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## VARIATION IN EYESIGHT AT DIFFERENT AGES, AS DETERMINED BY THE SNELLEN TEST.

A STATISTICAL STUDY OF THE RESULTS OF VISION TESTS OF 4,862 NATIVE WHITE SCHOOL BOYS AND 6,479 MALE WHITE INDUSTRIAL WORKERS IN THE UNITED STATES.\*

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In previous reports<sup>1</sup> the age incidence of good vision and of defective vision as determined by the Snellen test has been described for school children and for adult workers in industry. It was thought worth while to tabulate the data on the vision of the two groups in a comparable way and attempt to get curves of the incidence of good and of poor vision throughout life.

The persons included in this study are 4,862 native white school boys chiefly from 6 to 16 years of age, but with a few over 16 years, and 6,479 male white industrial workers chiefly over 18 years, but with a few under 18 years of age. The boys were attending public school in Spartanburg, S. C., and near-by mill villages, Frederick County, Md., New Castle County, Del., and Nassau County, N. Y. The industrial workers were in post offices and the glass, pottery, foundry, steel, chemical, cigar, gas, and cement industries in various localities in the United States.

Visual acuity was tested with Snellen's test types, a chart for illiterates being used for young children and for adults who could not read. The results of the eye tests for adults in industry and for part of the children were recorded in the "twenty" system, but for part of the children the results were recorded in tenths. In order to put the two types of records on a comparable basis and to have

\* From the Statistical Office in cooperation with the Offices of Industrial Hygiene and Child Hygiene, United States Public Health Service.

<sup>1</sup>Standards of Measurement of Ten Thousand Male Workers: Preliminary Note, with Special Reference to Racial Factors. By L. R. Thompson and Rollo H. Britten. *Am. Jour. of Pub. Health*, Vol. XIV, No. 5, pp. 383-390, May, 1924.

The Eyesight of the School Child as Determined by the Snellen Test—A Statistical Study of the Results of Vision Tests of 9,245 Native White Children in New York State, Delaware, South Carolina, and Frederick County, Md., and of 2,636 White Children in Cecil County, Md. By Selwyn D. Collins, *Pub. Health Rep.*, Vol. 39, No. 48, Nov. 28, 1924, pp. 3013-3027.

Studies in Illumination. I. The Hygienic Conditions of Illumination in Certain Post Offices, Especially Relating to Visual Defects and Efficiency. By L. R. Thompson, L. Schwartz, J. E. Ives, and N. P. Bryan. *Pub. Health Bull.* 140 (1924).

only three classes of vision, the persons of each age were divided into the following groups:

- (1) Normal vision:  $\frac{20}{20}$  or better in both eyes ( $\frac{10}{10}$  or better).
- (2) Moderately defective vision:  $\frac{20}{40}$  or  $\frac{30}{30}$  in one eye and  $\frac{20}{10}$  or better in the other ( $\frac{5}{10}$ ,  $\frac{6}{10}$ ,  $\frac{7}{10}$ , or  $\frac{8}{10}$  in one eye and  $\frac{5}{10}$  or better in the other).
- (3) Markedly defective vision:  $\frac{20}{60}$  or less in one or both eyes ( $\frac{4}{10}$  or less in one or both eyes).

Attention might be called to the fact that these tests are made at a distance of 20 feet from the chart and are therefore not tests of near vision. It might also be stated that normal vision in both eyes according to the Snellen test could not be interpreted as perfect vision, inasmuch as many persons, particularly children, are able to read the line on the chart for normal vision and yet have some latent refractive error which, for the time, is compensated by superior accommodation.

Table 1 shows by age the percentage of persons examined who were found to have vision of the specified acuity, the three classes already described being used. Figure 1 shows the same thing graphically, both the actual points and an apparent line of trend being shown. In drawing this line to show the trend, it has been intended to show only the very general and obvious direction, for it was not felt that the data were sufficient to describe more exactly what happened in any particular age period.

TABLE 1.—Percentage of persons of each age group with the specified vision as determined by the Snellen test—4,862 native white school boys and 6,479 male white industrial workers in various localities in the United States.

Age (years).	Percentage.			Number of persons.			
	Normal in both eyes ( $\frac{20}{20}$ or better).	$\frac{20}{40}$ or $\frac{30}{30}$ in one eye and $\frac{20}{10}$ or better in other.	$\frac{20}{60}$ or less in one or both eyes.	Total examined.	Normal in both eyes ( $\frac{20}{20}$ or better).	$\frac{20}{40}$ or $\frac{30}{30}$ in one eye and $\frac{20}{10}$ or better in other.	$\frac{20}{60}$ or less in one or both eyes.
<b>School children:</b>							
6.....	57.1	38.5	4.4	205	117	79	9
7.....	60.2	34.1	5.7	492	296	168	28
8.....	61.2	35.4	3.4	590	361	209	20
9.....	62.4	32.8	4.8	631	394	207	30
10.....	65.3	26.5	8.2	683	446	181	56
11.....	65.5	28.5	6.0	568	372	162	34
12.....	71.3	22.3	6.4	533	380	119	34
13.....	68.5	23.2	8.3	444	304	103	37
14.....	72.6	21.2	6.2	339	246	72	21
15.....	66.3	24.9	8.8	193	128	48	17
16.....	70.8	18.8	10.4	96	68	18	10
17 and over.....	72.7	20.5	6.8	88	64	18	6
<b>Industrial workers:</b>							
Under 20.....	77.2	13.8	9.0	356	275	49	32
20 to 24.....	67.7	22.7	9.6	896	607	293	86
25 to 29.....	61.3	27.3	11.4	1,137	697	310	130
30 to 34.....	60.1	27.8	12.1	1,078	648	300	139
35 to 39.....	54.8	29.4	15.7	1,023	561	301	161
40 to 44.....	49.5	35.5	15.0	715	354	254	107
45 to 49.....	34.6	40.2	25.2	572	198	230	144
50 to 54.....	22.6	38.1	39.3	341	77	130	134
55 to 59.....	17.9	30.1	52.0	196	35	59	102
60 and over.....	5.5	26.7	67.9	165	9	44	112

