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MOSQUITO CONTROL BY AIRPLANE

MEMORANDUM ON THE DISTRIBUTION OF PARIS GREEN BY AIRPLANE IN THE CONTROL OF ANOPHELES PRODUCTION IN UNCLEARED POND NEAR BAMBERG, S. C., SEPTEMBER 8, 1927

Owing to the tremendous and rapid development of hydroelectric power and the consequent impounding of water in the South, it has been necessary for the various State boards of health and the malariologists of the United States Public Health Service to give serious attention to the possibility of the use of the airplane in controlling *Anopheles* production in these areas.

Experience at Quantico, Va.,[1] had shown that a mixture of Paris green and powdered soapstone, when applied from an airplane flying over dense vegetation, penetrated the vegetation and reached the surface of the water in doses lethal to anopheline larvæ.

The South Carolina State Board of Health was anxious to have a practical demonstration of the effectiveness of this procedure and offered, for experimental purposes, a heavily overgrown pond near Bamberg, in which dense vegetation, both bushes and trees, shaded almost all of the water surface, flotage was heavy, and the production of *Anopheles quadrimaculatus* was large.

At the request of the Public Health Service and the South Carolina State Board of Health, the Navy Department lent an airplane with Marine Corps fliers.

An abandoned field near the pond was cleared by the citizens of Bamberg for use in landing and loading.

The plane, a Ford transport monoplane, was sent from Anacostia to Quantico, where there was installed a plain metal hopper with a sliding valve opening into a venturi tube below the fuselage. The plane was then flown to Bamberg ready for the demonstration.

The day before the flight the undersigned traversed those portions of the pond where brush was most dense, making hundreds of dippings among the flotage, searching for *Anopheles* larvæ. Larvæ averaged five per dip. Eleven out of every thirteen dips secured larvæ.

On September 8, at 11 a. m., 500 pounds of Paris green, with an equal quantity of soapstone, was distributed by the plane over the 500 acres of pond, the plane making two trips with a 500-pound load per trip. The plane flew about 50 feet above the tops of the trees;

[1] Public Health Reports, Feb. 18, 1927. (Reprint No. 1140.)

the breeze was very light, the day being nearly calm and clear and bright. The total time of the flight, including landing and reloading, was 1 hour and 30 minutes.

The plane made successive trips across the pond and up and down the pond, gridironing the area with paths approximately an eighth of a mile apart. There seemed to be a fairly even distribution of the dust over the 500 acres of pond.

Immediately prior to the flight a number of visitors entered the pond with dippers and assured themselves of the heavy mosquito breeding. Two hours after the commencement of the flight these visitors reentered the pond and dipped for larvæ in order to observe the earliest effects. In the small clear areas no live larvæ at all were found and many dead ones were picked up. Where trees and bushes covered the water all full-grown larvæ were dead, but some first-stage larvæ were still alive.

On September 9, 22 hours after the dusting flight, the writers went into the pond where the vegetation was densest and the flotage heaviest. Two boats were used, winding about over approximately 12 acres near the lower end of the pond, with the following results:

In all types of flotage 703 dips were made, and there were found three living *Anopheles* larvæ (two first stage and one early second stage), 84 dead *Anopheles* larvae, and six living pupæ.

J. A. Le Prince,
Senior Sanitary Engineer, United States Public Health Service.
A. E. Legare,
State Sanitary Engineer, South Carolina.
Norman T. McLean,
Captain, Medical Corps, United States Navy.
T. H. D. Griffitts,
Epidemiologist, United States Public Health Service.
L. L. Williams, Jr.,
Surgeon, United States Public Health Service.
S. S. Cook,
Lieutenant Commander, Medical Corps, United States Navy.

VOLUNTARY REPORTING OF CANCER AIDS MASSACHUSETTS CANCER STUDIES

Prompted by the fact that the State of Massachusetts had the highest rate of all the States for cancer in 1925, the State legislature, by resolution, in 1926, directed the State department of public health to investigate the cancer situation, not only with respect to the facilities for the institutional care of advanced cases, but also with reference to the incidence of the disease in the State. Preliminary findings were announced, funds for further investigation have been appropriated, a cancer hospital for patients in all stages of the disease, operated by the State, was formally opened at Norfolk, Mass., on

June 21, 1927, and the cancer program of the State department of public health is well under way.

The cancer hospital at Norfolk is the nucleus of a state-wide group of affiliated cancer clinics which are being organized in established hospitals throughout the State wherever professional and material resources are sufficient to maintain them. It is upon these State cancer clinics that will rest chiefly the measures directed toward early recognition and prompt and effective treatment of the disease in the State. From these clinics accurate information for both the public and the physician will be given out in every community in the State, and this information will be supplemented by the State department of public health through proper channels of publicity.

With regard to the study of the incidence of cancer, little was known regarding the prevalence of cancer morbidity in the community at large, and the need for such information was felt at once. The mortality figures and hospital records for cancer are available, but the number recovering from the disease is unknown. The question then arose as to whether cancer should be made reportable with the communicable diseases, and, for reasons presented below, was decided negatively. The matter was presented to the Newton Medical Club in the fall of 1926, together with an outline of the studies being undertaken by the State department of public health, and it was voted that the physicians should voluntarily report cancer cases to the local board of health. Newton, Mass., thus became the first city in the United States to report cancer.

In a recent communication to the Journal of the American Medical Association,[1] Dr. Francis George Curtis, chairman of the board of health of Newton, and Dr. George H. Bigelow, State commissioner of public health of Massachusetts, had the following to say regarding the development of this part of the cancer investigation and the report form used by the physicians of Newton:

> In outlining the cancer program of the Massachusetts Department of Public Health the need for cancer morbidity statistics was at once apparent. While mortality figures and hospital records for this disease are available and have been freely studied, little is known regarding cancer morbidity in the community at large. Those who die of cancer can be enumerated, but the numbers who recover from this disease are largely estimated. In an effort to determine the extent of the disease in Massachusetts various mathematical compilations were made, but these are all theoretical and may not even approximate the truth. (Cancer in Massachusetts, Boston M. & S. J. 194:388 (March 4) 1926.)
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> To offset this lack of knowledge, it has been suggested that cancer be made a reportable disease. In Massachusetts at least, this would be a distinct innovation, since at present all reportable diseases are communicable. As this list numbers 38, one should think well before making it more formidable. Again, much complaint is heard regarding the inadequacy of present reporting. This would hardly be reduced by further burdening the physicians, particularly

[1] J. A. M. A., Sept. 3, 1927, pp. 809, 810.

with a disease the reports of which would be used primarily for statistical purposes. One factor in the accuracy and adequacy of reporting is the concreteness of the clinical entity—the less defined the more inadequate. This is one reason why our measles morbidity is probably more accurate than our influenza morbidity, for example. Thus, if universal cancer reporting were at all accurate, it would in general be so late as to be little more than a brief anticipation of the death returns; or, if early and unless adequate diagnostic resources were liberally available and liberally used, it would be little more than a recording of early cancer symptoms. Neither of these conditions would advance appreciably our knowledge of the incidence of the disease or of the proportion of cured cases. Thus we have opposed general reporting of cancer for the present.

However, when the physicians of a given community are willing to report voluntarily in an effort to determine the practicability and value of such a procedure it is quite another matter. This has happened in Newton. The whole matter was presented to the Newton Medical Club last fall, and the value of an experimantal morbidity reporting area to the studies of cancer being conducted by the State department of public health was outlined. It was voted to report cancer cases to the local board of health, and the president of the club was authorized to appoint a committee to direct this work, of which the chairman of the board was made chairman. Another committee was appointed to organize a cancer clinic in the Newton Hospital in order that diagnostic and treatment facilities might be more generally available. This has been done. The accompanying report form was adopted:

CANCER MORBIDITY REPORT FORM

Name ..... Sex ..... Age .....
Address .....
Civil condition .....
Type of disease .....
Location of disease .....
Date of first symptom .....
Character of first symptom: Pain, lump, abnormal discharge .....
Date of first consulting physician .....
Has any member of patient's family had cancer .....
Relationship .....
Has patient ever been in close association with a cancer patient .....
Injury at site of cancer .....
Operation for cancer—what .....
Operation other than for cancer—what .....
Does patient use alcohol .....
Does patient smoke (pipe, cigar, cigarette)—chew .....
Does patient have periodic craving for unusual articles of food .....
What .....
Does patient eat little or much salt .....
What foods does the patient never eat .....
Is patient constipated .....
Has patient suffered from chronic disease ..... What ..... How long .....
Interval between first symptoms and treatment ..... X ray ..... Radium .....
Housing ..... Economic status .....
Number of physicians consulted ..... Number of irregular practitioners consulted .....
Possible precancerous condition at site of disease (mole, wart leukoplakia, ulcer, uterine tear, chronic irritation from teeth, from corsets, other known chronic irritation .....

.....
(Physician's signature)

.....
(Address)

.....
(Telephone number)

In the first seven months of morbidity reporting, 30 cancer cases in residents and 12 cases in nonresidents were reported to the local board of health. During this period there were 29 deaths from cancer among residents, of whom only 5 had been reported, a ratio of 1 to 6. If the same ratio applies to the cancer cases as to the cancer deaths, there were in Newton during this period about 175 cases. This figure is fairly close to the one obtained when an attempt was made to estimate the number of living patients from the cancer mortality records.

It is realized that the response of the Newton physicians has not been as complete as might be desired, but the present indications point to an improvement in this respect. As Newton is the first city in the United States to report its cancer cases, this statement seems advisable, as it indicates a method which might be used in other selected communities to add materially to our knowledge of this pressing problem. Also appreciation should be expressed of the fact that busy practitioners of a community are willing to take on this added obligation.

THE RATIO OF THE SEXES

Based on the accumulated records for the eight years 1917–1924, published by the Bureau of the Census in its Birth, Stillbirth, and Infant Mortality Statistics, the ratio of male to female births in the United States birth registration area is 1.06, or 106 boys born for each 100 girls. The ratio is shown to vary according to the age of the mother, being 1.23 for very young mothers—that is, those under 15 years of age—and 1.055 for mothers 35 to 54 years of age. There are also certain differences in the sex ratio between legitimate and illegitimate children. The ratio in the United States birth registration area for the eight-year period, according to the age of the mother, is as follows:

Age of mother:	Sex ratio (Male to female)	Standard error
Under 15 years	1. 229	±0. 0200
15 to 34 years	1. 060	± . 0005
35 to 54 years	1. 055	± . 0010
All ages	1. 059	± . 0004

Commenting on the change in the sex ratio as found among the adult population, the Statistical Bulletin of the Metropolitan Life Insurance Co. for July, 1927, states:

The ratio of the sexes in the actual population may be expected to differ from the ratio at birth. This is because of the operation of two forces, the first being differential mortality of the two sexes, and, second, differential immigration. The death rate is always heavier among males, and this has the effect of bringing down the initial excess of males perceptibly. Immigration, on the other hand, brings in a considerable excess of males over females, and the effect of this factor is to help to restore the initial disparity between the sexes. In the United States the ratio of males to females in the actual white population is 1.040, as contrasted with 1.060 at birth. In a stationary American population—that is, one in which immigration would be eliminated and in which the birth rate and death rate were balanced—the ratio of males to females would be 1.013. In other words, the effect of the higher male mortality would be very nearly to strike a balance between the two sexes.

The following table is given, comparing the sex ratio in the white population of the United States, 1.040, with the ratios for other countries: [1]

Sex ratio of population in several countries

Country	Males per 100 females	Country	Males per 100 females
Great Britain	93.5	Belgium	98.4
Norway	94.0	Italy	99.0
Denmark	94.5	Poland	100.5
Sweden	95.3	Greenland	101.5
Spain	95.3	Japan	102.0
Austria	96.6	India	104.1
Germany	96.9	Bulgaria	104.5
European Russia	97.2	Serbia	106.0
Switzerland	97.2	Siberia	106.0
Hungary	97.7	Caucasus	111.0
France	97.9	Korea	113.0
Holland	98.2	Asiatic Russia	117.5
Ireland	98.3	China	125.0

The Statistical Bulletin comments:

In the European countries the sex ratios are almost all below a hundred, which means that there is an excess of females over males. These figures are largely the result of the heavy migration of males and, secondarily, the higher mortality among males. In the Asiatic and in some of the less advanced European countries, the ratios are very heavily in favor of males. In China, for example, the figure is 125 males for 100 females. Undoubtedly this is an exaggerated picture, because there is a tendency among eastern nations to regard the female lightly and this probably results in many escaping enumeration. But even making allowance for this, it is significant how, in these countries, the proportion of surviving males as compared with females rises materially above 100 per cent. In spite of woman's naturally greater resistance to ordinary life hazards, the survival of women is less than that of men, just the reverse of what we observe in our own country and the advanced portions of Europe.

CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED AUGUST 15, 1927, BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT [2]

Cholera.—A serious extension of cholera in western India and across the Persian Gulf in the spring and early summer months of 1927 is reported in the Monthly Epidemiological Report of the health section of the League of Nations' Secretariat for August. The disease had been confined to the drainage basins of the Bay of Bengal and the South and East China Seas during the last two years. The sudden outbreak during March in the districts of Belgaum, Dharvar, and Bijapur in Bombay Presidency, where only sporadic cases occurred in 1925 and 1926, resulted in 10,000 deaths during the 13 weeks between March 20 and June 18, which is more than the annual number reported in the whole Presidency since 1919.

The spread of the disease into the Persian Gulf area is described in the report as follows:

[1] The figures are taken from an article by A. S. Parkes, in the Eugenics Review, vol. 17, p. 235.
[2] From the Office of Statistical Investigations.

The west coast of India is connected with the Persian Gulf by numerous small native craft over which a close sanitary control is most difficult. A cholera epidemic in any part of this area is therefore a menace to the surrounding countries. Cholera appeared in the ports of Iraq shortly after the middle of July. Five fatal cases were reported at Basra during the week ended July 23, and 29 cases and 18 deaths during the following week. The disease broke out at the same time at Mohammerah, a Persian port about 20 miles below Basra on the Shat-el-Arab, where 52 cases and 37 deaths were reported during the week ended July 30. At Abadan, still farther down the river, which is an important port for oil exportation, cholera broke out in severe form and 159 cases were reported up to July 31, of which 122 cases, with 103 deaths, occurred during the week ended July 30. The explosive manner in which the outbreak has begun and the high case mortality rate show the gravity of the situation. The area around Shat-el-Arab had been free from cholera since 1923, when there were over 1,100 deaths in Iraq, most of which occurred at Basra, about 1,000 occurring at Abadan.

The total number of deaths from cholera in India the first half of June approximated the 1924 figures, when cholera was last epidemic, but were far below the 1921 level. The incidence of the disease in the current year, however, probably had not reached its maximum at the time of the latest reports. The situation in the endemic centers of Bengal and the Madras Presidency was relatively favorable, and the incidence was lower than a year ago in Assam and Burma. In Bihar and Orissa and in the United Provinces cholera spread rapidly during May and June and was beginning to increase in the Punjab. The deaths in each of the Provinces from March 20 to June 11 are shown in Table 1, by four-week periods, together with corresponding totals for 1926.

