, the health officer had little trouble in convincing city authorities that pasteurization of all milk was necessary to protect the health of the city.

Can undulant fever be contracted by any means of transmission other than milk?

The answer to this is an emphatic affirmative: Contact with infected animals, particularly infected hogs, may and frequently does, result in infection. Usually these cases are severe and sometimes fatal.

Let me cite one case where the contact with hogs seems to be the only explanation. An Italian patient was taken sick about April 1, 1929, and was in hospital until the latter part of August. He worked on a hog-feeding farm near a large eastern city where over 10,000 hogs were maintained on garbage. The establishment maintained about

2,500 brood sows. The patient lived at the hog farm, subsisting in a common mess with other employees, mostly Italians. He had used no fresh milk of any kind for over a year, canned milk being used on their table. The manager of the farm was not aware that hogs suffered from infectious abortion, but on further questioning it developed that some brood sows had been imported from Iowa in the fall of 1928 in order to introduce new breeding blood. Some of these sows aborted or farrowed small and weak pigs. Just how the patient received his infection is not known, but the fact that he worked daily around hogs and used no fresh dairy products seems to warrant considering this a case of infection resulting from contact with hogs. In addition, a culture of the porcine type was isolated from the patient.

Several cases in Kansas City, Kans., which I investigated, were found to use pasteurized milk but worked in a packing plant, most of them working on hog carcasses only.

Is the blood agglutination test reliable?

This question is bound to come up in any scientific group that discusses undulant fever. Instances of conflicting reports on specimens sent to two or more laboratories are numerous and frequently cited by those opposed to the test. I have found a wide variation in the technique of the test in different laboratories. These variations in technique may account for some of the discrepancies. The use of a heavy antigen suspension makes the reading of the test easier but reduces the number of positives and the titer obtained. Evans and, later, Hardy have found that the titer varies inversely with the concentration of the antigen; that is, if the antigen be diluted with an equal quantity of salt solution, the agglutination titer will be found one dilution higher than with the less diluted antigen. To obtain comparable results, the reagents used and the technique followed should be comparable.

The significance of agglutination in low titers can not be stated dogmatically. No absolute line can be drawn which will separate the clinical case of undulant fever from certain apparently well individuals whose blood may give agglutination to some degree. It is well known that some cases of undulant fever that have never given agglutination in any dilution higher than 1:80 have been proved by positive blood cultures. On the other hand it seems well established that certain individuals may acquire some agglutinating power as a result of frequent exposure to the infection either by ingestion or contact. Of 72 practicing veterinarians of Illinois, 3 gave complete agglutinations in 1:80, 1:160, and 1:640 dilutions, respectively; 5 others gave complete agglutination in dilutions varying from 1:10 to 1:40; 8 others gave partial agglutination in dilutions varying from

1:10 to 1:80. None of these men have a history of a clinically recognized attack of undulant fever.

Therefore, the diagnosis of undulant fever must be made by the attending physician, with the aid of the laboratory, and not by the laboratory man. The careful consideration of the clinical symptoms, together with the laboratory findings, will usually lead to the correct diagnosis.

Is the serological examination of livestock a practicable method of attacking the problem of undulant fever?

I have heard this question discussed by many veterinarians and livestock authorities and their views have been widely divergent. However, a considerable majority of the sound scientific thinkers believe that this procedure gives greater promise of stopping the tremendous loss to the livestock industry caused by infectious abortion than any other known method. It is the only method that has been successful in herds where the eradication of the disease has been attempted. Other methods have been tried with seeming success, but time has proved that they are not permanent.

The procedure consists of the application of the agglutination test to the blood serum of every animal in the herd, and the segregation and ultimate elimination of those reacting positively. Huddleson has devised a rapid agglutination test which may be applied in the field, and veterinarians report that it is sufficiently reliable for practical purposes. The plan must be applied to the herd as a unit and all additions to the herd from outside sources must be required to pass the test. Reacting animals may be removed by selling them for slaughter or by segregation from nonreactors. However, the maintenance of two herds, one infected and one noninfected, is not a paying proposition, and is not usually advised; but it may be desirable in case certain high-blooded stock is found infected. Fitch (2) and his associates have reported that segregation of the two groups of animals on a "no physical contact" plan, even though the two groups are only a few feet apart, has given most encouraging results.

It is probable that less than 1 per cent of infected cows will escape detection by the agglutination test, and these will very likely be found on retests of the herd.

The certified milk producers of California are requiring that all cows producing milk in certified herds shall be nonreactors to the abortus agglutination test. This requirement will probably be general within a few years. It will go far toward reducing the danger of undulant fever from certified milk. The only precaution that can be added is that of pasteurization of certified milk, which is now being done in a few localities.

The committee on abortion of the United States Livestock Sanitary Association (3) at their annual meeting in December, 1929, stated:

It has been definitely demonstrated that up to the present time the only method which has been clearly shown as satisfactory for the control of this infection is the clean herd on the basis of serological tests. * * * Your committee again wishes to call your attention to the fact that there is no doubt that cases of undulant fever occur in man which are undoubtedly contracted in laboratories, through milk and its products, and through contact with affected cattle and swine. Your committee further wishes to state, however, that in its judgment it has not been definitely found that any *one* source is the most important method of the transmission of the disease to man.

A similar committee of the United States Veterinary Medical Association made a report substantially the same. The reports of the committees were adopted by their respective associations.

To us as health officials the greatest weakness of the procedure of examination of livestock and the elimination of infected animals, is the length of time it will take to accomplish this gigantic task. For the protection of the health of the people we must rely upon education of those whose occupation subjects them to the hazard to guard against contact infections, and upon pasteurization to prevent milk-borne cases.

As to milk-borne infections the first essential is healthy cows. However, there is no criterion other than serological or cultural tests that will constantly determine the presence of the infection in the animal. Abortion, retained fetal membranes, sterility, and mastitis may suggest its presence; but frequently an infected animal is encountered that shows none of these signs or symptoms. Examination of the milk by ordinary bacteriological methods does not reveal the presence of *Brucella* therein, as these organisms grow too slowly to appear visible on the plate in 48 hours. Therefore, a milk that has an exceedingly low bacterial count may be heavily contaminated with the organisms of undulant fever. As the organism has its source in the cow's udder, no amount of cleanliness, inspection, sterilization of utensils, etc., will be of any account unless serological test of the animals be included. Pasteurization of the milk renders it safe and takes care not only of undulant fever but of all other communicable diseases transmitted by milk. Therefore, pasteurization must be our sheet anchor in the prevention of milk-borne undulant fever for at least a number of years. Mohler, chief of the Bureau of Animal Industry, says: "Infectious abortion is so widespread and the milk of so many animals is infected that the main dependence for protection against whatever danger there may be from *Bact. abortus* in milk must be placed in pasteurization which, if properly done, will make the milk safe until the dairymen can eradicate the disease form their herds."

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(3) Report of Committee on Abortion, U. S. Live Stock Sanitary Association. Journ. Am. Vet. Med. Assoc., Vol. 76 (U. S. Vol. 29) pp. 339–341.

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for May, 1930

The accompanying table, taken from the Statistical Bulletin for June, 1930, issued by the Metropolitan Life Insurance Co., presents the mortality record of the industrial insurance department of the company for May, 1930, as compared with the preceding month and with the corresponding month of last year. It also gives the cumulative rates for the period January–May for the years 1930 and 1929. Death rates are given for the principal causes of death. These rates are based on a strength of approximately 19,000,000 insured persons in the United States and Canada.

It is stated that in no preceding year have the winter and spring health conditions, as reflected by the death rates, been as favorable as in 1930. At the end of May the cumulative death rate for this group was 12.3 per cent below that for last year; and three of the five elapsed months—January, March, and May—recorded lower mortality rates than ever before registered for these months.

The May death rate was 8.7 per 1,000, as compared with 9 for May of last year. While this decline applied to all sections of the United States, among approximately 1,250,000 Canadian policyholders this year's May mortality rate was slightly higher than in 1929. For both countries, however, the cumulative death rate for the 5-month period January–May shows a marked improvement over the corresponding period of last year.

The Bulletin states:

Tuberculosis continues to be the most outstanding feature of the year's health record. The cumulative death rate at the end of May was at the remarkably low figure of 85 per 100,000, a reduction of 9.4 per cent from that registered for the like period of 1929. On the basis of what has happened in past years, we are justified in expecting that the tuberculosis death rate for the completed year will be at least 8 per cent below that registered for the January to May period. * * *

The death rates for all four of the principal epidemic diseases of childhood have been low during the five elapsed months of 1930. In this group interest attaches chiefly to diphtheria, whose death rate is now running 21.4 per cent below last year's figure, and at a new minimum. The influenza death rate is at about the normal figure prevailing in years not characterized by wide epidemic prevalence of this disease. The mortality from pneumonia has been unusually low for the winter and spring seasons. Three important conditions—heart disease, cancer, and diabetes—which have had decidedly upward trends for years, show improvement in 1930 to date. The year bids fair to mark a decline in the death rate from cardiac conditions. The decline in the cumulative death rate for diabetes up to the end of May was 7.8 per cent. While this is an encouraging development (with respect to a disease whose death rate has shown a continuous increase for five years) too much significance must not be attached to it. It should be borne in mind that the comparison is with that period of 1929 when a widespread influenza epidemic prevailed in both the United States and Canada. This outbreak hastened the deaths of many diabetics, and the diabetes mortality rate, during the first half of 1929, was higher than ever before experienced during the winter and spring seasons. Developments of the next few months will determine whether or not the current year is destined to record a break in the steadily rising diabetes death rate. The improvement for cancer is very slight and will be wiped out entirely if small increases are recorded during the rest of the year.

A considerable decline in the mortality from puerperal conditions is one of the most favorable developments of the 1930 mortality record to date. In fact, there is good prospect that a new minimum will be established this year. The drop, as compared with the like period of 1929, amounted to 11.9 per cent.

There have been small increases this year for both suicides and homicides; and while the death rate from accidents, as a group, has declined, that for automobile fatalities has again increased decidedly. There is every prospect that 1930 will be an exceptional year, if not a record year, from the standpoint of public health; but there is no indication that any progress will be made with respect to public safety.