**PERCENTAGE OF PERSONS OF EACH AGE WITH THE SPECIFIED VISION AS DETERMINED BY THE SNELLEN TEST**

4,942 NATIVE WHITE SCHOOL BOYS AND 6,479 WHITE MALE INDUSTRIAL WORKERS IN THE UNITED STATES

○ School Boys

× Industrial Workers

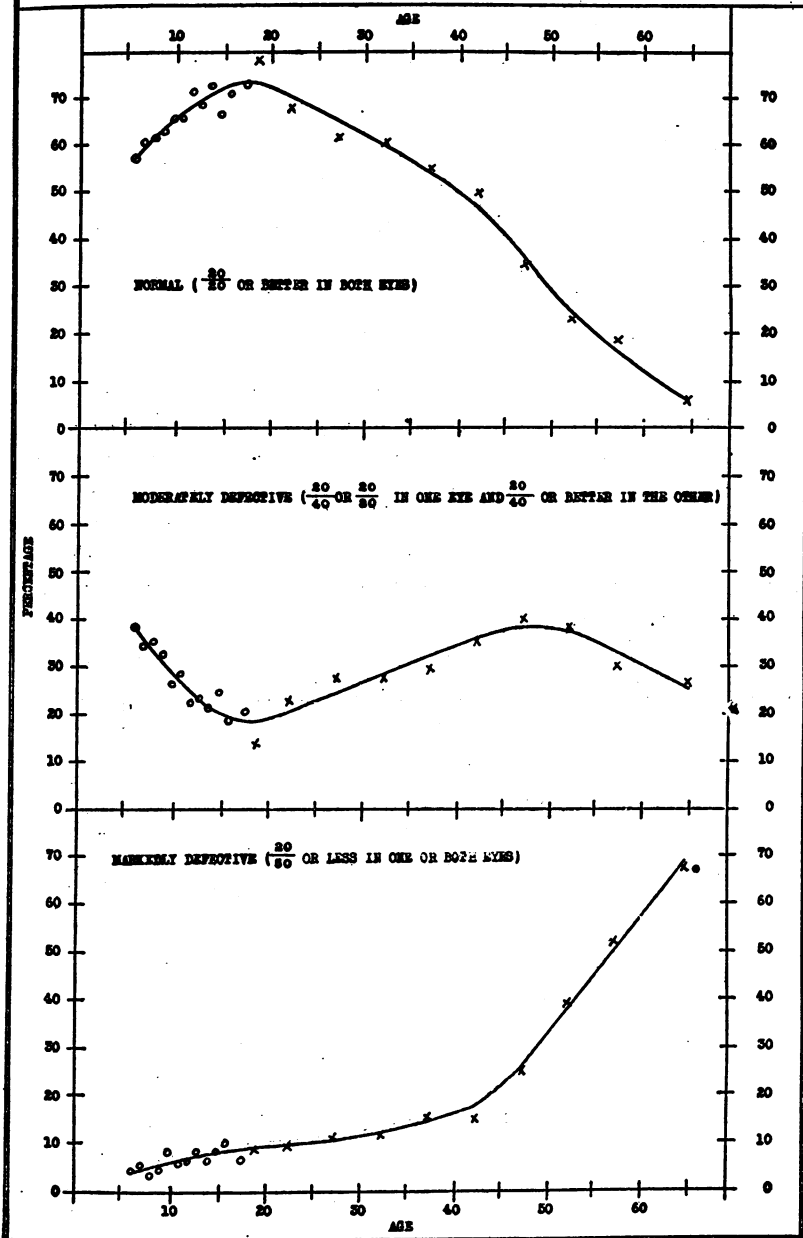


FIG. 1.

It will be noted from the upper part of Figure 1 that a greater percentage of boys have normal vision in both eyes ( $\frac{3}{8}$  or better) at the end (16 and 17 years) than at the beginning of school life (6 years). However, after the age of about 18 or 19 years the percentage with normal vision in both eyes gradually declines until the forties, when there is apparently a marked acceleration of the decline.

The fact that the largest percentage of persons with normal vision occurs from 18 to 19 years of age rather than among the younger children may at first seem strange, but it is in agreement with the anatomical development of the eyes of man, which is not complete until about the twentieth year of age.<sup>2</sup>

Turning to the class with vision of  $\frac{3}{8}$  or less in one or both eyes, shown in the bottom section of Figure 1, the percentage of persons in this class rises continuously after 6 years of age, particularly after about 45 years of age.

The percentage of persons with moderately defective vision is shown in the center of Figure 1. During school life this class decreases with age, some apparently going to the normal vision class and some to the markedly defective class, since both of the latter groups increase during school life. From about 20 to 50 years of age the percentage of persons with moderately defective vision rises. The interpretation would seem to be that persons do not go from good to poor vision at once, but that there is a period during which their vision is moderately defective before they get into the class with markedly defective vision. However, after the age of 50 years both the normal and the moderately defective classes are declining and the markedly defective class is, consequently, rapidly increasing.

During school life, from 60 to 70 per cent of the children have normal vision in both eyes, and up to about 40 years of age more than 50 per cent of persons have normal vision in both eyes. On the other hand, not more than about 15 per cent of persons have markedly defective vision before 40 years of age, but from 20 to 40 per cent have moderately defective vision. After the age of 40, the situation changes rather rapidly, and by 65 years only about 5 per cent have normal vision in both eyes and about 70 per cent have markedly defective vision.

In Figure 1 the data are plotted on coordinate paper and the heights of the ordinates from the base line at different ages are comparable. In Figure 2 the data (lines representing the general trend) are plotted on a semilogarithmic scale, and on such a scale an equal distance vertically represents an equal percentage increase or decrease rather than an equal absolute change. The

<sup>2</sup> Arboreal Life and the Evolution of the Human Eye. By E. Treacher Collins. Lea and Febiger, Philadelphia and New York, 1922. P. 80. See also article, On the Degree of Association between Reaction Times in the Case of Different Senses. By Y. Koga and G. M. Morant. *Biometrika*, Vol. XV, pts. 3 and 4, December, 1923. (See particularly tables and charts on acuity of vision by age, pp. 351-353.)

steeper the line the more rapid the *rate* of change. The rate of increase or decrease therefore can be judged from the steepness of the curve.

It has already been noted that the percentage of persons with vision  $\frac{20}{80}$  or less in one or both eyes increases during school life. From Figure 2 it may be noted that the rate of increase is more rapid during school life than in early industrial life. The increase continues after school life, but the rate of increase is not so rapid until about 45 years of age, after which time the rise is again rapid.

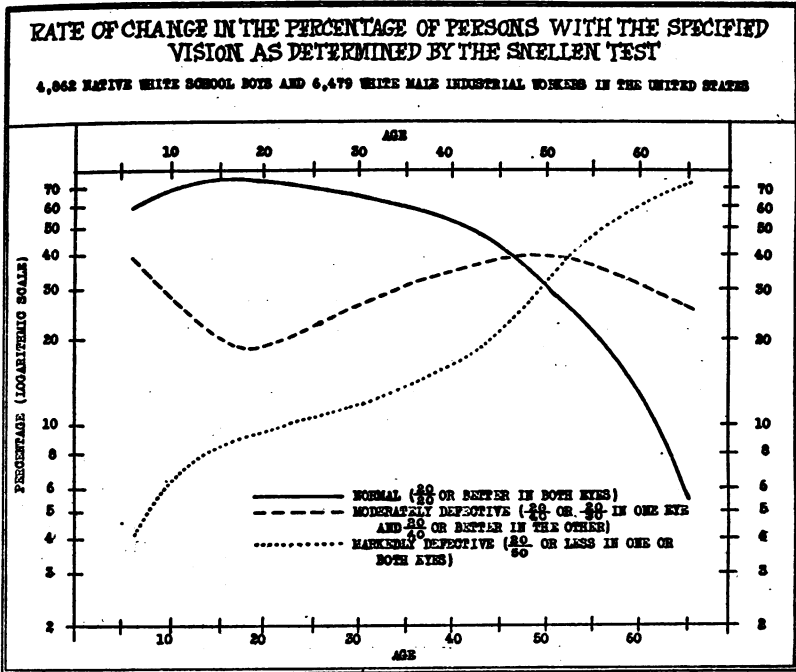


FIG. 2.

The more rapid increase in the percentage of persons with markedly defective vision during school ages than at the early ages of industrial life is again in agreement with the study of E. Treacher Collins, who states regarding the development of the eye:

If while this developmental process, which lasts up to the twentieth year, is still proceeding, man's vision becomes unduly restricted to use at short ranges, then \* \* \* adaptation of structure to function tends to take place, the vitreous chambers become deeper than normal and myopia is developed.<sup>3</sup>

The actual increase in the percentage of persons with normal vision in both eyes is much greater during school life than the actual increase in the percentage of persons with markedly defective vision. But it may be seen from Figure 2 that the *rate* of increase with age

<sup>3</sup> Op. cit., p. 80.

is not so great for the class with normal vision in both eyes as that for the class with markedly defective vision.

The decrease in the percentage of adults with normal vision in both eyes is moderate until about 45 years of age, after which time, as is indicated particularly in Figure 2, the rate of decrease is very much accelerated.<sup>4</sup>

SUMMARY.