TABLE 1.—*Cholera deaths reported in the Provinces of India from March 20 to June 11, 1926 and 1927*

Province	1926			1927		
	Mar. 20–Apr. 17	Apr. 18–May 15	May 16–June 12	Mar. 20–Apr. 16	Apr. 16–May 14	May 15–June 11
Punjab and Delhi	2	0	2	4	201	580
United Provinces	260	354	459	130	1,885	5,329
Bihar and Orissa	2,269	2,691	1,762	1,416	3,697	7,457
Bengal	5,151	2,533	714	2,096	2,740	1,302
Assam	290	644	888	361	261	334
Central Provinces	112	137	205	383	301	1,517
Madras Presidency	1,003	421	351	1,130	1,367	1,598
Bombay Presidency	1	1	8	4,713	3,821	2,217
States in Bombay Presidency	0	0	0	303	535	435
Burma	533	722	511	228	246	203
Other Indian States	1	44	36	35	85	422
Total	9,622	7,547	4,926	10,799	15,139	21,394

Cholera has been prevalent in parts of French Indo-China, though not epidemic to the extent that it was last year except in Tonkin. The maximum incidence seems to have been reached in June, as the cases reported for the first 10 days of July showed a marked decline.

TABLE 2.—*Cases of cholera reported in French Indo-China, March 21 to July 10, 1927*

Province	Mar. 21-31	April—			May—			June—			July 1-10
		1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	
Annam	0	0	6	19	94	293	148	256	337	289	31
Cambodia	50	53	15	12	18	22	25	21	21	2	36
Cochin-China	16	36	51	170	141	178	140	198	135	180	125
Tonkin	50	157	320	879	884	1,120	900	1,271	1,074	917	567

There has been no cholera this year to date of report in Japan nor in the Japanese dependencies.[1] There were a few cases of cholera reported at Canton during June and July.

Plague.—The incidence of plague has been unusually low thus far in the current year in nearly all its endemic centers. The only Asiatic ports reporting any cases during July were Bombay, Rangoon, and Bassein. In all of India only 600 cases were reported during the three weeks ended June 18 as compared with 7,594 in the corresponding period of the preceding year.

There were two cases of plague at Beirut, Syria, in July, and three cases at Patras, Greece, in June. In Tunis, where 126 cases of plague occurred in May, the outbreak seemed to have terminated, as only 12 cases were reported between June 1 and 20, and only 1 case in the first 10 days of July.

In the Cossack Republic (Union of Socialist Soviet Russia), where 16 cases of plague were reported in the two weeks ended June 4, there was only one additional case during the next four weeks.

Yellow fever.—In Senegal one case was reported on July 12, at Thies, and one each at Bambey and Khombole on July 27. There was one case at Porto Novo in Dahomey on July 1, but no further case up to July 21. At Monrovia, in Liberia, there were two cases of yellow fever during June.

Smallpox.—Reference is made to outbreaks of virulent smallpox during the first half of 1927 in Algeria, Nigeria, and the Hedjaz with the following comment:

> Smallpox of a virulent type was still widespread in June and July in Algeria; 1,404 cases were reported during the first half of 1927.
>
> A severe outbreak of smallpox in Northern Nigeria appears to have reached its maximum in April; 2,502 cases and 584 deaths were reported during the first five months of the year. The proportion of deaths is higher than during the last epidemic in 1925.
>
> Smallpox was prevalent in April and May in the Hedjaz, and cases continued to occur in June and July, although the incidence was much lower; 419 cases and 213 deaths were reported in the four chief towns, Jeddah, Mecca, Medina, and Taif, between March 19 and May 6. There was one smallpox case among Egyptian pilgrims returning through El Tor during the week ended July 20.

[1] 1 case and 1 death in Yokohama during the week ended Aug. 6, 1927—Ed.

Enteric fever.—Enteric fever was less prevalent than usual in June in the Scandinavian countries, in Finland, and in the Netherlands. In Germany a seasonal increase during June was evident, but the incidence remained lower than in previous years. In Poland an increase in the disease occurred in May but did not continue into June. In England and Wales, however, the incidence in June and the first half of July was higher than at the corresponding season of the preceding five years, except for 1924. The June incidence was above the normal also in France and Italy.

Enteric fever is reported to be less prevalent in Japan than in preceding years; "10,101 cases of typhoid and 1,032 cases of paratyphoid were reported between January 1 and June 25, as against 17,701 and 1,244 cases, respectively, during the corresponding period of 1926."

Dysentery.—"No unusual prevalence of dysentery in any European country was indicated by the reports received up to the end of July," states the report.

Acute poliomyelitis.—The seasonal rise in poliomyelitis comes in late summer, but in Germany, at the beginning of July, the incidence was higher than at the corresponding season in 1926. There were 87 cases reported in Germany during the four weeks ended July 16 as compared with 57 cases in the corresponding four weeks of 1926. The disease has been more prevalent than in 1926 also in the United States.

There were no serious outbreaks of poliomyelitis in countries of the Southern Hemisphere during the past autumn.

Scarlet fever.—"The seasonal movement of scarlet fever in the western half of Europe has, on the whole, become less pronounced and regular in recent years," states the report. "In England and Wales, the incidence increased by about 25 per cent in June and July as compared with March and April. In the Irish Free State more than twice as many cases were reported in June as in March. There was also a slight increase in May and June in Italy, France, and the Netherlands. In Germany the incidence remained practically at the same level from April to the end of June, but was about twice as high as in 1925 and 1926 and three times as high as in 1923 and 1924 for the corresponding period. There was a small outbreak in June in Greece, causing 30 deaths."

Vincent's angina.—Through the Australian Health Service the health section of the League was informed "that an epidemic of Vincent's angina followed by severe broncho-pneumonia was reported in June from Rabaul in the New Britain Mandated Territory (north of New Guinea). There were many deaths in distant isolated areas."

Epidemic diseases in China.—Information on epidemic diseases in China received from the National Epidemic Prevention Bureau indi-

cated that in February plague was prevalent in Fukien Province and absent from the other Provinces (no report from Kwangsi and Shensi); cholera was reported sporadic in Kwantung and Shantung Provinces; and smallpox was reported epidemic in Hanan and Szechuan Provinces and prevalent or sporadic in all others reporting except Kiangsi and Yunnan.

COURT DECISIONS RELATING TO PUBLIC HEALTH

Law for eradication of bovine tuberculosis upheld.—(Iowa Supreme Court; Lausen *v.* Board of Supervisors of Harrison County et al., 214 N. W. 682; decided July 1, 1927.) The plaintiff, a resident of Harrison County and the owner of farm land in the county and also the owner of certain breeding cattle, brought an action to restrain the defendant county board of supervisors from putting into operation the provisions of the law relating to the county-area plan for the eradication of bovine tuberculosis. He contended that certain sections of the law were violative, for various reasons, of provisions of the State and Federal constitutions. The trial court dismissed the plaintiff's petition and this action was affirmed by the supreme court, which stated that it was unable to see where any constitutional provision had been impinged or violated by the sections attacked.

Creation of water district and assessments against property therein upheld.—(Kentucky Court of Appeals; Ryan *v.* Commissioners of Water District No. 1 of Kenton County et al., 295 S. W. 1023; decided June 24, 1927.) In an equitable action to test the validity of the organization of a water district under the provisions of chapter 139, acts of 1926, the plaintiff contended that notice by publication, as provided in the act, of the filing of the petition for the creation of the water district, of the time of hearing on the assessment roll, and of the time of hearing upon the final report before the county court, was not due process of law. The court of appeals first decided that the legislature had power to authorize the creation of such districts, and then held that notice by publication, as provided for by the law, was due process of law. The court also held that, the necessary notices having been published and the plaintiff having taken no step manifesting objection to any of the proceedings in the county court, he had waived his right to call in question the validity of the assessments. The authority to issue bonds, given by the act to the commissioners of the district, was also upheld by the court.

PUBLIC HEALTH ENGINEERING ABSTRACTS

Sewage Disposal in 1927. J. D. Watson. *Surveyor*, vol. 72, No. 1849, July 1, 1927, pp. 5–7. (Abstract by R. E. Thompson.)

A general discussion of sewage disposal, with special reference to English practice. Land irrigation is probably the soundest method of purification where soil and subsoil conditions are suitable and the volume of sewage to be treated is well within the purifying capacity of the area available—1 acre per 100 contributing population. Contact beds are not considered either a sound or economical method of freeing sewage from its tendency to putrefy. Percolating filters are popular, and deservedly so. The initial cost is higher than for an activated sludge plant, but maintenance and operating costs are lower. Compared with an activated sludge plant, a percolating filter installation may be called "foolproof," and its bacterial population is wonderfully adaptable to varying conditions, including change of temperature and character of sewage to be treated. The activated sludge process is not as popular as it was, probably as a result of "the untoward zeal of some of its advocates and their belated consciousness of its limitations." It has been proved to be scientifically sound and its suitability for certain kinds of work is unchallenged, but it is not suitable for the treatment of all kinds of sewage, nor is it economically adaptable to all situations. Its successful application requires more knowledge and skillful management and it is not, generally speaking, as reliable under all circumstances as the older and better-tried methods. Lagooning is the most popular method of sludge disposal. The Imhoff tank has not found favor in England.

The Wet Kata-Thermometer as an Index of the Suitability of Atmospheric Conditions for Heavy Work. H. M. Vernon. *Journal Industrial Hygiene*, vol. 9, No. 7, July, 1927, pp. 287–296. (Abstract by Leonard Greenburg.)

This paper is based largely on studies made by the author and two other investigators, T. Bedford and C. G. Warner, on the working capacity of coal-miners in relation to the wet kata cooling power. Observations were made of the duration of rest pauses and the time required to fill mine tubs. It was found that with a decrease in the mean wet kata cooling power from 18.6 to 6.4, the working time fell from 52.7 minutes per hour to 37.6 minutes per hour, with a corresponding tub-filling time increasing from 8.0 to 9.6 minutes and a consequent rate of production decreasing from 100 to 59. The effective temperature was found to increase from 65.8 to 81.2 under these conditions.

Comparing the rate of production with the wet kata-thermometer observations it appears that the fall in production was 41 per cent, with a decrease in cooling power of 12.2 units, whereas when the effective temperature is reclassified and compared with the rate of production one observes a fall of only 10 to 15 per cent with a change of 19.2° in effective temperature. By further analysis of the studies at high and low velocity air currents the author arrives at the conclusion that the effective temperature considerably underestimates the importance of air velocity, whereas the wet kata cooling power underestimates it to a somewhat lesser extent.

The author presents a table taken from one of Yagloglou's publications which shows the relation between effective temperature and rectal temperature. In this table the data relate to four groups of effective temperatures and in each group this effective temperature has been obtained by the use of various dry bulb temperatures in combination with relative humidities from 5 to 100 per cent. The proportional rise in rectal temperature at various relative humidity percentages is shown. From these data it appears that when the relative humidity is low and the effective temperature varies from 95° to 106.4°, the rectal temperature does not apparently increase as much as it does when the same effective temperature is obtained by the use of higher wet-bulb temperatures. It would appear from this, according to the author, that the effective temperature scale does not give proper significance to the factor of the wet-bulb temperature.

Ventilation Standards. W. J. McConnell. *American Journal of Public Health*, vol. 17, No. 3, March, 1927, pp. 251–253. (Abstract by Leonard Greenburg.)

The object of this paper is to emphasize the need for determining adequate standards by which to evaluate atmospheric conditions as they affect the human body. The author points out the necessity for the consideration of the three essential factors—dry-bulb temperature, wet-bulb temperature, and air motion. The experiments conducted by the United States Bureau of Mines, the United States Public Health Service, and the American Society of Heating and Ventilating Engineers, in a cooperative study at Pittsburgh, are cited as taking into consideration all of these three factors. No single instrument exists which records these three factors, but the resulting influence may be obtained from a scale known as the effective temperature scale.

For school children, the New York State Commission on Ventilation found 66°–68° F., with moderate relative humidity and moderate air movement, to be optimum, while for men at work the figures given by the National Research Council are about 71°–72°, relative humidity 40–50 per cent, and for women the optimum is probably 7°–8° higher. Finally, it may be pointed out that optimum conditions for different persons may, in general, be between 63° and 71° effective temperature, and for most persons normally clothed and at rest in mild weather is 66° effective temperature. The author raises the question as to whether a single optimum condition should be maintained, as contrasted with a varying condition in order to escape monotony. He finally closes by pointing out the nature of the experiments remaining to be performed in order to elucidate these questions.

Temperature, Humidity, and Air Movement in Industries: The Effective Temperature Index. C. P. Yagloglou. *Journal of Industrial Hygiene*, vol. 9, No. 7, July, 1927, pp. 297–309. (Abstract by Leonard Greenburg.)

This contribution presents a review of much of the work which has been done on the effective temperature index both at the laboratory of the Bureau of Mines and at the Harvard School of Public Health. All of the data have been taken from previous publications and show the relationship between dry-bulb temperature, wet-bulb temperature, and air motion, and the resulting effective temperature produced by the combination of these three conditions. It is pointed out that the comfort zone based on effective temperature takes account of diurnal and seasonal acclimatization. For normally clothed subjects it is held that the lower region of the comfort zone is 62.3° and probably the highest region is 80°.

Considerable space is devoted to a discussion of physiologic reactions and their relation to effective temperature. In all probability the rectal temperature and pulse rate yield the best correlations with effective temperature. Data are presented which seem to indicate that there exists a satisfactory relation between effective temperature and physiologic responses, both at rest and at hard work.

The decrease of work output under various conditions of effective temperature is strikingly shown, as is also the effect of air motion on output. A dry-bulb temperature of 90° to 100° and air movement of 350 feet a minute increases the output approximately 70 per cent when the work is based on equal increases in pulse rate and, roughly, 30 per cent when based on equal rise in rectal temperature.

The Respective Per Capita Space Requirements for Window and Mechanical Ventilation. C.-E. A. Winslow. *Journal of the American Society of Heating and Ventilating Engineers*, vol. 33, No. 5, May, 1927, p. 326. (Abstract by Leonard Greenburg.)

This brief note is a written discussion of a paper originally appearing in the March, 1927, issue of the *Journal of the American Society of Heating and Ventilating Engineers*. In this discussion Professor Winslow points out that the authors of several papers have recently assumed that mechanical ventilation may be conducted efficiently with a per capita space of 200 cubic feet per pupil or less,

while they continue to assume that window ventilation requires 300 cubic feet or more. It is pointed out that the basis for this discrimination is a sentence in the report of the New York State Commission on Ventilation which says that in the window gravity ventilation studies 250 cubic feet per second-grade child and 310 cubic feet per sixth-grade child was used. This is a true statement, but it is to be remembered that for all practical purposes the fan-ventilated rooms had space allowances of approximately the same value. It is further pointed out that in certain cases the fan-ventilated schools had larger space allowances (chs. 19 and 23). The author concludes that there is not the slightest basis in the work of the New York State Commission on Ventilation for the assumption that window-ventilated rooms must be designed with more cubic space per pupil than fan-ventilated rooms.