Death rates (annual basis) per 100,000 for principal causes of death, May, 1930

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Death rate per 100,000 lives exposed [1]				
	May, 1930	April, 1930	May, 1929	Cumulative, January-May	
				1930	1929
Total, all causes	870.2	975.2	900.1	938.1	1,069.5
Typhoid fever	1.2	1.0	1.5	1.1	1.5
Measles	6.0	6.5	5.0	4.4	4.3
Scarlet fever	2.6	4.1	3.5	3.6	3.6
Whooping cough	4.4	4.4	5.0	4.6	6.5
Diphtheria	5.7	6.2	8.1	7.7	9.8
Influenza	13.9	19.8	20.3	23.1	83.4
Tuberculosis (all forms)	84.5	90.4	91.6	85.0	93.8
Tuberculosis of respiratory system	73.5	77.4	81.0	73.9	83.6
Cancer	73.0	78.5	76.9	75.2	76.4
Diabetes mellitus	18.3	19.6	18.5	20.1	21.8
Cerebral hemorrhage	59.5	65.4	[2] 55.8	62.8	[2] 62.3
Organic diseases of heart	143.5	164.2	145.0	159.3	168.9
Pneumonia (all forms)	89.1	118.7	81.2	110.0	136.7
Other respiratory diseases	12.0	13.5	11.6	13.0	15.1
Diarrhea and enteritis	11.3	11.8	13.9	11.5	13.4
Bright's disease (chronic nephritis)	67.5	76.4	70.3	71.2	76.5
Puerperal state	11.5	10.8	12.5	12.6	14.3
Suicides	10.1	10.3	8.9	9.4	8.7
Homicides	5.9	5.7	5.6	6.4	6.2
Other external causes (excluding suicides and homicides)	56.3	52.4	56.8	55.8	56.8
Traumatism by automobiles	19.0	17.9	16.9	17.7	15.9
All other causes	193.9	215.5	208.0	201.4	209.3

[1] All figures in this table include infants insured under one year of age and are subject to slight correction, as they are based on provisional estimates of lives exposed to risk.

[2] Rate not comparable with that for 1930.

COURT DECISION RELATING TO PUBLIC HEALTH

Infection as a result of vaccination held not compensable under workmen's compensation act.—(Connecticut Supreme Court of Errors; Smith *v.* Seamless Rubber Co. et al., 150 A. 110; decided Apr. 30, 1930.) In January, 1928, the city of New Haven was threatened with a smallpox epidemic. The board of health recommended that the residents be vaccinated. The company, by whom the plaintiff was employed, posted a notice that it desired to assist the board of health in its efforts to prevent a smallpox epidemic and offered to vaccinate employees without charge at the company's hospital. The matter of vaccination was entirely optional with the individual employees, and there was no penalty for failure to have it done. The physicians and nurses used the usual, necessary, and proper care. The plaintiff employee was vaccinated and, as a result thereof, contracted an infection of the blood stream, resulting in incapacity.

In a proceeding by the employee under the workmen's compensation act the commissioner concluded that, in choosing to be vaccinated, the plaintiff was not fulfilling any duty of her employment or doing any act incidental to it and that her incapacity was not the result of a risk involved in the employment or incident to it or to the conditions under which it was required to be performed. The trial court sustained these conclusions, and the plaintiff appealed to the supreme court. The latter court held that there was no error in the conclusions arrived at. In the opinion it was said, in part:

Where an employer merely permits an employee to perform a particular act, without direction or compulsion of any kind, the purpose and nature of the act becomes of great, often controlling, significance in determining whether an injury suffered while performing it is compensable. If the act is one for the benefit of the employer or for the mutual benefit of both, an injury arising out of it will usually be compensable; on the other hand, if the act being performed is for the exclusive benefit of the employee, so that it is a personal privilege, or is one which the employer permits the employee to undertake for the benefit of some other person or for some cause apart from his own interests, an injury arising out of it will not be compensable.

* * * We can not therefore assume as a necessary inference from the situation disclosed by the record that the opportunity given to the employees of the company to secure vaccination was so extended to them for its benefit rather than as a personal privilege or a means of serving the general good of the community. Lacking this fact, the conclusions of the commissioner can not be held to be violative of any rule of law or unreasonable or illogical. They must therefore stand. * * *

DEATHS DURING WEEK ENDED JULY 5, 1930

Summary of information received by telegraph from industrial insurance companies for the week ended July 5, 1930, and corresponding week of 1929. (From the Weekly Health Index, July 9, 1930, issued by the Bureau of the Census, Department of Commerce)

	Week ended July 5, 1930	Corresponding week, 1929
Policies in force	76, 053, 026	74, 490, 653
Number of death claims	10, 153	10, 158
Death claims per 1,000 policies in force, annual rate	7. 0	7. 1

Deaths from all causes in certain large cities of the United States during the week ended July 5, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index, July 9, 1930, issued by the Bureau of the Census, Department of Commerce)

City	Week ended July 5, 1930		Annual death rate per 1,000, corresponding week, 1929	Deaths under 1 year		Infant mortality rate, week ended July 5, 1930 [2]
	Total deaths	Death rate [1]		Week ended July 5, 1930	Corresponding week, 1929	
Total (65 cities)	5, 925	10. 4	10. 3	568	556	[3] 49
Akron	35			7	4	64
Albany [4]	24	10. 4	13. 0	1	3	22
Atlanta	68	13. 9	15. 1	15	12	159
White	32			6	7	190
Colored	36	(5)	(5)	9	5	143
Baltimore [4]	158	9. 9	9. 5	10	11	34
White	117			7	7	30
Colored	41	(5)	(5)	3	4	49
Birmingham	88	20. 6	17. 8	11	8	103
White	46			4	5	62
Colored	42	(5)	(5)	7	3	166
Boston	187	12. 2	10. 5	18	22	51
Bridgeport	29			1	1	17
Buffalo	121	11. 4	11. 9	13	13	58
Cambridge	15	6. 2	9. 1	2	2	37
Camden	15	5. 8	8. 5	1	3	18
Canton	21	9. 4	8. 9	0	4	0
Chicago [4]	590	9. 7	10. 1	59	36	52
Cincinnati	102			4	12	24
Cleveland	151	7. 8	7. 7	16	9	48
Columbus	68	11. 9	11. 0	2	4	20
Dallas	55	13. 2	14. 1	7	7	
White	42			5	7	
Colored	13	(5)	(5)	2	0	
Dayton	34	9. 6	11. 9	4	3	59
Denver	78	13. 8	13. 1	12	6	125
Des Moines	30	10. 3	10. 0	2	2	35
Detroit	219	8. 3	9. 8	30	27	46
Duluth	16	7. 1	7. 1	0	1	0
El Paso	44	19. 5	16. 8	12	7	
Erie	17			4	1	85
Fall River [4]	24	9. 3	8. 2	3	0	69
Flint	18	6. 3	7. 4	3	3	35
Fort Worth	37	11. 3	11. 0	3	11	
White	31			1	9	
Colored	6	(5)	(5)	2	2	
Grand Rapids	25	7. 9	9. 5	2	7	30
Houston	142			7	3	
White	55			3	3	
Colored	87	(5)	(5)	4	0	
Indianapolis	86	11. 7	10. 9	2	5	15
White	73			2	3	17
Colored	13	(5)	(5)	0	2	0
Jersey City	56	9. 0	6. 6	6	8	52
Kansas City, Kans	16	7. 1	12. 8	1	5	24
White	10			0	4	0
Colored	6	(5)	(5)	1	1	217
Kansas City, Mo	90	12. 0	13. 2	10	13	78
Knoxville	31	15. 3	14. 8	5	2	117
White	26			4	2	104
Colored	5	(5)	(5)	1	0	247

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended July 5, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index, July 9, 1930, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended July 5, 1930		Annual death rate per 1,000, corresponding week, 1929	Deaths under 1 year		Infant mortality rate, week ended July 5, 1930 [2]
	Total deaths	Death rate [1]		Week ended July 5, 1930	Corresponding week, 1929	
Los Angeles	247			21	11	64
Louisville	69	10.9	7.8	5	3	43
White	54			5	1	49
Colored	15	(5)	(5)	0	2	0
Lowell	24			4	1	95
Lynn	15	7.4	7.9	1	2	25
Memphis	91	24.9	17.8	13	8	155
White	43			6	4	110
Colored	48	(5)	(5)	7	4	236
Milwaukee	79	7.6	8.7	12	15	60
Minneapolis	71	8.1	7.9	6	4	39
Nashville	42	15.7	16.4	7	10	108
White	24			5	8	103
Colored	18	(5)	(5)	2	2	127
New Bedford	24			1	0	26
New Haven	31	8.6	11.1	1	1	19
New Orleans	129	15.7	16.9	14	15	81
White	70			6	5	53
Colored	59	(5)	(5)	8	10	135
New York	1,159	10.0	10.1	115	106	48
Bronx Borough	152	8.3	9.5	12	16	28
Brooklyn Borough	395	8.9	8.5	41	47	44
Manhattan Borough	449	13.4	12.9	46	29	75
Queens Borough	126	7.7	7.8	11	11	32
Richmond Borough	37	12.8	15.9	5	3	93
Newark, N. J	70	7.7	7.4	5	2	26
Oakland	60	11.4	12.9	3	4	36
Oklahoma City	29			5	3	98
Omaha	59	13.8	11.2	7	4	80
Paterson	29	10.4	10.8	1	4	17
Philadelphia	421	10.6	8.1	20	13	30
Pittsburgh	136	10.5	10.2	17	15	62
Portland, Oreg	62			4	4	49
Providence	53	9.7	7.8	5	10	46
Richmond	43	11.5	10.5	5	6	74
White	28			3	3	67
Colored	15	(5)	(5)	2	3	87
Rochester	59	9.4	7.6	3	3	27
St. Louis	170	10.5	13.3	6	24	19
St. Paul	34			1	5	10
Salt Lake City [4]	26	9.8	11.3	5	2	79
San Antonio	69	16.5	15.1	14	17	
San Diego	37			2	0	42
San Francisco	132	11.8	12.7	5	9	34
Schenectady	12	6.7	8.9	0	2	0
Seattle	86	11.7	9.3	4	2	40
Somerville	16	8.1	6.1	1	1	33
Spokane	20	9.6	14.3	9	1	235
Springfield, Mass	27	9.4	10.4	4	0	63
Syracuse	34	8.9	9.4	3	5	37
Tacoma	29	13.7	7.1	0	0	0
Toledo	52	8.7	9.2	2	7	18
Trenton	27	10.1	10.5	3	4	56
Utica	19	9.5	12.0	2	3	57
Washington, D. C	126	11.9	10.8	9	12	52
White	76			4	4	35
Colored	50	(5)	(5)	5	8	89
Waterbury	18			4	4	102
Wilmington, Del	23	9.3	6.9	2	2	45
Worcester	43	11.3	11.1	5	4	65
Yonkers	14	6.0	6.9	1	0	24
Youngstown	19	5.7	8.4	3	2	47

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.
[3] Data for 73 cities.
[4] Deaths for week ended Friday.
[5] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Weeks Ended July 5, 1930, and July 6, 1929

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended July 5, 1930, and July 6, 1929

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929
New England States:								
Maine	1			2	17	48	0	0
New Hampshire		1			2	20	0	0
Vermont	2	1			9	3	0	0
Massachusetts	31	49		1	409	282	0	4
Rhode Island	2	5			17	24	0	0
Connecticut	5	10			20	49	1	1
Middle Atlantic States:								
New York	89	169	[1] 6	[1] 10	824	458	7	23
New Jersey	38	63	4		502	101	2	1
Pennsylvania	103	126			791	747	4	6
East North Central States:								
Ohio	20	28	3	9	205	486	1	1
Indiana	7	12			60	83	3	1
Illinois	98	156	16	8	222	654	3	4
Michigan	44	87		4	316	324	10	40
Wisconsin	12	16	1	10	308	676	1	5
West North Central States:								
Minnesota	4	18			72	101	0	1
Iowa	4	4			14	27	1	1
Missouri	21	29			38	36	3	8
North Dakota		6			2	21	0	3
South Dakota	4				19	7	0	0
Nebraska	5	7		2	47	181	3	1
Kansas	11	9		1	103	206	1	1
South Atlantic States:								
Delaware					11	2	0	0
Maryland [2]	7	14	2	1	19	25	1	1
District of Columbia	6	4			43	6	1	0
West Virginia	10	7	6	6	82	63	4	0
North Carolina	6	14	9		40	9	1	3
South Carolina	9	7	69	91			1	0
Georgia		4	4	6	29		0	0
Florida	2	3		29	14	12	0	2