The results of Snellen vision tests of 4,862 native white school boys and 6,479 male white industrial workers were tabulated to show the age incidence throughout life of good and of poor vision.

The percentage of persons with normal vision ( $\frac{20}{20}$  or better in both eyes) increased with age up to 18 or 19 years, after which it declined. After about 45 years of age the rate of decline was much more rapid.

The percentage of persons with markedly defective vision ( $\frac{20}{30}$  or less in one or both eyes) increased steadily after 6 years of age. The rate of increase was more rapid during school ages than in the early ages of industrial life.

The percentage of persons with moderately defective vision declined during school ages, then increased from 20 to 50 years of age, and then declined again.

Appendix.

TABLE 2.—Number of persons examined and the number with each specified vision as determined by the Snellen test—4,862 native white school boys and 6,479 white male industrial workers in the United States.

Age (years).	Total.	$\frac{20}{20}$ or better in one or both eyes.	$\frac{20}{20}$ or better in one eye and $\frac{20}{30}$ or better in other.	$\frac{20}{30}$ or better in both eyes.	$\frac{20}{30}$ or better in one eye and $\frac{20}{40}$ or better in other.	$\frac{20}{40}$ or better in one eye and $\frac{20}{50}$ or better in other.	$\frac{20}{50}$ or better in both eyes.	$\frac{20}{50}$ or better in one eye and $\frac{20}{60}$ or less in other.	$\frac{20}{60}$ or better in one eye and $\frac{20}{70}$ or less in other.	$\frac{20}{70}$ or better in one eye and $\frac{20}{80}$ or less in other.	$\frac{20}{80}$ or better in one eye and $\frac{20}{90}$ or less in other.	$\frac{20}{90}$ or better in one eye and $\frac{20}{100}$ or less in other.	$\frac{20}{100}$ or less in both eyes.
<b>School children:</b>													
6	205	117	27	52	3	3	1						2
7	492	296	56	112	2	8	9	2	4	3			2
8	590	361	65	144	2	8	4	1	3				2
9	631	394	68	139	5	7	11	2	2	1			2
10	683	446	73	108	5	12	15	5	5	5			9
11	568	372	47	115	3	10	6	3	3	3			6
12	533	380	47	72	3	8	7	8	3	3			2
13	444	304	36	67	8	8	2	3	5	2			9
14	339	246	34	38	2	5	3	1	5	2			3
15	193	128	21	27	3	4	1	1	1				7
16	96	68	11	7	2		1	4	3				
17 and over	88	64	12	6	1			2					3
<b>Industrial workers:</b>													
Under 20	356	275	25	24	5	6	4	3	5	4			5
20 to 24	896	607	82	121	6	13	12	13	18	5			19
25 to 29	1,137	697	144	166	13	27	20	30	8	10			22
30 to 34	1,078	648	117	183	11	29	25	17	12	13			23
35 to 39	1,023	561	129	172	21	34	23	25	22	9			27
40 to 44	715	354	92	163	9	27	20	12	16	3			20
45 to 49	572	198	75	155	6	29	37	14	19	13			26
50 to 54	341	77	22	108	3	26	31	4	10	18			42
55 to 59	196	35	9	50	1	19	25	3	11	16			28
60 and over	165	9	7	37	1	14	28	1	10	19			39

<sup>4</sup> Attention may be called to Fig. 7 (p. 56) in Public Health Bulletin 140. It is to be noted that this curve shows the percentage normal in one eye or both eyes, whereas the graphs in the present article show the percentage normal in both eyes. The Koga and Morant article confirms our results in so far as the accelerated decline after 45 years of age is concerned, as well as other periods of life.

## OIL POLLUTION AT BATHING BEACHES.

Prepared by a committee consisting of F. W. LANE, Bureau of Mines, *Chairman*; A. D. BAUER, Bureau of Mines; H. F. FISHER, American Petroleum Institute; and P. H. HARDING, American Steamship Owners' Association.

In view of the large number of complaints coming from the beach interests, and the importance of bathing beaches as a factor influencing public health, the Bureau of Mines, in cooperation with the American Petroleum Institute and the American Steamship Owners' Association, has made an examination of conditions as regards petroleum oil pollution along the coasts of the United States. This investigation was carried out during the period November 1, 1922, to February 1, 1923.

The data presented in this paper have been selected from a much larger mass of material. With the exception of one or two localities no attempt has been made to give a detailed picture of the situation. The aim has been to present a brief general account of oil pollution conditions at bathing beaches along the coasts of the United States. Care has been taken to give only data from sources of the greatest reliability. On account of the great number of complaints that were heard from the New Jersey beaches, a special effort was made to obtain authentic information regarding that part of the coast. The detailed data relative to the New Jersey coast is presented with the permission of the United States Coast Guard.

Where it was impossible to obtain data directly from persons believed to be well informed, letters were written requesting information regarding conditions in various localities from which trouble had been reported. The response to these requests was often meager and, in some cases, no replies were received.

In most localities, contact was made also with representatives of chambers of commerce, health officers, and recreation commissions, who are directly interested in beaches as a vital factor in the public health.

### BOSTON AND VICINITY.

At Boston a representative of the chamber of commerce stated that no complaints have been received relative to beach conditions. However, the city health commissioner reported as follows:

\* \* \* Several complaints were also had from the bathing beaches, and, upon investigation, it was found that, at times, it was impossible to go in bathing without being entirely covered with oil which was very difficult to remove.

It came to our attention at that time that the same conditions existed at the beaches at Winthrop and Nantasket.

The health commissioner of the city of Quincy, Mass., wrote as follows:

Public opinion is intensely aroused in this vicinity over this oil pollution. It affects many thousands of people who have been in the habit of bathing each day in summer in these waters. \* \* \*

The following quotation is from the letter of the deputy commissioner, park department, Boston:

\* \* \* From personal observation, I have noticed oil at Savin Hill Beach, Dorchester, and Wood Island Park, East Boston; L Street Baths in South Boston have never been polluted to any great extent; Freeport Street very little; but the conditions in Charlestown at Dewey Beach and at North End Beach, Boston, are very bad.

PROVIDENCE, R. I., AND BRIDGEPORT, CONN.

A sanitary engineer of the board of purification of waters, Providence, R. I., stated that, while formerly the beaches had a good deal of trouble, no serious complaints had been received during the preceding year, either from beach interests or from sporting men. The following extract is taken from the annual report of the board for the fiscal year ending December 31, 1922:

*Oil pollution of ocean beaches.*—The board has made various inquiries relative to the extent of oil pollution of the ocean beaches of Rhode Island. It appears that occasionally there are patches of oil washed from the ocean onto the beaches. These patches of oil do not make their appearance until it is practically impossible for the board, with their present facilities, to ascertain the source of this pollution.

The conditions of the beaches at Bridgeport would seem to be somewhat less satisfactory, as the harbor master stated that many complaints had come from the beaches in the vicinity of Black Rock Harbor.

NEW YORK, N. Y., AND VICINITY.

The officer in charge of Coast Guard Station No. 92, Rockaway Beach, Long Island, made the following comments:

Oil pollution in this district was worse in the summer of 1922 than in the previous year, and the conditions always seem worse in the summer than in the winter.

He has seen large patches of oil floating on the surface of the water, but the oil usually comes into the beach broken up into small particles about the size of a half dollar. The beach does not become stained throughout its entire length, but the pollution is scattered, depending upon where the small particles of oil are washed ashore. During the summer of 1922 there were several days when it was impossible to go in bathing on account of the oil. The part of the beach near One Hundred and Sixth Street was reported to be in bad condition last summer on account of oil, but when inspected by a member of the committee it appeared clean and free from oil. The committee was informed that bathers must exercise care in walking and sitting on the beach in order to avoid tarry spots which may be covered with a slight layer of sand. The officer also said that the same conditions may be found all around the island and at Coney



Island. A member of the committee walked along the beach at several places and was unable to see any oil pollution; however, some driftwood was noticed which was coated with tarry residue. A few piers were examined but no oily coating was evident.