Experimental Bacterial and Chemical Pollution of Wells via Ground Water, and the Factors Involved. C. W. Stiles, H. R. Crohurst, and Gordon E. Thomson. Hygienic Laboratory Bulletin No. 147, U. S. Public Health Service. 168 pages. (Abstract by H. R. Crohurst.)

In this publication there are assembled the results of nearly three years of experimental study of the artificial contamination of ground water, bacterially by sewage organisms and chemically with the dye (uranin), in the vicinity of Fort Caswell, N. C. The data presented include the geology and hydrology of the experimental area, the types of experimental wells and pits used, meteorological observations, ground-water elevations, detailed results of the spread of pollution by the aid of tables and diagrams, and the technique employed in conducting the investigation.

Briefly summarized, the results of the study are as follows: (1) The soil and ground water at the experimental plot were free from *B. coli* contamination prior to the artificial dosing of pits and ground water; (2) *B. coli* was recovered from the ground water in 1,213 samples taken under the most rigid technique at distances varying from 1 to 232 feet away from experimental trenches into which uranin and excreta pollution were placed; chemical pollution (uranin) was recovered from experimental wells up to 450 feet from the same trenches; (3) both uranin and *B. coli* traveled in only one direction, namely, in the direction of ground-water flow, and did not appear to expand laterally (in a fan shape) with the trench as the apex of a section of a truncated cone, but, on the contrary, it appeared to contract to narrower breadths, with the trench representing the base of a truncated section of a cone; (4) *B. coli* tends to localize in the upper blanket at or near the ground-water table, and water samples in a given well from this blanket may show heavy *B. coli* pollution, while water a few inches lower may be free from *B. coli;* (5) when the ground water falls, *B. coli* tends to filter out into the capillary fringe or (in case of still further fall) into the soil, and if the soil remains dry sufficiently long, *B. coli* dies. Wet weather (with high ground water) is, therefore, conducive to the extension of pollution; dry weather (resulting in the lowering of the ground water) is inhibitive to the extension of pollution and conducive to purification of the ground water; (6) chemical pollution (uranin) appeared to float out in a blanket at or parallel with and close to the ground-water table and tends to filter out (upon fall of the ground water) into the capillary fringe and soil, but does not seem always to rise with higher ground water; (7) experimental *B. coli* infection of the ground water remained alive for two years and eight months at the date of last examination (June 18, 1925), and uranin remained visible in the ground water for two years and seven months when last examined (June 5, 1925); (8) the changes of the ground-water elevations appear to be very complex and of at least four kinds: (*a*) Upward trend of the ground-water table more or less generally attributed to hydraulic pressure from some point upstream; (*b*) the superposition of new ground water by transit from surface water downward to an old ground-water table; (*c*) a new ground-water table due to a flow of new water from upstream over a former ground-water table;

and (*d*) a wave flow from upstream over a former ground-water table. These movements seem to play an important rôle in the progression of the pollution, carrying the bacteria along to more distant points.

Prevention of Phenol Taste with Ammonia. J. W. McAmis. *Journal American Water Works Association*, vol. 17, No. 3, March, 1927, pp. 341–350. (Abstract by M. S. Foreman.)

The water supply of Greenville, Tenn., is obtained from a limestone spring which issues from under a limestone ledge near the center of the city. It seems quite evident that most of the water flows underground for a considerable distance, and in so doing is subjected to almost every kind of contamination. In 1912, when chlorination was resorted to, obnoxious tastes and odors appeared. The objectionable taste was similar to the iodoform taste that is noted in Ohio River waters. Consumers objected so strenuously to the taste that a close study was made. Blue-green algæ was eliminated as a factor in taste production. Covers were built for both springs and standpipes, and copper sulphate was added; still the taste persisted. Tests for phenol gave very doubtful reactions and, consequently, were discontinued. Since the taste practically disappeared in the spring and winter, it was thought that high temperatures emphasized the taste. Due to the system of operation of the plant this could not be confirmed. Double chlorination entirely eliminated the taste in laboratory samples, but it failed when applied on plant scale. Prechlorination likewise failed to eliminate the odor.

Sir Alexander Houston, director of the Metropolitan Water Board, described the successful work of Adams, in which ammonia was used. This treatment was begun in Greenville in 1926 and has been highly satisfactory from the start. The ammonia is applied by first preparing a known strength in a solution tank and adding it just ahead of the coagulating chemicals. Houston states that in the laboratory a dose of 0.2 p. p. m. of ammonia as nitrogen appears to be sufficient in all cases. The ammonia treatment, besides being very successful in eliminating phenolic tastes, is very inexpensive. The cost, at prices now quoted on ammonia, would be $0.60 per million gallons of water treated.

Simple Method for Estimating the Available Chlorine in Bleaching Powder. B. B. Brahmachari. *The Indian Medical Gazette*, vol. 62, No. 5, May, 1927, pp. 251–252. (Abstract by E. J. Theriault.)

A field method for the estimation of available chlorine in hypochlorites is described. An emulsion of the bleaching powder is prepared such that 1 c. c. = 1 mg. of bleaching powder. Varying amounts of this emulsion (0.3 c. c., 0.4 c. c., etc.) are then added to a series of tubes containing some water and a constant amount (1 c. c.) of arsenious oxide reagent (1 c. c. = 1.39 mg. As_2O_3 = 1 mg. Cl_2).

"Excess of available chlorine over that used up in the reactions for oxidation of the arsenious acid will be shown by the formation of blue iodide of starch. The result may be interpreted from the following table:

Least quantity of bleaching powder emulsion giving a blue color	Available chlorine in the sample	
	Less than—	More than—
C. c.	*Per cent*	*Per cent*
3	----------	33
4	33	25
5	25	20
6	20	16½
8	16½	12½
10	12	10

"If not blue even with 10 c. c. of the emulsion, the powder has less than 10 per cent of available chlorine. If the available chlorine is 25 per cent or over, the bleaching powder is of satisfactory quality."

Practical Swimming Pool Sanitation Control. W. H. Cary, jr. *The Nation's Health*, vol. 9, No. 5, May 15, 1927, pp. 16–20. (Abstract by L. M. Fisher.)

Detroit's 37 pools represent all types, from old fill and draw to modernly equipped pools with recirculating pumps, hair strainers, sand filters, and sterilization. Only two are outdoor pools.

Inspections are made every second and third day and water samples taken. Bacterial standards are: (1) A median monthly total count of not over 2,000 per c. c.; (2) not over 50 per cent of samples in any month shall show presence of *B. coli;* (3) not over 20 per cent of samples in a given month shall show a colon count of over 10 per 100 c. c.

The publication of the standing of the pools has been an incentive to meet the requirements.

It does not require modern equipment to stand well upon the list as to sanitation. The personnel has much to do with results obtained. Good cooperation is obtained from those in charge of the swimming pools.

A Search for Pathogenic Bacteria in Swimming Pools. William Royal Stokes. *American Journal of Public Health*, vol. 17, No. 4, April, 1927, p. 334. (Abstract by Chester Cohen.)

The possibility of a swimming pool acting as a medium for the transmission of such diseases as typhoid fever, gonorrhea, syphilis, ringworm, dysentery, colds, conjunctivitis, and boils, is mentioned. It is the opinion of a number of physicians that the swimming pool may also serve to transmit various eye, ear, nose, throat, and skin infections, in addition to such diseases as influenza, tuberculosis, lobar pneumonia, and rheumatism. The two principal factors considered in the transmission of diseases are the polluted water and certain articles of pool equipment (suits, towels, etc.), and the lessening of resistance through prolonged chilling of the body, diving, and other enervating influences.

Few investigators have been able to isolate pollutional forms from swimming pool water. The author has recorded the results of his laboratory examinations of samples of water from 14 swimming pools—an attempt to culture, on blood agar plates and eosinate of methylene blue agar plates, pathogenic bacteria in the pool water. These tests cover a period of months and include both indoor and outdoor swimming pools. Although 500 colonies were studied in pure culture, the only pathogenic organisms obtained were *Staphylococcus albus.* Although the investigation does not strengthen the theory of the transmission of infectious diseases by means of pathogenic bacteria in the swimming pool, not enough tests have been made to render such a theory untenable.

Swimming Bath Conjunctivitis. Charles A. Bahn. *New Orleans Medical and Surgical Journal*, vol. 79, No. 8, February, 1927, pp. 586–590. (Abstract by C. T. Butterfield.)

The history of 36 cases of conjunctivitis treated by the author and his associate is reviewed. The author believes that these infections were contracted in swimming pools and that the infectious material is probably either human epithelium or urine with the attendant bacteria. The bacteriological studies made were uniformly negative. Two methods of treatment of the disease, with the results, are discussed. An outline of the suggestions for the sanitary control of pools is given as follows: (1) Require thorough preliminary scrub and shower; (2) instruct against overcrowding and urinating while bathing; (3) provide a minimum of 15 gallons of water per bather; (4) use chlorine at rate of 1 mg. per liter; (5) scrub tanks once or twice daily.

DEATHS DURING WEEK ENDED SEPTEMBER 10, 1927

Summary of information received by telegraph from industrial insurance companies for week ended September 10, 1927, and corresponding week of 1926. (From the Weekly Health Index, September 14, 1927, issued by the Bureau of the Census, Department of Commerce)

	Week ended Sept. 10, 1927	Corresponding week 1926
Policies in force	66, 236, 685	65, 263, 862
Number of death claims	9, 287	10, 135
Death claims per 1,000 policies in force, annual rate	7. 3	8. 1

Deaths from all causes in certain large cities of the United States during the week ended September 10, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926. (From the Weekly Health Index, September 14, 1927, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Sept. 10, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended Sept. 10, 1927 [2]
	Total deaths	Death rate [1]		Week ended Sept. 10, 1927	Corresponding week 1926	
Total (66 cities)	6, 389	11. 3	[3] 10. 2	725	[3] 764	[4] 58
Akron	34			1	11	11
Albany [5]	41	17. 8	15. 3	4	2	83
Atlanta	67			8	13	
White	33			5	8	
Colored	34	([6])		3	5	
Baltimore [5]	188	12. 0	12. 2	16	24	49
White	142		10. 8	12	17	46
Colored	46	([6])	20. 2	4	7	62
Birmingham	71	17. 2	14. 6	6	4	
White	30		11. 4	2	3	
Colored	41	([6])	19. 5	4	1	
Boston	208	13. 7	10. 8	31	30	87
Bridgeport	26			1	2	19
Buffalo	131	12. 4	11. 9	15	24	63
Cambridge	22	9. 3	5. 6	6	1	107
Camden	25	9. 8	11. 9	3	7	52
Canton	21	9 7	7. 6	1	6	24
Chicago [5]	702	11. 8	8. 7	79	85	68
Cincinnati	154	19. 5	14. 8	26	29	162
Cleveland	173	9. 2	7. 8	19	23	50
Columbus	59	10. 6	11. 5	4	9	37
Dallas	48	12. 0	11. 0	8	7	
White	34		9. 2	7	4	
Colored	14	([6])	23. 2	1	3	
Dayton	44	12. 7	13. 6	7	6	115
Denver	91	16. 4	12. 8	13	6	
Des Moines	27	9. 4	7. 9	1	4	17
Detroit	260	10. 2	10. 6	46	43	73
Duluth	17	7. 7	6. 0	1	3	22
El Paso	30	13. 7	12. 9	12	5	
Erie	32			2	2	39
Fall River [5]	24	9. 4	13. 9	3	2	53
Flint	25	9. 1	6. 9	4	5	65
Fort Worth	31	9. 9	10. 5	6	5	
White	21		8. 9	3	3	
Colored	10	([6])	22. 0	3	2	
Grand Rapids	32	10. 5	8. 7	5	4	73
Houston	41			7	7	
White	26			6	6	
Colored	15	([6])		1	1	
Indianapolis	86	12. 0	8. 0	7	6	55
White	73		7. 3	5	4	45
Colored	13	([6])	13. 0	2	2	122
Jersey City	50	8. 1	7. 4	6	9	45
Kansas City, Kans	26	11. 6	10. 3	2	2	39
White	20		6. 5	0	2	0
Colored	6	([6])	28. 0	2	0	304

[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 65 cities.
[4] Data for 61 cities.
[5] Deaths for week ended Friday, Sept. 9, 1927.
[6] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended September 10, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926—Continued

City	Week ended Sept. 10, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended Sept. 10, 1927
	Total deaths	Death rate		Week ended Sept. 10, 1927	Corresponding week 1926	
Kansas City, Mo.	77	10.5	9.0	6	8	
Knoxville	29	14.8		3		
White	20			2		
Colored	9	(6)		1		
Los Angeles	175			9	11	23
Louisville	83	13.5	12.7	5	6	43
White	64		10.5	5	4	49
Colored	19	(6)	25.5	0	2	0
Lowell	26	12.3	9.9	3	5	58
Lynn	18	8.9	9.5	1	1	26
Memphis	60	17.5	18.3	3	6	
White	30		14.6	2	3	
Colored	30	(6)	24.8	1	3	
Milwaukee	135	13.3	10.4	13	15	61
Minneapolis	75	8.8	7.1	9	3	51
Nashville [5]	53	20.0	17.5	7	9	
White	33		18.1	6	9	
Colored	20	(6)	16.0	1	0	
New Bedford	23	10.0	9.6	3	2	52
New Haven	23	6.5	7.2	2	1	28
New Orleans	139	17.1	15.9	15	15	
White	80		11.9	7	7	
Colored	59	(6)	27.3	8	8	
New York	1,174	10.3	10.1	129	146	53
Bronx Borough	144	8.1	8.5	15	11	48
Brooklyn Borough	421	9.7	9.1	45	71	47
Manhattan Borough	465	13.4	13.4	60	56	70
Queens Borough	107	6.9	5.5	7	7	30
Richmond Borough	37	13.1	15.7	2	1	37
Newark, N. J.	102	11.4	7.7	10	7	50
Oakland	41	8.0	8.2	8	5	94
Oklahoma City	39			3	6	
Omaha	56	13.3	11.1	6	3	67
Paterson	30	10.9	9.1	3	1	53
Philadelphia	392	10.0	10.3	43	48	57
Pittsburgh	125	10.1	9.5	22	20	77
Portland, Oreg.	54			3	5	32
Providence	43	8.0	8.7	3	5	25
Richmond	54	14.7	12.4	9	8	119
White	26		9.3	2	2	40
Colored	28	(6)	19.9	7	6	266
Rochester	65	10.5	9.4	8	8	67
St. Louis	178	11.1	10.4	15	16	
St. Paul	47	9.8	9.9	4	3	36
Salt Lake City [5]	26	10.0	12.9	3	6	46
San Antonio	36	8.9	14.2	2	11	
San Diego	31	14.1	13.3	1	0	21
San Francisco	140	12.7	11.3	2	5	12
Schenectady	16	9.0	8.4	3	3	90
Seattle	64			2	5	21
Somerville	26	13.3	6.3	6	2	217
Spokane	42	20.1	13.4	1	2	25
Springfield, Mass.	35	12.4	9.7	5	4	77
Syracuse	41	10.9	8.7	1	6	13
Toledo	73	12.5	12.7	9	8	87
Trenton	36	13.7	10.1	10	2	174
Washington, D. C.	114	11.0	9.7	13	12	75
White	77		8.5	8	7	68
Colored	37	(6)	13.3	5	5	92
Waterbury	17			1	1	24
Wilmington, Del.	26	10.8	8.0	0	2	0
Worcester	37	9.9	11.3	3	4	36
Yonkers	24	10.5	8.1	1	1	23
Youngstown	52	16.0	9.5	4	4	56

[5] Deaths for week ended Friday, Sept. 9, 1927.