[1] New York City only. [2] Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended July 5, 1930, and July 6, 1929—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929
East South Central States:								
Kentucky					3		0	1
Tennessee	1	4	2	2	24	5	7	2
Alabama	3	8	2	5	21	26	1	1
Mississippi	4	6					4	0
West South Central States:								
Arkansas	5	1	3	2	8	10	0	0
Louisiana	12	10	3	2	7	13	2	2
Oklahoma [2]	3	13	2	20	41	14	2	0
Texas	21	15	7	20	51	61	0	1
Mountain States:								
Montana	2	3			5	26	0	0
Idaho		1		2	4	8	0	1
Wyoming					12	2	0	0
Colorado	3	3			160	6	0	4
New Mexico	5	2			19		0	0
Arizona		2			34	1	2	1
Utah [1]		2		2	23	4	2	1
Pacific States:								
Washington	1	11		1	173	39	0	1
Oregon	3	4	3	5	53	62	0	2
California	46	37	22	9	665	73	2	13

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929
New England States:								
Maine	0	0	6	20	0	1	0	2
New Hampshire	1	0	0	1	0	0	0	0
Vermont	0	0	8	0	0	3	0	0
Massachusetts	2	1	60	77	0	1	0	5
Rhode Island	0	0	4	6	0	0	0	0
Connecticut	0	0	16	18	0	0	1	3
Middle Atlantic States:								
New York	1	4	91	109	27	0	16	20
New Jersey	0	0	49	40	0	0	4	8
Pennsylvania	1	0	197	203	0	0	15	18
East North Central States:								
Ohio	4	1	88	70	72	67	10	3
Indiana	11	1	38	36	101	55	3	3
Illinois	5	1	126	164	63	76	8	9
Michigan	0	1	65	162	42	80	4	5
Wisconsin	0	1	43	61	10	21	2	2
West North Central States:								
Minnesota	10	2	27	20	0	0	3	7
Iowa	0	0	8	33	73	55	3	4
Missouri	1	0	33	11	19	9	9	19
North Dakota	0	0	1	8	10	3	0	0
South Dakota	0	0	6	7	14	11	1	1
Nebraska	0	0	24	15	39	18	0	0
Kansas	0	0	24	24	72	44	6	2
South Atlantic States:								
Delaware	0	0	0	0	0	0	0	0
Maryland [1]	0	1	26	31	0	0	8	19
District of Columbia	0	0	4	7	0	0	0	1
West Virginia	1	0	15	7	2	12	8	11
North Carolina	3	4	15	13	8	9	29	25
South Carolina	4	1	5	3	1	2	82	79
Georgia	0	1	1	7	0	0	47	34
Florida	0	0	0	2	0	0	2	13
East South Central States:								
Kentucky	0	0	8	0	0	3	6	20
Tennessee	2	3	7	7	4	1	52	27
Alabama	0	2	16	16	0	0	31	37
Mississippi	0	0	2	6	1	0	38	30

[1] Week ended Friday.
[2] Figures for 1930 are exclusive of Oklahoma City and Tulsa, and for 1929 are exclusive of Tulsa only.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended July 5, 1930, and July 6, 1929—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929	Week ended July 5, 1930	Week ended July 6, 1929
West South Central States:								
Arkansas	0	0	2	2	2	6	20	10
Louisiana	20	0	15	7	2	0	29	18
Oklahoma [3]	11	0	7	17	55	27	27	27
Texas	4	0	18	7	77	12	22	21
Mountain States:								
Montana	0	0	5	10	6	11	1	0
Idaho	0	0	1	1	3	5	0	0
Wyoming	0	0	2	1	0	18	1	1
Colorado	1	0	11	6	7	18	2	4
New Mexico	1	0	2	4	2	0	5	8
Arizona	0	0	2	4	3	9	17	3
Utah [2]	0	0	5	0	0	4	1	0
Pacific States:								
Washington	2	0	11	12	30	21	1	5
Oregon	0	1	4	8	8	17	8	1
California	88	4	38	124	17	32	10	8

[2] Week ended Friday.
[3] Figures for 1930 are exclusive of Oklahoma City and Tulsa, and for 1929 are exclusive of Tulsa only.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
May, 1930										
Kansas	7	41	2	3	2,654	1	1	237	221	21
Mississippi	13	35	753	5,732	660	1,438	5	22	56	54
June, 1930										
Arizona	10	4	3		228		2	13	11	24
Arkansas	9	7	13	227	84	118	1	9	12	45
Connecticut	6	47	9	1	146		3	161	0	3
Indiana	14	43	26		530		0	260	440	28
Wyoming		5			184		0	9	48	1

May, 1930

	Cases
Chicken pox:	
Kansas	309
Mississippi	679
Dengue:	
Mississippi	8
Dysentery:	
Kansas (bacillary)	2
Mississippi (amebic)	104
Mississippi (bacillary)	2,336
Epidermophytosis:	
Kansas	2
German measles:	
Kansas	10
Hookworm disease:	
Mississippi	345
Impetigo contagiosa:	
Kansas	1
Lethargic encephalitis:	
Kansas	1
Mumps:	
Kansas	370
Mississippi	801
Ophthalmia neonatorum:	
Mississippi	14
Paratyphoid fever:	
Kansas	1
Puerperal septicemia:	
Mississippi	25
Rabies in animals:	
Mississippi	9
Scabies:	
Kansas	8
Septic sore throat:	
Kansas	4
Trachoma:	
Kansas	2
Mississippi	3
Tularaemia:	
Kansas	1

	Cases
Undulant fever:	
Kansas	1
Vincent's angina:	
Kansas	3
Whooping cough:	
Kansas	387
Mississippi	1,491

June, 1930

	Cases
Chicken pox:	
Arizona	27
Arkansas	17
Connecticut	281
Indiana	179
Wyoming	7
Dysentery:	
Arizona	4
Connecticut (bacillary)	3
German measles:	
Connecticut	154
Wyoming	9
Hookworm disease:	
Arkansas	5
Impetigo contagiosa:	
Wyoming	1
Lead poisoning:	
Connecticut	1
Leprosy:	
Arizona	1
Mumps:	
Arizona	45
Arkansas	26
Connecticut	112
Indiana	11
Wyoming	11
Ophthalmia neonatorum:	
Arkansas	1
Paratyphoid fever:	
Connecticut	1
Rabies in animals:	
Connecticut	1
Rocky Mountain spotted or tick fever:	
Wyoming	10
Septic sore throat:	
Connecticut	3
Tetanus:	
Connecticut	1
Trachoma:	
Arizona	5
Arkansas	4
Connecticut	1
Wyoming	4
Undulant fever:	
Arizona	3
Connecticut	2
Indiana	4
Vincent's angina:	
Wyoming	1
Whooping cough:	
Arizona	54
Arkansas	108
Connecticut	172
Indiana	148
Wyoming	9

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 96 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,665,000. The estimated population of the 89 cities reporting deaths is more than 30,070,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended June 28, 1930, and June 29, 1929

	1930	1929	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	780	1,229	
96 cities	402	640	641
Measles:			
45 States	8,262	6,818	
96 cities	3,002	1,621	
Meningococcus meningitis:			
46 States	95	151	
96 cities	32	87	
Poliomyelitis:			
47 States	120	25	
Scarlet fever:			
46 States	1,631	1,786	
96 cities	665	675	598
Smallpox:			
46 States	769	612	
96 cities	80	93	35
Typhoid fever:			
46 States	492	547	
96 cities	80	75	80
Deaths reported			
Influenza and pneumonia:			
89 cities	410	390	
Smallpox:			
89 cities	0	0	

City reports for week ended June 28, 1930

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 1921 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	7	1	0		0	1	10	2
New Hampshire:								
Concord	0	0	0		0	0	0	0
Nashua	0	0	0		0	10	0	0
Vermont:								
Barre	1	0	0		0	18	0	0
Burlington	0	0	0		0	0	0	0
Massachusetts:								
Boston	44	29	19		0	236	24	10
Fall River	1	2	2		0	0	6	0
Springfield	5	2	1		0	1	0	0
Worcester	14	2	1		0	66	0	1
Rhode Island:								
Pawtucket	0	0	0		0	1	0	1
Providence	4	4	5		0	17	1	1
Connecticut:								
Bridgeport	1	4	0		0	0	1	0
Hartford	5	3	0		0	0	0	4
New Haven	3	1	0		0	4	2	3
MIDDLE ATLANTIC								
New York:								
Buffalo	12	9	7		0	19	5	12
New York	94	204	89	5	3	836	82	96
Rochester	0	7	1		0	6	1	1
Syracuse	7	3	0		0	49	16	0
New Jersey:								
Camden	2	5	3		0	21	0	0
Newark		10						
Trenton	0	2	1		0	3	0	5
Pennsylvania:								
Philadelphia	46	46	13		0	190	70	19
Pittsburgh	20	15	13		0	132	9	18
Reading	1	2	1		0	0	8	1
Scranton	1	2	0		0	0	0	0
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	4	4	1		0	32	10	3
Cleveland	94	21	8		0	24	13	11
Columbus	5	2	3	1	2	51	6	1
Toledo	38	4	1		0	7	3	2
Indiana:								
Fort Wayne	0	1	2		0	1	0	1
Indianapolis	10	2	1		0	53	4	10
South Bend	3	1	3		0	2	0	1
Terre Haute	0	0	0		0	0	0	2
Illinois:								
Chicago	94	71	97	1	2	33	82	41
Springfield	0	1	0		0	30	0	0
Michigan:								
Detroit	37	37	40		0	153	22	15
Flint	10	2	1		0	118	1	3
Grand Rapids	2	1	0		0	0	0	0
Wisconsin:								
Kenosha	3	0	0		0	0	0	0
Madison	4	0	0		0	14	0	0
Milwaukee	77	10	1		0	30	32	2
Racine	8	1	0		0	6	1	0
Superior	0	0	0		0	0	0	0