Mr. E. F. Moran, appointed by the supervisor of New York Harbor as chairman of a committee to investigate the subject of oil pollution in New York Harbor, reported that during 1921 the condition of the water of New York Harbor, as a result of oil pollution, had become serious. Bathing was greatly restricted at some beaches and in other cases was entirely abandoned owing to the presence of oil.

On November 10, 1922, the committee wrote to the general manager, Brighton Beach Baths, Brighton Beach, Brooklyn, who, it was understood, was chairman of a committee representing various beach associations in that vicinity. No reply was received, and a second letter was written requesting information relative to beach conditions. No reply was received to the second inquiry.

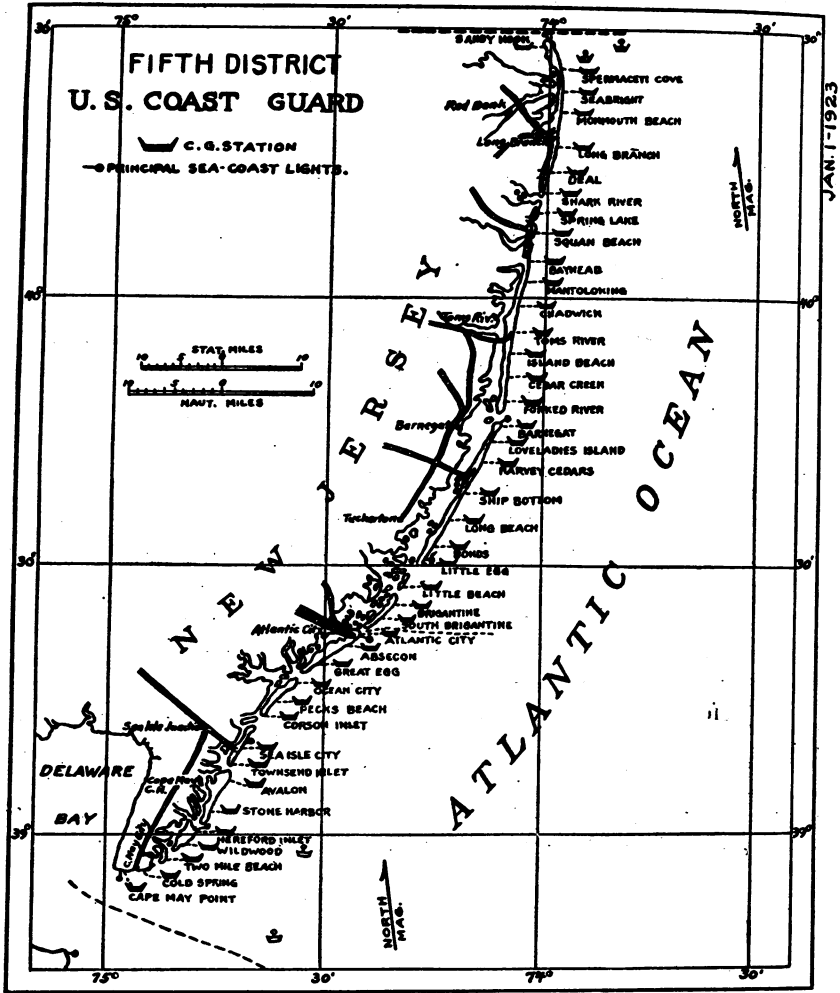
The superintendent of the Staten Island Beach Land Improvement Co. furnished some very interesting information relative to conditions prevailing at South Beach, Staten Island. Apparently, he has made a much more careful study of this subject than most beach operators, as he was the only operator interviewed who was able to give exact dates when conditions at his beach were intolerable owing to the presence of oil. He has been collecting information for a number of years and made that information available for the use of the committee. He stated that conditions at South Beach had at times been so bad as to threaten the loss of the whole investment.

The following memorandum gives the dates during the bathing season on which the pollution was so serious as to preclude the possibility of bathing at one of the resorts on lower New York Bay in 1916, 1918, and 1919. These figures indicate the great increase in oil pollution at the beach in question for the period dealt with.

1916	1918	1919
July—1 day.	July—3 days. Aug.—4 days. Sept.—2 days.	July—10 days. Aug.—11 days. Sept.—2 days.

The number of bathing days in 1919 were stated to be 100, so that the number of days of oil was 23 per cent of the bathing season. However, the actual bathing season in this locality is usually considered to consist of July and August, or 62 days. On this basis the number of days of oil pollution at this beach in 1919 would represent 37 per cent of the bathing season.

The operator of this resort kept a record for each day from January 3, 1920, to June 11, 1920, of the direction of the wind, flow of tide at the time of observation, presence and extent of oil on the water and on the beach in the vicinity of his property, and the arrivals of



tankers in the port of New York. It was found that oil usually came on the beach with a southerly or southeasterly wind.

A summary of this record is given in the following table:

	January 3-31.	February.	March.	April.	May.	June 1-11.	Total period (160 days).
Number of days oil appeared on the water or on the beach.....	9	13	8	9	12	3	54
Number of tankers arriving.....	30	21	16	19	16	-----	102

The investigators also interviewed an official of the marine division of the police department of Staten Island, with special reference to conditions prevailing along the southern shore of the island. This official stated that he had received no complaints from this source, and did not believe there was any appreciable quantity of oil there.

#### NEW JERSEY.

Many persons were written to regarding conditions along the New Jersey coast. On the whole, the response to these requests for information was disappointing. Such replies as were received were, in general, very meager and unsatisfactory.

A letter from Atlantic City contained the following:

\* \* \* I beg to advise you that in the summer of 1920 a grounded tanker pumped 10,000 gallons of oil overboard, polluting our beach and causing the city an expense of \$1,400 to clean up the beach and, in addition, caused a great deal of annoyance and actual loss to the bathing houses and to the hotels and cottages by having the tar tracked into the buildings. Since that time we have had very little trouble.

This last summer there was at times a recurrence of this trouble, but not nearly as bad as it was in the summer of 1920.

In order to obtain a better idea of conditions along the New Jersey coast, the committee wrote to the superintendent of the Fifth District, United States Coast Guard, Asbury Park, requesting any information relative to the effect of petroleum oil on the beaches. This official referred the matter to the officers in charge of the Coast Guard stations, who are directly on the beach at all times and who observe closely all occurrences within the patrol limits of their respective stations. The replies of each of these officers, thirty-eight in number, were placed at the disposal of the committee, and the results are given in the accompanying table. The map shows the distribution of the stations along the New Jersey coast.