[6] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Week Ended September 17, 1927

DIPHTHERIA	Cases
Alabama	64
Arizona	3
Arkansas	5
California	87
Colorado	26
Connecticut	14
Florida	21
Georgia	45
Idaho	1
Illinois	55
Indiana	11
Iowa [1]	23
Kansas	29
Louisiana	21
Maine	3
Maryland [1]	35
Massachusetts	62
Michigan	45
Minnesota	40
Mississippi	29
Missouri	52
Montana	3
Nebraska	4
New Jersey	52
New Mexico	8
New York [2]	61
North Carolina	101
Oklahoma [3]	57
Oregon	2
Pennsylvania	120
Rhode Island	5
South Carolina	53
Tennessee	19
Texas	46
Utah [1]	5
Vermont	1
Washington	10
West Virginia	19
Wisconsin	23
Wyoming	2

INFLUENZA	
Alabama	16
Arkansas	9
California	10
Connecticut	1
Georgia	17
Illinois	7
Indiana	8
Kansas	1
Louisiana	4
Maryland [1]	5
Massachusetts	9
Missouri	2
New Jersey	2
Oklahoma [3]	12
Oregon	14
South Carolina	156
Tennessee	9
Texas	2
Utah [1]	2
West Virginia	2
Wisconsin	43

MEASLES	
Alabama	22
Arizona	4
Arkansas	5
California	31
Colorado	1
Connecticut	4
Florida	4
Georgia	2
Idaho	3
Illinois	16

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

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

MEASLES—continued	Cases
Indiana	2
Iowa [1]	6
Kansas	19
Louisiana	8
Maine	3
Maryland [1]	3
Massachusetts	29
Michigan	7
Minnesota	5
Missouri	8
Montana	3
Nebraska	1
New Jersey	3
New Mexico	4
New York [2]	12
North Carolina	150
Oklahoma [3]	5
Oregon	13
Pennsylvania	51
South Carolina	56
South Dakota	2
Tennessee	22
Texas	2
Utah [1]	1
Washington	14
West Virginia	12
Wisconsin	81

MENINGOCOCCUS MENINGITIS	
Arizona	4
California	4
Florida	1
Illinois	4
Louisiana	1
Maryland [1]	2
Massachusetts	2
Minnesota	1
Missouri	2
Montana	3
New Jersey	1
New Mexico	1
North Carolina	1
Oklahoma [3]	2
Oregon	1
Pennsylvania	2
Tennessee	2
Washington	3
Wisconsin	2

POLIOMYELITIS	
Alabama	1
Arizona	7
Arkansas	3
California	66
Colorado	2
Connecticut	19
Florida	1
Illinois	36
Indiana	4
Iowa [1]	5
Kansas	10
Louisiana	1
Maine	10
Massachusetts	103

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

POLIOMYELITIS—continued	Cases
Michigan	18
Minnesota	11
Missouri	17
Nebraska	4
New Jersey	39
New Mexico	11
New York [2]	39
North Carolina	2
Ohio	89
Oklahoma [3]	8
Oregon	21
Pennsylvania	48
Rhode Island	4
South Carolina	2
South Dakota	5
Tennessee	2
Texas	16
Utah [1]	6
Washington	15
West Virginia	13
Wisconsin	15

SCARLET FEVER	
Alabama	23
Arkansas	9
California	77
Colorado	10
Connecticut	16
Delaware	3
Florida	8
Georgia	28
Idaho	2
Illinois	97
Indiana	27
Iowa [1]	8
Kansas	21
Louisiana	2
Maine	10
Maryland [1]	14
Massachusetts	102
Michigan	75
Minnesota	64
Mississippi	16
Missouri	23
Montana	3
Nebraska	13
New Jersey	48
New Mexico	7
New York [2]	62
North Carolina	73
Oklahoma [3]	22
Oregon	7
Pennsylvania	118
Rhode Island	17
South Carolina	25
South Dakota	7
Tennessee	34
Texas	31
Utah [1]	7
Vermont	4
Washington	10
West Virginia	47
Wisconsin	55
Wyoming	2

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

SMALLPOX

	Cases
Alabama	2
California	7
Florida	11
Idaho	4
Illinois	16
Indiana	12
Iowa [1]	6
Kansas	8
Louisiana	3
Michigan	16
Mississippi	3
Missouri	11
Montana	1
Nebraska	7
New Jersey	1
New Mexico	2
New York [2]	[4] 18
North Carolina	3
Oklahoma [3]	34
Oregon	15
South Carolina	2
Tennessee	2
Utah [1]	2
Washington	13
West Virginia	11
Wisconsin	8
Wyoming	1

TYPHOID FEVER

Alabama	49
Arizona	14
Arkansas	26
California	13
Colorado	16
Connecticut	5
Delaware	4
Florida	11
Georgia	30
Idaho	2
Illinois	73
Indiana	37
Iowa [1]	3
Kansas	25
Louisiana	26
Maine	5
Maryland [1]	23
Massachusetts	24
Michigan	22
Minnesota	7
Mississippi	9
Missouri	32
Montana	2
Nebraska	9
New Jersey	21
New Mexico	19
New York [2]	38
North Carolina	50
Oklahoma [3]	101
Oregon	4
Pennsylvania	43
Rhode Island	3
South Carolina	86
South Dakota	5
Tennessee	82
Texas	33
Utah [1]	3
Washington	4
West Virginia	56
Wisconsin	2

[1] Week ended Friday.
[2] Exclusive of New York City.
[3] Exclusive of Oklahoma City and Tulsa.
[4] Includes delayed reports.

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

Reports for Week Ended September 10, 1927

DIPHTHERIA

	Cases
District of Columbia	6
North Dakota	2

MEASLES

North Dakota	1

MENINGOCOCCUS MENINGITIS

North Dakota	1

POLIOMYELITIS

North Dakota	3

SCARLET FEVER

	Cases
District of Columbia	8
North Dakota	16

SMALLPOX

District of Columbia	1
North Dakota	3

TYPHOID FEVER

District of Columbia	3
North Dakota	1

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
June, 1927										
Colorado	1	106			546		1	386	15	19
July, 1927										
Colorado	0	63			152		2	152	19	26
South Dakota	0	18	2	1	41		0	58	34	2
August, 1927										
Arizona	0	4			10		5	10	0	18
Florida	3	49	23	38	28	6	5	13	13	63
Michigan	0	212	4	1	104	1	31	296	59	87
North Dakota	1	15			18		0	65	13	3

June, 1927

Colorado:	Cases
Chicken pox	96
German measles	37
Impetigo contagiosa	1
Mumps	15
Rocky Mountain spotted or tick fever	3
Septic sore throat	1
Whooping cough	47

July, 1927

	Cases
Chicken pox:	
Colorado	67
South Dakota	14
German measles:	
Colorado	8
Impetigo contagiosa:	
Colorado	2
Mumps:	
Colorado	19
South Dakota	15
Septic sore throat:	
Colorado	3
Trachoma:	
Colorado	2
Whooping cough:	
Colorado	74
South Dakota	52

August, 1927

	Cases
Chicken pox:	
Florida	9
Michigan	147
North Dakota	2
Dysentery:	
Florida	15

August, 1927—Continued

	Cases
German measles:	
North Dakota	6
Hookworm disease:	
Florida	59
Leprosy:	
Michigan	1
Lethargic encephalitis:	
Florida	3
Michigan	4
Mumps:	
Arizona	1
Florida	15
Michigan	99
North Dakota	4
Paratyphoid fever:	
Florida	2
Rabies in man:	
Michigan	1
Septic sore throat:	
Michigan	4
Tetanus:	
Florida	2
Trachoma:	
Arizona	1
Florida	1
North Dakota	1
Typhus fever:	
Florida	19
Whooping cough:	
Arizona	1
Florida	15
Michigan	673
North Dakota	30

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 98 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 30,670,000. The estimated population of the 93 cities reporting deaths is more than 30,080,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended September 3, 1927, and September 4, 1926

	1927	1926	Estimated expectancy
Cases reported			
Diphtheria:			
42 States	1,224	967	
98 cities	499	426	523
Measles:			
41 States	673	781	
98 cities	122	148	
Poliomyelitis:			
42 States	470	130	
Scarlet fever:			
42 States	1,046	901	
98 cities	340	296	268
Smallpox:			
42 States	127	120	
98 cities	23	11	23
Cases reported—Contd.			
Typhoid fever:			
42 States	1,233	1,474	
98 cities	189	233	226
Deaths reported			
Influenza and pneumonia:			
93 cities	352	305	
Smallpox:			
93 cities	1	0	
St. Joseph	1	0	

City reports for week ended September 3, 1927

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

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1918 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	75,333	0	0	0	0	0	1	0	2
New Hampshire:									
Concord	22,546	0	0	0	0	0	0	0	1
Manchester	83,097	0	1	0	0	0	0	0	0
Vermont:									
Barre	10,008	0	0	0	0	0	0	0	0
Burlington	24,089	0	0	0	0	0	0	0	0
Massachusetts:									
Boston	779,620	3	27	15	1	0	20	3	8
Fall River	128,993	1	1	1	0	0	0	0	1
Springfield	142,065	0	1	5	0	0	0	0	0
Worcester	190,757	0	3	3	0	0	1	0	2
Rhode Island:									
Pawtucket	69,760	0	1	0	0	0	0	0	1
Providence	267,918	0	3	5	0	0	1	0	2
Connecticut:									
Bridgeport	(1)	0	4	3	0	0	0	0	0
Hartford	160,197	1	3	3	0	1	0	0	2
New Haven	178,927	0	2	3	0	0	2	0	2
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	0	12	18		0	0	2	7
New York	5,873,356	14	82	91	6	2	9	12	81
Rochester	316,786	0	5	5		1	2	4	3
Syracuse	182,003	2	3	1		0	6	2	3
New Jersey:									
Camden	128,642	0	1	5	0	0	0	2	1
Newark	452,513	4	6	3	1	0	0	2	2
Trenton	132,020	0	2	1	1	0	0	0	1
Pennsylvania:									
Philadelphia	1,979,364	6	31	21		3	1	10	23
Pittsburgh	631,563	1	11	11		0	17	2	25
Reading	112,707	0	2	1		0	1	0	0

[1] No estimate made.

City reports for week ended September 3, 1927—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	2	5	2	0	2	1	0	3
Cleveland	936,485	16	21	36	0	0	9	13	7
Columbus	279,836	0	2	5	0	0	0	0	4
Toledo	287,380	3	6	0	0	0	0	1	1
Indiana:									
Fort Wayne	97,846	0	1	1	0	0	0	0	0
Indianapolis	358,819	0	4	3	0	0	0	2	5
South Bend	80,091	0	1	0	0	0	0	0	0
Terre Haute	71,071	0	0	0	0	0	0	0	1
Illinois:									
Chicago	2,995,239	25	47	58	2	3	3	14	33
Springfield	63,923	0	1	0	1	1	0	2	2
Michigan:									
Detroit	1,245,824	3	35	13	0	1	1	8	15
Flint	130,316	1	5	1	0	0	0	0	3
Grand Rapids	153,698	0	2	1	0	0	0	0	0
Wisconsin:									
Kenosha	50,891	0	0	0	0	0	1	1	0
Madison	46,385	0	1	1	0	0	4	0	0
Milwaukee	509,192	5	8	8	0	0	1	4	2
Racine	67,707	0	0	3	0	0	0	0	1
Superior	39,671	2	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	0	0	0	0	0	0	0	0
Minneapolis	425,435	5	16	9	0	1	2	0	1
St. Paul	246,001	0	12	2	0	0	0	0	3
Iowa:									
Davenport	52,469	0	0	3	0	-------	0	0	-------
Sioux City	76,411	0	1	0	0	-------	2	0	-------
Waterloo	36,771	0	1	0	0	-------	0	0	-------
Missouri:									
Kansas City	367,481	0	3	1	0	1	0	1	3
St. Joseph	78,342	0	1	0	0	0	1	0	2
St. Louis	821,543	1	20	19	0	0	3	3	-------
North Dakota:									
Fargo	26,403	0	0	0	0	0	0	0	0
Grand Forks	14,811	1	0	0	0	-------	0	0	-------
South Dakota:									
Aberdeen	15,036	1	1	0	0	-------	0	0	-------
Sioux Falls	30,127	0	0	0	0	-------	0	0	-------
Nebraska:									
Lincoln	60,941	0	0	0	0	0	1	5	1
Omaha	211,768	0	8	0	0	0	0	1	1
Kansas:									
Topeka	55,411	0	1	0	0	0	0	0	1
Wichita	88,367	0	1	4	0	0	0	2	0
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	0	1	2	0	0	0	0	0
Maryland:									
Baltimore	796,296	4	13	24	2	1	2	1	10
Cumberland	33,741	0	0	0	0	0	0	0	0
Frederick	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	497,906	5	4	11	1	1	0	0	7
Virginia:									
Lynchburg	30,395	0	0	0	0	0	0	0	1
Norfolk	(1)	0	1	1	0	0	0	0	1
Richmond	186,403	1	9	2	0	1	0	0	1
Roanoke	58,208	0	3	1	0	0	0	0	0
West Virginia:									
Charleston	49,019	1	1	1	1	0	0	0	0
Wheeling	56,208	0	1	0	0	0	0	0	1
North Carolina:									
Raleigh	30,371	0	1	1	0	0	1	0	0
Wilmington	37,061	0	1	0	0	1	0	0	1
Winston-Salem	69,031	0	2	1	0	0	3	4	1
South Carolina:									
Charleston	73,125	0	1	0	29	0	0	0	0
Columbia	41,225	0	1	2	0	-------	1	0	1
Greenville	27,311	-------	1	-------	-------	-------	-------	-------	-------

[1] No estimate made.