City reports for week ended June 28, 1930—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	2	0	0	----------	0	11	0	1
Minneapolis	38	10	3	----------	0	8	3	4
St. Paul	37	7	2	----------	0	1	4	3
Iowa:								
Davenport	0	1	0	----------	----------	1	0	----------
Des Moines	3	1	0	----------	----------	0	0	----------
Sioux City	0	0	0	----------	----------	6	0	----------
Waterloo	3	0	0	----------	----------	2	0	----------
Missouri:								
Kansas City	5	2	5	----------	0	3	0	11
St. Joseph	0	1	0	----------	0	0	0	3
St. Louis	21	22	22	----------	----------	51	16	----------
North Dakota:								
Fargo	0	0	0	----------	0	1	6	1
Grand Forks	0	0	0	----------	----------	0	0	0
South Dakota:								
Aberdeen	4	0	0	----------	----------	24	0	----------
Sioux Falls	0	0	0	----------	----------	0	0	----------
Nebraska:								
Omaha	6	2	3	----------	0	25	0	4
Kansas:								
Topeka	9	0	1	----------	0	14	9	0
Wichita	1	0	1	----------	0	17	0	2
SOUTH ATLANTIC								
Delaware:								
Wilmington	0	1	0	----------	0	0	0	3
Maryland:								
Baltimore	48	14	5	----------	0	8	7	11
Cumberland	0	0	0	----------	[1] 1	2	0	0
Frederick	0	0	0	----------	0	0	0	0
District of Columbia:								
Washington	11	5	5	----------	1	48	0	3
Virginia:								
Lynchburg	3	0	0	----------	0	2	10	1
Norfolk	0	0	0	----------	0	3	2	2
Richmond	1	1	0	----------	0	7	1	1
Roanoke	2	0	0	----------	0	16	0	0
West Virginia:								
Charleston	1	0	0	----------	0	0	1	0
Wheeling	2	0	0	----------	0	5	0	3
North Carolina:								
Raleigh	0	0	0	----------	0	0	0	0
Wilmington	0	0	0	----------	0	0	0	0
Winston-Salem	0	0	0	2	0	1	3	2
South Carolina:								
Charleston	1	0	0	----------	0	2	1	1
Columbia	0	0	0	----------	0	1	3	2
Georgia:								
Atlanta	0	2	2	1	1	15	2	8
Brunswick	0	0	0	----------	0	4	0	0
Savannah	0	0	0	----------	0	8	1	0
Florida:								
Miami	0	1	1	----------	0	1	0	2
St. Petersburg	----------	0	----------	----------	0	----------	----------	1
Tampa	0	1	1	----------	0	9	2	1
EAST SOUTH CENTRAL								
Kentucky:								
Covington	1	0	0	----------	1	7	0	0
Tennessee:								
Memphis	3	1	1	----------	0	0	0	6
Nashville	0	0	0	----------	0	16	0	1
Alabama:								
Birmingham	0	1	1	----------	1	15	1	5
Mobile	0	0	0	----------	0	0	0	2
Montgomery	0	0	0	----------	----------	0	0	----------

[1] Nonresident.

City reports for week ended June 28, 1930—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria: Cases, estimated expectancy	Diphtheria: Cases reported	Influenza: Cases reported	Influenza: Deaths reported	Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith	0	0	0	----------	----------	1	0	----------
Little Rock	0	0	0	----------	0	0	0	3
Louisiana:								
New Orleans	0	5	4	----------	2	0	0	8
Shreveport	2	0	0	----------	0	1	1	1
Oklahoma:								
Tulsa	0	0	1	----------	----------	0	0	----------
Texas:								
Dallas	0	3	6	----------	0	2	2	1
Fort Worth	0	1	0	----------	0	0	0	4
Galveston	0	0	0	----------	0	0	0	0
Houston	0	2	0	----------	0	1	0	8
San Antonio	1	1	0	----------	1	0	0	3
MOUNTAIN								
Montana:								
Billings	0	0	0	----------	0	3	0	0
Great Falls	3	0	0	----------	0	0	0	0
Helena	0	0	0	----------	0	0	0	1
Missoula	0	0	0	----------	0	0	0	0
Idaho:								
Boise	0	0	0	----------	0	6	0	0
Colorado:								
Denver	10	8	0	----------	0	61	8	5
Pueblo	3	1	0	----------	0	40	13	0
New Mexico:								
Albuquerque	2	0	0	----------	0	6	0	0
Arizona:								
Phoenix	0	0	0	----------	0	11	0	4
Utah:								
Salt Lake City	5	3	0	----------	0	55	1	3
Nevada:								
Reno	----------	0	----------	----------	----------	----------	----------	----------
PACIFIC								
Washington:								
Seattle	10	3	1	----------	----------	109	36	----------
Spokane	8	2	3	----------	----------	23	0	----------
Tacoma	3	2	0	----------	0	28	0	1
Oregon:								
Portland	0	5	0	----------	0	34	4	4
Salem	0	0	0	----------	0	1	0	0
California:								
Los Angeles	33	33	21	17	0	196	39	13
Sacramento	1	2	1	1	1	11	10	1
San Francisco	10	10	1	3	0	27	13	3

Division, State, and city	Scarlet fever: Cases, estimated expectancy	Scarlet fever: Cases reported	Smallpox: Cases, estimated expectancy	Smallpox: Cases reported	Smallpox: Deaths reported	Tuberculosis, deaths reported	Typhoid fever: Cases, estimated expectancy	Typhoid fever: Cases reported	Typhoid fever: Deaths reported	Whooping cough, cases reported	Deaths, all causes
NEW ENGLAND											
Maine:											
Portland	1	1	0	0	0	0	1	0	0	7	21
New Hampshire:											
Concord	1	0	0	0	0	1	0	0	0	0	4
Nashua	0	0	0	0	0	0	0	0	0	0	--------
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	2
Burlington	0	0	0	0	0	0	0	0	0	0	6
Massachusetts:											
Boston	39	34	0	0	0	14	1	1	0	55	161
Fall River	2	2	0	0	0	3	0	0	0	1	19
Springfield	3	3	0	0	0	3	0	0	0	3	30
Worcester	5	5	0	0	0	4	0	0	0	6	40

City reports for week ended June 28, 1930—Continued

Division, State, and city	Scarlet fever: Cases, estimated expectancy	Scarlet fever: Cases reported	Smallpox: Cases, estimated expectancy	Smallpox: Cases reported	Smallpox: Deaths reported	Tuberculosis, deaths reported	Typhoid fever: Cases, estimated expectancy	Typhoid fever: Cases reported	Typhoid fever: Deaths reported	Whooping cough, cases reported	Deaths, all causes
NEW ENGLAND—continued											
Rhode Island:											
Pawtucket	0	0	0	0	0	1	0	0	0	0	17
Providence	4	4	0	0	0	3	1	1	0	1	57
Connecticut:											
Bridgeport	4	1	0	0	0	3	1	0	0	0	22
Hartford	2	3	0	0	0	6	0	2	0	1	57
New Haven	1	3	0	0	0	1	0	0	0	5	36
MIDDLE ATLANTIC											
New York:											
Buffalo	15	18	0	0	0	7	0	0	0	23	128
New York	116	53	0	0	0	124	15	8	3	70	1,378
Rochester	6	11	0	0	0	1	0	0	0	2	60
Syracuse	3	3	0	0	0	1	0	0	0	49	37
New Jersey:											
Camden	3	3	0	0	0	1	0	0	0	1	30
Newark	13	-------	0	-------	-------	-------	1	-------	-------	-------	-------
Trenton	1	6	0	0	0	2	0	0	0	2	40
Pennsylvania:											
Philadelphia	47	53	0	0	0	26	3	0	0	15	394
Pittsburgh	17	31	0	0	0	6	1	0	0	45	162
Reading	1	2	0	0	0	1	0	0	0	5	16
Scranton	1	1	0	0	0	0	1	0	0	3	-------
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	7	7	0	0	0	6	1	0	0	3	125
Cleveland	22	21	0	2	0	11	2	0	0	59	186
Columbus	4	3	0	0	0	4	0	0	0	10	70
Toledo	6	11	0	4	0	2	1	1	1	2	50
Indiana:											
Fort Wayne	1	1	1	0	0	2	0	0	1	0	34
Indianapolis	4	7	4	4	0	4	1	13	0	0	-------
South Bend	1	4	0	0	0	1	0	0	0	0	20
Terre Haute	1	0	0	0	0	0	0	0	0	0	23
Illinois:											
Chicago	68	153	1	3	0	55	3	0	0	76	596
Springfield	1	5	0	0	0	0	0	0	0	0	33
Michigan:											
Detroit	53	54	2	4	0	31	2	3	0	109	261
Flint	4	12	1	2	0	1	1	0	0	23	27
Grand Rapids	4	6	0	1	0	2	1	0	0	1	35
Wisconsin:											
Kenosha	1	6	1	0	0	0	0	0	0	3	8
Madison	0	7	0	1	-------	-------	0	0	-------	20	-------
Milwaukee	13	10	0	0	0	8	0	0	0	32	110
Racine	2	3	0	0	0	0	0	0	0	3	10
Superior	2	1	0	0	0	0	0	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth	5	1	0	0	0	1	0	0	0	6	17
Minneapolis	17	5	2	0	0	3	0	0	0	6	88
St. Paul	10	6	0	0	0	3	0	2	0	7	63
Iowa:											
Davenport	0	0	1	24	-------	-------	0	0	-------	0	-------
Des Moines	3	1	1	38	-------	-------	0	0	-------	0	30
Sioux City	0	2	1	0	-------	-------	0	0	-------	3	-------
Waterloo	1	0	0	3	-------	-------	0	0	-------	8	-------
Missouri:											
Kansas City	4	9	1	0	0	8	1	1	0	7	117
St. Joseph	0	0	1	4	0	0	0	0	0	0	-------
St. Louis	13	23	1	5	0	11	2	4	0	19	263
North Dakota:											
Fargo	1	0	0	1	0	0	0	0	0	0	14
Grand Forks	1	0	0	4	-------	-------	0	0	-------	0	-------
South Dakota:											
Aberdeen	0	1	0	4	-------	-------	0	0	-------	4	-------
Sioux Falls	0	0	0	4	-------	-------	0	0	-------	0	-------

