PUBLIC HEALTH REPORTS

VOL. 43 FEBRUARY 3, 1928 NO. 5

PREVALENCE OF INFLUENZA IN THE UNITED STATES

During the year 1927 comparatively few cases of influenza were reported. During the first four months of the year the contrast with the corresponding period of 1926 was marked.

The following table gives the number of cases of influenza as reported by 28 States for 52 weeks of the years 1925, 1926, and 1927:

Cases of influenza reported by 28 States for 52 weeks

	Cases
1925	83,790
1926	110,494
1927	36,373

The estimated population of these States in 1927 was 62,771,000.

At the close of the year the comparison is not so favorable for the year 1927, although there are no indications of any unusual prevalence of influenza. The following table gives, by four-week periods, the numbers of cases reported by the health officers of 28 States for the last 20 weeks of the years 1925, 1926, and 1927:

Influenza cases reported by four-week periods for the last 20 weeks of years 1925, 1926, and 1927

Four weeks ended—	Corresponding weeks—		
	1927	1926	1925
Sept. 10, 1927	629	683	495
Oct. 8, 1927	777	966	569
Nov. 5, 1927	1,429	2,087	1,559
Dec. 5, 1927	2,022	2,446	2,256
Dec. 31, 1927	3,035	2,946	3,015
Total	7,892	9,128	7,894

The death rates from influenza and pneumonia, all forms (combined), during the 10-year period from 1917 to 1926, inclusive, in the registration area, were as follows:

Death rates per 100,000 from pneumonia, all forms, and influenza (combined) in the registration area

1917	167.8	1922	133.5
1918	587.0	1923	153.7
1919	222.3	1924	117.7
1920	203.3	1925	123.1
1921	99.8	1926	143.2

TULARAEMIA AMONG MEADOW MICE (*Microtus californicus aestuarinus*) IN CALIFORNIA

By J. C. PERRY, *Senior Surgeon, United States Public Health Service*

During September, 1927, Messrs. Stanley E. Piper and W. P. Garlough, of the United States Biological Survey, while investigating conditions in a selected area in Contra Costa County, Calif., preliminary to placing thalium poison for squirrel eradication, noted that there was a heavy infestation with both wood rats and meadow mice (*Microtus californicus aestuarinus*) and that some epidemic disease existed among the mice, as large numbers of dead and sick mice were found. These men were familiar with the migration and disease in the meadow mice that occurred in Kern County, Calif., in 1926, as well as with the bacteriological findings of Surg. N. E. Wayson [1] in his investigation of that disease. They thought that probably the same disease found in the mice in Kern County was responsible for the mortality noted among those in Contra Costa County and that it would be of value and interest to determine whether this was true or whether some other disease was the responsible factor.

An inquiry was made as to whether the United States Public Health Service plague laboratory at San Francisco would undertake the examination of some of these mice, and upon being answered that it would do so, two mice were sent to the laboratory on September 24, 1927.

Upon dissection, these mice showed no gross pathological lesions and none of the appearances noted in mice dying from mouse septicemia. However, smears from the spleen showed numerous thin, short bacilli that presented the appearances of *Bacterium tularense*.

Inoculations of animals were made by grinding up the spleens of the mice and using a portion of this material subcutaneously. Two white mice and one white rat were inoculated from each of the original wild mice. Therefore, two series of experiments were run and may be designated as first and second series. At the same time, September 24, inoculations were made from the spleens on agar plates.

FIRST SERIES

The two white mice and the rat inoculated on September 24 died on September 26. There was some subcutaneous fluid at point of inoculation, but no morbid changes were seen in the spleen, liver, or lungs. The absence of gross pathological lesions was probably due to the early death of the animals. Microscopic preparations made from the subcutaneous fluid showed numerous small organisms like

[1] Wayson, N. E.: An epizootic among meadow mice in California, caused by the bacillus of mouse septicemia or of swine erysipelas. Pub. Health Rep., 42: 1489-1493, (June 3) 1927.

those seen in smears from the wild mice. This fluid was plated on plain agar, but no growth of the thin, short rods occurred.

On September 26, two guinea pigs were inoculated from the spleen of one of the wild mice. One inoculation was subcutaneous and the other was pocketed.

SECOND SERIES

The white mice inoculated on September 24 from the second wild mouse died on September 28. Their spleens were enlarged, dark in color, and quite firm. The lymphatic glands were enlarged. Liver and spleen were not stippled. Many organisms of the same type as previously mentioned were found in microscopic preparations made from the spleen and enlarged glands. The rat was killed on September 30. Its spleen was slightly enlarged and firm, and showed some white punctate spots (stippling). Smears of the spleen showed thin, short rods.

Two guinea pigs were inoculated from the spleen and glands of a white mouse of the second series that died on September 28.

GUINEA PIGS

The pigs inoculated on September 26 from the spleen of one of the wild mice died on October 6, living nine days. The pigs (second series) inoculated on September 28 died on October 4 and 5, respectively.

The gross pathological findings were the same in all four pigs. The spleens were enlarged, dark in color, and finely studded with small, white punctate spots (markedly stippled). The livers were also stippled. The lesions were typical of tularaemia.

CULTURES

As no growth had occurred on ordinary culture media, cultures were made on coagulated egg yolk medium from the spleens of the guinea pigs that died on October 5. A pearly growth occurred on this medium, which conformed in morphological and cultural characteristics to that of a strain of *Bacterium tularense* which has been maintained in the laboratory since 1919.

Two guinea pigs were inoculated from these cultures on October 12, one of which was killed on October 17 while very sick and the other died the following day. The gross lesions in the pigs inoculated with cultures were the same as those noted above in pigs which had been inoculated with mouse tissue.

Cultures obtained from the spleen of the pig that died October 18 bore the morphological and cultural characteristics of *Bacterium tularense.*

DISCUSSION

The demonstration of tularaemia in the meadow mice submitted was effected by careful observance of laboratory procedure. Upon dissection they showed no gross morbid changes and might have been discarded by a less trained worker than the technician in this laboratory, who is familiar with both tularaemia and mouse septicemia, including both the pathology and bacteriology of these diseases. Credit is due Michael Burkel, the laboratory technician, for excellent work in carrying out this investigation under the direction of the writer.

Pigs inoculated with this strain often die in six or seven days. However, animals inoculated by simply rubbing the diseased spleen on a scarified area will live several days longer than when the inoculation is made from material of the ground spleen. One pig inoculated by the former method lived 14 days.

Guinea pigs that live 10 or 14 days are more likely to show lung lesions of tularaemia, and the one of our series that lived 14 days showed the entire lungs studded with white spots. No stippling was noted in the lungs of any of the other pigs.

The spleens of the inoculated guinea pigs may be firm, almost granular on maceration, or softened. This seems independent of the length of time the pig lives, and occurred in equal proportion in our series.

It was noted in isolating cultures that material secured by searing the surface of the spleen and passing a loop through this area very often did not result in any growth; but when ground spleen pulp was used as an inoculum, the surface of the spleen having been previously sterilized by dropping it into boiling water, satisfactory results followed.

It was noted that a much larger number of organisms was present in smears made from the spleens of mice than in those made from the spleens of rats and guinea pigs. This held equally true for the wild mice and the white mice in the laboratory.

Meadow mice harbor mites. This was noted in the examination of those from Kern County, Calif., in 1926; and since the mice migrate for food and live together in nests, transmission of tularaemia among them by mites is probable.

SUMMARY

Two meadow mice (*Microtus californicus estuarinus*) collected in nature in Contra Costa County, Calif., where large numbers of sick and dead mice were found, were sent to the United States Public Health Service plague laboratory in San Francisco for examination on September 24, 1927. Spleens of the wild mice were inoculated into

white mice, white rats, and guinea pigs, causing the typical lesions of tularaemia, and from the latter *Bacterium tularense* was isolated. The organism was a slender, short rod, Gram-negative, nonmotile, and grew only on coagulated egg yolk and blood glucose cystine agar, and not on ordinary plain agar. It was agglutinated out to the full anti-*tularense* titre (1:1280) of a known anti-*tularense* serum. Sections of the liver of infected white mice showed the hepatic cells packed with these organisms. Spleen tissue rubbed on the abraded skin of a guinea pig caused its death with the typical lesions of tularaemia—caseous lymph glands, spotted spleen, and spotted liver.

This is the first record of *Bacterium tularense* having been isolated from naturally infected wild mice.

CURRENT PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT OF THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT, PUBLISHED AT GENEVA, DECEMBER 15, 1927 [1]

Plague.—Only sporadic cases of plague were reported during the autumn months in the Mediterranean area. In Egypt, no case was reported from September 11 to November 12; in the following two weeks, five cases occurred at Alexandria.

No case of plague had been reported from Syria since September 17. No plague was reported from Tunisia between August 7 and November 20. In Algeria, 1 plague case was reported at Algiers and 2 cases were reported at Oran during the first 5 days of November; an additional case was reported at Oran on November 17.

In Greece, plague cases occurred in only two centers—at Patras and Plomarion on the island of Mytilene (Lesbos). There were 2 cases at Patras in September and 3 cases in November; at Plomarion there were 6 cases in September, 3 in October, 3 in November, and 1 on December 1. A Greek steamer was sent to the quarantine station at Vigo, in Spain, on November 19, three plague cases having occurred on board.

Two cases of pneumonic plague occurred on November 30 at Las Palmas on the Canary Islands.

Plague incidence was declining during September and October, or was lower than in preceding months, in Kenya, Nigeria, Uganda, and Senegal. In Uganda, the cases reported in 1927 up to October 15 numbered 1,908, which is more than were reported in any of the preceding five years, but a much lower number than was reported in 1921.

[1] From the Office of Statistical Investigations.

October returns from Madagascar (166 cases) were lower than for the corresponding month of the preceding two years; the seasonal maximum usually is reached in December or January. In the Union of South Africa three cases of plague were reported between October 16 and November 19 on inland farms.

Plague incidence in India up to the end of October had been much lower than the mean incidence in preceding years. The incidence in the various provinces of India is described in the Report (a monthly publication), as follows:

> Excluding Burma, no plague has been reported anywhere east of Azamgarh in the United Provinces. During the nine weeks ended October 15, there were 33 deaths attributed to plague in the United Provinces and 33 in the Punjab, inclusive of native States; the corresponding figures for 1926, which was also a very favorable year, were 104 and 306, respectively. During the nine weeks, 192 deaths from plague were reported in the Central Provinces, as compared with 932 during the corresponding period of the preceding year. The incidence is lower than last year in Hyderabad and Mysore, and about the same in the Bombay and Madras Presidencies. Plague is usually at its maximum in September or October in the Deccan, but during the week ended October 15 there was a marked increase of plague in the Districts of Dharwae and Satara in the Bombay Presidency. Weekly returns of plague deaths in Burma have constantly been between 20 and 40 since July.

In Siam, 24 plague cases were reported in the first 10 months of 1927, of which 9 occurred at Bangkok. During the same period, 73 cases were reported in Cambodia, 17 in Cochin-China, and none elsewhere in French Indo-China.

No plague case had been reported from any Chinese port since early in August, when plague was present at Amoy.

The Argentine Republic reported cases of plague as occurring in several inland localities. Ten cases were reported at the end of October in the Province of Cordoba with another case in the latter part of November; 1 case was reported on November 14 near Bahia Blanca, and 1 case on November 26 at Rosario.

In Peru, fewer cases of plague were reported during the first 9 months of 1927 (168 cases) than during any of the preceding 15 years.

Cholera.—No case of cholera was reported in ports west of Bombay during the five weeks ended December 3. The last case occurred at Basrah on October 15, and Lingah was declared free from cholera on November 26. The total number of cholera cases reported in Iraq showed no decrease in the first half of November (281 cases were reported during the 4 weeks ended November 19, as compared with 270 during the preceding 4 weeks) although the epidemic was under complete control in the original centers of infection. A comparison of the incidence in the present epidemic with that in the previous epidemic of 1923 is given in Table 1.

TABLE 1.—*Cholera cases and deaths reported in Iraq, by Provinces, during the epidemics of 1923 and 1927*

Province	July 17 to Nov. 11, 1927		Aug. 11 to Nov. 23, 1923	
	Cases	Deaths	Cases	Deaths
Basrah Liwa:				
Basra town	350	276	605	436
Other localities	24	15	0	0
Amarah Liwa:				
Amarah town	114	87	75	41
Other localities	63	50	125	78
Muntafiq Liwa	174	104	178	122
Diwaniyah Liwa	120	72	5	1
Baghdad Liwa:				
Baghdad town	3	2	134	92
Other localities	22	8	41	22
Kut Liwa:				
Kut town	12	8	6	2
Other localities	60	39	56	15
Hillah Liwa	88	54	19	12
Kerbalah Liwa	74	55	163	115
Dulaim Liwa:				
Ramadi town	7	7	0	0
Other localities	75	53	25	15
Diyalah Liwa	0	0	208	146
Total	1,186	830	1,640	1,097

A fresh outbreak of cholera in Bengal caused the total incidence in India to increase in October in spite of a substantial decrease in the Deccan as well as in the Upper and Middle Ganges Plain. Deaths from cholera in the various Provinces of India in recent months are shown in Table 2.

TABLE 2.—*Deaths from cholera in the Provinces of India, by fortnightly periods, from July 3 to October 22, 1927*

Province	July 3 to 16	July 17 to 30	July 31 to Aug. 13	Aug. 14 to 27	Aug. 28 to Sept. 10	Sept. 11 to 24	Sept. 25 to Oct. 8	Oct. 9 to 22
Punjab and Delhi	1,312	986	275	351	290	158	26	2
Punjab States	269	205	13	37	9	129	43	39
United Provinces	1,250	1,126	903	617	248	213	169	140
Central India Agency	420	381	276	411	518	92	-------	10
Bihar and Orissa	2,716	2,877	2,254	2,176	1,343	851	537	429
Bengal	444	650	679	672	530	916	1,318	2,619
Assam	110	89	178	295	292	311	290	570
Central Provinces	728	696	818	1,986	2,596	1,723	1,059	550
Madras Presidency	2,455	2,352	1,975	1,538	985	614	522	520
Hyderabad	322	653	1,097	1,312	1,777	1,095	[1] 179	395
Bombay Presidency	1,584	1,814	2,291	2,014	1,206	506	439	354
States in Bombay Presidency	192	246	170	36	24	9	98	13
Burma	73	141	162	118	63	66	129	97
Other Indian States	94	17	18	27	4	6	1	0
Total	11,969	12,233	11,109	11,590	9,885	6,689	4,810	5,739

[1] One week only.

Cholera continued to decrease in French Indo-China. During the first 20 days of November 105 cases were reported in Cambodia, Cochin-China, and southern Laos, 88 in Annam, and none in Tonkin. In Siam there were 53 cases in the four weeks ended November 5.

The Philippine Islands were practically free from cholera during 1927.

Yellow fever.—The incidence of yellow fever in Senegal decreased markedly in the second half of November. Sixteen cases were reported during the four weeks ended November 29, of which 7 were at Dakar, 3 at Thies, 2 each at Mekke and Sebikotane, and 1 each at Louga and Khombole. Six of these cases were among Europeans.

One case was reported on November 21 at Grand Popo in Dahomey.

Only one case was reported in October in the Gold Coast Colony, at Koforidua.

Smallpox.—The following reports of smallpox were recorded from continental European countries in October:

Seven cases in France, 4 cases in Greece, and 2 cases in Latvia. Reports for October have not as yet been received from Italy, Spain, and the U. S. S. R. In Italy there were 2 cases during the four weeks ended September 25. Four cases were reported in the Ukraine in August.