*Tabulation of replies received from Coast Guard Stations along the Coast of New Jersey (5th district).*

Name of station.	Existence of oil pollution.	Extent of oil pollution.	Dates.	Injury to fish, fowl, bathing.			Other observations.
				Fish.	Fowl.	Bathing.	
Sandy Hook Spermaceti Cove.....	Yes Yes.....	No record. Beach practically oil-coated.....	Always after easterly winds.....	No fishing at Sandy Hook. Menhaden killed in large num- bers in spring. Fishing is ruined.....	Wild fowl killed in large numbers.....	Greatly decreased.  Bathing spoiled. Materially interfered with. Prevents bathing at times.  Bad on date men- tioned. Prevented bathing. Interferes greatly. Interfered with. Prevents bathing.	
Monmouth Beach.....	Yes.....	Bad.....	Winter and summer for last 4 or 5 years. In summer.....				1
Long Branch.....	Yes.....	Not stated.....	In summer with inland breeze.....				
Deal.....	Yes.....	Bad at times.....	Spring, 1922.....				
Shark River.....	Yes.....	Slight.....	June and July, 1920-21 and 1922.....				
Spring Lake.....	Yes.....	Very bad.....	Whenever wind blows from east. For some years past.....				
Squan Beach.....	Yes.....	do.....					
Bayhead.....	Yes.....	do.....					
Mantoloking.....	Yes.....	do.....					
Chadwick.....	Yes.....	Bad at times.....	Past four years. Oil washed ashore during northeast and east wind. Past few years. Oil on shore after northeast wind. Especially summer 1922. Oil on shore after east- ward wind.....				
Toms River.....	Yes.....	Bad.....					
Island Beach.....	Yes.....	do.....					
Cedar Creek.....	Yes.....	do.....	After easterly storms. After east winds.....				
Forked River.....	Yes.....	Bad at times— Barnegat Bay almost covered. Bad.....					
Barnegat.....	Yes.....	Very bad.....	June, July, and August, 1922. After northeast or east wind. No record. Past 2 years.....				
Loveladies Island.....	Yes.....	do.....					
Harvey Cedars.....	Yes.....	Indefinite.....					
Ship Bottom.....	Yes.....	Bad.....					

Shoes covered with oil  
in patrolling beach.

Complaints from bath-  
ers.  
Harmful to bathing.  
do.

Wild ducks covered  
with oil and unable to  
fly.

Some have been picked  
up dead.

2 fisheries failed in this  
district—fish did not  
run along shore on ac-  
count of oil.

Fishing in Barnegat  
Bay almost extinct.

Harmful to fishing.

Long Beach.....	Yes	Moderate.....	Summer 1922.....	Not affected.....	.....do.....	.....do.....	.....do.....
Little Egg.....	Yes	Slight.....	Past 6 years.....	.....do.....	.....do.....	Prevents bathing.....	Clothing ruined.
Brigantine.....	Yes	Bad.....	.....do.....	.....do.....	.....do.....	Prevents bathing.....	Tanker Cabrille stranded
South Brigantine.....	Yes	No record.....	July, 1920.....	.....do.....	.....do.....	Prevents bathing.....	Do.
Atlantic City.....	Yes	Bad on two occasions.....	July, 1918-1920.....	.....do.....	.....do.....	.....do.....	Do.
Absecon.....	Yes	Moderate.....	No record for number of times oil came ashore except July, 1920. 1917-1920.....	.....do.....	.....do.....	.....do.....	1920, tanker Cabrille, Delaware Capes. Yachtsmen complain. Ruining household furniture.
Great Egg.....	Yes	Bad.....	.....do.....	Affected.....	.....do.....	.....do.....	Clothing ruined.
Ocean City.....	Yes	.....do.....	July and August, 1922.....	.....do.....	.....do.....	.....do.....	Ruins household furnishings.
Pecks Beach.....	Yes	.....do.....	July, 1922. Summers for past six years. After east or south winds July and August of past 3 years. After south and east winds April to October. Since 1918.....	.....do.....	.....do.....	.....do.....	.....do.....
Corson Inlet.....	Yes	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Sea Isle City.....	Yes	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Townsend Inlet.....	Yes	(Bad in Summer, 1920. Slight in Summer, 1922. Very little in Bad.....)	July, August, and September, 1920. Summer, 1922. Several seasons in 1921 and 1922.....	.....do.....	.....do.....	.....do.....	.....do.....
Avalon.....	Yes	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Stone Harbor.....	Yes	Very bad.....	July, 1921.....	.....do.....	.....do.....	.....do.....	.....do.....
Hanford Inlet.....	Yes	Bad.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Wildwood.....	Yes	Slight.....	Summers, 1921-22.....	.....do.....	.....do.....	.....do.....	.....do.....
Two Mile Beach.....	Yes	No record.....	.....do.....	.....do.....	.....do.....	.....do.....	.....do.....
Cold Spring.....	Yes	Slight.....	No record.....	.....do.....	.....do.....	.....do.....	.....do.....
Cape May Point.....	Yes	No record.....	Since 1918.....	.....do.....	.....do.....	.....do.....	.....do.....

Pollution usually in small lumps; hard when cold; soft and sticky when warm.

## BALTIMORE, MD., AND VICINITY.

It was reported by a representative of a steamship company, that there was no bathing in the immediate vicinity of Baltimore, owing to industrial development.

It was stated that bathing was formerly enjoyed in Chesapeake Bay near the city of Baltimore, but during recent years, on account of oil pollution, bathing has been restricted. It is said to be necessary to go about 20 miles below the city before bathing can be enjoyed without the discomforts of oil pollution.

## NORFOLK, VA., AND VICINITY.

The health commissioner of Norfolk, Va., reports as follows:

\* \* \* we have had a great number of complaints from the bathing beaches, Virginia Beach, Ocean View, Ocean Park, Chesapeake Beach, Willoughby Beach, and other beaches, against the large quantities of oil in the waters of these places. As a matter of fact, on a number of occasions it has been impossible to use these beaches for bathing purposes. I know of this from my own personal experience.

To summarize what I have said, we are almost constantly in receipt of complaints from this source. Sorry I can not give you more information in detail

\* \* \*

The committee interviewed several municipal authorities, and it was reported that oil had caused trouble at several of the beaches. The greatest number of complaints had been received from Virginia Beach, and it is said that when a northeasterly wind is blowing, oil, which may be dumped beyond the three-mile limit, is washed in on the beach. During the summer of 1922 the trouble from oil pollution on the beaches was less than in the preceding years.

The president of an amusement company who operates a well-known beach resort was interviewed. The beach is located between Old Point Comfort and Cape Henry. He said that, during the summer of 1922, the beach was bothered very little by oil, and that the condition was steadily improving. The summer of 1921 was the worst experienced by the beach in regard to oil pollution. The shower baths were equipped with kerosene for cleaning oil from the bodies of the bathers.

The committee inspected Virginia Beach, which is about 8 miles south of Cape Henry and 20 miles east of Norfolk. This beach was examined for a distance of about 1 mile, but no evidence of free oil was observed on the sand or in the water. Some scattered pieces of driftwood covered with oil residue were observed and examined. As the resort was closed for the winter season, it was impracticable to interview anyone regarding troubles experienced there during the summer of 1922.

**CHARLESTON, S. C., SAVANNAH, GA., AND JACKSONVILLE, FLA.**

Municipal authorities were interviewed at these places and it was stated that no serious complaints had recently been reported.

**PALM BEACH, FLA.**

At Palm Beach the investigators interviewed the city manager, and the proprietor of a bath. According to these gentlemen, bathers were bothered by oil both on the surface of the water and on the bottom. In the fall of 1922, the condition was bad, and in the first part of January, 1923, there were quantities of oil on the beach. There appeared to be no improvement in the condition from previous years. Resort proprietors and the city manager had written to all the oil companies requesting them not to pump out ballast water or clean oil tanks between St. Augustine and Key West. Later the city manager wrote:

\* \* \* This condition [oil on the beach] has been and is very bad at times.

It is almost impossible to bathe in the ocean at times, on account of this heavy oil floating on the water, which sticks to the clothing or skin wherever it comes in contact with it. Also, the use of the beach is very much destroyed by the heavy oil washing up on the beach.