City reports for week ended September 3, 1927—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—con.									
Georgia:									
Atlanta	(1)	0	4	2	11	0	1	1	0
Brunswick	16,809	0	0	0	0	0	0	0	0
Savannah	93,134	0	1	0	0	0	0	0	0
Florida:									
Miami	69,754	0		0	3	0	1	0	3
St. Petersburg	26,847		0			0			0
Tampa	94,743	0	1	1	0	0	2	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,309	2	0	1	0	0	1	0	0
Louisville	305,935	0	3	1	0	0	1	0	2
Tennessee:									
Memphis	174,533	0	3	1	0	0	0	0	0
Nashville	136,229	0	1	2	0	1	0	0	2
Alabama:									
Birmingham	205,670	0	4	0	1	0	0	0	5
Mobile	65,955	0	1	2	2	0	0	0	0
Montgomery	46,481	1	1	3	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	0	0	0	0		0	0	
Little Rock	74,216	0	0	1	0	0	5	0	2
Louisiana:									
New Orleans	414,492	0	6	11	5	1	2	0	7
Shreveport	57,857	0	0	2	0	0	2	0	2
Oklahoma:									
Oklahoma City	(1)	0	1	2	0	0	0	0	2
Tulsa	124,478	0		0	0		0	0	
Texas:									
Dallas	194,450	0	3	10	2	2	1	0	2
Galveston	48,375	0	0	3	0	0	0	0	0
Houston	164,954	0	2	4	0	0	0	1	3
San Antonio	198,069	0	1	3	0	0	0	0	3
MOUNTAIN									
Montana:									
Billings	17,971	0	0	0	0	0	0	0	0
Great Falls	29,883	2	0	0	0	0	0	0	0
Helena	12,037	0	0	0	0	0	0	0	0
Missoula	12,668	0	0	0	0	0	0	1	0
Idaho:									
Boise	23,042	0	0	1	0	0	0	2	0
Colorado:									
Denver	280,911	3	9	6		2	1	1	4
Pueblo	43,787	0	3	1	0	0	0	0	1
New Mexico:									
Albuquerque	21,000	0	1	0	0	0	0	0	1
Utah:									
Salt Lake City	130,948	6	2	4	0	0	0	0	1
Nevada:									
Reno	12,665	0	0	1	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	(1)	6	3	2	0		6	3	
Spokane	108,897	6	2	2	0		0	0	
Tacoma	104,455	0	2	1	0	0	0	1	0
Oregon:									
Portland	282,383	0	4	7	0	0	3	1	3
California:									
Los Angeles	(1)	9	22	16	4	0	3	1	12
Sacramento	72,260	1	2	3	0	0	6	0	0
San Francisco	557,530	6	14	4	0	0	7	4	4

[1] No estimate made.

City reports for week ended September 3, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	0	1	0	0	0	2	1	1	0	9	19
New Hampshire:											
Concord	0	1	0	0	0	0	0	1	0	0	12
Manchester	1	1	0	0	0	1	0	0	0	0	18
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	1
Burlington	0	0	0	0	0	0	0	0	0	0	3
Massachusetts:											
Boston	14	14	0	0	0	14	4	1	0	10	206
Fall River	1	0	0	0	0	1	2	0	0	0	25
Springfield	1	2	0	0	0	1	0	0	0	2	15
Worcester	2	2	0	0	0	4	0	3	0	5	49
Rhode Island:											
Pawtucket	0	0	0	0	0	0	0	0	0	0	19
Providence	2	5	0	0	0	3	1	2	0	2	35
Connecticut:											
Bridgeport	1	1	0	0	0	0	0	1	0	0	24
Hartford	1	0	0	0	0	0	1	0	0	10	33
New Haven	2	0	0	0	0	3	4	0	0	10	35
MIDDLE ATLANTIC											
New York:											
Buffalo	4	17	0	0	0	7	3	0	2	11	122
New York	24	29	0	0	0	[1] 71	45	39	5	126	1,104
Rochester	2	1	0	0	0	6	1	1	0	0	73
Syracuse	2	5	0	0	0	5	1	0	0	3	52
New Jersey:											
Camden	0	0	1	0	0	2	1	1	0	2	21
Newark	4	1	0	0	0	6	2	3	0	58	89
Trenton	0	2	0	0	0	2	1	1	0	4	18
Pennsylvania:											
Philadelphia	19	18	0	0	0	39	14	8	1	23	413
Pittsburgh	9	4	0	0	0	9	3	3	0	24	173
Reading	0	0	0	0	0	1	0	0	1	6	28
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	4	7	1	0	0	8	2	8	1	5	103
Cleveland	10	7	0	0	0	17	5	0	0	28	156
Columbus	2	13	1	0	0	7	1	0	0	17	66
Toledo	4	2	0	0	0	5	3	5	0	11	75
Indiana:											
Fort Wayne	1	0	0	0	0	1	2	1	0	5	19
Indianapolis	2	3	0	1	0	4	2	0	0	2	87
South Bend	1	1	0	0	0	0	0	0	0	0	9
Terre Haute	0	0	0	0	0	1	0	0	0	1	13
Illinois:											
Chicago	25	28	1	1	0	41	8	7	3	154	594
Springfield	1	0	0	0	0	0	0	0	0	0	23
Michigan:											
Detroit	23	35	1	9	0	23	6	7	0	86	224
Flint	3	12	1	0	0	0	2	0	0	1	23
Grand Rapids	3	5	0	0	0	2	1	0	0	6	21
Wisconsin:											
Kenosha	1	4	0	0	0	0	0	0	0	0	5
Madison	1	0	1	0	0	0	0	0	0	0	4
Milwaukee	8	4	0	0	0	7	1	0	0	37	81
Racine	1	1	0	0	0	0	0	0	0	5	10
Superior	1	0	1	0	0	0	0	0	0	0	12
WEST NORTH CENTRAL											
Minnesota:											
Duluth	4	5	0	0	0	0	0	0	0	2	18
Minneapolis	12	6	1	0	0	5	2	1	0	1	66
St. Paul	5	1	1	0	0	4	1	0	0	6	56
Iowa:											
Davenport	0	1	0	0	----	----	0	0	----	0	----
Sioux City	0	0	0	0	----	----	0	0	----	0	----
Waterloo	0	0	0	0	----	----	0	0	----	0	----

[1] Pulmonary tuberculosis only.

City reports for week ended September 3, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Missouri:											
Kansas City	2	0	0	1	0	6	3	0	0	6	75
St. Joseph	1	0	0	0	1	2	0	0	0	2	22
St. Louis	7	15	1	0	0	16	7	1	0	18	187
North Dakota:											
Fargo	0	1	0	0	0	0	0	0	0	0	5
Grand Forks	1	3	0	0	----	----	0	0	----	0	----
South Dakota:											
Aberdeen	1	0	0	0	----	----	0	0	----	0	----
Sioux Falls	0	0	0	0	----	----	0	0	----	0	----
Nebraska:											
Lincoln	0	1	1	0	0	0	0	0	0	1	19
Omaha	1	0	0	0	0	1	1	1	1	0	32
Kansas:											
Topeka	1	0	0	0	0	0	1	0	0	9	10
Wichita	1	7	1	0	0	0	2	2	0	15	34
SOUTH ATLANTIC											
Delaware:											
Wilmington	0	0	0	0	0	0	1	0	0	2	17
Maryland:											
Baltimore	6	2	0	0	0	13	11	10	0	23	169
Cumberland	0	0	0	0	0	0	1	0	0	0	6
Frederick	0	0	0	0	0	0	1	0	0	0	3
Dis. of Columbia:											
Washington	3	13	0	0	0	12	4	5	1	7	122
Virginia:											
Lynchburg	0	0	0	0	0	0	1	1	0	1	14
Norfolk	0	0	0	0	0	3	2	1	0	1	----
Richmond	3	4	0	0	0	2	2	5	0	5	52
Roanoke	1	5	0	0	0	2	2	0	0	0	19
West Virginia:											
Charleston	1	3	0	0	0	1	2	1	2	0	20
Wheeling	2	0	0	0	0	1	1	2	0	1	26
North Carolina:											
Raleigh	0	0	0	0	0	1	0	0	0	1	15
Wilmington	0	0	0	0	0	0	0	0	0	0	9
Winston-Salem	1	0	0	0	0	1	2	0	0	12	13
South Carolina:											
Charleston	1	0	0	0	0	3	3	5	0	0	23
Columbia	0	0	0	0	----	----	2	1	----	4	9
Greenville	0	----	1	----	----	----	0	----	----	----	----
Georgia:											
Atlanta	4	3	1	0	0	3	5	5	1	0	51
Brunswick	0	0	0	0	0	0	1	1	0	0	3
Savannah	0	2	0	0	0	2	2	0	0	1	29
Florida:											
Miami	----	0	----	0	0	2	----	0	0	3	25
St. Petersburg	0	----	0	----	0	1	0	----	0	----	6
Tampa	0	1	0	0	0	1	1	2	0	0	21
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	1	0	0	0	0	1	0	0	0	17
Louisville	1	5	0	0	0	1	5	1	1	3	55
Tennessee:											
Memphis	1	4	0	0	0	8	6	8	0	0	66
Nashville	2	2	0	0	0	2	7	5	3	2	49
Alabama:											
Birmingham	3	1	0	0	0	3	6	18	3	4	58
Mobile	0	2	0	0	0	1	1	0	0	0	22
Montgomery	0	0	0	0	0	0	1	4	0	1	----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0	----	----	0	0	----	0	----
Little Rock	0	0	0	0	0	5	2	2	0	0	----
Louisiana:											
New Orleans	1	0	0	0	0	13	5	3	1	1	133
Shreveport	0	1	0	0	0	1	2	1	0	0	17

City reports for week ended September 3, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL—continued											
Oklahoma:											
Oklahoma City	1	3	0	1	0	2	2	0	1	1	27
Tulsa	-------	0	-------	0	-------	-------	-------	1	-------	1	-------
Texas:											
Dallas	1	7	1	0	0	2	3	3	0	5	37
Galveston	0	2	0	0	0	0	0	0	0	0	13
Houston	0	2	0	0	0	4	1	2	1	2	65
San Antonio	1	2	0	0	0	9	1	2	1	0	60
MOUNTAIN											
Montana:											
Billings	0	2	1	0	0	0	0	1	0	8	2
Great Falls	0	0	0	0	0	0	1	0	0	0	10
Helena	0	0	0	0	0	0	0	0	0	0	3
Missoula	0	1	0	0	0	0	0	0	0	0	2
Idaho:											
Boise	0	0	1	0	0	0	0	0	0	0	9
Colorado:											
Denver	3	2	1	2	0	11	3	0	0	4	78
Pueblo	0	1	0	0	0	0	0	0	0	1	16
New Mexico:											
Albuquerque	0	1	0	0	0	6	0	0	0	0	10
Utah:											
Salt Lake City	1	1	0	2	0	1	1	5	0	13	36
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	4
PACIFIC											
Washington:											
Seattle	4	5	1	0	-------	-------	2	2	-------	10	-------
Spokane	4	0	1	6	-------	-------	0	0	-------	0	-------
Tacoma	2	0	2	0	0	0	0	0	0	0	23
Oregon:											
Portland	3	1	4	5	0	3	1	0	0	1	53
California:											
Los Angeles	7	4	2	0	0	24	4	0	0	7	196
Sacramento	0	1	0	1	0	0	0	1	0	0	15
San Francisco	6	3	1	0	0	6	1	0	0	14	131

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland	0	0	0	0	0	0	0	5	1
New Hampshire:									
Manchester	0	0	0	0	0	0	0	1	0
Massachusetts:									
Boston	1	0	0	1	0	0	2	18	4
Springfield	0	0	0	0	0	0	1	1	0
Worcester	0	0	0	0	0	0	0	4	0
Rhode Island:									
Providence	0	0	0	0	0	0	0	0	1
Connecticut:									
Hartford	0	0	0	0	0	0	0	1	0

City reports for week ended September 3, 1927—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York	4	1	2	2	0	0	8	66	5
New Jersey:									
Newark	0	0	0	0	0	0	1	1	1
Trenton	0	0	0	0	0	0	0	1	0
Pennsylvania:									
Philadelphia	1	0	2	0	0	0	0	5	1
Pittsburgh	1	1	0	0	0	0	0	4	0
Reading	0	0	0	0	0	0	0	1	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	0	0	0	0	0	0	0	8	0
Cleveland	0	0	0	0	0	0	0	8	0
Columbus	0	0	0	0	0	0	0	0	1
Indiana:									
South Bend	0	0	0	0	0	0	0	4	0
Illinois:									
Chicago	5	1	1	1	0	0	4	6	2
Michigan:									
Detroit	3	0	0	0	0	0	1	1	0
Flint	0	0	0	0	0	0	0	1	0
Wisconsin:									
Madison	0	0	0	0	0	0	1	2	0
Milwaukee	1	0	0	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
St. Paul	0	0	0	0	0	0	1	2	0
Iowa:									
Sioux City	0	------	0	------	0	------	0	1	------
Missouri:									
Kansas City	0	0	0	0	0	0	0	9	0
St. Joseph	0	0	0	0	0	0	0	1	0
St. Louis	1	0	0	0	0	0	1	1	1
Kansas:									
Wichita	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Delaware:									
Wilmington	0	0	0	0	0	0	0	1	0
Maryland:									
Baltimore	0	0	1	2	0	0	2	0	0
Virginia:									
Roanoke	0	0	0	0	0	1	0	0	0
West Virginia:									
Wheeling	0	0	0	0	0	0	0	3	0
North Carolina:									
Raleigh	0	0	0	0	0	1	0	0	0
Winston-Salem	0	0	0	0	2	0	1	0	0
South Carolina:									
Charleston	0	0	0	0	8	0	0	0	0
Georgia: [1] [2]									
Atlanta	0	0	0	0	1	1	0	0	0
Brunswick	0	0	0	0	0	1	0	0	0
Florida:									
Miami [2]	0	0	0	0	1	0	0	0	0
Tampa [2]	0	0	0	0	0	0	0	1	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville	1	0	0	0	0	0	0	0	0
Tennessee:									
Nashville	0	0	0	0	1	1	0	4	0
Alabama:									
Birmingham	0	0	0	0	4	2	0	0	0

[1] Dengue: 1 case at Savannah, Ga.
[2] Typhus fever: 3 cases at Savannah, Ga., 1 case at Miami, Fla., and 1 case at Tampa, Fla.