The incidence of mild smallpox in England and Wales increased in November but was not higher than at the corresponding season of last year. During the four weeks ended December 3 there were 1,083 cases, as compared with 1,200 during the corresponding four weeks of 1926.

In Algeria the severe type of smallpox has been prevalent during 1927. In October and November its incidence increased; 683 cases were reported in October, and 661 cases in the three weeks ended November 19. The epidemic is most extensive in the department of Oran. In Tunis 45 cases of smallpox were reported during the four weeks ended November 27.

An outbreak of severe smallpox in Northern Rhodesia is indicated by the report for October. In the five weeks ended November 4, 317 cases and 75 deaths were reported, as compared with 183 cases and 22 deaths in the third quarter of last year.

Enteric fever.—The seasonal maximum incidence of enteric fever was later than usual in most European countries, and nearly everywhere the disease was more prevalent than in 1926. Only in Germany, the Netherlands, and Sweden was the incidence in 1927 considerably lower than in 1926. The disease has been much more prevalent than in the preceding year in Poland, Rumania, the Kingdom of the Serbs, Croats and Slovenes, Bulgaria, Greece, and Italy. The incidence in European countries in the past year is compared with that in the preceding year in Table 3.

TABLE 3.—*Enteric fever cases reported in European and certain other countries, by quarters, 1925–1927*

Country	1925		1926				1927				
	III	IV	I	II	III	IV	I	II	III	IV	Up to—
Germany	5,913	2,330	1,254	1,580	6,334	3,220	1,253	1,476	3,069	988	Nov. 12
England and Wales	995	700	491	577	1,005	668	464	779	1,233	948	Dec. 3
Austria	1,046	720	395	439	952	590	251	456	1,024	220	Nov. 12
Belgium	410	274	174	161	366	237	143	218	281	254	Dec. 3
Bulgaria	809	1,819	416	235	547	1,479	478	254	1,078	744	Oct. 31
Denmark	163	48	27	53	116	45	21	36	120	60	Do.
Scotland	96	47	42	52	109	57	40	41	110	79	Dec. 3
Estonia	310	247	133	125	238	187	111	137	292	91	Oct. 31
Irish Free State	143	114	30	26	26	34	83	78	80	73	Dec. 3
Finland	575	535	189	308	527	380	89	182	531	187	Nov. 15
France	2,146	1,852	1,598	1,314	2,351	2,851	1,729	1,456	2,482	811	Oct. 31
Greece	275	575	159	85	278	324	896	178	946	283	Nov. 15
Hungary	2,063	2,236	978	490	3,119	3,362	933	608	2,930	1,432	Oct. 31
Italy	9,955	8,604	2,802	2,818	13,567	17,022	5,068	4,810	16,727	-------	Sept. 25
Latvia	368	269	160	177	310	217	164	158	337	101	Oct. 31
Lithuania	191	172	152	163	266	258	132	160	283	76	Do.
Malta	117	125	36	54	122	175	116	154	235	-------	-------
Norway	100	39	19	28	45	32	22	29	179	5	Oct. 31
Netherlands	477	270	243	158	483	337	112	149	309	158	Dec 3
Poland	4,538	3,549	2,528	2,026	5,496	5,883	2,812	2,414	6,794	5,015	Nov. 19
Rumania	2,736	2,459	860	396	1,788	2,190	649	443	2,675	1,946	Nov. 6
Kingdom of Serbs, Croats, and Slovenes	1,324	1,494	590	308	1,106	1,973	577	420	1,878	1,316	Nov. 21
Sweden	544	186	87	96	477	172	63	93	164	83	Nov. 15
Switzerland	166	84	49	113	116	146	67	101	160	66	Dec. 3
Czechoslovakia	2,325	2,012	1,210	933	2,336	2,508	1,147	1,286	2,733	1,135	Oct. 31
Algeria	175	229	114	189	162	374	86	105	239	140	Nov. 19
Egypt	766	518	345	519	868	539	236	469	1,155	370	Nov. 18
Tunis	160	159	80	82	95	142	51	83	133	106	Dec. 4

Influenza.—No unusual prevalence of influenza had been reported by any European country up to the middle of December.

Lethargic encephalitis.—A decrease in cases of lethargic encephalitis in 1927 is noted in the reports of the few countries in which this disease is notifiable. In England and Wales, 1,483 cases had been notified up to December 3, 1927, as compared with 2,120 cases in 1926, 2,483 cases in 1925, and 4,825 cases in 1924.

Acute poliomyelitis.—The epidemic of poliomyelitis in Germany decreased rapidly in the second half of October and in November. The center of the epidemic was the Province of Leipzig.

In Denmark, fewer cases of poliomyelitis were reported in 1927 than for several years past, and the incidence in Sweden, though higher than in 1926, was lower than in 1924 or 1925.

DEATHS FROM AUTOMOBILE ACCIDENTS IN 76 LARGE CITIES OF THE UNITED STATES, 1926 AND 1927

The Department of Commerce announces that for the 52-week periods ended December 31, 1927, and January 1, 1927, the total numbers of deaths resulting from automobile accidents in 76 large cities of the United States were, respectively 7,016 and 6,586, indicating a death rate for this cause of 22 per 100,000 population in 1927

as compared with a rate of 21 in 1926—an increase of 5 per cent in the rate last year. The following table gives the number of deaths from such accidents and the death rates per 100,000 population for these cities for each of the two years:

Number of deaths from automobile accidents and death rates for 76 large cities of the United States, 1926 and 1927

(From the Bureau of the Census, Department of Commerce)

City	Deaths from automobile accidents, 52 weeks ended—				Death rate from automobile accidents per 100,000 population, 52 weeks ended—			
	Dec. 31, 1927		Jan. 1, 1927		Dec. 31, 1927		Jan. 1, 1927	
	Total deaths	Deaths due to accidents in city	Total deaths	Deaths due to accidents in city	For total deaths	For deaths due to accidents in city	For total deaths	For deaths due to accidents in city
Total (76 cities)	7,016	(1)	6,586	(1)	22.0	(1)	21.0	(1)
Akron	70	45	54	(1)	(2)	(2)	(2)	(1)
Albany	34	17	40	22	28.5	14.3	33.8	18.6
Atlanta	63	52	67	48	25.4	20.9	27.5	19.7
Baltimore	160	131	176	134	19.6	16.0	21.9	16.6
Birmingham	55	33	52	31	25.4	15.2	24.8	14.8
Boston	133	112	148	130	16.8	14.2	18.9	16.6
Bridgeport	24	19	28	19	(2)	(2)	(2)	(2)
Buffalo	126	107	139	(1)	23.0	19.5	25.6	(1)
Cambridge	25	(1)	18	(1)	20.2	(1)	14.8	(1)
Camden	64	22	53	22	48.2	16.6	40.6	16.9
Canton	44	38	32	(1)	38.9	33.6	29.2	(1)
Chicago	760	748	670	658	24.6	24.2	22.0	21.6
Cincinnati	130	(1)	124	(1)	31.6	(1)	30.3	(1)
Cleveland	243	224	257	(1)	25.1	23.1	26.8	(1)
Columbus	71	63	68	(1)	24.4	21.7	23.9	(1)
Dallas	46	34	54	42	21.8	16.1	26.7	20.8
Dayton	32	(1)	45	(1)	17.8	(1)	25.6	(1)
Denver	57	43	48	36	19.7	14.9	16.9	12.6
Des Moines	24	22	23	(1)	16.2	14.8	15.8	(1)
Detroit	386	382	355	(1)	29.0	28.7	27.6	(1)
Duluth	16	13	27	24	14.0	11.4	24.0	21.4
El Paso	28	21	19	12	24.7	18.6	17.4	11.0
Erie	37	35	40	(1)	(2)	(2)	(2)	(1)
Fall River	12	10	19	12	9.1	7.6	14.5	9.2
Flint	41	(1)	32	(1)	28.8	(1)	23.5	(1)
Fort Worth	28	27	25	22	17.2	16.5	15.7	13.9
Grand Rapids	34	22	31	12	21.1	13.6	19.9	7.7
Houston	46	42	34	32	(2)	(2)	(2)	(2)
Indianapolis	68	46	86	78	18.2	12.3	23.5	21.3
Jersey City	60	58	41	35	18.7	18.1	12.9	11.0
Kansas City, Kans	19	9	4	1	16.2	7.7	3.4	.9
Kansas City, Mo	78	63	83	72	20.4	16.5	22.2	19.2
Los Angeles	301	276	226	214	(2)	(2)	(2)	(2)
Lowell	15	11	22	(1)	13.6	10.0	20.0	(1)
Lynn	13	12	12	12	12.4	11.5	11.6	11.6
Memphis	61	32	43	(1)	34.2	17.9	24.4	(1)
Milwaukee	119	108	94	(1)	22.2	20.2	18.2	(1)
Minneapolis	62	50	68	49	13.9	11.2	15.7	11.3
Nashville	45	27	39	20	32.7	19.6	28.5	14.6
New Bedford	12	9	8	(1)	10.1	7.5	6.7	(1)
New Haven	49	21	46	27	26.6	11.4	25.4	14.9
New Orleans	95	70	89	(1)	22.4	16.5	21.3	(1)
New York	1,084	1,081	1,059	1,054	18.2	18.2	17.9	17.8
Newark, N. J	116	108	95	(1)	25.6	23.8	20.7	(1)
Oakland	54	44	55	51	20.3	16.5	21.2	19.6
Oklahoma City	21	21	27	(1)	(2)	(2)	(2)	(1)
Omaha	53	39	28	(1)	24.2	17.8	13.0	(1)
Paterson	52	31	25	12	36.3	21.6	17.6	8.4
Philadelphia	321	321	337	(1)	15.8	15.8	16.8	(1)
Pittsburgh	214	163	161	(1)	32.2	24.6	25.3	(1)
Portland, Oreg	51	39	39	(1)	(2)	(2)	(2)	(1)
Providence	59	33	63	(1)	21.1	11.8	23.0	(1)
Richmond	43	28	39	20	22.5	14.6	20.7	10.6
Rochester	62	47	66	53	19.2	14.5	20.6	16.6

[1] Not reported.
[2] Mortality rates are omitted, pending the establishment of more satisfactory estimates of population.

Number of deaths from automobile accidents and death rates for 76 large cities of the United States, 1926 and 1927—Continued

(From the Bureau of the Census, Department of Commerce)

City	Deaths from automobile accidents, 52 weeks ended—				Death rate from automobile accidents per 100,000 population, 52 weeks ended—			
	Dec. 31, 1927		Jan. 1, 1927		Dec. 31, 1927		Jan. 1, 1927	
	Total deaths	Deaths due to accidents in city	Total deaths	Deaths due to accidents in city	For total deaths	For deaths due to accidents in city	For total deaths	For deaths due to accidents in city
St. Louis	149	137	183	165	17.8	16.4	22.1	19.9
St. Paul	50	43	41	(1)	20.0	17.2	16.6	(1)
Salt Lake City	26	25	31	(1)	19.2	18.5	23.3	(1)
San Antonio	44	33	40	(1)	20.9	15.7	19.6	(1)
San Diego	37	26	47	37	32.2	22.6	42.8	33.7
San Francisco	126	122	121	112	21.9	21.2	21.4	19.8
Schenectady	12	8	23	(1)	12.9	8.6	24.8	(1)
Seattle	79	66	66	61	21.1	18.2	18.0	16.7
Somerville	16	9	14	(1)	9.9	8.9	14.0	(1)
Spokane	20	16	27	(1)	18.4	14.7	24.8	(1)
Springfield, Mass	25	14	35	23	17.0	9.5	24.2	15.9
Syracuse	39	26	43	31	19.9	13.2	23.3	16.8
Tacoma	30	22	20	(1)	28.1	20.6	19.0	(1)
Toledo	108	81	74	(1)	35.5	26.6	25.1	(1)
Trenton	43	24	34	15	31.5	17.6	25.4	11.2
Utica	17	9	19	(1)	16.5	8.7	18.6	(1)
Washington, D. C	107	78	98	74	19.9	14.5	18.6	14.1
Waterbury	13	13	15	(1)	(2)	(2)	(2)	(1)
Wilmington, Del	40	33	28	(1)	31.7	26.2	22.6	(1)
Worcester	48	30	31	(1)	24.6	15.4	16.1	(1)
Yonkers	22	21	20	(1)	18.6	17.7	17.2	(1)
Youngstown	55	53	43	(1)	32.6	31.4	26.2	(1)

[1] Not reported.
[2] Mortality rates are omitted, pending the establishment of more satisfactory estimates of population.

DEATHS FROM AUTOMOBILE ACCIDENTS BY FOUR-WEEK PERIODS, APRIL 26, 1925, TO DECEMBER 31, 1927

The following table gives the total number of deaths from automobile accidents in 76 large cities, by four-week periods, from April 26, 1925, to December 31, 1927. The lowest number of deaths from this cause for a four-week period during this time was 345, for the period ended March 27, 1926, and the highest was 681, for the four weeks ended November 5, 1927.

Total number of deaths from automobile accidents in 76 large cities of the United States, by four-week periods, April 26, 1925, to December 31, 1927

Four weeks ended—					
1925		*1926*		*1927*	
		Jan. 2	543	Jan. 1	518
		Jan. 30	422	Jan. 29	468
		Feb. 27	369	Feb. 26	437
		Mar. 27	345	Mar. 26	430
		Apr. 24	421	Apr. 23	484
May 23	417	May 22	492	May 21	521
June 20	490	June 19	544	June 18	499
July 18	490	July 17	481	July 16	570
Aug. 15	464	Aug. 14	495	Aug. 13	503
Sept. 12	518	Sept. 11	557	Sept. 10	525
Oct. 10	522	Oct. 9	644	Oct. 8	657
Nov. 7	604	Nov. 6	671	Nov. 5	681
Dec. 5	616	Dec. 4	627	Dec. 3	616
				Dec. 31	623

COURT DECISIONS RELATING TO PUBLIC HEALTH

Milk ordinance held valid.—(Oregon Supreme Court; Korth *v.* City of Portland et al.; Georgeson *v.* Same, 261 P. 895; decided November 29, 1927.) Suits were brought against the city of Portland by which it was sought to restrain the enforcement of an ordinance relating to milk sold within the city. The ordinance prescribed various requirements relative to the production and handling of milk, all of which were designed to secure the purity of same, and also imposed a license fee. The plaintiffs produced milk on dairy farms outside of the city, but sold the milk within the city. One of the contentions against the ordinance was that it was an attempt to exercise extraterritorial power. But the supreme court held adversely to this view, as the requirements touched only those persons who sold milk within the city. Another contention was that a State law, which related to peddlers, prevented the city from levying a license fee, the law providing that "Nothing contained in this act shall be deemed to impair or restrain the right of any incorporated city or town to enact and enforce reasonable regulations without imposing licensing fees, to require purity and wholesomeness in milk and other foods." However, the supreme court held that the quoted sentence was a nullity because not germane to the title of the act and thus in contravention of the State constitution. Regarding the license fee prescribed by the ordinance, the court stated:

> Such license fee is not levied for peddling. It is not provided for revenue primarily. It is a reasonable provision for the proper inspection and regulation of the sale of milk within the city. Those who are selling milk are required to register and pay a license, not because they are selling as peddlers, but to insure the proper regulation for the protection of the inhabitants of the city.

A third contention, against which the court also decided, was that the ordinance was void because it conferred arbitrary and unregulated power upon the health officer. In concluding its opinion, the court said:

> It follows that the ordinance attacked * * * is a valid exercise of the police power of the city of Portland. Plaintiffs have not complied with the valid provisions contained in the ordinance. The decision sustaining the demurrer and dismissing the bill is correct, and the decree of the circuit court is therefore affirmed.