An inspection of the beach by the committee for a distance of about 2 miles showed it to be clean and free from oil except for a few scattered small pieces of asphaltic residue, and a small area south of the Breakers Hotel and casino, where, for a distance of about one-quarter of a mile, a considerable quantity of asphaltic residue was scattered along at the high-water mark. The pieces ranged in size from cakes 1 inch in diameter to cakes about 2 feet long and 18 inches wide and about 1 inch thick. The residue was dry and hardened and could be handled without soiling the hands unless crushed or broken. It could be cleaned from the beach very readily, but no attempt to do this was being made by the casino owners.

**MIAMI BEACH, FLA.**

At Miami Beach the committee interviewed the secretary of the chamber of commerce, a former councilman, the city engineer, and two casino proprietors. These persons reported that, at times, the oil pollution conditions on the beach were bad and very harmful to the business of the casinos. The chamber of commerce was taking a very active interest in this subject and was endeavoring to stop the trouble. The proprietors of the resorts displayed before a meeting of the chamber of commerce an exhibit of towels and bathing suits ruined by oil and oily refuse.

The resort owners were in the habit of cleaning the beach in front of their casinos and of burying the oily refuse in the sand.

An inspection of the beach showed it to be clean and free from oil, except for a few small pieces of asphaltic residue.

**TAMPA, FLA.**

The committee interviewed the harbormaster, who had visited the beaches in that vicinity and inquired of the resort owners whether they had been bothered by oil. It was stated that no complaints had been made. The mayor, commissioner, and the secretary of the chamber of commerce were also interviewed.

**ST. PETERSBURG, FLA., AND PASS-A-GRILLE, FLA.**

The beaches at these places were inspected by the committee and found to be in a very clean condition and free from oil.

**PENSACOLA, FLA., AND MOBILE, ALA.**

Municipal authorities informed the committee that complaints had been made by the bathing beach interests, but the apparent lack of definite information on the part of those interviewed left the committee in some doubt regarding the seriousness of oil pollution at bathing beaches.

Among the persons consulted at Pensacola were the deputy harbormaster, the secretary of the chamber of commerce, and a city commissioner. At Mobile the committee interviewed, among others, a city commissioner and the harbormaster.

**NEW ORLEANS, LA.**

There had been no serious complaints from bathing beaches in this vicinity. In this connection the committee interviewed the assistant general manager, board of port commissioners, the superintendent of docks, and the captain of the harbor patrol.

**HOUSTON, TEX.**

There are no beaches in the immediate vicinity of Houston, but the committee was informed that, at the head of Galveston Bay, which is about 25 miles from the city, considerable trouble had been experienced from oil on the beaches. In connection with this subject the committee interviewed the assistant director of the port, whose jurisdiction extends along the ship channel from Houston to Morgan's Point.

**GALVESTON, TEX.**

An official of the fire department indicated that conditions on the beaches on the Gulf side were extremely bad in the summer of 1921. The summer of 1922 showed some improvement.



An officer of the Galveston Commercial Association indicated that conditions were extremely bad in 1921, but had improved somewhat since then. At that time, large patches of free oil were visible on the waves breaking on the shore. Even during the summer of 1922, it was often necessary to have cans of gasoline available for the use of bathers.

A member of the committee made an inspection of the sea wall for a distance of several miles and found that large patches of oil had been deposited on its entire length. An inspection of the beach itself showed seaweed and shells freshly coated with oil, and small globules of oily material were found on the sand, ranging from pieces one-eighth of an inch in diameter to large patches several inches in diameter. It was impossible to walk any distance on the beach without picking up a heavy coating of oil on the shoes. Even these bad conditions were stated to be better than usual.

An owner of one bathhouse was said to have suffered a loss in one season of about \$2,000 in towels and suits alone, in addition to loss in trade. It was stated that a large hotel, representing an investment of over \$1,000,000, which depends for its success upon the summer trade, had been seriously injured by oil pollution. Every effort was made, but without success, to interview the manager of this hotel, who was understood also to be the proprietor of the bathhouse above referred to.

#### PISMO BEACH, CALIF.<sup>1</sup>

Formerly there was a good deal of complaint from clam-bed owners on account of pollution which was apparently occasioned by reason of ships pumping bilge water offshore. This has been discontinued and no pollution is to be found at the present time.

#### REDONDO BEACH, VENICE, AND OCEAN PARK, CALIF.

Conditions were bad at these localities, with many complaints from the bathing beaches. Most of the oil pollution found was due to the unpreventable oil seepages at sea about 2 miles off Redondo Beach.

#### LONG BEACH, CALIF.

Long Beach has a very serious problem occasioned by oil escaping from producing wells on Signal Hill. Oil has often found its way into the storm sewers and has been carried to the bay, where it floats upon the water of the bathing beaches.

<sup>1</sup> Notes on Pacific coast beaches by C. P. Bowie and J. S. Desmond, of the Bureau of Mines.

## CONCLUSIONS.

In general, pollution by oil at beaches along the coasts of the United States has presented a very serious problem during the past few years, although present conditions represent a great improvement over those that prevailed a few years ago. Unfortunately, most beach operators have not kept accurate records of the dates and circumstances under which oil appeared on their beaches. Accordingly, it is impossible to estimate accurately the extent to which the public has been deprived of the use of the beaches, or to what degree the beach operators have suffered on account of the presence of oil. Some comprehensive program, involving definite measures, undoubtedly is necessary reasonably to insure that the beaches shall be in proper condition for the public use.

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**FEDERAL OIL POLLUTION ACT.**

Under an act of Congress approved June 7, 1924, the discharge of oil from vessels into the coastal navigable waters of the United States is regulated. The act authorizes the Secretary of War to prescribe regulations governing the discharge of oil from vessels, and makes the violation of section 3 of the act or any regulation prescribed in pursuance thereof a misdemeanor. A vessel from which oil is unlawfully discharged is made liable for the pecuniary penalty specified, and clearance of such vessel may be withheld and the penalty, constituting a lien on the vessel, recovered in proceedings by libel in rem. Suspension or revocation of licenses issued to officers of vessels found violating the act is also provided for. The Secretary of War is directed to make an investigation concerning the pollution of navigable waters and nonnavigable waters connecting with navigable waters, and to report the results of his investigation to Congress, together with such recommendations for remedial legislation as he deems advisable. The act follows:

[PUBLIC—No. 238—68TH CONGRESS.]

An Act To protect navigation from obstruction and injury by preventing the discharge of oil into the coastal navigable waters of the United States.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this act may be cited as the "Oil pollution act, 1924."*

SEC. 2. When used in this act, unless the context otherwise requires—

(a) The term "oil" means oil of any kind or in any form, including fuel oil, oil sludge, and oil refuse;

(b) The term "person" means an individual, partnership, corporation, or association; any owner, master, officer or employee of a vessel; and any officer, agent, or employee of the United States;

(c) The term "coastal navigable waters of the United States" means all portions of the sea within the territorial jurisdiction of the United States, and all inland waters navigable in fact in which the tide ebbs and flows;

(d) The term "Secretary" means the Secretary of War.

SEC. 3. That, except in case of emergency imperiling life or property, or unavoidable accident, collision, or stranding, and except as otherwise permitted by regulations prescribed by the Secretary as hereinafter authorized, it shall be unlawful for any person to discharge, or suffer, or permit the discharge of oil by any method, means, or manner into or upon the coastal navigable waters of the United States from any vessel using oil as fuel for the generation of propulsion power, or any vessel carrying or having oil thereon in excess of that necessary for its lubricating requirements and such as may be required under the laws of the United States and the rules and regulations prescribed thereunder. The Secretary is authorized and empowered to prescribe regulations permitting the discharge of oil from vessels in such quantities, under such conditions, and at such times and places as in his opinion will not be deleterious to health or sea food, or a menace to navigation, or dangerous to persons or property engaged in commerce on such waters, and for the loading, handling, and unloading of oil.