City reports for week ended September 3, 1927—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	4	0	0	0
Louisiana:									
New Orleans	0	0	0	0	2	1	0	1	0
Shreveport	0	0	0	0	0	2	0	0	0
Oklahoma:									
Oklahoma City	0	0	0	0	0	0	0	1	0
Tulsa	0	0	0	0	0	0	0	1	0
Texas:									
Dallas	0	0	0	0	0	0	0	1	1
Galveston	0	0	0	0	0	1	0	0	0
Houston	0	0	0	0	0	1	0	3	0
MOUNTAIN									
Nevada:									
Reno	0	0	0	0	0	0	0	1	0
PACIFIC									
Washington:									
Seattle	0	-------	0	-------	0	-------	1	2	-------
Tacoma	0	0	0	0	0	0	0	3	0
Oregon:									
Portland	1	0	1	0	0	0	0	0	0
California:									
Los Angeles	0	0	0	0	0	0	0	6	1
Sacramento	0	0	0	0	0	0	0	3	0
San Francisco	0	0	0	0	0	0	0	9	0

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended September 3, 1927, compared with those for a like period ended September 4, 1926. The population figures used in computing the rates are approximate estimates as of July 1, 1926, and 1927, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had estimated aggregate populations of approximately 30,445,000 in 1926 and 30,966,000 in 1927. The 95 cities reporting deaths had nearly 29,785,000 estimated population in 1926 and nearly 30,296,000 in 1927. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, July 31 to September 3, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Aug. 7, 1926	Aug. 6, 1927	Aug. 14, 1926	Aug. 13, 1927	Aug. 21, 1926	Aug. 20, 1927	Aug. 28, 1926	Aug. 27, 1927	Sept. 4, 1926	Sept. 3, 1927
101 cities	78	78	69	90	68	80	65	[2] 80	73	[3] 85
New England	40	63	31	70	47	111	50	86	26	88
Middle Atlantic	88	92	62	97	59	94	56	78	59	77
East North Central	104	80	101	94	87	85	76	81	99	87
West North Central	52	42	56	67	83	44	81	54	67	[4] 72
South Atlantic	43	65	48	82	60	62	61	[5] 88	69	[6] 94
East South Central	10	31	57	25	21	51	57	61	41	51
West South Central	39	92	26	92	64	75	34	96	60	164
Mountain	118	135	73	180	146	54	73	[7] 119	91	117
Pacific	102	76	104	107	62	60	91	94	134	73

MEASLES CASE RATES

101 cities	70	48	59	28	44	32	30	[2] 25	25	[3] 21
New England	83	93	68	63	52	84	38	58	33	58
Middle Atlantic	42	43	33	28	27	35	15	24	17	18
East North Central	113	29	84	19	72	13	43	13	31	11
West North Central	58	34	67	22	28	22	20	16	10	[4] 12
South Atlantic	47	38	80	14	35	27	15	[5] 32	9	[6] 20
East South Central	41	10	31	15	36	5	36	25	31	10
West South Central	9	55	4	21	9	42	4	17	0	42
Mountain	137	45	64	36	18	18	27	[7] 28	36	9
Pacific	121	144	94	60	78	71	94	52	91	42

SCARLET FEVER CASE RATES

101 cities	61	51	51	58	48	50	55	[2] 54	51	[3] 58
New England	104	51	68	93	73	51	54	81	59	60
Middle Atlantic	38	36	30	39	29	31	32	38	25	38
East North Central	79	75	55	73	46	78	55	61	58	80
West North Central	101	62	119	75	119	64	133	62	131	[4] 72
South Atlantic	39	27	30	33	39	42	58	[5] 62	37	[6] 64
East South Central	31	51	47	36	36	20	62	87	57	76
West South Central	13	25	21	59	17	50	26	59	26	59
Mountain	64	126	36	117	36	81	64	[7] 64	82	63
Pacific	83	60	86	63	78	42	75	37	70	34

SMALLPOX CASE RATES

101 cities	8	6	7	4	2	5	4	[2] 5	2	[3] 4
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	1	0	0	0	1	0	0	0	0	0
East North Central	9	9	1	5	2	7	7	6	0	7
West North Central	14	0	4	4	4	10	0	4	0	[4] 2
South Atlantic	11	9	11	5	6	4	9	[5] 0	9	[6] 0
East South Central	16	5	26	0	5	25	0	25	10	0
West South Central	13	17	21	0	0	4	9	0	4	0
Mountain	9	18	73	9	0	18	0	[7] 28	0	36
Pacific	24	21	32	24	5	13	13	31	13	18

[1] The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1926 and 1927, respectively.
[2] Greenville, S. C., and Helena, Mont., not included.
[3] Sioux City, Iowa, Norfolk, Va., and Greenville, S. C., not included.
[4] Sioux City, Iowa, not included.
[5] Greenville, S. C., not included.
[6] Norfolk, Va., and Greenville, S. C., not included.
[7] Helena, Mont., not included.

Summary of weekly reports from cities, July 31 to September 3, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Aug. 7, 1926	Aug. 6, 1927	Aug. 14, 1926	Aug. 13, 1927	Aug. 21, 1926	Aug. 20, 1927	Aug. 28, 1926	Aug. 27, 1927	Sept. 4, 1926	Sept. 3, 1927
101 cities	28	25	35	25	41	37	40	[2] 31	40	[3] 32
New England	12	7	17	30	17	30	19	33	12	21
Middle Atlantic	19	13	24	15	34	20	39	21	34	28
East North Central	12	9	20	14	17	19	20	11	20	15
West North Central	18	26	24	22	48	38	42	20	42	[4] 10
South Atlantic	65	58	94	45	93	82	56	[5] 57	91	[6] 74
East South Central	181	183	140	97	186	219	233	204	176	183
West South Central	43	50	47	88	43	80	39	75	43	55
Mountain	27	45	73	36	73	27	18	[7] 46	9	54
Pacific	29	13	29	10	24	31	38	21	46	8

INFLUENZA DEATH RATES

95 cities	2	2	1	3	3	4	3	[2] 5	3	[6] 5
New England	0	0	0	2	0	2	0	2	0	2
Middle Atlantic	2	1	1	2	1	2	3	2	2	3
East North Central	1	0	0	2	3	2	3	3	4	5
West North Central	0	2	2	6	2	0	8	2	4	4
South Atlantic	4	6	0	4	2	6	2	[5] 11	0	[6] 8
East South Central	0	5	10	5	0	10	0	15	16	5
West South Central	4	4	13	13	26	30	4	22	9	13
Mountain	9	9	0	0	0	0	18	[7] 9	9	18
Pacific	11	3	0	3	7	0	0	7	0	0

PNEUMONIA DEATH RATES

95 cities	54	47	50	55	54	45	47	[2] 47	51	[6] 56
New England	54	33	31	77	40	49	33	51	50	49
Middle Atlantic	56	46	62	57	58	47	56	55	59	72
East North Central	42	44	35	41	35	35	37	34	34	51
West North Central	51	44	25	44	49	25	42	31	36	23
South Atlantic	68	53	57	72	87	53	59	[5] 37	64	[6] 44
East South Central	52	51	52	66	36	66	47	66	52	46
West South Central	97	69	106	56	66	69	71	65	49	82
Mountain	64	54	82	63	82	36	73	[7] 37	64	54
Pacific	57	62	39	55	78	72	21	62	78	55

[2] Greenville, S. C., and Helena, Mont., not included.
[3] Sioux City, Iowa, Norfolk, Va., and Greenville, S. C., not included.
[4] Sioux City, Iowa, not included.
[5] Greenville, S. C., not included.
[6] Norfolk, Va., and Greenville, S. C., not included.
[7] Helena, Mont., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1926 and 1927, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1926	1927	1926	1927
Total	101	95	30,443,800	30,966,700	29,783,700	30,295,900
New England	12	12	2,211,000	2,245,900	2,211,000	2,245,900
Middle Atlantic	10	10	10,457,000	10,567,000	10,457,000	10,567,000
East North Central	16	16	7,650,200	7,810,600	7,650,200	7,810,600
West North Central	12	10	2,585,500	2,626,600	2,470,600	2,510,000
South Atlantic	21	20	2,799,500	2,878,100	2,757,700	2,835,700
East South Central	7	7	1,008,300	1,023,500	1,008,300	1,023,500
West South Central	8	7	1,213,800	1,243,300	1,181,500	1,210,400
Mountain	9	9	572,100	580,000	572,100	580,000
Pacific	6	4	1,946,400	1,991,700	1,475,300	1,512,800

FOREIGN AND INSULAR

CHOLERA ON VESSEL

Further relative to cholera on steamship "Adrastus"—Yokohama—August 6, 1927.—Further information, dated August 12, 1927, shows the occurrence of a second case of cholera on the steamship *Adrastus* at Yokohama, Japan.[1]

THE FAR EAST

Report for week ended August 27, 1927.—The following report for the week ended August 27, 1927, was transmitted by the Eastern Bureau of the Health Section of the Secretariat of the League of Nations, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Smallpox		Maritime towns	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt:							Dutch East Indies:						
Alexandria	2	0	0	0	0	0	Banjermasin	0	0	0	0	35	----
Port Said	0	0	0	0	1	0	Makassar	2	2	0	0	0	0
Iraq:[1] Basra	0	0	49	17	1	1	French Indo-China:						
Persia: Mohammerah	0	0	23	20	0	0	Turane	0	0	4	4	0	0
British India:							Philippine Islands: Manila	0	0	1	0	0	0
Bombay	----	1	----	2	5	2	China:						
Negapatam	----	0	----	0	1	0	Canton	0	0	6	2	0	0
Madras	----	0	----	53	2	0	Amoy	0	0	10	----	0	0
Calcutta	----	0	----	7	7	7	Shanghai	0	0	----	24	0	0
Rangoon	----	3	----	0	1	0	Macao	0	0	1	1	0	0
Ceylon: Colombo	1	0	0	0	0	0							

[1] The Iraq health service states that Muntafig and Amarah are infected with cholera.

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

ASIA

Arabia.—Bahrein.

Persia.—Bender-Abbas, Bushire, Lingah.

India.—Karachi, Chittagong, Cochin, Tuticorin, Vizagapatam, Bassein, Moulmein.

Portuguese India.—Nova Goa.

Federated Malay States.—Port Swettenham.

Straits Settlements.—Penang, Singapore.

Siam.—Bangkok.

Dutch East Indies.—Batavia, Surabaya, Pontianak, Semarang, Cheribon, Balikpapan, Padang, Belawan-Deli, Tarakan, Sabang, Palembang, Samarinda, Menado.

Sarawak.—Kuching.

British North Borneo.—Sandakan, Jesselton, Kudat, Tawao.

Portuguese Timor.—Dilly.

Philippine Islands.—Iloilo, Jolo, Cebu, Zamboanga.

French Indo China.—Saigon and Cholon, Haiphong.

China.—Hong Kong, Tientsin, Tsingtao.

Formosa.—Keelung, Takao.

Chosen.—Chemulpo, Fusan.

Manchuria.—Yingkow, Antung, Harbin, Mukden, Changchun.

Kwantung.—Port Arthur, Dairen.

Japan.—Nagasaki, Yokohama, Niigata, Shimonoseki, Moji, Tsuruga, Kobe, Osaka, Hakodate.

[1] Public Health Reports, Aug. 19, 1926, p. 2128.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island, Cairns, Port Moresby.

New Guinea.—Port Moresby.

New Britain Mandated Territory.—Rabaul and Kokopo.

New Zealand.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

Western Samoa.—Apia.

New Caledonia.—Nouméa.

Fiji.—Suva.

Hawaii.—Honolulu.

Society Islands.—Papeete.

AFRICA

Egypt.—Suez.

Anglo-Egyptian Sudan.—Port Sudan, Suakin.

AFRICA—continued

Eritrea.—Massaua.

French Somaliland.—Djibouti.

British Somaliland.—Berbera.

Italian Somaliland.—Mogadiscio.

Kenya.—Mombasa.

Zanzibar.—Zanzibar.

Tanganyika.—Dar-es-Salaam.

Seychelles.—Victoria.

Portuguese East Africa.—Mozambique, Beira, Lourenço-Marquez.

Union of South Africa.—East London, Port Elizabeth, Cape Town, Durban.

Reunion.—Saint Denis.

Mauritius.—Port Louis.

Madagascar.—Majunga, Tamatave, Diégo-Suarez

AMERICA

Panama.—Colon, Panama.

Reports had not been received in time for publication from:

Aden Protectorate.—Kamaran, Aden, Perim.
Persia.—Abadan, Ahwaz, Minab.
Union of Socialist Soviet Republics.—Vladivostok.

Belated information:

Week ended August 20: *Madras*, cholera, 61 deaths.
Week ended August 13: *Pondicherry* and *Karikal*, nil.
Week ended August 13: *Makassar*, plague, 1 fatal case.

QUARANTINE MEASURES

The following reports of quarantine measures have been published by the health section of the League of Nations:

Syria.—The high commissioner of the French Republic for the States of Syria reports on August 6 that on account of the prevalence of cholera at Basra all travelers coming from Iraq must pass the frontier by the direct route leading from Baghdad to Damascus. Unvaccinated travelers will be vaccinated at control stations. Those who arrive at the frontier outside of these points will be vaccinated at the frontier posts. Arrivals from Basra, Abadan, and Mohammerah are considered as suspects and kept under observation for five days. These measures are of special importance because the route from Baghdad to Damascus is the usual way of communication from Iraq to Palestine and Egypt. Additional barrages have been organized at Aleppo, Damascus, Homs, and Tripoli. The sanitary passports of travelers on the Palestine Railway are controlled at Deraa and Beirut.

Italy.—The Ministry of Foreign Affairs reports on August 18 that arrivals from Abadan and other ports on the Persian Gulf are subject to quarantine measures against cholera. These measures came into effect on August 3.

Arrivals from Mytilene (Greece) were subjected to measures against bubonic plague from August 13.

Arrivals from Dakar and all other ports of Senegal were subjected to measures against yellow fever from August 8.

CANADA

Communicable diseases— Week ended September 3, 1927.—The Canadian ministry of health reports cases of certain communicable diseases in six Provinces of Canada for the week ended September 3, 1927, as follows:

Diease	Nova Scotia	New Brunswick	Quebec	Manitoba	Saskatchewan	Alberta	Total
Influenza	5						5
Smallpox				2	13	3	18
Typhoid fever	5	7	33	5	3	1	54

Communicable diseases—Quebec— Week ended September 3, 1927.—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the week ended September 3, 1927, as follows:

Disease	Cases	Disease	Cases
Chicken pox	2	Scarlet fever	26
Diphtheria	31	Tuberculosis	36
German measles	1	Typhoid fever	33
Measles	3	Whooping cough	6

Measures against spread of poliomyelitis—Trail, British Columbia.—Information received under date of August 27, 1927, shows that measures have been instituted at Trail, British Columbia, to check the spread of poliomyelitis recently reported prevalent at that place.[1] Churches and places of entertainment have been ordered closed and the date for opening schools has been extended.