City reports for week ended June 28, 1930—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Nebraska:											
Omaha	1	0	2	11	0	4	0	0	0	0	57
Kansas:											
Topeka	0	2	0	3	0	0	1	0	0	22	13
Wichita	1	3	0	0	0	2	0	0	0	1	35
SOUTH ATLANTIC											
Delaware:											
Wilmington	2	1	0	0	0	0	0	0	0	3	24
Maryland											
Baltimore	14	16	0	0	0	25	3	3	0	39	202
Cumberland	0	0	0	0	0	0	0	0	0	1	11
Frederick	0	0	0	0	0	0	0	0	0	0	3
District of Col.:											
Washington	9	7	0	0	0	11	1	0	0	12	129
Virginia:											
Lynchburg	0	0	0	0	0	0	0	0	1	7	16
Norfolk	1	0	0	0	0	3	0	0	0	6	--------
Richmond	1	1	0	0	0	3	2	4	0	2	52
Roanoke	0	1	0	0	0	1	0	0	0	0	26
West Virginia:											
Charleston	0	1	0	0	0	1	0	1	0	3	15
Wheeling	1	0	0	0	0	1	0	0	0	1	20
North Carolina:											
Raleigh	0	0	0	4	0	1	0	0	0	5	14
Wilmington	0	1	0	0	0	0	0	0	0	8	13
Winston-Salem	0	1	0	0	0	1	1	0	0	20	21
South Carolina:											
Charleston	0	1	0	0	0	3	1	1	0	2	19
Columbia	0	0	0	0	0	1	1	1	0	1	26
Georgia:											
Atlanta	2	4	2	1	0	7	3	8	1	2	116
Brunswick	0	0	0	0	0	0	0	0	0	0	6
Savannah	0	0	0	0	0	3	1	1	0	0	36
Florida:											
Miami	0	0	0	0	0	2	1	0	0	1	27
St. Petersburg	0	--------	0	--------	0	1	0	--------	0	--------	10
Tampa	0	0	0	0	0	0	0	1	0	2	28
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	4	0	1	0	1	0	0	0	0	22
Tennessee:											
Memphis	2	2	0	0	0	5	4	6	0	13	100
Nashville	0	2	0	0	0	5	4	3	0	3	59
Alabama:											
Birmingham	1	0	1	0	0	4	3	0	0	3	87
Mobile	0	1	0	0	0	1	1	0	0	0	23
Montgomery	0	0	0	0	--------	--------	1	1	--------	0	--------
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	0	0	0	1	--------	--------	0	0	--------	16	--------
Little Rock	0	0	0	0	--------	1	1	1	0	0	--------
Louisiana:											
New Orleans	3	9	0	0	0	14	3	3	1	1	190
Shreveport	0	0	0	1	0	1	0	1	1	0	30
Oklahoma:											
Tulsa	1	0	0	2	--------	--------	2	0	--------	6	--------
Texas:											
Dallas	2	0	1	1	0	2	2	2	0	8	59
Fort Worth	1	0	1	0	0	2	1	0	0	0	28
Galveston	0	0	0	0	0	1	1	1	0	0	11
Houston	1	2	0	0	0	2	1	0	0	0	77
San Antonio	1	0	2	3	0	7	1	1	0	0	74

City reports for week ended June 28, 1930—Continued

Division, State, and city	Scarlet fever: Cases, estimated expectancy	Scarlet fever: Cases reported	Smallpox: Cases, estimated expectancy	Smallpox: Cases reported	Smallpox: Deaths reported	Tuberculosis, deaths reported	Typhoid fever: Cases, estimated expectancy	Typhoid fever: Cases reported	Typhoid fever: Deaths reported	Whooping cough, cases reported	Deaths, all causes
MOUNTAIN											
Montana:											
Billings	0	0	0	0	0	0	0	0	0	0	11
Great Falls	0	2	1	0	0	1	0	0	0	0	8
Helena	0	0	0	0	0	0	0	0	0	0	9
Missoula	0	0	0	3	0	0	0	0	0	0	11
Idaho:											
Boise	0	0	0	0	0	0	0	0	0	3	5
Colorado:											
Denver	6	2	0	1	0	2	0	1	0	36	80
Pueblo	1	0	0	0	0	0	0	2	0	4	12
New Mexico:											
Albuquerque	0	0	0	0	0	4	0	0	0	0	9
Arizona:											
Phoenix	0	0	0	0	0	4	0	1	0	0	25
Utah:											
Salt Lake City	2	3	1	0	0	0	0	1	0	34	34
Nevada:											
Reno	0	-------	0	-------	-------	-------	0	-------	-------	-------	-------
PACIFIC											
Washington:											
Seattle	4	3	1	1	-------	-------	1	1	-------	21	-------
Spokane	2	0	3	10	-------	-------	0	0	-------	9	-------
Tacoma	1	0	2	0	0	2	0	0	0	1	28
Oregon:											
Portland	3	1	7	10	0	2	0	1	0	4	65
Salem	0	0	1	0	0	0	0	0	0	2	-------
California:											
Los Angeles	19	14	3	10	0	22	3	1	0	36	243
Sacramento	2	4	0	0	0	4	2	0	1	0	26
San Francisco	10	3	0	0	0	10	1	0	0	1	155

Division, State, and city	Meningococcus meningitis: Cases	Meningococcus meningitis: Deaths	Lethargic encephalitis: Cases	Lethargic encephalitis: Deaths	Pellagra: Cases	Pellagra: Deaths	Poliomyelitis (infantile paralysis): Cases, estimated expectancy	Poliomyelitis: Cases	Poliomyelitis: Deaths
NEW ENGLAND									
Massachusetts:									
Boston	1	2	1	1	0	0	0	0	0
Worcester	2	1	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York	6	5	1	1	0	0	3	2	0
Rochester	0	1	0	0	0	0	0	0	0
Pennsylvania:									
Philadelphia	0	0	0	1	0	0	0	0	0
Pittsburgh	0	1	0	1	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	0	1	0	0	0	0	0	1	0
Columbus	1	1	0	0	0	0	0	0	0
Illinois:									
Chicago	5	2	2	2	0	1	0	1	0
Springfield	0	0	0	0	0	0	0	1	0
Michigan:									
Detroit	5	3	1	0	0	0	0	0	0
Wisconsin:									
Madison	1	-------	0	-------	0	-------	0	0	-------
Milwaukee	1	1	1	1	0	0	0	0	0

City reports for week ended June 28, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
WEST NORTH CENTRAL									
Missouri:									
Kansas City	0	2	0	0	0	0	0	0	0
St. Louis	2	1	0	0	0	0	0	0	0
North Dakota:									
Fargo	0	0	0	1	0	0	0	0	0
Kansas:									
Topeka	0	1	0	0	0	0	0	0	0
SOUTH ATLANTIC [1]									
District of Columbia:									
Washington	0	1	0	0	0	0	0	0	0
Virginia:									
Lynchburg	0	0	0	0	1	0	0	0	0
West Virginia:									
Wheeling	1	0	0	0	0	0	0	0	0
North Carolina:									
Raleigh	0	0	0	0	0	1	0	0	0
Winston-Salem	0	0	0	0	5	3	0	0	0
South Carolina:									
Charleston	0	0	0	0	0	1	0	0	0
Columbia	0	1	0	0	0	1	0	0	0
Georgia:									
Atlanta	0	0	0	0	5	3	0	0	1
Savannah [1]	1	0	0	0	0	0	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	3	2	0	0	0	1	0	0	0
Nashville	0	0	0	0	0	1	0	0	0
Alabama:									
Mobile [2]	0	0	0	0	0	1	0	0	0
Montgomery	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans	2	1	0	0	7	0	1	0	0
Shreveport	0	0	0	0	0	1	0	1	0
Texas:									
Dallas	0	0	0	0	4	1	1	0	0
Fort Worth	0	0	0	0	0	1	0	0	0
Houston	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Great Falls	0	0	0	0	0	0	0	1	0
Colorado:									
Denver	0	2	0	0	0	0	0	0	0
Utah:									
Salt Lake	1	1	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland	0	0	0	1	0	0	0	0	0
California:									
Los Angeles	1	0	0	0	0	0	1	29	0
San Francisco	0	0	0	0	2	0	0	2	1

[1] Typhus fever, 2 cases: 1 case at Savannah, Ga., and 1 case at Tampa, Fla.
[2] Dengue: 1 case at Mobile, Ala.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended June 28, 1930, compared with those for a like period ended June 29, 1929. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have an estimated aggregate population of more than 32,000,000. The 91 cities reporting deaths have more than 30,500,000 estimated population.

Summary of weekly reports from cities, May 25 to June 28, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	May 31, 1930	June 1, 1929	June 7, 1930	June 8, 1929	June 14, 1930	June 15, 1929	June 21, 1930	June 22, 1929	June 28, 1930	June 29, 1929
98 cities	77	124	77	110	[2] 80	106	[3] 68	112	[4] 66	110
New England	51	90	86	72	[5] 36	79	35	74	62	94
Middle Atlantic	71	168	72	148	82	131	81	125	[6] 64	144
East North Central	111	155	113	123	129	145	93	165	98	131
West North Central	76	110	51	96	[7] 54	65	[8] 31	87	70	85
South Atlantic	55	41	49	54	[9] 40	64	[9] 34	64	24	34
East South Central	40	7	13	21	13	41	13	34	13	34
West South Central	52	57	41	88	86	84	86	65	37	69
Mountain	43	35	60	61	[10] 35	35	[10] 9	26	[10] 0	26
Pacific	78	58	76	56	43	34	54	58	64	84

MEASLES CASE RATES

	May 31, 1930	June 1, 1929	June 7, 1930	June 8, 1929	June 14, 1930	June 15, 1929	June 21, 1930	June 22, 1929	June 28, 1930	June 29, 1929
98 cities	932	659	957	734	[2] 838	483	[3] 667	423	[4] 494	267
New England	1,426	364	1,462	602	[5] 1,401	337	1,048	391	762	211
Middle Atlantic	991	183	1,076	169	1,089	143	818	123	[6] 628	99
East North Central	529	1,597	517	1,827	457	1,152	381	1,010	334	620
West North Central	514	1,033	412	1,060	[7] 369	581	[8] 347	504	264	256
South Atlantic	725	298	478	238	[9] 374	242	[9] 387	129	234	137
East South Central	378	55	418	41	182	41	270	41	256	7
West South Central	486	236	123	400	101	209	82	183	19	156
Mountain	5,527	252	5,630	192	[10] 3,386	261	[10] 2,667	218	[10] 1,447	148
Pacific	1,630	398	2,220	408	1,564	384	1,247	352	931	208

SCARLET FEVER CASE RATES

	May 31, 1930	June 1, 1929	June 7, 1930	June 8, 1929	June 14, 1930	June 15, 1929	June 21, 1930	June 22, 1929	June 28, 1930	June 29, 1929
98 cities	186	269	214	209	[2] 193	188	[3] 145	148	[4] 109	112
New England	281	269	230	191	[5] 200	204	115	159	124	119
Middle Atlantic	171	193	196	135	155	129	118	100	[6] 90	72
East North Central	142	447	296	321	304	322	229	260	184	191
West North Central	209	179	260	165	[7] 242	110	[8] 154	77	97	104
South Atlantic	115	273	156	300	[9] 149	133	[9] 100	73	62	62
East South Central	81	123	108	96	54	75	67	89	61	34
West South Central	15	160	78	76	37	107	105	88	41	42
Mountain	94	96	240	78	[10] 123	70	[10] 202	96	[10] 61	70
Pacific	83	246	109	270	113	251	85	210	57	164

[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, 1930, and 1929, respectively.
[2] Barre, Vt., Omaha, Nebr., Winston-Salem, N. C., and Reno, Nev., not included.
[3] Kansas City, Mo., Winston-Salem, N. C., and Reno, Nev., not included.
[4] Newark, N. J., and Reno, Nev., not included.
[5] Barre, Vt., not included.
[6] Newark, N. J., not included.
[7] Omaha, Nebr., not included.
[8] Kansas City, Mo., not included.
[9] Winston-Salem, N. C., not included.
[10] Reno, Nev., not included.