Operation of swimming pool enjoined to prevent pollution of city water supply.—(Texas Court of Civil Appeals; Newton et al. *v.* City of Groesbeck, 299 S. W. 518; decided October 6, 1927.) For the purpose of preserving the purity of its water supply, a city brought suit to enjoin the operation of a commercial swimming pool and bathhouse, which was so located that its use would have contaminated the city supply. There was a statutory provision to the effect that no one had a right to pollute any water course or other public body

of water which was being used for drinking and domestic purposes. The trial court granted an injunction restraining the operation of the swimming pool and bathhouse, and on appeal the judgment of said court was affirmed by the court of civil appeals.

Recovery denied licensed scavenger for cleaning of privy vaults.—(Minnesota Supreme Court; Meinke *v.* Jannette, 216 N. W. 534; decided November 25, 1927.) The plaintiff, a licensed scavenger, brought an action to recover a certain amount for cleaning several privy vaults owned by defendant. The plaintiff had no agreement with the defendant for said cleaning, and the defendant did not consent to the doing of the work. Also no notice in writing to clean the vaults had been given to the defendant by the city health department as provided by city ordinance. The supreme court, in deciding against the plaintiff, held that the said written notice was essential.

PUBLIC HEALTH ENGINEERING ABSTRACTS

The Milk and Dairies Order, 1926. F. A. Belam. *Public Health* (British), vol. 4, No. 12, September, 1927, pp. 395–397. (Abstract by H. V. Pedersen.)

This article is a critical discussion of the 1926 milk and dairies order of England. Doctor Belam points out the good features of the order and also calls attention to a number of clauses, the meaning of which is not clear. The author openly challenges the probability of enforcing the order as it relates to proper washing of udders, flanks, etc., and preventing the use of milkers suffering from infectious diseases.

The author closes his discussion by outlining four definite recommendations for the purpose of arousing further discussion and which might also be useful to the Ministry of Health in amending the order. Although it is difficult for a reader unfamiliar with the order to follow the discussion, the four recommendations are quoted as follows:

1. It should be specified clearly to what sanitary requirements the 18 months' notice applies, and made clear that this notice is needed only when requirements justify it.

2. The particulars of registration should be clarified as to who must register, etc., and should define dairy to include milk shops; also dairyman should be defined. All farmers producing milk for sale should be registered, and no loophole of escape should be given.

Local authorities should be empowered to refuse registration for unsuitable premises, and if refused, sale of milk should be prohibited until registration is granted.

3. Model regulations specifying in detail as to air space, lighting and ventilation, drainage channels, flooring (impervious), walls (impervious covering), etc., should be immediately drafted so that farmers in all areas would have exactly the same requirements to carry out. It should be clearly stated that inlet and outlet ventilators to the open air are needed, and clear definitions of all sanitary desiderata should be included. This would remove the justifiable complaint of different standards in different areas, and would materially assist enforcement of regulations in courts of law by eliminating phrases such as "adequate lighting" or "suitably ventilated," which have no real meaning at all.

Included in these should also be insistence on removal of manure before each milking; the hanging up of milking stools and the cooling of all milk at the farm should be demanded. The provision of a dairy should also be insisted upon.

4. In the case of farms not owned by the farmer, both tenant and landlord should be served with any notice. At present it is legal only to call upon the tenant farmer to carry out alterations, which is very hard upon those with yearly leases, or whose landlord invariably refuses to cooperate. Dual service of notice would make the landlord also liable in law, and then an agreement between him and his tenant farmer could be arrived at.

Pasteurization of Milk for Small Communities. B. Evan Parry. Publication No. 36, Department of Health, Canada, 1926. 83 pages. (Abstract by P. R. Carter.)

This publication gives a more or less detailed discussion of raw and Pasteurized milk in their relation to the public health.

The various phases of the production and handling of raw milk are given. These include a discussion of the more common defects and methods of overcoming them and certain illustrations. Plans of dairy barns are appended.

The article describes the steps taken in the Pasteurization of milk. Various types of equipment, such as clarifiers, Pasteurizers, coolers, pumps, bottle fillers and cappers, and bottle washers are described and illustrated. Typical Pasteurization plant arrangements are also illustrated. A copy of the United States Public Health Service standard milk ordinance is appended.

In conclusion the article states: "The relation between an unclean and infected milk supply and infant mortality is becoming more and more obvious. The decline in the so-called infectious diarrheas of infancy in our large cities, coinciding with more universal Pasteurization of milk, is clinical evidence in favor of this relationship. The residual incidence of these diseases may be ascribed to imperfect Pasteurization, improper care of milk before and after Pasteurization, and perhaps more especially to ignorance and carelessness of those who have to do with the handling of the milk in the home. No matter how carefully the production and transportation of milk may have been supervised; no matter how wholesome it may have been when left on the doorstep, the use of dirty hands and unclean utensils and failure to keep properly cooled may allow a lethal infection to enter between that stage and the infant's stomach."

Use of Hypochlorites as a Sterilizing Agent for Dairy Utensils. W. A. Hoy and Janet R. L. Rennie. *Journal of Hygiene* (British), vol. 26, No. 2, July, 1927, pp. 127–131. (Abstract by P. R. Carter.)

Since disinfectants containing hypochlorites have been used for the sterilization of dairy utensils, and it has been claimed that such disinfectants are more effective than steam sterilization, this question was studied in the interests of the milk industry. Three proprietary disinfectants were studied. These contained "available chlorine" as follows: A—1.22 per cent; B—1.06 per cent; C—0.49 per cent.

Four series of experiments were conducted on milk churns of 10 and 17 gallons capacity, and the influence of different methods of treatment of the churns on the keeping qualities of milk and on the bacteriological condition of the churns was studied. The technique used in performing the experiments is given and the results are tabulated in the form of protocols.

The authors give their conclusions as follows: (1) The amount of "available chlorine" contained in these disinfectants varied from 1.23 per cent in disinfectant A to 0.49 per cent in disinfectant C; (2) a 6 per cent solution of disinfectant A failed to give the same degree of sterility in a churn as can be obtained by steam under working conditions; (3) the use of a chlorine preparation as a means of sterilizing churns necessitates the subsequent washing out of the churns with

water if the chlorine is to be removed before milk is added. This process introduces the danger of recontamination of the churn; (4) if the churn be not washed out after treatment with a chlorine preparation, there is grave danger that chlorine will be added to the milk. That this danger is not altogether hypothetical would appear to be the case, since in the United States where this method of sterilization is more extensively used than in this country, the Department of Agriculture has issued a bulletin describing a method for the detection of hypochlorites and chloramines in milk and cream. (U. S. Department of Agriculture Bulletin No. 1114, August, 1922.)

Mobile Milk Laboratory. Paul F. Krueger. *Illinois Health News*, vol. 13, No. 9, September, 1927, pp. 287–291. (Abstract by H. D. Cashmore.)

The Illinois Pasteurization law of 1925 made provisions for a mobile milk laboratory. After careful investigation and study as to its type, a very efficient laboratory was built which is now available for use in that State.

Visits will be made to the 352 plants located in 153 towns, and tests made of the quality of raw milk received, efficiency of the Pasteurization plant, and quality of milk distributed to consumers. The tests will include temperature, acidity, sediment, and bacterial content of milk at the different stages of the process, and, in addition, tests of the cleansing solutions and wash water. The field personnel consists of three men.

The laboratory is carried in a 21 passenger truck of the street-car type. A central aisle of full length, a 12 foot and a 9-foot bench with ample cabinet and drawer space, and a white enamel sink are built in. Water is furnished from a 24-gallon underslung pressure tank, electricity from a dual wiring system, and gas from presto-lite tanks. The sterilizers are heated by gasoline stoves, and the incubator and milk grader by electricity or gas.

It is possible for two cots to be placed in the aisle for sleeping in case of necessity, and heat is obtained from two exhaust heaters or 110-volt electric heaters.

Viability of Pathogenic Organisms in Butter. A. E. Berry. *Journal of Preventive Medicine*, vol. 1, No. 6, July, 1927, pp. 429–442. (Abstract by C. T. Butterfield.)

The author has determined the longevity of a number of pathogens in butter. The organisms and the numbers of days each was found to survive, follow: *A. aertrycke*, 273 days; *B. schottmulleri*, 293 days; *B. enteritidis*, 272 days; *B. typhosus* (Mississippi), 56 days; *B. typhosus* (Talladega), 292 days; *B. paratyphosus* A, 104 days; *B. suipestifer*, 73 days; *B. dysenteriae* (Flexner), 84 days; and *Streptococcus scarlatina*, 41 days. At no time was an increase observed.

The less resistant organisms decreased rapidly at the start; others showed a more gradual decline in numbers. The temperature of storage did not seem to affect markedly the rate until the butter became rancid; this destroyed all organisms rapidly.

The author also gives results with water and milk, reviews the literature of the subject, and gives a detailed description of his methods, procedure, and results.

On a basis of these results, butter must be considered a potential factor in the spread of communicable diseases.

Food Poisoning. Anon. *The Lancet* (No. 17 of vol. 2, 1927), No. 5434, vol. 213, October 22, 1927, p. 909. (Abstract by W. L. Havens.)

This article contains excerpts from a lecture delivered at the B. M. A. House, Tavistock Square, when Dr. W. G. Savage dealt with the subject of food poisoning.

On account of the necessity for conserving food supplies for long periods of time and the public demand for foods prepared in different ways, the problem of food poisoning has become an important item of public health work. Food

poisoning may be traceable to many different sources. Illness may be caused by a definitely poisoned plant or animal being consumed, as in the case of mushroom poisoning. Other sources include chemical poisoning from substances accidentally introduced into foods and bacteria developing in diseased meats and decomposed foods. These bacteria are frequently found in man-handled foods and even in foods which have been heated; they may be introduced accidentally during the subsequent cooling process.

Among the methods mentioned for preventing food poisoning may be included: (1) More rigid meat inspection; (2) sterilization of foods; (3) prevention of dust infection; (4) promotion of general cleanliness wherever foods are prepared or handled; (5) rat and mice extermination; (6) registration of all premises preparing and manufacturing made-up foods.

Another Milk-Borne Typhoid Epidemic. George D. Heath. *Illinois Health News*, vol. 13, No. 9, September, 1927, p. 281–284. (Abstract by H. D. Cashmore.)

A dairyman at Ullin had some sickness in his family prior to July 1, none of which could be definitely diagnosed as typhoid. However, the family of a neighbor did the work at the dairy and handled all the milk. There was sickness in this family prior to or about June 1, which was definitely proved to be typhoid fever and not malaria as had at first been thought. Evidently the neighbor's wife was an active carrier and handled the milk.

As a result of this condition there were found 8 cases of typhoid fever in Cairo, 5 in Mounds, and 1 case in Ullin among people who were known to use the raw milk from above-mentioned dairy which was being delivered to these towns. No new cases were reported after stopping the sale of milk from this dairy.

This situation indicates that there was some carelessness in regard to the handling of the milk from the dairy; and such cases point out the necessity for a law regulating the examination of food handlers.

Use of a Differential Stain in the Direct Enumeration of Bacteria in Pasteurized Milk. Margaret Beattie. *American Journal of Public Health*, vol. 17 No. 10, October, 1927, pp. 1031–1034. (Abstract by C. T. Butterfield.)

The literature dealing with the direct counting of bacteria in milk is briefly reviewed. A method of making direct counts of bacteria is given which differentiates between the living and the dead bacteria as well as gives the total count of both groups. A modification of Proca's methylene blue-fuchsin stain is employed.

The author concludes that in a comparison of plate counts of 31 samples of Pasteurized milk with direct counts, the latter vary less among themselves. There is a positive correlation between the two methods.

Raw Water Chlorination Experiments at Sandusky. O. F. Schoepfle. Sixth Annual Report of Ohio Conference on Water Purification, October, 1926, pp. 9–10. (Abstract by F. H. Waring.)

The increasing pollution of the raw water supply of Sandusky has taxed the purification plant to such extent that it has been impossible to produce an effluent, before chlorination, which is within the Treasury Department Standard.

The Sandusky water purification plant was reconstructed in 1914. It consists of 2 coagulating basins, 10 filters of 1 m. g. d. each, 2 clear wells, and equipment for coagulation of the water with a solution of aluminum sulphate and disinfection with liquid chlorine. The raw water intakes are two in number located in Sandusky Bay within 2,000 feet from shore.

Experiments were begun May, 1926, with prechlorination of the raw water to reduce the bacterial load on the water purification plant. A direct feed chlorinator was set up in an intake well in the raw water supply line about

500 feet ahead of the point of application of coagulant. Chlorine was applied at rates varying from 0.68 p. p. m. to 0.36 p. p. m., so that a residual chlorine of 0. 02 p. p. m. was present at the raw water suction well after a reaction period of about 10 minutes. Residual chlorine was entirely absent from the water when it reached the filters.

The number of bacteria in the raw water was reduced 70 per cent, and the number of *B. coli* was reduced 80 per cent before application of coagulant. Aside from its effect in bacteria removal, an improvement was noted in coagulation which permitted a saving of 20 per cent in coagulant. Also less trouble was experienced with algae. No satisfactory explanation for the improvement in the coagulation of prechlorinated water was arrived at.

In conclusion, it is stated that prechlorination of the raw water at Sandusky not only makes it possible to produce a filter effluent within the Treasury Department Standard, but effects a considerable saving in coagulant.

In general, the writer concludes that raw water chlorination can be advantageously employed in all water plants treating a highly polluted water where the products of chlorination are not offensive to taste and smell.

Description and Operating Results of the Girard Water-Softening Plant. Brooks D. Church. Sixth Annual Report of Ohio Conference on Water Purification, October, 1926, pp. 11–12. (Abstract by F. H. Waring.)

Girard is situated in Trumbull County north of the city of Youngstown. The water works was purchased by the city in 1922, and in 1925 a modern water-softening plant was constructed. The supply is obtained from an abandoned coal mine at a depth of 160 feet. The water is hard and has a high iron content. Consumption is about 400,000 g. p. d.

The softening plant consists of mechanical mixing chambers, settling basins, recarbonation chambers, two filters of one-half m. g. d. capacity each, a clear well of 93,000 gallons capacity, and two elevated storage tanks of 512,000 gallons total capacity. Chemical equipment consists in dry feed machines for application of lime and a carbon dioxide generating plant. The mixing chambers are four in number, 7 feet square in plan, and 14 feet deep. The retention period is 30 minutes. The tanks are provided with horizontal paddles which are rotated at the rate of 3 r. p. m. The settling basins have a retention period of three and one-half hours, and the outlet of each is over a skimming wall into the recarbonation chambers. These are 9 feet 3 inches by 10 feet 9 inches in plan and 12 feet 6 inches deep above the distribution grids. The grids in each chamber are perforated with 64⅛-inch openings spaced 14 inches one way and 16 inches the other way.

The carbon dioxide gas plant consists of a crusher for coal, a magnetic separator to remove foreign particles of iron, a feeder to the pulverizer, a combined pulverizer and blower which delivers coal to the furnace where it is turned to complete products of combustion. A scrubber and drier are provided and a motor-driven centrifugal water piston pump discharging into a receiver which is connected to the distributing grids. This plant will produce 21 pounds of CO_2 per hour.

Floats are provided in the clear well which actuate automatic starts and stops on the low service pumps. High service pumps are also automatically controlled by automatic devices actuated by a pressure regulator.