SEC. 4. That any person who violates section 3 of this act, or any regulation prescribed in pursuance thereof, is guilty of a misdemeanor, and upon conviction shall be punished by a fine not exceeding \$2,500 nor less than \$500, or by imprisonment not exceeding one year nor less than thirty days, or by both such fine and imprisonment, for each offense. And any vessel (other than a vessel owned and operated by the United States) from which oil is discharged in violation of section 3 of this act, or any regulation prescribed in pursuance thereof, shall be liable for the pecuniary penalty specified in this section, and clearance of such vessel from a port of the United States may be withheld until the penalty is paid, and said penalty shall constitute a lien on such vessel which may be recovered in proceedings by libel in rem in the district court of the United States for any district within which the vessel may be.

SEC. 5. A board of local inspectors of vessels may, subject to the provisions of section 4450 of the Revised Statutes, and of the act entitled "An act to provide for appeals from decisions of local inspectors of vessels, and for other purposes," approved June 10, 1918, suspend or revoke a license issued by any such board to the master or other licensed officer of any vessel found violating the provisions of section 3 of this act.

SEC. 6. That no penalty, or the withholding of clearance, or the suspension or revocation of licenses, provided for herein, shall be enforced for any violation of this act occurring within three months after its passage.

SEC. 7. That in the administration of this act the Secretary may make use of the organization, equipment, and agencies, including engineering, clerical, and other personnel, employed under his direction in the improvement of rivers and harbors and in the enforcement of existing laws for the preservation and protection of navigable waters. And for the better enforcement of the provisions of this act the officers and agents of the United States in charge of river and harbor improvements, and the assistant engineers and inspectors employed under them by authority of the Secretary, and officers of the Customs and Coast Guard Services of the United States, shall have power and authority and it shall be their duty to swear out process and to arrest and take into custody, with or without process, any person who may violate any of said provisions: *Provided*, That no person shall be arrested without process for a violation not committed in the presence of some one of the aforesaid officials: *And provided further*, That whenever any arrest is made under the provisions of this act the person so arrested shall be brought forthwith before a commissioner,

judge, or court of the United States for examination of the offenses alleged against him; and such commissioner, judge, or court shall proceed in respect thereto as authorized by law in cases of crimes against the United States.

SEC. 8. That this act shall be in addition to the existing laws for the preservation and protection of navigable waters and shall not be construed as repealing, modifying, or in any manner affecting the provisions of those laws.

SEC. 9. That the Secretary is authorized and directed to make such investigation as may be necessary to ascertain what polluting substances are being deposited into the navigable waters of the United States, or into nonnavigable waters connecting with navigable waters, to such an extent as to endanger or interfere with navigation or commerce upon such navigable waters or the fisheries therein; and with a view to ascertaining the sources of such pollutions and by what means they are deposited; and the Secretary shall report the results of his investigation to the Congress not later than two years after the passage of this act, together with such recommendations for remedial legislation as he deems advisable: *Provided*, That funds appropriated for examinations, surveys, and contingencies of rivers and harbors may be applied to paying the cost of this investigation, and, to adequately provide therefor, the additional sum of not to exceed \$50,000 is hereby authorized to be appropriated for examinations, surveys, and contingencies of rivers and harbors.

Approved, June 7, 1924.

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### ANTIPLAGUE ORDINANCE OF LOS ANGELES, CALIF.

The city of Los Angeles, Calif., has recently adopted an ordinance (No. 50282, approved November 21, 1924) which provides for the ratproofing of buildings, the trapping of rats, the prevention of entrance of rats from vessels, and the prevention of access by rats to food, garbage, refuse, etc. The ordinance reads as follows:

SECTION 1. It shall be unlawful for the owner, manager, or agent in charge of any building or premises, or any part thereof, between the hours of 9 o'clock a. m. and 5 o'clock p. m. of any day, to refuse admission to any officer, inspector, or other representative of the health department of the city of Los Angeles, when such officer, inspector, or other agent has announced his intention to enter said building or premises for the purpose of inspecting the same and ascertaining whether the provisions of this ordinance have been complied with by the owner or occupant of said building or premises.

SEC. 2. All building and basement walls of all storerooms, warehouses, residences or other buildings within the city, all chicken yards or pens, chicken coops or houses, and all barns and stables, shall be so constructed or repaired as to prevent rats from being harbored underneath the same or within the walls thereof, and all food products or other products, goods, wares, and merchandise liable to attract or to become infested or infected with rats, whether kept for sale or for any other purpose, shall be so protected as to prevent rats from gaining access thereto or coming in contact therewith. All storerooms, warehouses, residences, or other buildings in said city shall be provided by the householder or his agent with one or more traps of a pattern approved by the commissioner, which traps shall be freshly baited at least twice each week by the householder or his agent, and shall be inspected daily by the householder or his agent, and any rat or rats caught therein shall be killed and delivered to the health department, or its duly authorized deputy, or killed and then destroyed by burning, and such trap or traps thoroughly smoked and reset and rebaited by said householder or his agent.

SEC. 3. All public and private docks and wharves in the city, wherever located, shall be so protected as to prevent rats from gaining entrance to such docks or wharves, at either high or low tide, from vessels anchored or moored alongside of such docks or wharves, or from other sources, and all food products stored in docks or wharves shall be so kept and stored as to prevent rats from gaining access thereto or coming in contact therewith. All docks and wharves shall be provided with two or more traps of a pattern approved by the health commissioner; traps shall be freshly baited at least twice each week, and shall be inspected daily, and all rats caught therein shall be killed and delivered to the health department, or killed and then destroyed by burning, and such trap or traps shall be thoroughly smoked and reset and rebaited.

SEC. 4. All slaughterhouses of every kind and nature, and wherever located in the city, shall be so protected as to prevent rats from gaining access to the building or buildings thereof, and all holes and openings in the building or basement walls shall be thoroughly stopped with cement or other material approved by the health commissioner, and all food products stored in slaughterhouses shall be so kept as to prevent rats from coming in contact therewith.

All slaughterhouses shall have at least two traps, or as many more traps as may be required by the health commissioner, of pattern approved by said commissioner, which traps shall be baited with fresh bait at least twice a week, and such traps shall be inspected daily by the owners, lessees, or agents thereof, and all rats caught therein shall be killed and delivered to the health department, or killed and then destroyed by burning, and the trap or traps thoroughly smoked and reset and rebaited by said owners, lessees, or their agents.

SEC. 5. All buildings, places, and premises whatsoever in the city shall at once be placed, and shall continuously be kept by the owner or the occupant thereof, in a clean and sanitary condition, and free from rats.

SEC. 6. It shall be unlawful for any person, firm, or corporation to have or permit upon any premises owned, occupied, or controlled by him or it, any nuisance detrimental to health, or any accumulation of filth, garbage, decaying animal or vegetable matter, or any animal or human excrement; and it shall be the duty of the health commissioner of the city of Los Angeles to cause any such person, firm, or corporation to be notified to abolish, abate, and remove such nuisance, and in case such person, firm, or corporation shall fail, neglect, or refuse to remove the same within one day after receiving such notice, such nuisance may be removed and abated under and by order of the health commissioner, and the person, firm, or corporation whose duty it was to abate or remove such nuisance, in addition to incurring penalties in this ordinance provided, shall become indebted to said city for the costs and charges incurred by said city by reason of the existence and removal of such nuisance.

SEC. 7. It shall be unlawful for any person, firm, or corporation to dump or place upon any land, or in any water or waterway, within said city, any dead animal, butchers' offal, fish or parts of fish, or any waste vegetable or animal matter whatever.