Summary of weekly reports from cities, May 25 to June 28, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

SMALLPOX CASE RATES

	Week ended—									
	May 31, 1930	June 1, 1929	June 7, 1930	June 8, 1929	June 14, 1930	June 15, 1929	June 21, 1930	June 22, 1929	June 28, 1930	June 29, 1929
98 cities	16	9	21	8	[2] 13	16	[3] 10	9	[4] 13	15
New England	0	0	0	0	[5] 0	0	0	0	0	0
Middle Atlantic	1	0	1	0	0	0	0	0	[6] 0	0
East North Central	13	15	8	17	11	28	8	18	10	38
West North Central	55	15	116	12	[7] 37	12	[8] 31	6	51	19
South Atlantic	9	0	4	2	[9] 8	4	[9] 2	6	9	2
East South Central	34	7	34	14	40	55	20	0	7	7
West South Central	15	19	22	8	22	42	26	4	22	4
Mountain	60	52	112	52	[10] 26	44	[10] 35	61	[10] 35	113
Pacific	57	27	68	14	57	46	43	31	50	14

TYPHOID FEVER CASE RATES

98 cities	7	7	8	8	[2] 9	9	[3] 8	8	[4] 13	12
New England	11	2	4	7	[5] 9	11	0	4	9	9
Middle Atlantic	3	3	6	5	8	3	4	2	[6] 4	7
East North Central	3	3	4	3	4	4	3	4	10	3
West North Central	9	17	9	8	[7] 6	17	[8] 9	19	13	15
South Atlantic	13	19	20	17	[9] 15	11	[9] 19	13	37	30
East South Central	40	34	13	27	27	34	54	55	67	34
West South Central	22	19	37	27	19	19	26	34	34	34
Mountain	9	0	0	0	[10] 9	9	[10] 9	9	[10] 35	52
Pacific	9	2	2	12	19	19	7	5	5	19

INFLUENZA DEATH RATES

91 cities	4	7	5	7	[2] 7	6	[3] 4	6	[4] 3	5
New England	0	7	0	2	[5] 2	7	2	2	0	2
Middle Atlantic	4	4	4	5	5	4	5	3	[6] 2	4
East North Central	4	9	4	6	6	8	4	8	3	4
West North Central	3	3	12	3	[7] 17	9	[8] 0	6	0	0
South Atlantic	4	6	9	7	[9] 2	2	[9] 2	6	5	4
East South Central	37	0	15	22	15	7	15	15	15	15
West South Central	4	12	11	16	27	12	8	16	11	4
Mountain	17	17	9	35	[10] 0	0	[10] 0	0	[10] 0	44
Pacific	3	16	3	16	6	6	0	6	3	3

PNEUMONIA DEATH RATES

91 cities	80	105	86	90	[2] 85	86	[3] 72	81	[4] 68	64
New England	89	106	73	65	[5] 80	85	69	56	49	58
Middle Atlantic	94	113	106	105	101	98	82	89	[6] 76	65
East North Central	54	101	59	96	67	82	53	76	56	69
West North Central	68	120	130	81	[7] 82	54	[8] 81	48	86	48
South Atlantic	82	112	93	67	[9] 72	88	[9] 64	84	66	62
East South Central	110	112	81	60	110	104	133	119	103	75
West South Central	130	66	84	90	107	62	69	82	92	66
Mountain	77	113	129	61	[10] 88	113	[10] 132	78	[10] 79	104
Pacific	64	63	40	69	71	60	74	104	55	38

[2] Barre, Vt., Omaha, Nebr., Winston-Salem, N. C., and Reno, Nev., not included.
[3] Kansas City, Mo., Winston-Salem, N. C., and Reno, Nev., not included.
[4] Newark, N. J., and Reno, Nev., not included.
[5] Barre, Vt., not included.
[6] Newark, N. J., not included.
[7] Omaha, Nebr., not included.
[8] Kansas City, Mo., not included.
[9] Winston-Salem, N. C., not included.
[10] Reno, Nev., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended June 21, 1930.—The Department of Pensions and National Health reports cases of certain communicable diseases in Canada for the week ended June 21, 1930, as follows:

Province	Cerebrospinal fever	Dysentery	Influenza	Poliomyelitis	Smallpox	Typhoid fever
Prince Edward Island [1]						
Nova Scotia			3			
New Brunswick						3
Quebec	1			1		9
Ontario	6		1		13	10
Manitoba					4	
Saskatchewan	1				10	1
Alberta				1		
British Columbia		6				
Total	8	6	4	2	27	23

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

Quebec Province—Communicable diseases—Week ended June 28, 1930.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended June 28, 1930, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Mumps	20
Chicken pox	49	Scarlet fever	7
Diphtheria	26	Smallpox	4
Erysipelas	3	Tuberculosis	32
German measles	6	Typhoid fever	11
Measles	75	Whooping cough	10

DENMARK

Communicable diseases—April, 1930.—During the month of April, 1930, cases of certain communicable diseases were reported in Denmark as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	9	Mumps	2,234
Chicken pox	62	Paratyphoid fever	7
Diphtheria and croup	381	Poliomyelitis	3
Erysipelas	25	Puerperal fever	25
German measles	51	Scarlet fever	136
Influenza	3,980	Typhoid fever	8
Lethargic encephalitis	9	Undulant fever	35
Measles	2,431	Whooping cough	1,317

PANAMA CANAL ZONE

Communicable diseases—April–May, 1930.—During the months of April and May, 1930, certain communicable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities as follows:

Disease	April, 1930		May, 1930	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis	1	1	3	1
Chicken pox	47		57	
Diphtheria	7		7	
Dysentery (amebic)	6	2	1	1
Leprosy	2			
Malaria	57		293	2
Measles	17		43	1
Mumps	3			
Paratyphoid fever	1			
Pneumonia		16		17
Tuberculosis		28		35
Typhoid fever			1	
Whooping cough	10		10	

PHILIPPINE ISLANDS

Cholera.—During the latter part of May cases of cholera began to occur in the rural districts of the south central part of the Philippine Archipelago, particularly on Negros Island. The rural prevalence of the disease is now rather widespread throughout the involved area, and the principal port of Cebu has become cholera infected. More recently a few scattered cases have occurred adjacent to Manila, following which the chief quarantine officer at Manila has declared a local inter-island quarantine against Cebu. As a precautionary measure, in view of the rural Filipino laborer migration to the Hawaiian Islands and the United States, quarantine was declared on July 7 by the United States against the Philippine Islands, and the quarantine officers at Pacific coast ports, Hawaii, and the Canal Zone have been instructed accordingly.

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		Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	April, 1930: 19	April, 1930: 26	May, 1930: 3	May, 1930: 10	May, 1930: 17	May, 1930: 24	May, 1930: 31	June, 1930: 7	June, 1930: 14	June, 1930: 21	June, 1930: 28	July 5, 1930
China:																	
Canton	C									1	1	1		2			
Manchuria—Dairen	C		1														
Swatow	C											3	4	8			
India	C	6,461	5,914	10,817		7,436	15,870	13,209									
	D	3,606	3,371	5,866		4,345	10,403	10,234									
Bassein	C				3	1	1	2	3	4							
	D				2	1	1	1	3	2							
Bombay	C			4													
Calcutta	C	202	269	354	137	165	165	180	194	175	142	98	78	73	94		
	D	110	153	220	85	118	118	93	125	107	83	57	44	36	36		
Negapatam	C	12												1			
	D	4												1			
Rangoon	C	3	3	2				1		5	2	2	1	1	2		
	D	3	1	2				1		1		2	1	1	1		
Tuticorin	C	3															
	D	1															
India (French):																	
Chandernagor	C		4	1	1	2		3	2	2	2						
	D		2	3			4	1	1	4	1						
Karikal	C		4	12		1											
	D		1	9		1											
Indo-China (see also table below):																	
Pnompenh	C	11	9				2		1				5	10	11		
	D	8	7	6						2	2	1	1	4	7		
Saigon and Cholon	C	2	5	14	17	12	19	28	59	40	48	13	17	19	7		
	D	2	4	6	10	10	13	22	43	27	24	7	11	10	2		

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

CHOLERA—Continued

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

Place		Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	19	26	May, 1930: 3	10	17	24	31	June, 1930: 7	14	21	28	July 5, 1930
Philippine Islands:																	
Bulacan Province—																	
Malolos	C												1			1	
	D												1				
Santa Maria	C															1	
Cebu Province—																	
Bantayan	C												3	8	53	86	134
	D												3	7	28	43	8
Barili	C															1	1
	D																1
Bogo	C													1	3	1	23
	D													1	1	1	11
Cebu	C															20	14
	D															9	6
Madridejos	C															15	13
	D															8	5
Medellin	C															1	18
	D																6
Santa Fe	C												1				
	D												1				
Iloilo Province—Miagao	C																1
	D																2
Leyte Province—Maripipi	C													1	15	20	
	D														11	9	
Masbate Province—Cataingan	C															10	20
	D															3	4
Manila	C										1						
Negros—																	
Bacolod	C														9		
	D														8		
Cadiz	C											10	2	10		3	3
	D											7	1	5		3	4
Escalante	C												1				
	D												1				

Hays Calatrava	C														3		
	D														2		
La Carlota	C															3	1
	D															1	1
La Castellana	C															4	3
	D															2	3
Sagay	D																1
San Remigio	C														3	8	38
	D														2	4	8
Talisay	C														7	4	
	D														7	1	
Pampanga Province—																	
Angeles	C														1		
Bacolor	C															1	
Lubao	C																2
Pangasinan: Binmaley	C																2
Rizal—Navotas	C											1					
	D											1					
San Antonio	C													1			
	D													1			
Siam	C	3	7	1	8	7	3		12	4	6			1	6		
	D		4		6	3	2		10	2	2			1	4		
Bangkok	C	3	2	2	1	5	4	5			6	3	5	3	3		
	D			1	1	2	1				2	1		3			
Nagara Pathom	C		1				4	6									
	D		1				2										
On vessel:																	
S. S. at Suva, Fiji Islands	C		1														
S. S. Sutley, at Batavia, from Calcutta	C		1														
S. S. Sassari, at Massoua, from Jeddah	C											1					
	D											1					
On small boat at Port Cebu, from Bantayan Island	C												1				
	D												1				

Place		December, 1929	January, 1930	February, 1930	March, 1930			April, 1930			May, 1930			June, 1-10, 1930
					1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31	
Indo-China (French) (see also table above):														
Annam [1]	C		1	4		52				60		20	3	2
Cambodia [1]	C	41	147	90	49	32		18	6		5	31	52	56
Cochin-China [1]	C	46	177	65	5	22	55	48			188	224	250	147

[1] Reports incomplete.