The quality of the supply is such that no disinfection is required. Bacterial analyses are made daily by the chemist in charge. Chemical analyses indicate

that by the application of 10 g. p. g. of lime (as CaO) the hardness is reduced from 192 p. p. m. to 90 p. p. m. Recarbonation removes all the carbonates and an excess of about 2 p. p. m. of CO_2 is present in the filtered water.

Combination of Excess Lime, Double Coagulation, and Adjustment of pH Value at Ironton. E. T. Edwards. Sixth Annual Report of Ohio Conference on Water Purification, October, 1926, p. 9. (Abstract by F. H. Waring.)

On account of the high bacterial content of the water in Ohio River from which the Ironton public water supply is obtained, double coagulation followed by filtration and disinfection has been practiced for several years. Prechlorination of the raw water was tried in 1925, but was discontinued on account of the disagreeable tastes produced, due to the presence of phenols in the water.

Excess lime treatment of the raw water was therefore tried in an effort to render the water safe without having to depend on chlorine disinfection. Lime was applied at the rate of 2 to 3 g. p. g. in the primary settling basin. A causticity of about 5 p. p. m. was obtained. Treatment was later increased to produce a causticity of about 20 p. p. m. Alum was applied in the mixing chamber preceding the secondary settling basin for the double purpose of removing the turbidity and lowering the pH value of the caustic water so that no incrustation of the sand would take place. The amount of alum required to produce a water free from carbonates was excessive, and experiments were conducted in the application of CO_2 to the lime-treated water. A machine called a "Ceco spray" was tried out. Its function was to absorb CO_2 from the gas given off by burning coke in the heating furnace. The results of these experiments proved that an insufficient amount of CO_2 could be absorbed by this machine and preparations are now being made to install a regular CO_2 generating plant consisting of the furnace, a scrubber, a drier, a compressor, and a distributing grid which will be located in the mixing chamber. Bacterial results have been fairly satisfactory. By excess lime treatment in the primary basin the *B. coli* index has been reduced from about 30,000 to 100 per 100 c. c. Even better results are hoped for when this method of treatment is continuous. No incrustation of the sand in the filters is taking place. The filters have become a true factor of safety and chlorine may be dispensed with at will. A saving in coagulant is effected when excess lime treatment is followed by recarbonation with CO_2 gas.

DEATHS DURING WEEK ENDED JANUARY 21, 1928

Summary of information received by telegraph from industrial insurance companies for the week ended January 21, 1928 and corresponding week of 1927. (From the Weekly Health Index, January 25, 1928, issued by the Bureau of the Census, Department of Commerce)

	Week ended Jan. 21, 1928	Corresponding week 1927
Policies in force	69, 723, 381	66, 588, 121
Number of death claims	14, 287	13, 298
Death claims per 1,000 policies in force, annual rate	10. 7	10. 4

Deaths from all causes in certain large cities of the United States during the week ended January 21, 1928, infant mortality, annual death rate, and comparison with corresponding week of 1927. (From the Weekly Health Index, January 25, 1928, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Jan. 21, 1928		Annual death rate per 1,000 corresponding week 1927	Deaths under 1 year		Infant mortality rate, week ended Jan. 21, 1928 [2]
	Total deaths	Death rate [1]		Week ended Jan. 21, 1928	Corresponding week 1927	
Total (68 cities)	7,836	13.4	14.0	763	865	62
Akron	39			4	9	43
Albany [3]	47	20.4	14.8	3	7	61
Atlanta	84	17.3	18.2	14	11	
White	50		16.7	7	5	
Colored	34	(6)	21.9	7	6	
Baltimore [3]	253	15.9	17.5	29	37	92
White	201		15.8	19	25	76
Colored	52	(6)	27.7	10	12	157
Birmingham	89	20.9	15.6	11	15	94
White	46		10.2	5	4	69
Colored	43	(6)	24.0	6	11	135
Boston	254	16.6	16.1	27	32	75
Bridgeport	34			3	3	55
Buffalo	147	13.8	16.0	16	19	69
Cambridge	31	12.9	11.4	4	2	71
Camden	36	13.9	9.8	5	5	80
Canton	25	11.2	12.4	5	5	119
Chicago [3]	680	11.3	12.9	68	90	58
Cincinnati	133	16.8	18.7	9	10	54
Cleveland	196	10.2	10.6	20	19	54
Columbus	88	15.5	16.8	9	6	84
Dallas	55	13.2	10.6	4	6	
White	41		9.6	3	4	
Colored	14	(6)	17.1	1	2	
Denver	114	20.3	16.0	9	9	
Des Moines	36	12.4	13.0	6	0	100
Detroit	274	10.4	11.0	38	56	59
Duluth	26	11.6	8.2	2	0	47
El Paso	38	16.9	13.8	7	6	
Erie	27			5	4	103
Fall River [3]	24	9.3	7.1	5	5	86
Flint	18	6.3	7.3	4	3	51
Fort Worth	30	9.3	7.3	2	0	
White	21		6.9	2	0	
Colored	9	(6)	10.6	0	0	
Grand Rapids	29	9.2	14.2	5	3	75
Houston	67			6	8	
White	49			4	5	
Colored	18	(6)		2	3	
Indianapolis	112	15.3	14.9	7	12	53
White	100		14.6	7	12	61
Colored	12	(6)	17.5	0	0	0
Jersey City	93	15.0	9.6	10	4	75
Kansas City, Kans	30	13.3	8.4	1	3	21
White	24		7.6	0	3	0
Colored	6	(6)	12.3	1	0	145
Kansas City, Mo	111	14.8	13.3	6	7	42
Knoxville	38	18.9	23.0	5	4	109
White	30		19.1	5	2	121
Colored	8	(6)	51.3	0	2	0
Los Angeles	276			25	23	72
Louisville	86	13.7	16.1	11	10	92
White	57		13.8	8	7	76
Colored	29	(6)	28.8	3	3	207
Lowell	20	9.5	11.3	2	4	42
Lynn	23	11.4	10.9	3	1	76
Memphis	77	22.2	21.9	3	8	35
White	32		16.3	1	3	19
Colored	45	(6)	32.1	2	5	63
Milwaukee	110	10.6	11.0	12	21	54
Minneapolis	96	11.0	12.0	12	3	72
Nashville	52	19.6	22.3	4	3	63
White	32		20.0	2	2	43
Colored	20	(6)	28.1	2	1	120
New Bedford	32	14.0	15.3	5	6	108
New Haven	36	10.0	13.0	1	2	14

See footnotes on p. 278.

Deaths from all causes in certain large cities of the United States during the week ended January 21, 1928, infant mortality, annual death rate, and comparison with corresponding week of 1927—Continued

City	Week ended Jan. 21, 1928		Annual death rate per 1,000 corresponding week 1927	Deaths under 1 year		Infant mortality rate, week ended Jan. 21, 1928 [2]
	Total deaths	Death rate [1]		Week ended Jan. 21, 1928	Corresponding week 1927	
New Orleans	185	22.5	23.2	7	19	34
White	111		19.6	4	5	29
Colored	74	[6]	33.6	3	14	44
New York	1,570	13.6	14.1	177	136	71
Bronx Borough	196	10.8	10.8	14	7	42
Brooklyn Borough	531	12.0	11.9	65	55	66
Manhattan Borough	641	19.1	20.2	83	55	98
Queens Borough	155	9.5	10.1	11	14	44
Richmond Borough	47	16.3	15.3	4	5	72
Newark, N. J	99	10.9	11.5	9	9	46
Oakland	65	12.4	11.9	5	5	54
Oklahoma City	36			5	4	
Omaha	62	14.5	10.2	4	1	46
Paterson	36	13.0	14.9	2	2	35
Philadelphia	516	13.1	15.7	40	73	54
Pittsburgh	174	13.5	17.9	14	31	46
Portland, Oreg	59			2	6	21
Providence	75	13.7	13.8	5	10	44
Richmond	48	12.9	17.7	6	10	78
White	31		14.5	5	4	101
Colored	17	[6]	25.3	1	6	37
Rochester	82	13.1	11.2	8	10	65
St. Louis	260	16.0	13.4	19	20	64
St. Paul	63	13.1	10.4	8	5	77
Salt Lake City [5]	32	12.1	12.7	0	4	0
San Antonio	65	15.6	14.8	12	9	
San Diego	46	20.1	21.7	3	2	57
San Francisco	168	15.0	15.8	7	15	44
Schenectady	23	12.9	15.7	4	1	125
Seattle	73	10.0	9.3	5	3	51
Somerville	20	10.2	11.8	4	2	138
Spokane	20	9.6	9.1	1	4	26
Springfield, Mass	36	12.6	11.7	1	3	16
Syracuse	38	10.0	12.7	2	5	24
Tacoma	27	12.8	12.2	3	0	77
Toledo	79	13.2	14.3	5	10	48
Trenton	31	11.7	14.9	3	7	51
Washington, D. C	162	15.3	17.3	16	15	91
White	90		16.3	6	8	50
Colored	72	[6]	20.3	10	7	185
Waterbury	18			2	3	58
Wilmington, Del	37	15.1	12.8	4	5	105
Worcester	54	14.3	11.7	0	2	0
Yonkers	23	9.9	11.4	1	5	23
Youngstown	44	13.2	10.2	4	8	53

[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.
[5] Deaths for week ended Friday, Jan. 20, 1928.
[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 Weeks Ended January 29, 1927, and January 28, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 29, 1927, and January 28, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928
New England States:								
Maine	2	3	21	4	185	75	0	0
New Hampshire		3		17		68		0
Vermont	2	1			99	24	0	0
Massachusetts	108	115	27	11	170	1,319	1	3
Rhode Island	7	16		11	1	1	0	0
Connecticut	29	46	31	7	48	164	0	0
Middle Atlantic States:								
New York	380	436	[1] 169	[1] 33	743	1,081	7	8
New Jersey	115	185	40	13	28	269	3	1
Pennsylvania	225	232			785	822	3	2
East North Central States:								
Ohio		221		16		291		5
Indiana	52	45	73	22	143	132	1	0
Illinois	114	178	53	21	1,575	61	3	5
Michigan	135	77		5	136	404	0	6
Wisconsin	41	42	51	86	710	48	8	5
West North Central States:								
Minnesota	41	27	2	3	328	3	6	4
Iowa [2]	28	32			163	86	0	1
Missouri	50	48	9	9	240	57	0	3
North Dakota	8	6			111	26	1	1
South Dakota		4		2	116	15	0	0
Nebraska	10	19	27	17	151	6	1	0
Kansas	19	33	9	5	262	21	0	1
South Atlantic States:								
Delaware	4	7	1	1	2	10	1	0
Maryland [2]	63	30	115	47	26	365	0	0
District of Columbia	24	34	1	9	1	20	0	0
Virginia								
West Virginia	20	26	65	22	120	79	1	1
North Carolina	41	53			162	4,056	0	1
South Carolina	17	27	1,299	1,083	90	1,126	0	0
Georgia	11	14	159	231	107	251	2	1
Florida	56	14	45	20	32	13	0	0

[1] New York City only.

[2] Week ended Friday.

Reports for Weeks Ended January 29, 1927, and January 28, 1928—Continued

Cases of certain communicable disease reported by telegraph by State health officers for weeks ended January 29, 1927, and January 28, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928
East South Central States:								
Kentucky		15		21		141		0
Tennessee	15	17	147	147	180	495	0	1
Alabama	37	47	91	275	79	332	0	3
Mississippi	16	25						
West South Central States:								
Arkansas	12	15	100	144		254	1	0
Louisiana	17	27	53	65	88	83	2	1
Oklahoma [3]	27	49	297	194	94	111	0	1
Texas	51	39	248	127	17	21	1	0
Mountain States:								
Montana	9	9			174		6	5
Idaho	1				130		0	0
Wyoming	7	3			276	8	4	0
Colorado	2	19	1		76	139	1	8
New Mexico	2		8		22	115	0	0
Arizona	1	2	2		16	8	0	3
Utah [3]	4	6	2	5	270	1	0	1
Nevada								
Pacific States:								
Washington	40	15		2	210	198	9	1
Oregon	10	7	111	32	75	21	0	1
California	148	155	44	40	1,731	100	7	2

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 29, 1927	Week ended Jan. 23, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928
New England States:								
Maine	0	0	44	23	0	0	1	5
New Hampshire		0		18		0		0
Vermont	0	0	8	17	0	0	0	0
Massachusetts	1	1	598	333	0	0	4	10
Rhode Island	0	0	20	45	0	0	1	1
Connecticut	1	1	104	124	0	15	6	1
Middle Atlantic States:								
New York	2	7	809	723	10	5	19	25
New Jersey	0	1	387	262	0	1	1	9
Pennsylvania	1	2	555	580	0	0	15	14
East North Central States:								
Ohio		0		347		21		15
Indiana	0	4	235	127	158	93	5	3
Illinois	0	4	365	358	57	38	9	11
Michigan	0	1	393	275	44	26	4	6
Wisconsin	3	0	198	187	17	35	2	1
West North Central States:								
Minnesota	0	0	284	170	6	2	2	3
Iowa [3]	0	0	28	81	13	75	0	2
Missouri	0	2	161	93	21	42	1	1
North Dakota	0	1	60	32	11	2	0	3
South Dakota	0	0	63	54	12	1	0	0
Nebraska	0	0	99	97	21	68	0	3
Kansas	1	0	201	180	59	106	2	4
South Atlantic States:								
Delaware	0	0	44	3	0	0	0	0
Maryland [3]	0	0	96	66	1	1	6	6
District of Columbia	0	0	32	39	6	0	0	2
Virginia	0				10			
West Virginia	0	2	65	68	13	37	19	4
North Carolina	2	0	65	70	47	117	2	0
South Carolina	4	4	7	21	24	10	7	9
Georgia	0	0	29	15	106	0	6	7
Florida	2	0	25	13	59	1	27	12

[3] Week ended Friday.

Reports for Weeks Ended January 29, 1927, and January 28, 1928—Continued

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 29, 1927, and January 28, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928	Week ended Jan. 29, 1927	Week ended Jan. 28, 1928
East South Central States:								
Kentucky		0		48		41		3
Tennessee	0	1	45	28	4	35	15	7
Alabama	0	0	34	24	97	11	10	19
Mississippi	0	0	12	12	15	22	4	8
West South Central States:								
Arkansas	0	2	7	12	3	18	7	10
Louisiana	0	0	20	10	7	17	14	8
Oklahoma [3]	2	2	48	52	25	150	0	11
Texas	0	3	40	58	73	41	4	22
Mountain States:								
Montana	0	0	143	22	1	20	2	1
Idaho	0	0	15	6	5	13	1	0
Wyoming	0	0	38	36	0	4	0	0
Colorado	1	2	97	146	24	18	2	3
New Mexico	0	0	38	11	0	1	0	3
Arizona	0	1	6	2	0	8	0	0
Utah [2]	0	0	15	11	1	19	0	1
Nevada								
Pacific States:								
Washington	0	1	95	66	61	46	4	4
Oregon	0	5	52	18	52	51	5	2
California	5	4	284	226	23	27	10	6

[2] Week ended Friday.

[3] Exclusive of Tulsa.

Reports for Week Ended January 21, 1928

DIPHTHERIA	Cases
District of Columbia	32
Georgia	12
Iowa [2]	9
INFLUENZA	
District of Columbia	1
Georgia	190
MEASLES	
District of Columbia	5
Georgia	65
Iowa [2]	76
MENINGOCOCCUS MENINGITIS	
Iowa [2]	1
SCARLET FEVER	
District of Columbia	29
Georgia	19
Iowa [2]	92
New Hampshire	34
SMALLPOX	
Iowa [2]	73
TYPHOID FEVER	
Georgia	9
Iowa [2]	1

[2] Week ended Friday.