Typhoid fever — Montreal — January 2–September 10, 1927.—The following table gives the cases of typhoid fever and deaths from this disease reported at Montreal, Quebec, Canada, since January 1, 1927:

Week ended—	Cases	Deaths	Week ended—	Cases	Deaths
Jan. 8, 1927	3	1	May 14, 1927	367	16
Jan. 15, 1927	4	3	May 21, 1927	770	26
Jan. 22, 1927	1	2	May 28, 1927	356	38
Jan. 29, 1927	3	1	June 4, 1927	239	37
Feb. 5, 1927	1	0	June 11, 1927	128	36
Feb. 12, 1927	0	0	June 18, 1927	86	
Feb. 19, 1927	1	2	June 25, 1927	75	23
Feb. 26, 1927	1	1	July 2, 1927	66	21
Mar. 5, 1927	9	1	July 9, 1927	52	10
Mar. 12, 1927	203	4	July 16, 1927	39	4
Mar. 19, 1927	383	14	July 23, 1927	22	9
Mar. 26, 1927	568	22	July 30, 1927	23	10
Apr. 2, 1927	649	48	Aug. 6, 1927	16	5
Apr. 9, 1927	386	40	Aug. 13, 1927	20	5
Apr. 16, 1927	175	38	Aug. 20, 1927	14	4
Apr. 23, 1927	125	43	Aug. 27, 1927	8	3
Apr. 30, 1927	105	23	Sept. 3, 1927	27	
May 7, 1927	106	19	Sept. 10, 1927	17	

[1] Public Health Reports, Sept. 16, 1927, p. 2328.

Vital statistics—Quebec—June, 1927.—Births and deaths in the Province of Quebec for the month of June, 1927, were reported as follows:

Estimated population	2,604,000
Births	6,815
Birth rate per 1,000 population	31.40
Deaths	2,905
Death rate per 1,000 population	13.39
Deaths under 1 year	731
Infant mortality rate	107.26
Deaths from:	
Accidents (all)	109
Cancer	128
Cerebrospinal meningitis	5
Diabetes	25
Diarrhea	148
Diphtheria	38
Heart disease	285
Influenza	37
Measles	32
Pneumonia	209
Scarlet fever	12
Syphilis	7
Tuberculosis (pulmonary)	212
Tuberculosis (other forms)	57
Typhoid fever	134
Whooping cough	37

CUBA

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

Disease	New cases	Deaths	Remaining under treatment Aug. 31, 1927	Disease	New cases	Deaths	Remaining under treatment Aug. 31, 1927
Chicken pox	2		11	Measles	10	2	18
Diphtheria	8		3	Paratyphoid fever	3		1
Filariasis			1	Scarlet fever	2		2
Leprosy			15	Typhoid fever [1]	26	11	50
Malaria [1]	67	2	52				

[1] Many of these cases from the interior.

EGYPT

Plague—August 6–12, 1927.—During the week ended August 12, 1927, five cases of plague were reported in Egypt, occurring in the district of Abou Kerkas.

Summary—January 1–August 12, 1927.—During the period January 1 to August 12, 1927, 63 cases of plague were reported in Egypt, as compared with 116 cases reported during the corresponding period of the year 1926.

ESTONIA

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

Disease	Cases	Disease	Cases
Diphtheria	21	Tuberculosis	153
Measles	493	Typhoid fever	44
Scarlet fever	329	Typhus fever	4

Population: 1,114,650.

HAWAII TERRITORY

Plague rodent—Kukuihaele—August 17, 1927.—A plague-infected rat was reported found at Kukuihaele, Island of Hawaii, August 17, 1927.

JAMAICA

Smallpox (alastrim)—August 1-27, 1927.—During the period August 1 to 27, 1927, six cases of smallpox (reported as alastrim) were reported in the Island of Jamaica.

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

Disease	Cases		Disease	Cases	
	Kingston	Other localities		Kingston	Other localities
Cerebrospinal meningitis		1	Leprosy	1	1
Chicken pox	3	5	Puerperal fever		1
Diphtheria		1	Tuberculosis	16	48
Dysentery		4	Typhoid fever	15	66
Erysipelas		1			

Population: Kingston, 62,707; island of Jamaica, 926,000.

LATVIA

Communicable diseases—May and June, 1927.—During the months of May and June, 1927, communicable diseases were reported in the Republic of Latvia as follows:

MONTH OF MAY, 1927

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	8	Paratyphoid fever	4
Diphtheria	50	Puerperal fever	2
Dysentery	4	Scarlet fever	282
Erysipelas	21	Tetanus	2
Influenza	93	Trachoma	26
Leprosy	1	Typhoid fever	42
Lethargic encephalitis	2	Typhus fever	5
Measles	998	Whooping cough	88
Mumps	3		

Population: 1,950,000.

MONTH OF JUNE, 1927

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	8	Paratyphoid fever	8
Diphtheria	33	Puerperal fever	3
Dysentery	3	Recurrent fever	1
Erysipelas	14	Scarlet fever	141
Influenza	24	Trachoma	14
Leprosy	5	Typhoid fever	57
Malaria	4	Typhus fever	4
Measles	635	Whooping cough	63
Mumps	6		

Population: 1,950,000.

MADAGASCAR

Plague—July 1–15, 1927.—During the period July 1–15, 1927, 21 cases of plague with 21 deaths were reported in the island of Madagascar. The occurrence was in the Provinces of Ambositra, Itasy, Moramanga, and Tananarive, and was distributed as follows: Ambositra, 1 case; Itasy, 10 cases; Moramanga, 1 case; Tananarive, 8 cases; and in the town of Tananarive, 1 case. The number of fatalities in the several Provinces corresponded with the number of cases. The distribution according to type of disease was: Bubonic, 6 cases; pneumonic, 12; and septicemic, 3.

Supplementary report.—Under date of August 2, 1927, additional cases were reported for Madagascar, for the Province of Itasy, as follows: June 1–15, 1927, cases, 9; deaths, 4, viz., bubonic cases 3, pneumonic 6. For June 16–30, 1927, 1 case, bubonic.[1]

MALTA

Communicable diseases—July 1–31, 1927.—During the month of July, 1927, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia	6	Puerperal fever	1
Diphtheria	3	Scarlet fever	3
Erysipelas	1	Trachoma	41
Influenza	2	Tuberculosis	21
Lethargic encephalitis	1	Typhoid fever	70
Malaria	[1] 3	Whooping cough	12
Malta fever	90		

[1] Of which 2 contracted abroad. Population, civil, estimated, 227,440.

SENEGAL

Plague—Yellow fever—August 1–21, 1927.—During the three weeks ended August 21, 1927, plague was reported in the interior of Senegal as follows: Week ended August 7—cases, 62; deaths, 34; week ended August 14—cases, 91; deaths, 78; week ended August 21—cases, 61; deaths, 44; total, cases, 214; deaths, 156. In urban

[1] Public Health Reports, Aug. 26, 1927, p. 2185, and Sept. 16, 1927, p. 2329.

centers the occurrence was reported as follows: Dakar—36 cases, 25 deaths; Rufisque, 41 cases, 35 deaths; in four village settlements, 9 cases, 6 deaths. A fatal case of yellow fever was reported as having occurred at Grand Bassam, Ivory Coast, on July 29, 1927. At Obuasi, Ashanti, a case was reported on August 6; August 4, at Ho, Gold Coast, 2 cases, and at Meiatza, Togoland, a fatal case August 15 to 21. In Senegal from August 1 to 14, 7 cases and 2 deaths were reported.

SOUTHWEST AFRICA

Suspect plague case—Steamship "Tanganyika"—Luderitz—July 26, 1927.—Information dated August 5, 1927, shows the removal of a patient presenting symptoms suspicious of plague, from the steamship *Tanganyika* at Luderitz, southwest Africa. The history of the case shows the patient to have been admitted to hospital at Elizabethville, Belgian Congo, June 2, 1927, and to have left for Europe July 22, 1927, via Bulawayo and Cape Town, arriving at Cape Town July 22 and embarking on steamship *Tanganyika*. The patient and contacts were landed at Luderitz.

UNION OF SOUTH AFRICA

Plague—Orange Free State—July 24-30, 1927.—During the week ended July 30, 1927, a fatal case of plague, occurring in a native and on a farm, was reported in Rouxville District, Orange Free State. On July 26, 1927, a death from plague, occurring in a case reported during the previous week,[1] was notified in Edenburg District, Orange Free State.

VIRGIN ISLANDS

Communicable diseases—July, 1927.—During the month of July, 1927, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks	Island and disease	Cases	Remarks
St. Thomas:			St. Croix:		
Chicken pox	1		Gonococcus infection	1	
Gonococcus infection	3		Malaria	1	Tertian.
Syphilis	1	Secondary.	Syphilis	4	Secondary.
Uncinariasis	1	Necator americanus.	Uncinariasis	7	Necator americanus.

[1] Public Health Reports, Sept. 16, 1927, p. 2329.

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

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

Reports Received During Week Ended September 23, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Amoy	July 24–Aug. 6	5		
Foochow	July 24–30			Several cases and deaths.
India				July 10–16, 1927: Cases, 12,615; deaths, 6,377.
Calcutta	July 31–Aug. 6	16	8	
Madras	Aug. 7–13	185	72	
Iraq:				
Baghdad	July 24–30	29	18	
Basra	July 31–Aug. 13	163	133	
On vessel:				
S. S. Adrastus	Aug. 6	1		At Yokohama, Japan. (See Public Health Reports, Aug. 19, 1927, p. 2128.)

PLAGUE

Egypt				Aug. 6–12, 1927: Cases, 5. Summary, Jan. 1–Aug. 12, 1927: Cases, 63; corresponding period, year 1926, cases, 116.
Hawaii Territory:				
Kukuihaele	Aug. 17			Island of Hawaii. Plague rodent.
India				July 10–16, 1927: Cases, 114; deaths, 71.
Madras Presidency	July 17–23	86	45	
Java:				
East Java and Madura	July 10–16	4	4	
Madagascar				July 1–15, 1927: Cases, 21; deaths, 21. Bubonic, 6; pneumonic, 12; septicemic, 3.
Province—				
Ambositra	July 1–15	1	1	Bubonic.
Itasy [2]	June 1–15	9	4	Bubonic, 3; pneumonic, 6.
Do. [2]	June 16–30	1		Bubonic.
Do	July 1–15	10	10	Bubonic, 2; pneumonic, 7; septicemic, 1.
Moramanga	do	1	1	Septicemic.
Tananarive	do	9	9	Bubonic, 4; pneumonic, 4; septicemic, 1.
Senegal				Aug. 1–21, 1927: Interior—Cases, 214; deaths, 156. Urban centers—Cases, 86; deaths, 66.
Dakar	Aug. 7–21	36	25	Including 1 case in suburb of Yoff.
Rufisque	do	41	35	In 4 villages, 9 cases, 6 deaths.
Union of South Africa:				
Orange Free State	July 24–30	1	1	In Rouville District, in native.
Edenburg District	July 26		1	In case reported preceding week. (Public Health Reports, Sept. 16, 1927, p. 2329.)
Rouxville District	July 24–30	1	1	Native. On farm.

SMALLPOX

Brazil:				
Porto Alegre	July 1–31	5		
Rio de Janeiro	Aug. 14–20	3		
British South Africa:				
Northern Rhodesia	July 23–Aug. 5	2		Native.
Canada:				
Alberta	Aug. 28–Sept. 3	3		
Manitoba	do	2		
Ontario—				
Ottawa	Aug. 28–Sept. 10	22		
Saskatchewan	Aug. 28–Sept. 3	13		
Ceylon:				
Colombo	July 31–Aug. 6	1	1	
France:				
Paris	July 10–31	3		

[1] From medical officers of the Public Health Service, American consuls and other sources.
[2] Received out of date. Omitted from Public Health Reports, Aug. 26, 1927, p. 2185, and Sept. 16, 1927, p. 2329.

Reports Received During Week Ended September 23, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England and Wales—				
Leeds	Aug. 21–27	5		
Stoke-on-Trent	do	1		
India				July 10–16, 1927: Cases, 3,132; deaths, 891.
Calcutta	July 31–Aug. 6	11	10	
Madras	Aug. 7–13	4		
Italy:				
Rome	June 13–19	1		
Jamaica				Aug. 1–27, 1927: Cases, 6; reported as alastrim.
Japan:				
Nagasaki	Aug. 8–14	1	1	
Paraguay:				
Asuncion	July 10–23		2	
Persia:				
Teheran	Apr. 22–May 22		3	

TYPHUS FEVER

Estonia				June, 1927: Cases, 4.
Latvia				May 1–June 30, 1927: Cases, 9.
Mexico:				
Mexico City	Aug. 14–27	14		Including municipalities in Federal District.
Palestine:				
Jaffa	Aug. 9–15	1		
Jerusalem	July 15–Aug. 15	2		
Portugal:				
Oporto	Aug. 20–27	1		
Spain:				
Seville	Aug. 19–25		2	
Tunisia:				
Tunis	Aug. 15–21	1		

YELLOW FEVER

Ashanti:				
Obuasi	Aug. 6	1	1	
Gold Coast	Aug. 4	2		
Ivory Coast	July 29	1	1	
Senegal:				
Khombole	Aug. 1–14	3		
Oakuam	do	2	1	
St. Louis	do	2	1	
Togoland:				
Meiatza	Aug. 15–21	1	1	

Reports Received from June 25 to September 16, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Amoy	May 22–July 23	1	1	
Canton	May 1–July 23	16	7	
Hong Kong	July 17–23	2	2	
Kulangsu	June 21	1		
Shanghai	June 19–25	2		
Do	July 31–Aug. 6		3	In international settlement and French concession.
Swatow	May 15–July 30	96	13	
India	Apr. 17–July 9			Cases, 89,569; deaths, 52,631.
Bombay	May 8–July 23	27	11	
Calcutta	May 8–July 30	564	347	
Karachi	May 29–June 4	1	1	
Madras	June 19–Aug. 6	383	200	
Rangoon	May 8–July 30	17	13	

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

Reports Received from June 25 to September 16, 1927—Continued

CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
India, French Settlements in	Mar. 30–June 30	15	8	
Indo-China (French)	Apr. 1–July 10			Cases, 11,145.
Annam	do	1,467		
Cambodge	do	235		
Cochin-China	do	1,354		
Saigon	June 4–July 14	9	4	
Tonkin	Apr. 1–June 30	8,089		
Iraq:				
Basra	Reported July 25	9	7	
Japan:				
Yokohama	July 31–Aug. 6	1	1	
Persia:				
Abadan	July 19–31		166	
Mohammerah	do		61	
Nasseri	do		10	
Philippine Islands:				
Manila	July 17–23	1		
Bulacan Province	June 7–July 8	3	2	
Leyte Province—				
Barugo	June 29	1	1	
Carigara	June 23	1	1	Final diagnosis not received.
Palo	May 18	1		
Siam	May 1–July 23			Cases, 226; deaths, 130.
Bangkok	do	43	12	
On vessel:				
S. S. Adrastus	Reported Aug. 6	1	1	At Yokohama, Japan.
War Mehtar (oil tanker)	Aug. 4	1	1	At Saffagha, Egypt.