117810°—30——3

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

PLAGUE

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

Place		Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	April, 1930: 19	April, 1930: 26	May, 1930: 3	May, 1930: 10	May, 1930: 17	May, 1930: 24	May, 1930: 31	June, 1930: 7	June, 1930: 14	June, 1930: 21	June, 1930: 28	July 5, 1930
Argentina:																	
Andalgala [1]																	
Rosario	C	P															
Santa Fe	C	6															
Villa Lia	D		2														
Azores: Ponta Delgada	C					1	7										
	D						5										
Brazil:																	
Rio de Janeiro	C	1															
	D	1															
Sao Paulo.[2]																	
British East Africa (see also table below):																	
Tanganyika	C		7			11	33										
	D					10	10										
Uganda	C	82	47	98	27	20	23	47	54	89							
	D	70	43	87	27	19	21	38	48	75							
Ceylon:																	
Colombo	C	4	3	4			1		4	1		1	1				
	D	4	3	4			1		3	1		1	1				
Plague-infected rats		1	3	2	2			2					1				
Chile: Antofagasta	C	1	1	1				1									
	D			2				1									
Dutch East Indies:																	
Batavia and West Java	C	167	153	124	27	16	20	24	18	33	17						
	D	164	150	122	27	16	20	24	18	33	17						
Plague-infected rats		3	3	3		6	2				3	2	3	1			
Celebes—Makassar	C	1															
	D	1															
Java and Madura	D	317	296	223	59	40	35	48	28								
Ecuador (see table below).																	
Egypt:																	
Alexandria	C	4	1	4			1	1	2	3	3	5	3	6	6	4	8
	D	1		1			1	1			1	2			2	5	2
Assiout	C						7	7	3	9	2	6	4	2	3		1
	D						3	2		3	1	1		1		2	

Beheira	C	2		4													
Beni Suef	C			4													
Dakahlieh	C		8	5	2		1	2	3	1	2	5	1				
	D			1						1	1						
Gharbieh	C	1					1										
	D						1										
Girga	C				1												
Minieh	C										6	1	1	1	4	4	2
	D											1		1			
Port Said	C				1					1	1		1			1	
Greece (see also table below):																	
Patras	C			1											1		
Piraeus	C	1															
Pyrgos	C			1													
India	C	4,814	5,639	4,087		343	535	420	281	188							
	D	3,308	3,940	3,344		229	517	461	271	205							
Bassein	C	1		3													
	D	1		1													
Bombay	C	1	1	7		4			4	1		1	1		2		
	D	1	1	5	1	3	4		1	4					1		
Plague-infected rats		28	31	86	20	28	25	35	23	39		19	6	7	8		
Madras Presidency	C	27	230	157	12	15	9	8	2						2		
	D	13	140	87	6	8	4	1									
Rangoon	C	3	7	3		3		2		1	3						
	D	2	6	3		2	1	1	1	1	1						
Plague-infected rats		1	7	3	1	2		1	1	3	1				1		
India (Portuguese)	D								7								
Indo-China (see also table below):																	
Pnompenh	C	1			2			1	1			2	6				
	D	2	13	13	2	1	1				1		5	1			
Saigon and Cholon	C	2		1					1				1		1		
	D	2		1													
Iraq:																	
Baghdad	C	6	6	7		2		4	7	11	7	12	12	4	8	4	10
	D	2	1	4				2	3	5	4	6	7	3	5		5
Japan: Osaka (vicinity of)—Plague-infected rats		7	6	4	1	1	1										
Kwang-Chow-Wan	C	25	25	7				37		20		14	23				
Madagascar (see also table below):																	
Tamatave	C					1							1				
Morocco	C	4	48	55	14	41	34	32	19	22	18	12	2		1		
	D		13	18	6	26	12	11	11	14	6	3	4				
Nigeria: Lagos	C	6	7	13					1	1			1		3		
	D	6	7	5					1	1			1		3		
Plague-infected rats		44	42	25	3	3	1		2	6	5						

[1] On Mar. 11, 3 deaths from bubonic plague were reported in Andalgala, Catamarca Province, Argentina, since Feb. 5, 1930.
[2] 21 cases of plague with 8 deaths were reported Jan. 29, 1930, in the State of Sao Paulo, Brazil; 15 of these cases were in the city of Sao Paulo.

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

PLAGUE—Continued

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

Place		Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	19	26	May, 1930: 3	10	17	24	31	June, 1930: 7	14	21	28	July 5, 1930
Senegal (see table below).																	
Siam	C	8	17	16	4		1			1	1						
	D	6	13	15	4		2			1							
Bangkok	C		1	5						1	1	3					
	D		1	4						1		3					
Nagara Pathom	C	7	5	1	4	3	2	1									
	D	7	6	1	4	3	1	1									
Nagara Rajsima	C	2	2	1		1											
	D			1		1											
Syria: Beirut	C													2	1	1	
Tunisia:																	
Sfax district	C	18	22				1		17			4	6		3		
Tunis	C	6	5	1				4				1		1			
	D												1				
Union of Socialist Soviet Republics:																	
Saisk Region	C												1			1	
	D												1				
Stavropol Region	C												1				
	D												1				
Union of South Africa:																	
Cape Province	C	1	2	1					P								
	D		1	1													
Orange Free State	C	15	11	5	1												
	D	9	3	3													
Transvaal	C	8	2	1													
	D	3		1													
On vessel:																	
At Rio de Janeiro, Brazil, from Argentina	C	1															

Place		December, 1929	January, 1930	February, 1930	March, 1930	April, 1930	May, 1930
British East Africa (see also table above):							
Kenya	C	54	34				
Uganda	C	216	184	109			
	D	199	155	99			
Ecuador: Guayaquil	C	17	4	2	2	0	
	D	6	2	2		0	
Plague-infected rats		13	4	2	2	0	
Ecuador (outside of Guayaquil)	C	19	4				
	D	5	2				
Greece (see also table above)	C	1				1	
Indo-China (see also table above)	C	10	10	30	27	4	
Madagascar (see also table above)	C	264	282				
	D	248	258				
Ambositra Province	C	111	128	49	25		
	D	96	111	41	20		
Antsirabe Province	C	16	26	22	38		
	D	16	25	22	36		
Itasy Province	C	19	31		4		
	D	16	31		4		

Place		December, 1929	January, 1930	February, 1930	March, 1930	April, 1930	May, 1930
Madagascar—Continued.							
Miarinarivo Province	C	3		25	14		
	D	3		25	14		
Moramanga Province	C	12	22	7	5		
	D	12	21	4	5		
Tamatave Province	C	2	3				
	D	2	1				
Tananarive Province	C	97	88	110	52		
	D	98	83	107	52		
Senegal:							
Baol [1]	C	5			18	24	13
	D	2			8	12	11
Dakar [1]	C	8				2	52
	D	1				2	42
Louga [1]	C			2		33	54
	D					10	27
Thies [1]	C		3		3	12	21
	D				2	9	8
Tivaouane [1]	C		1		11	71	135
	D				8	38	69

[1] Incomplete reports.

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

SMALLPOX

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

Place		Dec. 15, 1929–Jan. 11, 1930	Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	19	26	May, 1930: 3	10	17	24	31	June, 1930: 7	14	21	28
Algeria:																	
Algiers	C		6	1	5	1					1		2				
Constantine	C		1													1	
Oran	C		5		1												
Arabia: Aden	C	1	1	2	3			1									
Bolivia: La Paz.[1]																	
Brazil: Rio de Janeiro	C	1															
British Borneo: Sarawak	C		4	19													
British East Africa (see also table below):																	
Tanganyika	C	27	5	49	103			26	31	33	45	55					
	D	5		8	7			10	4	3	5	8					
British South Africa:																	
Northern Rhodesia	C				9				1								
	D								2								
Southern Rhodesia	C	33	1	6				66		53		42					
	D	6						1		4		8					
Canada:																	
Alberta	C	16	22	4	10	3	1										
Edmonton	C	15	19	1	4	3											
British Columbia—Vancouver	C	17	16	16	20	8	1	5	3			2	2	1	1		
Manitoba	C	8	6	2	4	2			2			7	3			4	
Ontario	C	51	63	86	100	17	30	18	12	14	24	24	20	14	10	13	10
Fort William	C		4														
North Bay	C		2	1						1							
Ottawa	C	7	10	11	19	8	4	7	2	3	10	7	5	6		8	1
Toronto	C		2									3	1	2	1	1	
Quebec	C	8	11														4
Montreal	C		1														
Saskatchewan	C	61	86	76	47	3	10	7	21	20	6	10	3		12	10	
Regina	C	31								1		3					
Ceylon:																	
Angoda, Western Province	C			10					6								
	D			1					2								
Colombo	C	1	1	3													
	D			2													

China:																	
Canton	C	5	7	11	6		2	1						1			
	D		2	3	2	1	1		1								
Chungking	C	P	P	P		P	P	P	P	P							
Foochow	C	P	P	P			P		P		P		P				
Hong Kong	C	102	118	62	38	20	7		1	5	5	2		2	1	1	
	D	73	109	51	25	11	9	3		4	2	3		1		1	
Manchuria—																	
Harbin	C	1	3				1				10	10					
Kwantung—Dairen	C	1	6	5			1		1	1		7			11	5	
	D											4				1	
Nanking	C	P	P	P	P	P			P	P			P	P			
Shanghai—																	
Foreigners only	C	7	5	2	2	2	1				1	1		1	1	1	2
Including natives	D	6	8	7	10	4	3	2	1		1	2	2	1		1	
Swatow	D	2	3	6	6	2			1	1		1	4	1			
Tientsin	C	2	1	1	2	1			1	1							
Chosen (see table below).																	
Colombia:																	
Baranquilla	C	1		102	2	1											
Buenaventura	C	13		1		7	5	2	1	2		1	1	1	1		
Costa Rica:																	
Port Limon	C					1	1	2	2				2	2			
San Jose [2]	C				10	7											
Curacao (alastrim)	C				14			1	1	2					1		
Dahomey (see table below).																	
Dutch East Indies:																	
Belawan Deli	C	1															
Borneo	C		1		185	17	43	20	10		10	4					
	D		1		12	16	12	2	1	1							
Java—																	
Batavia and West Java	C	17	14	14	78	30	25	8	1	1		5	1		1		
	D	10	7	7	6	6	1	3	1	1		3	2		1		
East Java and Madura	C							4									
Sanggi Islands	C	17	25	12	5		43		66	14	12						
	D	3			1		2		13	1	4						
Sumatra	C	1	2		48												
	D				5												
Egypt: Port Said	C		2			1					1						
Great Britain:																	
England and Wales	C	1,005	1,455	1,530	1,700	423	345	353	306	462	324	304	327	237	266		
Ashton under Lyne	C	3	4	29	15	9	3	4	2	6	3	4	4				
Bradford	C	8	5	2		1			2		1		1				
Cardiff	C				2	1	2										
Leeds	C		6	11	16	1	1										
London	C	480	597	699	710	169	169	129	137	222	138	148	129	130	136		
London and Great Towns	C	799	1,101	1,156	1,239	308	264	265	229	339	250	235	254	197	208		
	D		2	5	3	2	1	1									
Sheffield	C				8	1	1										
Stoke-on-Trent	C	12	12	41	122	17	23	33	12	19	9	13	21	3	10		
Scotland	C													1		3	

[1] From Jan. 1 to May 31, 1930, 44 deaths from smallpox were reported in La Paz, Bolivia.
[2] 5 cases of smallpox were reported Apr. 14, 1930, in Costa Rica outside of city of San Jose.