Reports for Week Ended January 14, 1928

DIPHTHERIA	Cases
Iowa [2]	12
Ohio	195
INFLUENZA	
Ohio	53
MEASLES	
Iowa [2]	82
Ohio	176
MENINGOCOCCUS MENINGITIS	
Iowa [2]	3
POLIOMYELITIS	
Iowa [2]	3
Ohio	5
SCARLET FEVER	
Iowa [2]	84
Ohio	295
SMALLPOX	
Iowa [2]	100
Ohio	23
TYPHOID FEVER	
Iowa [2]	1
Ohio	14

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
December, 1927										
Alabama	2	335	479	112	425	32	6	132	18	73
Arkansas	0	81	351	109	92	82	3	51	13	25
District of Columbia	1	63	6	----	11	1	0	125	0	2
Illinois	32	844	161	28	124	----	14	1,229	100	69
Iowa	3	78	----	----	51	----	14	309	261	12
Louisiana	2	148	99	72	168	17	1	56	27	34
Maine	0	41	135	----	221	1	9	207	0	28
Maryland	2	168	107	2	404	0	3	133	0	49
Michigan	0	457	17	1	1,216	1	16	1,011	144	57
Minnesota	7	171	5	----	17	----	7	564	7	18
Mississippi	----	185	4,239	2,715	2,260	313	6	128	16	64
Missouri	14	332	32	39	105	----	7	508	190	41
New Hampshire	0	6	135	----	----	----	2	49	0	0
New York	13	1,637	----	6	1,786	----	26	1,911	33	98
Oklahoma [1]	7	309	497	134	318	7	5	205	328	116
Pennsylvania	17	1,303	----	----	3,129	----	20	2,073	3	108
Rhode Island	0	106	23	----	34	----	3	164	0	2
West Virginia	1	117	107	----	244	0	13	298	127	126

[1] Exclusive of Oklahoma City and Tulsa.

December, 1927	Cases
Actinomycosis:	
Illinois	1
Anthrax:	
Pennsylvania	2
Chicken pox:	
Alabama	142
Arkansas	99
District of Columbia	107
Illinois	1,477
Iowa	206
Louisiana	19
Maine	227
Maryland	507
Michigan	786
Minnesota	560
Mississippi	656
Missouri	500
New York	2,250
Oklahoma [1]	95
Pennsylvania	3,301
Rhode Island	38
West Virginia	217
Dengue:	
Mississippi	18
Dysentery:	
Illinois	28
Louisiana	1
Maryland	4
Mississippi (amoebic)	52
Mississippi (bacillary)	320
New York	9
Oklahoma [1]	8
German measles:	
Illinois	23
Iowa	5
Maine	3
Maryland	6
New York	109
Pennsylvania	81
Rhode Island	2
Hookworm disease:	
Arkansas	1
Louisiana	10
Mississippi	231
Impetigo contagiosa:	
Maryland	1
Lead poisoning:	
Illinois	15
Pennsylvania	1
Lethargic encephalitis:	
Alabama	4
Illinois	10
Louisiana	1
Maryland	3
Michigan	2
Minnesota	3
New York	21
Pennsylvania	7
Malta fever:	
Illinois	5
Iowa	2
Mumps:	
Alabama	123
Arkansas	93
Illinois	686
Iowa	98
Maine	126
Maryland	57
Michigan	658
Mississippi	555
Missouri	371
New York	1,437
Oklahoma [1]	16
Pennsylvania	1,903
Rhode Island	69

[1] Exclusive of Oklahoma City and Tulsa.

Ophthalmia neonatorum:	Cases
Illinois	34
Maryland	2
Mississippi	16
New York	3
Oklahoma [1]	2
Pennsylvania	21
Paratyphoid fever:	
Illinois	1
New York	2
Puerperal septicemia:	
Illinois	12
Mississippi	30
New York	4
Pennsylvania	14
Rabies in animals:	
Maryland	2
Mississippi	11
Missouri	4
New York	26
Rabies in man:	
Alabama	1
Illinois	1
Maine	1
Michigan	1
Pennsylvania	1
Septic sore throat:	
Illinois	4
Louisiana	1
Maryland	5
Michigan	31
Missouri	16
New York	10
Oklahoma [1]	11
Tetanus:	
Illinois	1
Louisiana	2
Maryland	2
Missouri	1
New York	1
Oklahoma [1]	5
Tetanus—Continued.	**Cases**
Pennsylvania	8
Rhode Island	2
Trachoma:	
Arkansas	93
Illinois	3
Maryland	1
Mississippi	6
Missouri	22
New York	3
Oklahoma [1]	22
Pennsylvania	1
Tularaemia:	
Alabama	1
Arkansas	1
Illinois	8
Louisiana	1
Typhus fever:	
Alabama	8
Vincent's angina:	
Maine	16
Maryland	6
New York	103
Oklahoma [1]	1
Whooping cough:	
Alabama	67
Arkansas	26
District of Columbia	29
Illinois	820
Iowa	32
Louisiana	30
Maine	103
Maryland	110
Michigan	446
Minnesota	25
Mississippi	1,170
Missouri	138
New York	1,790
Oklahoma [1]	27
Pennsylvania	873
Rhode Island	7
West Virginia	81

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of December, 1927, by departments of health of certain States to other State health departments

Referred by—	Chicken pox	Diphtheria	Measles	Poliomyelitis	Scarlet fever	Smallpox	Tuberculosis	Typhoid fever
California				1				
Illinois		[1] 1				5	[2] 1	3
Massachusetts								1
Minnesota						1	12	1
New York	1	[1] 3	1		1			2
Ohio							[2] 1	

[1] One carrier. [2] Arrested case Pulmonary.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 100 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,100,000. The estimated population of the 94 cities reporting deaths is more than 30,400,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended January 14, 1928, and January 15, 1927

	1928	1927	Estimated expectancy
Cases reported			
Diphtheria:			
41 States	2,295	2,069	----------
100 cities	1,186	1,094	1,121
Measles:			
40 States	11,337	8,489	----------
100 cities	2,941	2,018	----------
Poliomyelitis:			
41 States	65	18	----------
Scarlet fever:			
41 States	4,434	5,411	----------
100 cities	1,537	2,165	1,372
Smallpox:			
41 States	1,285	1,259	----------
100 cities	139	133	95
Typhoid fever:			
41 States	194	285	----------
100 cities	47	56	46
Deaths reported			
Influenza and pneumonia:			
94 cities	1,253	1,147	----------
Smallpox:			
94 cities	0	0	----------

City reports for week ended January 14, 1928

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 1919 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, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	76,400	16	2	0	0	0	3	3	2
New Hampshire:									
Concord	[1] 22,546	0	0	0	0	0	1	0	2
Manchester	84,000	0	2	0	0	1	0	0	0

City reports for week ended January 14, 1928—Continued

Division, State, and city	Population, July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND—con.									
Vermont:									
Barre	[1] 10,008	7	0	0	0	0	0	0	1
Burlington	[1] 24,089	1	0	0	0	0	0	1	0
Massachusetts:									
Boston	787,000	98	57	26	4	0	336	11	31
Fall River	131,000	2	6	7	1	0	0	0	5
Springfield	145,000	14	4	20	0	0	3	33	1
Worcester	193,000	43	6	3	0	0	0	99	0
Rhode Island:									
Pawtucket	71,000	8	1	2	0	0	0	2	3
Providence	275,000	0	10	12	0	0	1	16	10
Connecticut:									
Bridgeport	[2]	5	8	7	1	0	0	0	0
Hartford	164,000	24	8	9	0	0	1	7	15
New Haven	182,000	24	3	1	0	3	99	42	8
MIDDLE ATLANTIC									
New York:									
Buffalo	544,000	----	16	----	----	----	----	----	----
New York	5,924,000	185	210	335	22	24	158	34	286
Rochester	321,000	9	13	6	----	0	4	5	8
Syracuse	185,000	34	6	2	----	0	62	9	1
New Jersey:									
Camden	131,000	2	5	18	1	0	0	4	2
Newark	459,000	54	17	27	2	1	65	33	20
Trenton	134,000	0	5	3	0	0	3	3	2
Pennsylvania:									
Philadelphia	2,008,000	161	85	65	----	10	40	123	71
Pittsburgh	637,000	29	21	33	----	6	207	102	28
Reading	114,000	25	5	5	----	0	0	3	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	411,000	41	12	16	1	5	161	2	27
Cleveland	960,000	102	36	85	3	1	31	189	19
Columbus	285,000	12	6	8	2	2	3	14	9
Toledo	295,000	70	11	1	3	3	91	14	9
Indiana:									
Fort Wayne	99,900	3	4	7	0	0	0	0	6
Indianapolis	367,000	18	12	7	0	0	12	54	16
South Bend	81,700	1	1	2	0	0	2	0	2
Terre Haute	71,900	0	1	1	0	0	0	0	3
Illinois:									
Chicago	3,048,000	150	98	123	15	5	17	42	90
Springfield	64,700	6	1	0	0	0	1	11	0
Michigan:									
Detroit	1,290,000	78	71	58	12	2	198	79	44
Flint	136,000	16	8	7	0	0	3	108	3
Grand Rapids	156,000	11	4	0	0	2	27	9	2
Wisconsin:									
Kenosha	52,700	20	2	2	0	0	0	6	1
Madison	47,600	5	0	0	0	0	1	2	1
Milwaukee	517,000	105	22	18	3	3	3	51	17
Racine	69,400	12	2	3	0	0	1	1	1
Superior	[1] 39,671	12	1	0	0	0	0	0	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth	113,000	0	3	2	0	0	0	0	5
Minneapolis	434,000	46	21	15	0	2	3	17	13
St. Paul	248,000	24	17	1	0	1	1	68	13
Iowa:									
Davenport	[1] 52,469	0	0	2	0	----	2	0	----
Des Moines	146,000	0	4	1	0	----	0	0	----
Sioux City	78,000	0	2	0	0	----	26	41	----
Waterloo	36,900	9	0	0	0	----	2	3	----

[1] Estimated, July 1, 1925.

[2] No estimate made.

City reports for week ended January 14, 1928—Continued

Division, State, and city	Population, July 1, 1926, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST NORTH CENTRAL—Cont.									
Missouri:									
Kansas City	375,000	43	10	2	1	4	2	84	12
St. Joseph	78,400	3	3	2	0	0	1	6	5
St. Louis	830,000	19	53	30	0	0	20	14	----
North Dakota:									
Fargo	[1] 26,403	25	0	0	0	0	0	1	0
Grand Forks	[1] 14,811	2	0	0	0	----	0	0	----
South Dakota:									
Aberdeen	[1] 15,036	2	0	0	0	----	0	0	----
Sioux Falls	[1] 30,127	0	1	0	0	----	0	0	----
Nebraska:									
Lincoln	62,000	28	2	1	0	0	0	20	0
Omaha	216,000	11	5	2	0	0	0	0	6
Kansas:									
Topeka	56,500	32	2	3	0	0	0	1	1
Wichita	92,500	10	4	0	0	0	1	0	0
SOUTH ATLANTIC									
Delaware:									
Wilmington	124,000	10	3	0	0	0	0	10	4
Maryland:									
Baltimore	808,000	172	41	17	19	3	212	18	44
Cumberland	[1] 33,741	2	1	0	1	0	0	0	4
Frederick	[1] 12,035	4	1	1	0	0	0	0	0
District of Columbia:									
Washington	528,000	49	21	32	2	2	7	0	22
Virginia:									
Lynchburg	30,500	7	1	4	0	0	0	0	3
Norfolk	174,000	0	3	0	0	0	10	1	12
Richmond	189,000	10	7	4	0	0	31	0	6
Roanoke	61,900	6	1	6	0	0	6	1	1
West Virginia:									
Charleston	50,700	2	2	0	0	0	0	0	1
Wheeling	[1] 56,208	11	2	0	0	0	2	0	1
North Carolina:									
Raleigh	[1] 30,371	10	1	1	0	0	6	0	3
Wilmington	37,700	3	1	1	0	0	139	1	1
Winston-Salem	71,800	4	1	2	0	1	49	21	5
South Carolina:									
Charleston	74,100	4	2	0	56	1	0	0	6
Columbia	41,800	10	1	1	0	1	187	33	3
Greenville	[1] 27,311	1	0	0	0	0	129	13	5
Georgia:									
Atlanta	[2]	5	4	2	44	7	4	9	13
Brunswick	[1] 16,809	0	0	0	0	0	0	2	0
Savannah	94,900	5	2	3	14	6	69	1	4
Florida:									
Miami	[1] 69,754	7	----	4	1	1	0	0	2
St. Petersburg	[1] 26,847	----	0	----	----	0	----	----	1
Tampa	102,000	15	1	7	0	0	2	1	6
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,500	4	1	0	0	0	24	0	0
Lexington	47,500	1	----	0	0	0	0	2	3
Louisville	311,000	10	7	2	2	0	17	8	10
Tennessee:									
Memphis	177,000	7	6	4	0	4	253	26	7
Nashville	137,000	3	2	1	0	4	10	4	10
Alabama:									
Birmingham	211,000	5	4	3	38	3	1	7	11
Mobile	66,800	0	1	0	0	4	0	0	5
Montgomery	47,000	1	0	0	2	----	0	0	----

[1] Estimated, July 1, 1925.

[2] No estimate made.

City reports for week ended January 14, 1928—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	[1] 31,643	7	1	0	0	----	1	0	----
Little Rock	75,900	1	1	0	1	1	32	0	5
Louisiana:									
New Orleans	419,000	6	13	11	13	9	4	0	24
Shreveport	59,500	6	2	3	0	2	14	0	5
Oklahoma:									
Oklahoma City	[2]	3	1	5	3	1	1	0	16
Tulsa	133,000	3	2	2	0	----	0	10	----
Texas:									
Dallas	203,000	27	8	13	1	0	4	0	8
Fort Worth	159,000	16	4	10	0	1	1	2	7
Galveston	49,100	0	1	0	0	0	0	0	1
Houston	[1] 164,954	4	6	20	1	2	7	2	12
San Antonio	205,000	0	2	4	0	2	5	1	15
MOUNTAIN									
Montana:									
Billings	[1] 17,971	0	0	0	0	0	0	0	0
Great Falls	[1] 29,883	0	0	0	0	1	1	0	0
Helena	[1] 12,037	0	0	0	0	0	0	1	1
Missoula	[1] 12,668	2	0	0	0	0	0	0	1
Idaho:									
Boise	[1] 23,042	8	0	0	0	0	0	4	0
Colorado:									
Denver	285,000	35	10	8	----	4	9	56	13
Pueblo	43,900	19	3	0	0	1	1	1	3
New Mexico:									
Albuquerque	[1] 21,000	6	0	1	0	0	18	0	2
Utah:									
Salt Lake City	133,000	31	3	5	0	1	0	2	1
Nevada:									
Reno	[1] 12,665	1	0	0	0	0	1	0	0
PACIFIC									
Washington:									
Seattle	[2]	25	5	5	0	----	168	12	----
Spokane	109,000	5	3	0	0	----	0	0	----
Tacoma	106,000	7	4	1	0	0	2	4	1
Oregon:									
Portland	[1] 282,383	55	11	8	1	5	8	4	15
California:									
Los Angeles	[2]	70	45	41	23	8	13	22	33
Sacramento	73,400	1	3	0	0	0	6	0	1
San Francisco	567,000	87	21	9	2	3	17	28	7

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	3	4	0	0	0	1	1	0	0	0	18
New Hampshire:											
Concord	0	0	0	0	0	0	0	0	0	0	9
Manchester	2	0	0	0	0	0	0	0	0	0	8
Vermont:											
Barre	0	0	0	0	0	1	0	0	0	0	3
Burlington	1	1	0	0	0	0	0	0	0	0	12

[1] Estimated July 1, 1925.