PLAGUE

Argentina	Jan. 1–Aug. 2			Cases, 80; deaths, 44.
Buenos Aires	Apr. 10–May 7	4	3	
Cordoba	Jan. 11–Aug. 6	52	29	
Corrientes	June 1	1	1	
Entre Rios	Mar. 29–Aug. 2	7	1	
Santa Fe	Apr. 28–May 16	4	3	
Territory—				
Chaco—				
Barranqueras	May 29	2	2	
Formosa	June 25	3	2	
Pampa	July 27–Aug. 2	4		
Rio Negro	Aug. 6	1		
City—				
Merou	Reported July 14			Present.
Rosario	May 7	1	1	
Santa Fe	May 16	4	2	
Azores:				
Ribeira Grande	June 13–16			9 miles from port.
St. Michaels Island	May 15–July 30	3		
British East Africa:				
Kenya	Apr. 24–July 2	60	14	
Nairobi	May 22–28	6		
Tanganyika	Mar. 29–May 28		37	
Uganda	Jan. 1–Feb. 28	138	121	
Do	Mar. 27–June 18	366	360	
Canary Islands:				
Laguna district—				
Tejina	June 17	1		
Ceylon:				
Colombo	May 1–July 2	17	11	Plague rats, 4.
China:				
Amoy	July 3–23			Present in surrounding country.
Ecuador:				
Guayaquil	June 1–July 31			Rats taken, 48,290; found infected, 34.
Egypt	May 1–July 8			Cases, 7; deaths, 2.
Alexandria	June 4–10	1		
Beni-Souef	June 4–July 13	5	2	
Biba	June 4–10	1		At Nana.
Dakhalia	June 24–July 9	6	1	
Minia	Aug. 8–9	4		
Port Said	June 24–July 21	4	1	
Tanta district	June 4–10	1		
Greece	May 1–June 30	4	3	
Athens	June 1–Aug. 6	2		Including Piraeus.
Mytilene	Aug. 9	1		
Patras	May 30–Aug. 6	6	1	

Reports Received from June 25 to September 16, 1927—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Hawaii Territory:				
Hamakua	July 15			1 plague rodent.
Honokaa	May 17-23	2	2	
Kukuihaele	Aug. 12	1	1	
Paauilo	July 26-Aug. 1		4	
India	Apr. 17-July 9			Cases, 21,700; deaths, 8,253.
Bombay	May 8-July 23	80	67	
Madras	May 1-July 16	267	122	
Rangoon	May 8-July 30	48	44	
Indo-China (French)	Apr. 1-July 10	32		
Kwang-Chow-Wan	May 21-July 10	68		
Iraq:				
Baghdad	Apr. 8-May 28	12	1	
Java:				
Batavia	May 1-July 23	182	183	Province.
East Java and Madura	May 22-July 2	24	23	
Pasoerocan Residency	May 9			Outbreak reported at Nagdiwono.
Surabaya	Apr. 17-May 7	24	24	
Madagascar				Mar. 16-Apr. 30, 1927: Cases, 256; deaths, 135.
Province—				
Ambositra	Mar. 16-June 30	93	86	
Antisrabe	Mar. 16-May 15	8	8	
Miarinarivo (Itasy)	Mar. 16-May 31	45	45	
Moramanga	May 16-June 30	23	22	
Tananarive	Mar. 16-June 30	212	185	
Tananarive Town	do	22	20	
Nigeria	Mar. 1-May 31	228	177	
Peru	Apr.-May 31			Cases, 22; deaths, 8.
Departments—				
Ica	Apr. 1-30	1		
Lambayeque	do	1		
Libertad	Apr. 1-May 31	7	4	
Lima	do	13	4	
Lima City	Apr. 1-30	5	1	
Senegal	May 23-July 17			Cases, 442; deaths, 259.
Baol	June 2-July 31	45	23	
Cayor Frontier	July 4-31	126	74	
Dakar	June 20-July 30	80	50	
Facel	July 6	17	8	
Guindel	June 20-26	11	2	
M'Bour	July 6-10	28	23	
Medina	June 13-19	2	2	
Pout	July 4-10	1		
Rufisque	May 23-July 30	163	117	
Thies district	do	27	9	
Tivaouane	June 2-July 17	50	32	
Siam	Apr. 1-July 23			Cases, 10; deaths, 7.
Bangkok	May 8-June 11	2	1	
Syria:				
Beirut	June 11-July 10	3		
Tunisia	Apr. 21-July 10	144		
Tunis	July 25-Aug. 1	1		
Turkey:				
Constantinople	May 13-19	1		
Union of South Africa:				
Cape Province—				
Maraisburg district	May 1-14	2	2	Native.
Orange Free State—				
Edenburg district	July 17-23	3	2	Natives; on farm.
On vessel	July 10-16	3		On Norwegian vessel at Gavle, 125 miles north of Stockholm.
S. S. Avoroff	June 24-30	1		On Greek warship at port of Athens.
S. S. Ransholm	Aug. 5	3		At Gefle, Sweden, from Rufisque, Senegal.

SMALLPOX

Algeria	Apr. 21-July 10			Cases, 648.
Algiers	May 11-June 30	8		
Oran	May 21-Aug. 10	47		
Arabia:				
Aden	July 17-Aug. 1	2	1	
Brazil:				
Rio de Janeiro	May 22-July 30	9	8	
British East Africa:				
Kenya	Apr. 24-May 14	7	14	
Tanganyika	Mar. 29-June 18	2	22	
Zanzibar	Apr. 1-May 31	19	7	

Reports Received from June 25 to September 16, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
British South Africa:				
Northern Rhodesia	Apr. 30–July 23	166	2	
Canada	June 5–Aug. 27			Cases, 395.
Alberta	June 12–Aug. 27			Cases, 93.
Calgary	do	9		
British Columbia—				
Vancouver	May 22–29	2		
Manitoba	June 5–Aug. 27			Cases, 29.
Winnipeg	June 12–Aug. 27	17		
Ontario	June 5–Aug. 27			Cases, 177.
Ottawa	June 12–Sept. 2	100		
Sarnia	Aug. 7–13	1		
Toronto	June 19–July 23	9		
Quebec	June 19–Aug. 27	15		
Saskatchewan	June 12–Aug 27			Cases, 58.
Moose Jaw	Aug. 14–20	5		
Regina	July 17–Aug. 27	19		
Ceylon	May 1–7			Cases, 3; deaths, 1.
China:				
Amoy	May 8–28	1		
Do	July 3–16			Present in surrounding country.
Antung	July 4–31	3		
Cheefoo	May 8–14			Present.
Foochow	May 8–July 16			Do.
Hong Kong	May 8–July 30	19	18	
Manchuria—				
Anshan	May 22–28	1		
Changchun	May 15–July 30	8		
Dairen	May 2–July 3	10	5	
Fushun	May 15–July 30	10		
Harbin	June 13–July 10	4		
Kai-Yuan	July 3–9	2		
Mukden	May 22–July 30	6		
Pensihu	July 3–9	1		
Ssupingkai	May 8–July 9	3		
Tientsin	May 8–July 30	18		
Chosen	Feb. 1–May 31			Cases, 451; deaths, 195.
Chinnampo	Apr. 1–May 31	2		
Fusan	Apr. 1–30	1		
Gensan	May 1–31	1		
Seishin	Apr. 1–30	1		
Curaçao	May 29–June 4	1		Alastrim.
Ecuador:				
Guayaquil	June 1–30	2		
Egypt	May 7–July 29			Cases, 21; deaths, 3.
Alexandria	May 21–June 17	4	1	
Cairo	Jan. 22–Apr. 15	14	3	
France	Apr. 1–June 30			Cases, 178.
Lille	July 24–30	1		
Paris	May 21–June 30	11	2	
Gold Coast	Mar. 1–May 31	33	7	
Great Britain:				
England and Wales	May 22–Aug. 20			Cases, 2,591.
Birmingham	Aug. 14–20	1		
Bradford	May 29–June 11	2		
Cardiff	June 19–July 2	4		
Leeds	July 17–Aug. 20	5		
Liverpool	July 17–30	1		
London	May 15–June 18	2		
Newcastle upon Tyne	June 12–Aug. 13	5		
Sheffield	June 12–Aug. 6	25		
Scotland—				
Dundee	May 29–July 2	5		
Greece	June 1–30	14		
Salonika	July 12–18		1	
Guatemala:				
Guatemala City	June 1–30		9	
Guinea (French)	June 4–10	9		
India	Apr. 17–July 9			Cases, 60,217; deaths, 15,704.
Bombay	May 28–July 23	199	131	
Calcutta	May 8–July 30	363	276	
Karachi	May 15–Aug. 6	10	5	
Madras	May 22–July 30	18	6	
Rangoon	May 8–July 30	169	52	
India, French Settlements in	Mar. 20–June 18	174	111	
Indo-China (French)	Mar. 21–July 20			Cases, 314.
Saigon	May 14–20	1	1	
Iraq:				
Baghdad	Apr. 10–16	2		
Basra	Apr. 10–July 16	2	1	

Reports Received from June 25 to September 16, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Italy	Apr. 10–May 21	13		
Jamaica	May 29–July 30	24		Reported as alastrim.
Japan	Apr. 3–May 7			Cases, 19.
Nagasaki City	June 20–Aug. 7	25	6	
Taiwan Island	May 21–31	1		
Java:				
Batavia	May 22–July 23	3		
East Java and Madur	Apr. 24–July 9	12		
Latvia	Apr. 1–30	1		
Mexico	Mar. 1–31			Deaths, 162.
Durango	June 1–30		1	
La Oroya	Apr. 1–June 30			Present.
Monterey	July 1–31	6	4	
San Luis Potosi	May 29–Aug. 13		11	
Tampico	June 1–July 31	1	2	
Torreon	Aug. 7–13		1	
Morocco	Apr. 1–June 30	154		
Netherlands India:				
Borneo—				
Holoe Soengei	Apr. 21			Epidemic in two localities.
Pasir Residency	Apr. 30–May 6			Epidemic outbreak.
Samarinda Residency	May 21–27			Do.
Nigeria	Mar. 1–May 31	2,077	513	
Persia:				
Teheran	Feb. 21–Apr. 20		5	
Poland	Apr. 10–July 9	17	2	
Portugal:				
Lisbon	May 29–Aug. 6	17	1	
Senegal:				
Medina	July 4–10	7		
Siam	Apr. 1–July 23			Cases, 168; deaths, 40.
Bangkok	May 1–July 23	13	7	
Spain:				
Valencia	May 29–June 4	2		
Straits Settlements	June 12–18			Cases, 3.
Singapore	Apr. 1–June 18	7	2	
Sumatra:				
Medan	June 5–11	2		
Switzerland:				
Berne	June 26–July 2	1		
Tunisia	Apr. 1–June 10			Cases, 10.
Tunis	June 1–10	1		
Union of South Africa:				
Cape Province	July 17–23			Outbreaks.
Elliott district	May 11–June 10			Outbreaks.
Idutywa district	July 3–9			Do.
Kalanga district	May 11–June 10			Do.
Transvaal—				
Barberton district	May 1–7			Do.
Venezuela:				
Maracaibo	July 12–18		1	

TYPHUS FEVER

Algeria	Apr. 21–July 20			Cases, 399; deaths, 39.
Algiers	May 11–July 31	26		
Oran	May 21–Aug. 10	33		
Bulgaria	Mar. 1–June 20			Cases, 206; deaths, 18.
Sofia	June 4–Aug. 5	2		
Chile:				
Antofagasta	Apr. 16–May 31	1		
Concepcion	May 29–June 4		1	
La Calera	Apr. 16–May 31	1		
Ligua	Mar. 16–31	2		
Puerto Montt	Apr. 16–May 31	1		
Santiago	do	5	1	
Talcahuano	July 10–16		1	
Valparaiso	Apr. 16–Aug. 6	4	1	
China:				
Manchuria—				
Harbin	July 25–31	3		
Mukden	May 29–June 4	1		
Tientsin	July 10–16	1		
Chosen	Feb. 1–May 31			Cases, 512; deaths, 42.
Chemulpo	May 1–June 30	15	1	
Gensan	do	2		
Seoul	Apr. 1–June 30	30	2	

Reports Received from June 25, to September 16, 1927—Continued

TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Czechoslovakia	Apr. 1-June 30			Cases, 49.
Egypt	May 28-July 29			Cases, 120; deaths, 18.
Alexandria	May 21-Aug. 5	13	5	
Cairo	Jan. 15-Apr. 22	30	8	
Estonia	Apr. 1-30			Case, 1.
Greece	June 1-30	2		
Athens	do		9	
Iraq:				
Baghdad	Apr. 24-30	1		
Irish Free State:				
Cork County	July 3-9	1		In urban district.
Latvia	Apr. 1-May 31	17		
Lithuania	Feb. 1-June 30	303	37	
Mexico	Feb. 1-Mar. 31			Deaths, 88.
Mexico City	May 29-Aug. 6	26		Including municipalities in Federal District.
San Luis Potosi	July 31-Aug. 6		1	
Morocco	Apr. 1-July 10	815		
Palestine	May 24-Aug. 8			Cases, 16.
Haifa	do	6		
Jaffa	Aug. 2-8	1		
Jerusalem	June 28-July 4	1		
Mahneim	May 17-23	1		In Safad district.
Nazareth	July 19-25	1		
Safad	May 17-Aug. 8	10		
Peru:				
Arequipa	Apr. 1-30		1	
Poland	Apr. 10-July 9	1,009	92	
Portugal:				
Lisbon	May 29-June 4	1		
Rumania	Apr. 3-June 25	923	61	
Tunisia	Apr. 22-July 20			Cases, 158.
Tunis	July 5-11	1		
Turkey:				
Constantinople	May 13-19		2	
Union of South Africa	Apr. 1-30			Cases, 55; deaths, 8, native. In Europeans, cases, 2.
Cape Province	Apr. 1-July 23	42	5	Outbreaks.
Albany district	June 5-11			Do.
East London	May 22-28	1		Do.
Glen Gray district	May 1-7			Do.
Kentani district	June 26-July 2			Do.
Qumbu district	May 1-7			Do.
Umzimkulu district	June 26-July 2			
Natal	Apr. 1-July 9	7	3	
Impendhle district	June 5-11			Do.
Orange Free State	Apr. 1-July 23	5		
Transvaal	Apr. 1-30	1		
Johannesburg	July 3-16	18	5	
Yugoslavia	May 1-July 31			Cases, 15; deaths, 4.

YELLOW FEVER

Dahomey (West Africa):				
Porto Novo	July 1	1	1	In Syrian woman.
Gold Coast	Apr. 1-May 31	45	20	
Liberia:				
Monrovia	May 29-July 8	4	5	
Senegal	May 27-July 31			Cases, 5; deaths, 2.
Dakar	July 9	1		
Do	Aug. 8	2	2	
M'Bour	May 27-June 19	5	5	
Ouakam	June 2-Aug. 8	2	1	
St. Louis	Reported Aug. 21		1	
Thies	July 10	1	1	In European.
Tivaouane	May 27-June 8	5	5	

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