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

SMALLPOX—Continued

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

Place		Dec. 15, 1929–Jan. 11, 1930	Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	19	26	May, 1930: 3	10	17	24	31	June, 1930: 7	14	21	28
Greece: Patras	C	1															
Hedjaz	C	11	11														
India	C	12,789	26,524	36,036	39,329		7,786	8,385	8,353	6,533	6,549						
	D	3,730	6,186	7,710	9,109		1,543	1,779	1,597	1,449	1,814						
Bombay	C	119	342	638	718	143	114	89	84	52	68	58	40	36	35	23	
	D	57	164	314	431	88	78	64	44	33	49	44	35	27	23	19	
Calcutta	C	98	185	399	361	153	116	122		109	70	52	71	56	45	45	
	D	62	130	287	305	124	97	103		94	72	40	52	50	37	29	
Cochin	C	234	234	184	291	56	49	58	20	13	8	7	9	4	1		
	D	20	27	29	35	3	4	6	2	5	1	2		2	1		
Karachi	C	17	30	38	33	10	9	7	4		6	7	1	5		1	
	D	11	9	16	47	10	3	2	2	2		1	1	2		1	
Madras	C	85	105	159	173	55	26	27	25	24	13	15	20	9	10	8	
	D	16	16	29	36	6	6	5	10	4	5	6		6	3	1	
Moulmein	C	18	65	143	146	10		33		27	29	20	13		9	6	
	D	9	18	40	41	4		3		4	6	5	6		3	3	
Negapatam	C			1								1			1		
Rangoon	C	2	7	7	10		1	1	2	2		3	1	1	5	1	
	D		4	2	5					1						1	
Tuticorin	C		3									5					
Vizagapatam	C	2	5	9	69	1		2	3	3	1	1			1		
	D			1	18	1			1		3						
India (French): Chandernagor	C		3	11	6	4		6		6	2	8	8	4			
	D			5	2			2		2	4	1					
Karikal	C		3	12	24	8	9	2		6	5	1		4	3		
	D		3	8	7	3	3	2		2	1			2	2		
Pondicherry Province	C	20	22	52	21	12	1	11		9	13	10	8	4			
	D	19	19	40	13	11	1	8		7	12	10	7	4			
India (Portuguese)	C		16	50	38	5	6	15	17	2	27	5	13				
	D			6	2			5	3		3	1	4				
Indo-China (see also table below): Pnompenh	C									1		1	1				
	D		1				1	1						1			
Saigon and Cholon	C	4	3	4	3			4	1	1	1			1			
	D	2	3	2	1		1	3	1		1		1				

Iraq:																	
Baghdad	C	16	7	3		1	2	3	2	1				1			
	D	5	3	1					1	1							
Basra	C			1					1								
Mossoul Liwa	C	80	26	12			22			13		8			1		
	D	3	7	2			3			2		1			1		
Ivory Coast (see table below):																	
Jamaica	C												2				
Japan: Tokyo	C								1								
	D								1								
Macao	D			2	3	1			1	1							
Mexico (see also table below):																	
Jalisco (State): Guadalajara	D	9	9	14	22	6	4	8	2			6	1	4		5	6
Juarez	C	3	2	3	2												
	D	2	1	1													
Mexico City and surrounding territory [3]	C	25	30	38	106	36	19	20	24	30	15	17	18				
	D	4	7	21	31	14	8	14	11	6	12	8	6				
Morelos State.[4]																	
Progreso	C											1					
	D											1				1	
San Luis Potosi	C			1													
	D			1													
Morocco (see table below).																	
Netherlands: Rotterdam	C	1															
Nigeria (see also table below): Lagos	C	2	5	2	1	1											
	D	1	2														
Persia (see table below).																	
Philippine Islands: Sarangani and Balut Islands [5]	D	40	18	3													
Poland	C	2		2				2	5		1		2				
Portugal: Lisbon	C	6	4	7	7	2	3	3		6		2		1			
Rumania	C		1	1	2												
Siam	C	42		2		2	2	2	2	2							
	D	9	1				2	2									
Somaliland, British: Boales	C	5	35	19	2												
	D	9	8	2	6												
Spain	C														4		
Straits Settlements	C		2		5	2	1		2	1	3	2	5	5		1	3
	D		1		1	1			1		1	1	1	1		1	
Sudan (Anglo-Egyptian)	C	290	230	79	60	2	9	31			5	13	1	4	8	1	54
	D	65	34	6	5	1		3				1	1				3
Sudan (French) (see table below).																	
Syria (see table below).																	
Tunisia: Tunis	C	20	7	3	3			1	3		1		1			2	
Turkey (see table below).																	
Union of South Africa:																	
Cape Province	C	P	P	P	P	P		P		P	P	P					
Orange Free State	C	P	P	P	P												
Transvaal	C	P	P	P	P												
Upper Volta	C			26	2	2		1					1				

[3] During the month of March, 1930, 100 cases of smallpox were reported in Mexico City, Mexico, and surrounding territory.
[4] Newspaper reports of Feb. 4 show an epidemic of smallpox in Ionacatepec, Morelos State, Mexico, and vicinity, giving 600 deaths in preceding 2 weeks.
[5] On Feb. 1, 1930, 317 cases of smallpox with 102 deaths were reported to that date in the Sarangani and Balut Islands.

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

SMALLPOX—Continued

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

Place		Dec. 15, 1929–Jan. 11, 1930	Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930			May, 1930					June, 1930			
						12	19	26	3	10	17	24	31	7	14	21	28
Zanzibar	C				13												
On vessel:																	
S. S. Tairoa, at Liverpool, from London	C			1													
S. S. Karagola, at Zanzibar, from India	C		4														
S. S. Karagola, at Lourenco Marques, from India	C			1													
S. S. Elysia, at Port Sudan, from Bombay	C						1										
S. S. Naldera, at Port Said	C									1							
S. S. Manoa, from Honolulu to San Francisco	C																1

Place		December, 1929	January, 1930	February, 1930	March, 1930			April, 1930			May, 1930			June 1–10, 1930
					1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	
Belgian Congo	C	74												
	D	4												
Dahomey	C	19												
Indo-China (see also table above)	C	142	460	434			26	261				173	132	80
Ivory Coast	C					7								
Sudan (French)	C	17	229	213		200	409	371		150	40	56	178	
	D		25	11		18	31	30		6	7	7	18	
Syria: Beirut	C	25	70	18	4	8	5	10	2	7				6
Taiwan: Taihoku	C			43	31	12	15	10	2					

Place		December, 1929	January, 1930	February, 1930	March, 1930	April, 1930	May, 1930
British East Africa (see also table above):							
Kenya	C	168	12	12	175	174	
Chosen	C		1	4		5	
	D			1		1	
France	C	9	9	23	8		3
Mexico: Durango (see also table above)	D	4	12	6	5	4	4
Morocco	C	84	29	74		10	18
Nigeria	C	293					
	D	70					
Persia	C	P					
Turkey	C	883	215	114		3	16
	D	457	66	42			

TYPHUS FEVER

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

Place		Dec. 15, 1929–Jan. 11, 1930	Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930: 12	April 19	April 26	May, 1930: 3	May 10	May 17	May 24	May 31	June, 1930: 7	June 14	June 21	June 28	July 5, 1930
Algeria:																		
Algiers	C	14	3	4	6	2	3	2	1	1	2	4	8	2		1		
Constantine Department	C	2	4	5	11	4	9	2			4		2	11		1		
Oran	C		2										3					
Arabia: Aden	C				1													
	D				1													
Bolivia: La Paz.[1]																		
Brazil: Porto Alegre	C	1		2						1								
Bulgaria	C	41		13	9	15				1		5		1		9		
	D	2		1		1				1				1				
Sofia	C		1															
Chile:																		
Talcahuano	D		1															
Valparaiso	C		1															
China:																		
Manchuria—Harbin	C			1	4	5		20	27									
Shanghai	C				1													
Tientsin	C	1	1															
Chosen (see table below).																		
Czechoslovakia (see table below).																		

[1] 12 deaths from typhus fever were reported in La Paz, Bolivia, from Jan. 1 to May 31, 1930.

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

TYPHUS FEVER—Continued

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

Place		Dec. 15, 1929–Jan. 11, 1930	Jan. 12–Feb. 8, 1930	Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Week ended— April, 1930 12	April 19	April 26	May, 1930 3	May 10	May 17	May 24	May 31	June, 1930 7	June 14	June 21	June 28	July 5, 1930
Egypt:																		
Alexandria	C							1								1		1
Assuan	C	9																
	D	1																
Beheira Province	C	7	14	18	2			2		9	21	9	10	17	16	7		9
	D			5						4	4	4	1	1	1			1
Cairo	C			1														
Dakahlieh	C	11																
	D	2																
Port Said	C		2	1														
Suez	C		1															
Great Britain: Scotland—Glasgow	C										1							
	D										1							
Greece (see table below).																		
Iraq: Baghdad Liwa	C	1			2													
	D	1																
Ireland:																		
Irish Free State	C	1																
Ballina—Mayo County	C												2		1			
Dingle—Kerry County	C							3	2									
Shillelagh—Wicklow County	C														1			
Swinford—Mayo County	C										7	7						
Northern Ireland—Cookstown	C			3														
Latvia (see table below).																		
Lithuania (see table below).																		
Mexico: Mexico City, including municipalities in Federal District	C	6	12	9	4	2	1		1		2		4					
	D	2	4		1	2	1		1				3					
Morocco	C	6	23	21	38	6	5	3	1	3	6	1	1	1		6		
	D				7	2	1											
Palestine	C			1	6		1				2			2				3
Poland	C	61	296	183	228	59	64	53	67	64	45	34	28			26		
	D	4	21	8	13	4	2	3	6	2	2		1			2		

Portugal:																		
Lisbon	C								4									
Oporto	C			1	2	1												
Rumania	C	82	241	293	185	71	46											
	D	5	25	23	12	1	9											
Spain: Valencia	C														2			
Tunisia	C	2		3						2	2	1	1			2		
Turkey (see table below).																		
Union of South Africa:																		
Cape Province	C	P	P	P	P	P	P			P	P	P						
Natal	C	P	1	3	P	P	P	P		P	P							
Orange Free State	C	P	P	P	P					P	P	P						
Transvaal	C					P	P	P										
Yugoslavia (see table below).																		

Place		December, 1929	January, 1930	February, 1930	March, 1930	April, 1930	May, 1930
Chosen: Seoul	C	1		17		3	
Czechoslovakia	C		10	2	42	29	
France	C	1					
Greece: Athens	C	6	12	6	3	1	
Latvia	C	2	18				
Lithuania	C	5	2	70	62	73	27
	D	1		5	4	4	
Turkey	C	4	2	3	1	3	16
Yugoslavia	C	6	26	33	46	22	16
	D	1	3	5	2	4	1

YELLOW FEVER

	Cases
Brazil:	
Mage, on the Leopoldina Railway, between Rio de Janeiro and Nictheroy, Apr. 22, 1930	2
Campos, Rio de Janeiro Province, May 23, 1930	1
Para, June 23, 1930	2
Brazil—Continued.	
Gold Coast, Dec. 21, 1929	1
Gold Coast, July 10, 1930	1
Liberia, Monrovia, June 3, 1930	1

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