[2] No estimate made.

City reports for week ended January 14, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND—continued											
Massachusetts:											
Boston	70	77	0	0	0	17	1	1	1	96	250
Fall River	3	14	0	0	0	1	1	1	0	0	32
Springfield	8	19	0	0	0	1	0	0	0	8	43
Worcester	12	8	0	0	0	5	0	1	0	15	47
Rhode Island:											
Pawtucket	1	2	0	0	0	0	0	0	0	0	19
Providence	9	33	0	0	0	2	1	1	0	0	68
Connecticut:											
Bridgeport	10	4	0	0	0	0	0	0	0	3	37
Hartford	9	8	0	0	0	2	0	2	0	7	51
New Haven	10	4	0	0	0	1	0	0	0	33	50
MIDDLE ATLANTIC											
New York:											
Buffalo	25		1				0				
New York	237	288	0	0	0	112	10	7	2	205	1,724
Rochester	15	4	0	0	0	2	1	0	0	1	67
Syracuse	13	19	0	0	0	2	1	0	0	28	45
New Jersey:											
Camden	5	9	0	0	0	1	1	1	0	0	31
Newark	27	20	0	0	0	0	1	0	0	45	102
Trenton	5	5	0	0	0	4	0	0	0	1	37
Pennsylvania:											
Philadelphia	97	110	0	0	0	28	3	2	0	65	534
Pittsburgh	40	33	0	0	0	11	1	1	0	5	204
Reading	2	31	0	0	0	2	0	0	0	2	25
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	20	21	1	1	0	7	0	0	0	0	155
Cleveland	45	48	1	0	0	14	1	4	1	54	197
Columbus	11	20	1	0	0	2	0	0	0	1	85
Toledo	16	10	1	0	0	4	1	0	0	1	68
Indiana:											
Fort Wayne	6	6	1	0	0	0	0	0	0	2	30
Indianapolis	10	19	11	3	0	6	1	0	0	3	114
South Bend	4	2	1	0	0	0	0	0	0	0	10
Terre Haute	3	1	0	2	0	0	0	0	0	1	22
Illinois:											
Chicago	138	127	1	1	0	44	3	1	0	172	837
Springfield	2	11	0	0	0	0	0	0	0	2	22
Michigan:											
Detroit	99	86	3	3	0	13	1	0	0	66	285
Flint	10	25	0	1	0	1	0	0	0	12	26
Grand Rapids	13	9	0	0	0	1	0	0	0	4	25
Wisconsin:											
Kenosha	2	3	1	0	0	0	0	0	0	2	5
Madison	3	7	0	0	0	0	0	0	0	1	
Milwaukee	31	43	2	0	0	12	1	0	0	15	128
Racine	7	10	1	0	0	1	0	0	0	12	14
Superior	3	5	1	0	0	1	0	0	0	0	8
WEST NORTH CENTRAL											
Minnesota:											
Duluth	10	4	0	0	0	2	0	0	0	1	33
Minneapolis	58	32	7	2	0	2	1	1	0	0	115
St. Paul	32	12	9	0	0	1	0	0	0	2	65
Iowa:											
Davenport	1	4	1	0			0	0		0	
Des Moines	7	14	2	9			0	0		0	
Sioux City	2	4	2	0			0	0		0	
Waterloo	2	0	1	0			0	0		0	
Missouri:											
Kansas City	14	15	3	3	0	6	0	0	0	1	109
St. Joseph	3	6	0	25	0	1	0	1	0	0	34
St. Louis	44	43	2	1	0	18	1	2	0	30	240

City reports for week ended January 14, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis deaths reported	Typhoid fever			Whooping cough cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—contd.											
North Dakota:											
Fargo	2	3	0	0	0	0	0	0	0	3	7
Grand Forks	0	0	0	0			0	0		0	
South Dakota:											
Aberdeen	1	0	0	0			0	0		0	
Sioux Falls	1	3	0	0			0	0		0	6
Nebraska:											
Lincoln	2	0	0	16	0	0	0	0	0	5	17
Omaha	4	6	8	1	0	2	0	0	0	0	60
Kansas:											
Topeka	3	2	0	1	0	0	0	0	0	4	11
Wichita	5	7	1	41	0	2	0	0	0	0	26
SOUTH ATLANTIC											
Delaware:											
Wilmington	6	2	0	0	0	0	0	0	0	0	36
Maryland:											
Baltimore	38	34	0	0	0	23	2	0	0	36	269
Cumberland	1	1	0	0	0	0	0	0	0	0	11
Frederick	0	0	0	0	0	0	0	0	0	0	2
District of Columbia:											
Washington	26	37	1	0	0	10	2	0	0	7	162
Virginia:											
Lynchburg	0	1	0	0	0	1	0	0	0	4	11
Norfolk	1	1	0	0	0	0	0	0	0	0	
Richmond	6	1	0	0	0	1	0	0	0	2	47
Roanoke	1	3	1	0	0	0	1	0	0	0	13
West Virginia:											
Charleston	1	0	0	0	0	1	0	0	1	0	13
Wheeling	3	1	0	0	0	3	1	0	0	0	15
North Carolina:											
Raleigh	0	1	1	7	0	0	0	0	0	0	19
Wilmington	1	1	0	0	0	1	0	0	0	0	12
Winston-Salem	1	2	3	0	0	0	0	0	0	0	24
South Carolina:											
Charleston	1	0	0	1	0	1	0	0	0	1	33
Columbia	0	0	0	0	0	0	0	0	0	6	14
Greenville	1	0	0	0	0	0	0	0	0	0	10
Georgia:											
Atlanta	4	8	3	0	0	7	1	0	1	0	94
Brunswick	0	1	0	0	0	0	0	0	0	0	2
Savannah	0	1	0	7	0	2	1	0	1	0	42
Florida:											
Miami		4		0	0	1		0	0	0	32
St. Petersburg	0		0		0	1	0		0		15
Tampa	1	1	0	0	0	0	0	1	0	0	30
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	1	0	0	0	1	0	0	0	0	24
Lexington		0		0	0	1		0	0	1	16
Louisville	6	19	0	2	0	6	0	0	0	4	88
Tennessee:											
Memphis	6	3	1	0	0	12	0	2	1	1	87
Nashville	2	0	0	0	0	6	0	1	0	2	55
Alabama:											
Birmingham	4	2	3	1	0	6	1	7	0	1	77
Mobile	1	2	0	0	0	1	0	1	0	0	32
Montgomery	0	1	0	0			0	0		1	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	1			0	0		0	
Little Rock	2	4	0	1	0	1	0	0	0	0	
Louisiana:											
New Orleans	5	5	1	0	0	18	2	4	1	2	169
Shreveport	1	2	0	1	0	4	0	0	0	2	32

City reports for week ended January 14, 1928—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL—contd.											
Oklahoma:											
Oklahoma City	3	2	1	21	0	2	1	0	0	0	49
Tulsa	2	5	1	0	------	------	1	0	------	0	------
Texas:											
Dallas	4	8	2	3	0	3	1	0	0	2	75
Fort Worth	1	3	1	0	0	2	0	0	1	0	44
Galveston	1	3	0	0	0	1	0	0	0	0	18
Houston	2	3	2	1	0	4	0	1	1	0	86
San Antonio	1	6	0	0	0	8	0	0	0	2	82
MOUNTAIN											
Montana:											
Billings	2	0	0	0	0	0	0	0	0	9	7
Great Falls	1	1	1	0	0	0	0	0	0	0	5
Helena	0	4	0	4	0	1	0	0	0	0	5
Missoula	1	1	0	0	0	1	0	0	0	0	4
Idaho:											
Boise	1	0	0	0	0	0	0	0	0	0	5
Colorado:											
Denver	11	17	1	3	0	9	0	0	0	11	96
Pueblo	2	2	0	0	0	0	0	0	0	1	12
New Mexico:											
Albuquerque	1	1	0	0	0	6	0	0	0	0	16
Utah:											
Salt Lake City	3	9	2	9	0	0	0	0	0	2	30
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle	11	3	3	1	------	------	0	0	------	5	------
Spokane	4	20	3	9	------	------	0	0	------	0	------
Tacoma	3	1	4	1	0	0	0	1	0	1	22
Oregon:											
Portland	6	7	7	12	0	1	0	0	0	1	101
California:											
Los Angeles	28	37	4	0	0	21	2	0	0	14	291
Sacramento	2	2	0	1	0	0	0	1	0	0	28
San Francisco	15	23	1	0	0	17	1	2	0	14	173

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston	0	1	0	0	0	0	1	1	0
MIDDLE ATLANTIC									
New York:									
New York	1	1	2	2	0	0	1	2	1
New Jersey:									
Newark	0	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia	2	0	2	2	0	0	0	0	0
Pittsburgh	0	0	0	1	0	0	0	0	0

City reports for week ended January 14, 1928—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland	0	0	1	0	0	0	0	0	0
Columbus	0	0	1	1	0	0	0	0	0
Indiana:									
Indianapolis	1	2	0	0	0	0	0	0	0
Illinois:									
Chicago	6	4	0	0	1	1	0	1	0
Michigan:									
Detroit	0	0	0	0	0	0	0	1	0
Wisconsin:									
Milwaukee	2	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis	2	1	0	0	0	0	0	0	0
St. Paul	0	0	0	0	0	0	0	1	0
Missouri:									
Kansas City	2	0	0	0	0	0	0	2	0
St. Louis	3	0	0	0	0	0	0	0	0
Kansas:									
Wichita	0	1	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore	0	0	0	1	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	1	0
West Virginia:									
Charleston	0	0	0	0	0	0	0	0	1
South Carolina:									
Charleston [1]	0	0	0	0	3	0	0	0	0
Georgia:									
Savannah [2]	0	0	0	0	0	2	0	0	0
Florida: [2]									
St. Petersburg	----	1	----	0	----	0	0	----	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	0	1	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	1	0	0	0	1	0	0	0
Louisiana:									
New Orleans	0	0	0	0	0	1	0	0	0
Oklahoma:									
Oklahoma City	0	0	0	0	0	1	0	0	0
Texas:									
Dallas	0	0	1	1	2	3	0	0	0
Houston	1	1	0	0	0	0	0	0	0
San Antonio	1	1	0	0	0	0	0	0	0
MOUNTAIN									
Montana:									
Great Falls	1	0	0	0	0	0	0	0	0
Colorado:									
Denver	2	1	0	0	0	0	0	0	0
Utah:									
Salt Lake City	3	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	0	----	0	----	0	----	0	2	----
Spokane	4	----	0	----	0	----	0	0	----
Tacoma	0	0	0	0	0	0	0	1	0
Oregon:									
Portland	0	0	0	0	0	0	0	1	0
California:									
Los Angeles	2	1	1	1	0	0	0	1	1
Sacramento	1	0	0	0	0	0	0	0	0
San Francisco	0	0	0	0	0	2	0	1	0

[1] Dengue: 1 case at Charleston, S. C.
[2] Typhus fever: 2 cases at Savannah, Ga., and 2 cases at Tampa, Fla.

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended January 14, 1928, compared with those for a like period ended January 15, 1927. The population figures used in computing the rates are approximate estimates as of July 1, 1927 and 1928, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had estimated aggregate populations of approximately 31,050,000 in 1927 and 31,657,000 in 1928. The 95 cities reporting deaths had nearly 30,370,000 estimated population in 1927 and nearly 30,961,000 in 1928. 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, December 11, 1927, to January 14, 1928—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926–27 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Dec. 18, 1926	Dec. 17, 1927	Dec. 25, 1926	Dec. 24, 1927	Jan. 1, 1927	Dec. 31, 1927	Jan. 8, 1927	Jan. 7, 1928	Jan. 15, 1927	Jan. 14, 1928
101 cities	188	205	[2] 163	201	176	[3] 185	198	[4] 169	186	[5] 199
New England	160	200	160	193	158	165	158	149	174	200
Middle Atlantic	167	226	140	233	171	221	182	202	176	[5] 254
East North Central	213	248	[6] 182	212	193	200	223	176	189	220
West North Central	129	129	113	123	165	125	188	115	158	111
South Atlantic	216	140	[7] 214	143	173	129	222	[8] 154	215	142
East South Central	145	127	150	127	186	112	137	90	248	50
West South Central	258	218	168	344	223	[3] 271	252	[5] 246	244	204
Mountain	164	162	137	117	137	63	126	71	117	115
Pacific	252	168	225	157	155	141	230	123	193	143

MEASLES CASE RATES

101 cities	193	247	[2] 209	285	231	[3] 323	384	[4] 518	339	[5] 494
New England	229	604	167	536	184	708	253	917	195	1,021
Middle Atlantic	24	206	22	251	22	331	31	466	38	[5] 277
East North Central	256	117	[6] 249	157	294	160	427	265	406	300
West North Central	109	46	77	38	61	46	259	134	192	109
South Atlantic	89	607	[7] 62	797	179	832	204	[8] 1,461	202	1,496
East South Central	21	530	31	713	78	397	106	1,566	96	1,521
West South Central	82	252	103	84	13	[3] 116	186	[5] 197	302	268
Mountain	2,351	27	2,780	18	3,545	36	5,227	62	3,434	106
Pacific	603	238	879	257	697	283	1,517	383	1,478	526

SCARLET FEVER CASE RATES

101 cities	279	211	[2] 253	187	267	[3] 210	318	[4] 208	366	[5] 258
New England	387	325	248	281	356	346	491	340	479	398
Middle Atlantic	214	199	212	173	235	200	285	196	338	[5] 267
East North Central	241	243	[6] 255	212	245	257	288	234	345	285
West North Central	413	204	371	202	385	193	449	203	556	261
South Atlantic	199	163	[7] 171	145	238	149	231	[8] 152	258	168
East South Central	248	143	243	117	176	117	233	190	213	140
West South Central	236	172	125	92	150	[3] 129	153	[5] 103	141	124
Mountain	1,112	243	975	171	893	234	950	195	1,112	301
Pacific	383	154	303	191	252	126	340	184	376	220

[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, 1927, and 1928, respectively.
[2] Terre Haute, Ind., and Norfolk, Va., not included.
[3] Fort Smith, Ark., not included.
[4] Atlanta, Ga., and Fort Smith, Ark., not included.
[5] Buffalo, N. Y., not included.
[6] Terre Haute, Ind., not included.
[7] Norfolk, Va., not included.
[8] Atlanta, Ga., not included.

Summary of weekly reports from cities, December 11, 1927, to January 14, 1928—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926–27—Continued

SMALLPOX CASE RATES

	Week ended—									
	Dec. 18, 1926	Dec. 17, 1927	Dec. 25, 1926	Dec. 24, 1927	Jan. 1, 1927	Dec. 31, 1927	Jan. 8, 1927	Jan. 7, 1928	Jan. 15, 1927	Jan. 14, 1928
101 cities	16	19	[2] 14	16	14	[3] 15	22	[4] 17	22	[5] 23
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	1	0	0	0	1	0	0	0	1	[5] 0
East North Central	11	17	[6] 16	12	7	12	32	9	21	7
West North Central	46	115	28	77	40	79	57	105	69	146
South Atlantic	26	5	[7] 30	20	41	4	27	[8] 12	51	26
East South Central	78	5	36	20	47	10	41	5	86	15
West South Central	43	0	26	13	21	[3] 4	41	[3] 16	25	28
Mountain	0	117	18	99	9	144	0	106	0	142
Pacific	40	31	43	26	21	29	60	26	37	31

TYPHOID FEVER CASE RATES

101 cities	12	8	[2] 10	11	12	[3] 7	8	[4] 5	9	[5] 8
New England	31	0	40	9	24	14	9	7	21	14
Middle Atlantic	8	8	5	10	7	4	6	3	8	[5] 6
East North Central	5	3	[6] 3	8	5	5	5	3	1	3
West North Central	10	6	10	8	4	10	8	2	6	8
South Atlantic	19	9	[7] 16	16	34	13	7	[8] 15	16	2
East South Central	21	36	16	25	21	10	25	20	15	55
West South Central	21	17	17	17	17	[3] 13	25	[3] 0	17	20
Mountain	9	18	0	9	27	18	9	9	9	0
Pacific	24	16	21	10	16	0	8	5	21	10

INFLUENZA DEATH RATES

95 cities	14	14	[2] 15	17	17	19	20	[5] 19	21	[5] 24
New England	7	12	7	5	12	5	16	16	14	7
Middle Atlantic	13	9	14	11	21	14	18	13	20	[5] 21
East North Central	12	11	[6] 10	13	15	10	17	10	16	13
West North Central	15	6	11	10	8	8	14	4	10	14
South Atlantic	26	15	[7] 34	20	17	22	16	[8] 21	23	37
East South Central	5	61	36	46	26	56	48	89	37	78
West South Central	40	56	18	73	13	82	42	82	42	66
Mountain	9	9	27	27	46	72	63	53	99	62
Pacific	7	17	4	24	0	31	10	24	14	37

PNEUMONIA DEATH RATES

95 cities	137	118	[2] 137	135	164	157	195	[5] 170	179	[5] 191
New England	149	102	151	121	172	146	181	103	191	179
Middle Atlantic	147	117	166	127	180	158	208	186	204	[5] 215
East North Central	117	97	[6] 109	105	134	135	169	140	152	158
West North Central	120	91	91	98	118	108	116	124	124	112
South Atlantic	127	164	[7] 153	186	187	188	229	[8] 231	189	252
East South Central	129	143	109	204	191	183	213	235	207	225
West South Central	172	194	84	233	150	310	238	238	178	287
Mountain	273	135	164	243	201	198	368	195	197	168
Pacific	124	131	148	165	198	138	210	176	169	142

[2] Terre Haute, Ind., and Norfolk, Va., not included.
[3] Fort Smith, Ark., not included.
[4] Atlanta, Ga., and Fort Smith, Ark., not included.
[5] Buffalo, N. Y., not included.
[6] Terre Haute, Ind., not included.
[7] Norfolk, Va., not included.
[8] Atlanta, Ga., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1927 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1927	1928	1927	1928
Total	101	95	31,050,300	31,657,000	30,369,500	30,960,700
New England	12	12	2,242,700	2,274,400	2,242,700	2,274,400
Middle Atlantic	10	10	10,594,700	10,732,400	10,594,700	10,732,400
East North Central	16	16	7,820,700	7,991,400	7,820,700	7,991,400
West North Central	12	10	2,634,500	2,683,500	2,518,500	2,566,400
South Atlantic	21	21	2,890,700	2,981,900	2,890,700	2,981,900
East South Central	7	6	1,028,300	1,048,300	960,700	1,000,100
West South Central	8	7	1,269,700	1,307,600	1,227,800	1,274,100
Mountain	9	9	581,600	591,100	581,600	591,100
Pacific	6	4	1,996,400	2,046,400	1,512,100	1,548,900

FOREIGN AND INSULAR

THE FAR EAST

Report for the week ended December 31, 1927.—The following report for the week ended December 31, 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:

Plague, cholera, or smallpox was reported present in the following ports:

PLAGUE

Egypt.—Alexandria.
India.—Bombay, Rangoon, Bassein.
Dutch East Indies.—Makassar.

CHOLERA

India.—Negapatam, Calcutta, Rangoon.
Straits Settlements.—Singapore.
Siam.—Bangkok.

SMALLPOX

Aden.—Aden.
Iraq.—Basra.
India.—Bombay, Calcutta, Rangoon.
French India.—Pondicherry.
Dutch East Indies.—Belawan Deli, Surabaya.
Siam.—Bangkok.
French Indo-China.—Saigon.

Returns for the week ended December 31 were not received from Madras, India, Colombo, Ceylon, Canton, China, Samarinda, Dutch East Indies, or Vladivostok, Union of Socialist Soviet Republics.

ARABIA

Aden—Epidemic plague—January 23, 1928.—Under date of January 23, 1928, plague was reported present in epidemic form at Aden, Arabia.

ARGENTINA

Rosario—Plague—Measures against spread.—Press reports from Buenos Aires, Argentina, state the recent occurrence of six cases of plague at Rosario. Notices from the same source show that active measures against the spread of the disease are in force at Rosario, including campaign against rats, which are stated to exist in great numbers in the port, and the immunization of about 360 workmen.

BELGIAN CONGO

Matadi—Yellow fever.—Further information relative to yellow fever at Matadi, Belgian Kongo, reported present January 3, 1928,[1] shows under date of December 25, 1927, 9 suspect cases, 6 fatalities from the disease, and 2 cases under observation.

[1] Public Health Reports, Jan. 27, 1928, p. 240.

BRAZIL

State of Parahyba—Health conditions—July, 1926, to June, 1927.—Information received under recent date shows the sanitary and general health status of the State of Parahyba, Brazil, during the year, to have been satisfactory, with exception of increased mortality from malarial diseases, tuberculosis, and gastroenteritis in children.

Influenza.—Some cases of influenza were reported at Alagoa Nova and Teixeira. At Cajazeiras and Misericordia smallpox made its appearance. Medical relief was supplied to these localities by the Department of Health.

Plague.—An outbreak of plague occurred during the period under report at the town of Sape, with 42 cases and 36 fatalities. The infection was attributed to rats which were brought into the town in a consignment of packing cases, containing, it was stated, machinery for installation in a large sugar plant.

Rural sanitation.—Rural sanitation was stated to be in progress, being directed mainly to the eradication of hookworm disease, leprosy, malaria, and the venereal diseases, the work being carried on at 23 stations throughout the State and in the capital city.

Water works and sewer construction.—The water works and sewerage system were declared completed as regards the capital city, Parahyba, January 24, 1926, but the work of house connections and extension of water lines was not finished. The water supply system of Campina Grande was officially opened in October, 1927.

Yellow fever prevention work.—The work of yellow fever prevention was stated to have been carried on during the year. The last case to occur in the city of Parahyba was reported in June, 1926, and the last case in the State as a whole, in August, 1926.

CANADA

Communicable diseases—Week ended January 7, 1928.—The Canadian Ministry of Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended January 7, 1928, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever			1	1				2
Influenza	14			2				16
Lethargic encephalitis				3				3
Poliomyelitis				1			1	2
Smallpox				83	2	15	3	103
Typhoid fever	7	15	22	17			1	62

Communicable diseases—Week ended January 14, 1928.—The Canadian Ministry of Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended January 14, 1928, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever			1			2		3
Influenza	7			1				8
Poliomyelitis				1				1
Smallpox	1			76	5	12	5	99
Typhoid fever	8	4	37	9		3		61

Ottawa—Mortality—Year ended October 31, 1927.—The general death rate of the city of Ottawa, Province of Ontario, Canada, for the year ended October 31, 1927, was lower than for any year previously reported, with the exception of the year 1925. The lowered death rate was attributed to lower infant mortality, viz, 74 fewer deaths of infants than for the preceding year. The total number of deaths reported was 1,551, as compared with 1,639 in 1926.

Measles—Typhoid fever—Tuberculosis.—An outbreak of measles was reported for the months of December, 1926, and January and February, 1927, the type of the disease being generally mild. There were reported 1,541 cases with 4 deaths.

The prevalence of typhoid fever was attributed mainly to the development of cases of the disease in the Gatineau district of Quebec, in which many citizens of Ottawa were employed in construction work and from which many cases were sent to Ottawa hospitals. In the city of Ottawa 28 cases originated.

There were reported 94 deaths from tuberculosis, as compared with 85 in 1926. Of this number, 82 per cent were said to be due to pulmonary tuberculosis.

Quebec Province—Communicable diseases—Week ended January 14, 1928.—The Bureau of Health of the Province of Quebec reports cases of communicable diseases for the week ended January 14, 1928, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Scarlet fever	122
Chicken pox	39	Smallpox	17
Diphtheria	98	Tuberculosis	69
German measles	2	Typhoid fever	15
Measles	137	Whooping cough	28

EGYPT

Alexandria—Plague—December 17–23, 1927.—During the week ended December 23, 1927, a case of plague was reported at Alexandria, Egypt.

Summary and comparison with corresponding period of the preceding year.—During the period January 1 to December 23, 1927, 77 cases of plague were reported in Egypt, as compared with 150 cases reported for the corresponding period of the year 1926.

ESTONIA

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

Disease	Cases	Disease	Cases
Diphtheria	33	Tuberculosis	129
Measles	43	Typhoid fever	65
Scarlet fever	323		

Population, census, 1,107,059.

IVORY COAST (WEST AFRICA)

Abidjan—Yellow fever—December 24, 1927.—Under date of January 4, 1928, a fatal case of yellow fever occurring in a European was reported at Abidjan, Ivory Coast, West Africa. The locality was stated to be under sanitary observation.

MADAGASCAR

Plague—October 16–31, 1927.—During the 16-day period ended October 31, 1927, 104 cases of plague with 97 deaths were reported in the island of Madagascar. The distribution according to Provinces was as follows: Ambositra, 2 cases; Antisirabe, 17; Itasy, 11; Moramanga, 20; Tananarive, 54. The distribution according to type of disease was as follows: Bubonic, 50 cases; pneumonic, 43; septicemic, 11. In the interior town of Tananarive the occurrence was as follows: Cases, 5; deaths, 5; bubonic, 1; pneumonic, 3; septicemic, 1.

SENEGAL

Dakar—Yellow fever—Diourbel, suspect yellow fever.—Under date of January 4, 1928, one case with one death of yellow fever was reported at Dakar, Senegal. On the same date one suspect case with fatal termination, occurring in a Syrian arriving from Dar-Mousti, was reported at Diourbel.

UNION OF SOUTH AFRICA

Cape Province—Plague—December 4–10, 1927.—During the week ended December 10, 1927, two cases of plague, one of which resulted fatally, occurring in the colored or native population, was reported in Hanover District, Cape Province, Union of South Africa.

Smallpox—Typhus fever.—During the same period outbreaks of smallpox and typhus fever were reported in the Union of South Africa as follows: Smallpox—Orange Free State, in one district. Typhus fever—Outbreaks in the Cape Province in the districts of St. George, Tsolo, and Xalanga. At Durban, Natal, one sporadic case, occurring in a native, was reported.

VIRGIN ISLANDS

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

Island and disease	Cases	Island and disease	Cases
St. Thomas and St. John:		St. Thomas and St. John—Continued.	
Chickenpox	1	Syphilis	5
Dengue	1	Whooping cough	1
Gonorrhea	4	St. Croix:	
Sprue	1	Tetanus	1

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

From medical officers of the Public Health Service, American consuls, Health Section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

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

Place		Week ended—																	
		September, 1927				October, 1927					November, 1927				December, 1927				
		3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31
China:																			
Amoy	C	18	21	19	14	10	4	2											
	D	1	2																
Canton	C	10	17	7	2	6		2	6	5	1	6			1				
	D	6	10	7	2	6		2	6	5	1	5			1				
Foochow	C	P		P	P	P	P	P	P										
Hong Kong	C	1	P	P	P	P	P	P											
	D	1																	
Shanghai	C	1	3	2		1	2												
	D	25	22	21	6	4		2	1										
Swatow	C	P	P		P		P	P	P	P	P								
Tientsin	C	4	3	5	3	2										1			
India	C	11,180	8,391	6,630	5,189	4,907	4,055	6,142	5,056	5,303	4,845	5,987	6,912						
	D	5,559	4,278	3,532	2,526	2,549	2,104	3,027	2,691	2,867	2,641	3,350	4,005						
Bombay	C	1	1	1								2							
	D	1	1									2							
Calcutta	C	18	19	20	19	21	13	34	33	28	35	65	71	156	119	87	66		
	D	10	13	5	11	15	11	19	19	22	25	42	49	106	77	55	43	48	34
Madras	C	29	8	15	7	4	9		1			6	7			1			
	D	24	11	6	7	3	3	1	1			3	4	1		1			
Rangoon	C				2	3	1		2		1		1	3	1	2			
	D				2	3	1		1	1		3	4	2	1	2	1	1	1
Tuticorin	C					1									6		2		
	D					1				7	5	10	15		6	6	2		
India, French Settlements in	C	6	4	1															
	D	3	4	1															
Karikal	C	1									1								
	D	1									1								
Pondicherry	C	4	4	1	6						1								
	D	2	4	1	8						1								
Indo-China: Saigon	C						1			1									

Place																							
Iraq:[1]																							
Amarah	C								35	4	8	3	2		1	1							
	D								23	6	8	3	2		1	1							
Baghdad	C								1		10	13	8	3	38								
	D								1		5	2	2	3	38								
Basra	C								1														
Diwaniyah	C								28	4	3	1	2										
	D								17	2			1										
Diyala	C														1								
	D														1								
Dulaim	C														1								
Hillah	C								12	7	3	5	53		7								
	D								7	6	2	1	29		4								
Kerbala	C								3	1	4	2	2										
	D								3	1	5	2	2										
Kut	C								11	9	1	5											
	D								8	4	1	3											
Muntafique	C								4			4	14		8								
	D								1			2	10		8								
Ramadi	C									19	18	27	21										
	D									10	23	14	16		1								
Java: Batavia	C										1	2	25	2	1								
	D										1	2	15	2	1								
Philippine Islands	C								4														
Siam	C	4	5	21		6	4	8	8	14	23	43	30	19	21								
	D	3	3	11		4	2	5	7	10	15	25	26	11	19								
Bangkok	C	1	1	1			2	3	1		1		3		1	1	1	2	3				
	D			1				3	1		1		1		1		1	2	1				
Straits Settlements: Singapore	C									1		4	2	1	2		2	3	12				
	D									1		4		2			2	1	3				
On vessel S. S. Tabaristan at Basra	C						1																

Place		September, 1927			October, 1927			November, 1927			December, 1927	
		1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20
Indo-China (French)	C	452	206	241	220	345	50	100	103			
Annam	C	388	146	106		140	27	13	75	33	16	2
Cambodia	C	8	25	42		97	5	56	1	28	21	12
Cochin-China	C	17	35	92		79	12	21	27	52	17	33
Laos	C	16				29	6	10				
Tonkin	C	23		1			1			1		

[1] From July 24 to Oct. 22, 1927, 926 cases and 677 deaths from cholera were reported in Iraq, of these 166 cases and 126 deaths occurred in Amarah; 417 cases and 337 deaths in Basra; 81 cases and 47 deaths in Diwaniyah: 19 cases and 12 deaths in Hillah; 34 cases and 21 deaths in Kerbala; 8 cases and 6 deaths in Kut; and 185 cases and 118 deaths in Muntafique.

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

PLAGUE

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

Place		Week ended—																	
		September, 1927				October, 1927					November, 1927				December, 1927					January, 1928
		3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7
Algeria: Oran	C		1																	
	D		1								1		1							
Argentina:																				
Bahia Blanca District	C													1	1	1				
Cordoba Province	C					P	P	P	P	P	P			10				1	1	
Firmat	C																1			
Quilino	C													1	1	1				
Rosario	C													1	1	1	1	2	3	
Unacha	C																1			
Azores: St. Michaels Island	C		1		1	1			2	1		1	1	1	1	1				
	D		1			1										1				
British East Africa:																				
Tanganyiki	C				P	P		P	P	P	P									
Uganda	C	96	48	47	35	25	46	28												
	D	67	44	25	22	23	39	26												
Canary Islands: Las Palmas	C						4	4	1					1			2			2
Ceylon: Colombo	C	1		1	1	2			1					1	1					
	D	1		1	1	1														
China: Tungliao	D							2	0											
Dutch East Indies:																				
Balik-Papan	C																	1		
	D																	1		
Cheribon	C													1						
	D													1						
Java	D	123	129	112	168	184	193	176	226	191	213									
Batavia	C	18	14	17	21	24	33	42	31	41	29	31	34	45	43					
	D	18	14	17	21	24	33	41	31	41	29	31	34	44	43					
East Java and Madura	C	5	4	2	7	3	3	7	4	3	4	2	1	5						
	D	5	4	2	7	3	3	7	4	3	4	2	1	5						
Makassar	C										2	2	2	1		1		2	1	
	D										2	2	2	1		1		2	1	
Egypt:																				
Alexandria	C	1												5	3	2	2	2		
	D													5	2				1	
Suez	C		1																	

Greece:																			
Mitylene	C				5		1			1		2		1	1	1			
Patras	C	2				1					1								
	D					1					1								
India	C	403	1,087	612	608	655	715	920	956	812	1,015	856	919						
	D	216	569	324	319	381	359	508	544	495	551	485	554						
Bombay	C	3	1	1	2		2		2										
	D	2	1	1	1		2		1									1	
Calcutta	C	18																	
	D	10																	
Madras	C	144	111	87	123	88	156	167	172		83	152		190					
	D	76	62	43	49	60	72	72	84		54	80		111					
Rangoon	C	2		4		3	4	1	3	5	2		4	5	2	6			
	D	2		4		3	4	1	3	5	2		4	5	2	5		2	3
Indo-China: Saigon	C		1	1									1						
Senegal:																			
Baol	C	32		27	13	39		56					P		P				
	D	11		15	7	26		14											
Cayor	C	81	103	175	104	101	45	20	10	32	8	8	P						
	D	27	58	90	58	57	16	10	5	20	4	4							
Dakar	C	9	5	5	1	1													
	D	4	4	3	1														
Louga	C				5		8												
	D				4														
Rufisque	C	4	9	2	1														
	D	3	7	1	1														
Thies	C	2		2	5					1									
	D	2		1	4														
Siam	C						1	11	1					2					
	D						1	8			1			1					
Bangkok	C						1		1										
	D										1								
Straits Settlements: Singapore	C											1							
	D											1							
Turkey: Constantinople	C				1	1								1	1				
	D					1									1				
Union of South Africa:																			
Cape Province—																			
Richmond District	C									2									
	D									2									
Orange Free State	C												1	8	P				
	D												1	6					
U. S. S. R.:																			
Chita District	C							1											
	D							1											
Northern Caucasus	C		3	1	10	1													
	D		2	1	7														
On vessel:																			
S. S. Aghios Gerasimos at Vigo, Spain	C												3						
At La Plata from Rosario, Argentina	C																	1	

Indo-China (French), 3 cases, Dec. 11-20; Beirut, Syria, 1 case, Dec. 1-10.

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

PLAGUE—Continued

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

Place		July	August	September	October	November	December
Algeria: Algiers	C				2		
British East Africa: Kenya	C	13	61	21	18	28	
Ecuador: Guayaquil	C	5	7	3	4	9	5
	D					3	2
Indo-China (French)	C			14	3	3	
Madagascar	C	46	98	170	166		
	D	43	89	154	155		
Ambositra Province	C	6	1				
	D	6	1				
Antisirabe Province	C		34	5			
	D		34	4			
Itasy Province	C	14	11	21			
	D	14	7	20			
Madagascar—Continued.							
Moramanga Province	C	5	4	3			
	D	5	4	3			
Tananarive Province	C	21	48	142			
	D	19	43	127			
Mauritius	C			1			
Peru	C	8	11	15	14		
	D	7	6	6	5		
Callao	D	3					
Lima	D				1		
Syria: Beirut	C			1	1		

SMALLPOX

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

Place		Week ended— September, 1927				October, 1927					November, 1927				December, 1927					January, 1928	
		3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14
Algeria	C										294	218	149								
Algiers	C																3	3			
Oran	C										10	4	6	9	11	10	9	8			
Arabia: Aden	C												1		1		1				
Brazil: Rio de Janeiro	D			6						1											
British East Africa: Tanganyiki	D			8				7	P	P	P	P									
British South Africa:																					
Northern Rhodesia	C		18	16	5	10	97	44	13	150	10	22	3	57	15	125					
	D				2	3	7	1	4	40	23		1	18	7	28					
Southern Rhodesia	C												3								

Canada:																						
Alberta	C	3	1	5	8	5	4	5	9	6	2	1	1	7	3	3	6		3			
Edmonston	C									1				6		1	1			3		
British Columbia—																						
Vancouver	C	2														4		1	3	3	1	
Manitoba	C	2		7			2		5	3	14		2	1	3	1	2	2				
Winnipeg	C			4			1		1				2			1	1	1			1	
New Brunswick	C			2														1				
Nova Scotia	C			1				1														
Halifax	C							1														
Ontario	C			12	10	6	23	26	38	64	38	77	85	71	90	82	104		53			
Hamilton	C														2							
Kingston	C												1					1				
Ottawa	C	9	13	12	6	3	15	23	26	47	17	51	19	10	19		34	18	9	20	23	
Toronto	C		1		1		3	1	6	2	16	3	13		25	14		7		11	10	
Windsor	C							9														
Quebec	C								8	7	3	12	3	8	5	3		14	3	6	17	
Montreal	C											1						1		1	6	
Quebec	C														2		2		2	10	3	
Riviere du Loup	C												3									
Saskatchewan	C	13	33		22	12		8	11	5	12	2	14	9	15	19	15	12	13			
Moose Jaw	C		9		7				3								1		1	2	1	
Regina	C						5					1					1					
Saskatoon	C															2			4			
Ceylon: Colombo	C														1							
China:																						
Canton	C				1																	
	D				1																	
Chefoo	C				1			P		P				P								
	D				1																	
Foochow	C		P					P	P		P			P								
Hong Kong	C	2																				
	D	1		1																		
Manchuria—																						
Changchun	C													1								
Dairen	C								1		2							1				
	D								1													
Fushun	C			1								1										
Mukden	C																					
Pensihu	C							1														
Tientsin	C							12														
Egypt	C	3							1	8				4	1	2	2	2				
	D	1						1							4							
Cairo	C																1					
Great Britain:															1							
England and Wales	C	111	146	126	125	122	149	124	200	199	219	258	226	233	366	230	212	255	247			
Bradford	C									1	5	3	2	9	6	2	2	2	2			
Bristol	C								6	1			3	2	4	2						
Cardiff	C									1												
Leeds	C	3				3	1		6	1	1	1	2	3	3	6	4	4	6			
Manchester	C						1	2			1	1	4	2	5	10	8		1			
Newcastle upon Tyne	C			2		1		5		2	6		1	28	18	5	4	2	13			
Sheffield	C				1		3	3	4	4			2	1	8							

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

SMALLPOX—Continued

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

Place		Week ended—																			
		September, 1927				October, 1927					November, 1927				December, 1927					January, 1928	
		3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14
India	C	1,456	1,109	1,111	722	923	593	777	860	779	805	1,235	1,233								
	D	397	266	284	173	179	159	171	206	190	200	211	326								
Bombay	C	7	3	1	1	4	2		4	2		2			4				4		
	D	5	2	1					2	2		1			1						
Calcutta	C	4	6	10	2		4	1					5	4	3	11	7		17		
	D	2	5	5	2		3	1	1				2	2	1	6	2		17		
Madras	C	2		3	2	3	1	2	2	3		2	2	2	2	5	2	2			
	D			1	1					1		1		1	1	1		1			
Rangoon	C	2		1	6	2	8		7	4		1	1	5	2	1			28		
	D	1			1	1	1		1	1				1	1				13		
India, French settlements in:																					
Karikal	C				1	1		1													
	D				1	1		1													
Pondicherry	C	11	8	2	16	9	7	10	12												
	D	11	8	2	16	9	7	10	12												
Indo-China: Saigon	C		1																	1	
Iraq:																					
Baghdad	C		1			5			2			5		1	5						
	D		1			3			1			4			5						
Basra	C			4				2					3								
	D			4				2					1						2		
Italy: Rome and vicinity	C		1																1		
Jamaica (outside Kingston) (alastrim)	C	2	2	2	3	1	4	4		7				1		1	1		2		
Kingston (alastrim)	C	2		1			2														
Java:																					
Batavia	C					3		1				25									
	D											15									
East Java and Madura	C		14	3	5	1		7		1	3	5		4							
	D							1													
Mexico:																					
Acapulco	C	1		1								1									
	D	1		1								1									
Chihuahua	D																			1	
Guadalajara	D													1			1				
Mexico City and surrounding territory	C													1	1	1	1				
Torreon	D						2														

Palestine: Jerusalem	C															1							
Portugal:																							
Lisbon	C	1		1	1	1	4	1	2	1	2												
Oporto	C		1																				
Siam	C	24	3				3	3					1		8								
	D	14	1																				
Bangkok	C												1		1								
Spain:																							
Malaga	D												1										
Valencia	C					1															1		
Straits Settlements: Singapore	C											1											
Union of South Africa:																							
Cape Province	C						P																
Orange Free State: Bothaville District	C												P	P	P	P							
Transvaal: Johannesburg	C													7									
Venezuela: Maracaibo	D			2			1																

Place		September, 1927			October, 1927			November, 1927			December, 1927
		1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10
Algeria	C	110	162	110	182	386	115				
Oran	C	4		12	6		5				
Indo-China	C	6	6	9	5	4	16	13	3	22	10

Place		September, 1927			October, 1927			November, 1927			December, 1927
		1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10
Syria:											
Beirut	C										1
Damascus	C		1	4	14	8			13		4

Place		July	August	September	October	November	December
Angola	C	42	2	5	73		
	D				2		
Congo	C			5	77		
Cuanza-Norte	C			1			
Cuanza-Sul	C				2		
Loanda	C			1			
Zaire	C			3	4		
Brazil: Porto Alegre	C	5	3	3	4		
British East Africa: Zanzibar	C				2		
	D				1		
Chosen	C	19	2				
	D	6					
Ecuador, Guayaquil	C		2	2	1	1	4
France	C	23	6	8	7	4	

Place		July	August	September	October	November	December
Gold Coast	C	1	1	5			
Greece	C	3	3	4	4		
Latvia	C				2		
Mexico	D	93	73	55			
Morocco	C	53	76	51	81		
Nigeria	C	492	91	237			
	D	83	20	70			
Spain: Madrid	D					1	
U. S. S. R.:							
Railways, etc	C	11	6				
Other territories in Europe	C	146	111				
Transcaucasus, Siberia, and Central Asia	C	36	29				
Ukraine	C	16	4				

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

TYPHUS FEVER

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

Place		Week ended—																	
		September, 1927				October, 1927					November, 1927				December, 1927				
		3	10	17	24	1	8	15	22	29	5	12	19	26	3	10	17	24	31
Bulgaria: Sofia	C					8	4	3	2	3	1	2					1	1	4
	D										1								
Chile:																			
Antofagasta	D					1													
Valparaiso	C	1												1	1				
	D	1											1						
China:																			
Manchuria—Harbin																			
Tientsin	C				2							1							
Egypt	C					3	3	5	1		4			1	7	3		1	
	D					2	1	1	1						5	1			
Port Said	C					1									1				
Ireland:																			
Cork County	C															3			
Donegal County—																			
Letterkenny	C								4										
Mexico:																			
Guadalajara	D													1					
Mexico City (including municipalities in Federal District)	C	9	4	1	5	7		3	8	9	6	2	11	7	6	4		4	
	D										2						1	1	
Palestine	C	3		5			3					1	2	3	1				
Haifa	C						2						1	1					
Herzliah	C													1					
Jaffa	C					1								1					
Nazareth	C												1						
Safad	C													1		1			
Tel-Aviv	C						1							1	1				
Poland	C	12	5	12	6	10	9			35	12	6	11		28	17			
	D			2		3	1			6	3		2		5				
Portugal: Oporto	C									1								1	
Rumania	C	2	2	9	3	5							2						
	D					1													
Syria: Alppo	C			2															
Tunisia	C			1				2	1			1					1	1	

Union of South Africa:																			
Cape Province	C	P				P	P	P	P P		P P	P P	P P	P P	P P	P P			
Natal	C															P			
Orange Free State	C					P										P			
Transvaal	C										P	P	P	P	P	P			
Johannesburg	C							5											

Place		September, 1927			October, 1927			November, 1927			December, 1927	
		1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20
Algeria	C	5	3	2	7	4	1					
	D					1						
Algiers	C	1	5		1	1						
Bulgaria	C	5	1	1		1	1					
	D		1	1		1						
Morocco	C	3	2	2	6	4	1	5	14	7	5	6

Place		July	August	September	October	November
Argentina	C					1
Chosen	C	72	17			
	D	8				
Chemulpo	C	1	2			
Gensan	C	2				
Seoul	C	2	3		2	
	D	1			1	
Czechoslovakia	C	6				
Greece: Athens	C	1				
Japan	C	1				
Latvia	C	6				
Lithuania	C	44	18	7	9	18
	D	5	8	1	1	1

Place		July	August	September	October	November
Mexico	D	12	38	14		
Peru:						
Arequipa	D		2	1	2	
Lima	D	8				
U. S. S. R.:						
Railways, etc	C	30	22			
Transcaucasus, Siberia, and central Asia	C	79	69			
Ukraine	C	96	85			
Other territories in Europe	C	732	552			
Yugoslavia	C	11	9		1	1
	D	4	1			

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

YELLOW FEVER

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

Place		Week ended—																
		September, 1927				October, 1927				November, 1927				December, 1927				
		3	10	17	24	1	15	22	29	5	12	19	26	3	10	17	24	31
Belgian Kongo: Boma and Matadi	C																	7
Dahomey: Grand Popo	C												1					
	D												1					
Ivory Coast	C																1	
	D																1	
Liberia: Monrovia	C		1															
Nigeria	C			2														
	D			2														
Senegal	C					5		5	9	16	6	7						
	D					5		4	8	10	4	6						
Dakar	C			P					3	6		5	2	1	4			1
	D								2	4		4	2	1	4			1
Geoul	C					1												
	D					1												
Goree, island of	C	2																
	D	2																
Kebener	C						1	1										
	D						1	1										
Kelle	C						2		1									
	D						1		1									
Keur Samba Kane	C								1	1								
	D								1		1							
Keur Madiop	C								1									
	D								1									
Khombole	C					1						1						
	D					1						1						
Louga	C					1			2	1	1							
	D					1			2	1	1							
Mekhe	C							1	1	2	2							
	D								1	1	1							
M'Dande	C							1		2	1							
	D							1		1								
Pout	C				1													
	D				1													

Rufisque	C						1												
	D						1												
St. Louis	C					1													
	D					1													
Sebikotane	C							1		2	1								
	D							1			1								
Thies	C			1	2	1		1	1	2	1	1							
	D			1	2	1		1	1	2	1	1							
Tiaroye	C	1																	
	D	1																	
Tivaouane	C		1																
On vessel S. S. Desirado, at Leixoes, Portugal	C			1															
	D			1															

Place		July	August	September	October
Gold Coast	C	15	2	6	1
	D	4	2	4	1