SEC. 8. It shall be unlawful for any person, firm, or corporation whether the owner, lessee, occupant, or agent of any premises to keep or permit to be kept in any building, area way, or upon any premises, or in any alley, street, or public place adjacent to any premises, any waste animal or vegetable matter, dead animals, butchers' offal, fish or parts of fish, swill, or any refuse matter from any restaurant, eating place, residence, place of business, or other building, unless the same be collected and kept in a tightly covered or closed metal can or vessel.

SEC. 9. No rubbish, waste, or manure shall be placed, left, dumped, or permitted to accumulate or remain in any building, place, or premises in said city so that the same shall or may afford food or a harboring or breeding place for rats.

SEC. 10. Any person, firm, or corporation violating or failing to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not to exceed \$500, or by imprisonment in the city jail for a period of not to exceed six months, or by both such fine and imprisonment. Each such person, firm, or corporation shall be deemed guilty of a separate offense for each day during any portion of which any violation of any of the provisions of this ordinance is continued, committed, or permitted, and shall be punishable therefor as herein provided.

**PRINCIPAL CAUSES OF DEATH IN THE UNITED STATES, 1923.**

The Department of Commerce announces that 1,193,017 deaths occurred in 1923 within the death registration area of continental United States, representing a death rate of 12.3 per 1,000 population as compared with a rate of 11.8 in 1922.

The death registration area (exclusive of the Territory of Hawaii) in 1923 comprised 38 States, the District of Columbia, and 14 cities in nonregistration States, with a total estimated population on July 1 of 96,986,371, or 87.6 per cent of the estimated population of the United States.

The increase in the rates from influenza, from 31.4 per 100,000 population in 1922 to 44.7 in 1923, and from pneumonia (all forms) from 102.1 per 100,000 population in 1922 to 109 in 1923, accounts for nearly half the increase in the rate from all causes. Some of the other causes for which the rates increased are diseases of the heart, measles, cerebral hemorrhage, whooping cough, cancer, automobile accidents, nephritis, railroad accidents, and accidental falls.

Decreases appear in the death rates from tuberculosis (all forms), diphtheria, malaria, and typhoid and paratyphoid fever.

The following table shows for the death registration area in continental United States in 1922 and 1923 the total number of deaths and the death rate from leading causes.

Cause of death.	Deaths in the registration area (exclusive of Hawaii).			
	Number.		Rate per 100,000 population.	
	1923	1922	1923	1922
All causes <sup>1</sup> .....	1,193,017	1,101,863	1,230.1	1,181.7
Diseases of the heart.....	170,033	154,495	175.3	165.7
Pneumonia (all forms).....	105,680	95,164	109.0	102.1
Tuberculosis (all forms).....	90,732	90,452	93.6	97.0
Of the respiratory system.....	79,534	79,104	82.0	84.8
Of the meninges, central nervous system.....	4,010	4,113	4.1	4.4
Other forms.....	7,188	7,235	7.4	7.8
Cerebral hemorrhage and softening.....	87,707	80,191	90.4	86.0
Nephritis.....	87,378	82,518	90.1	88.5
Cancer and other malignant tumors.....	86,754	80,938	89.4	86.8
Congenital malformations and diseases of early infancy.....	75,626	72,940	78.0	78.2

<sup>1</sup> Exclusive of stillbirths.

Cause of death.	Deaths in the registration area (exclusive of Hawaii).			
	Number.		Rate per 100,000 population.	
	1923	1922	1923	1922
Accidental and unspecified external causes (total).....	74,131	65,263	76.4	70.0
Automobile accidents.....	14,411	11,666	14.9	12.5
Accidental falls.....	12,378	11,237	12.8	12.1
Railroad accidents.....	7,100	5,687	7.3	6.1
Burns (conflagration excepted).....	6,503	5,962	6.7	6.4
Accidental drowning.....	5,976	5,988	6.2	6.4
Accidental shooting.....	2,578	2,514	2.7	2.7
Machinery accidents.....	2,224	1,827	2.3	2.0
Mine accidents.....	2,207	1,737	2.3	1.9
Injuries by vehicles other than railroad cars, street cars, and automobiles <sup>1</sup> .....	1,806	1,839	1.9	2.0
Street-car accidents.....	1,757	1,491	1.8	1.6
Excessive heat (burns excepted).....	529	417	.5	.4
Other external causes.....	16,662	14,898	17.2	16.0
Influenza.....	43,370	29,277	44.7	31.4
Diarrhea and enteritis (total).....	38,703	36,873	39.9	39.5
Diarrhea and enteritis (under 2 years).....	31,444	30,308	32.4	32.5
Diarrhea and enteritis (2 years and over).....	7,259	6,565	7.5	7.0
Diseases of the arteries, atheroma, aneurysm, etc.....	22,085	20,826	22.8	22.3
Diabetes mellitus.....	17,357	17,182	17.9	18.4
Syphilis <sup>2</sup> .....	15,811	15,360	16.3	16.5
Appendicitis and typhlitis.....	14,345	13,229	14.8	14.2
Diphtheria.....	11,733	13,659	12.1	14.6
Suicide.....	11,287	11,053	11.6	11.9
Measles.....	10,450	4,042	10.8	4.3
Hernia, intestinal obstruction.....	10,211	9,844	10.5	10.6
Respiratory diseases other than bronchitis and pneumonia (all forms).....	9,550	9,301	9.8	10.0
Puerperal causes other than puerperal septicemia.....	9,448	9,322	9.7	10.0
Whooping cough.....	9,440	5,220	9.7	5.6
Bronchitis.....	8,815	8,740	9.1	9.4
Homicide.....	7,878	7,798	8.1	8.4
Cirrhosis of the liver.....	7,027	6,977	7.2	7.5
Typhoid and paratyphoid fever.....	6,635	6,981	6.8	7.5
Paralysis without specified cause.....	6,056	6,107	6.2	6.5
Puerperal septicemia.....	5,657	5,335	5.8	5.7
Rheumatism.....	4,064	4,118	4.2	4.4
Meningitis (nonepidemic).....	3,652	3,397	3.8	3.6
Scarlet fever.....	3,440	3,256	3.5	3.5
Dysentery.....	3,118	2,735	3.2	2.9
Malaria.....	2,736	3,336	2.8	3.6
Erysipelas.....	2,593	2,315	2.7	2.5
Pellagra.....	2,352	2,640	2.4	2.8
Lethargic encephalitis.....	1,966	1,268	2.0	1.4
Meningococcus meningitis.....	1,026	895	1.1	1.0
Smallpox.....	131	628	.1	.7
All other defined causes.....	107,402	101,688	110.7	109.1
Unknown or ill-defined causes.....	16,638	16,510	17.2	17.7

<sup>1</sup> Includes airplane, balloon, and motor-cycle accidents.

<sup>2</sup> Includes tabes dorsalis (locomotor ataxia) and general paralysis of the insane.

## DEATHS DURING WEEK ENDED DECEMBER 6, 1924.

Summary of information received by telegraph from industrial insurance companies for week ended December 6, 1924, and corresponding week of 1923. (From the Weekly Health Index, December 9, 1924, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Dec. 6, 1924.	Corresponding week, 1923.
Policies in force.....	57,048,107	54,214,532
Number of death claims.....	10,497	10,218
Death claims per 1,000 policies in force, annual rate.....	9.6	9.8

Deaths from all causes in certain large cities of the United States during the week ended December 6, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, December 9, 1924, issued by the Bureau of the Census, Department of Commerce.)

City.	Week ended Dec. 6, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Dec. 6, 1924. <sup>2</sup>
	Total deaths.	Death rate. <sup>1</sup>		Week ended Dec. 6, 1924.	Corresponding week, 1923.	
Total (64 cities) .....	6, 892	13. 3	12. 5	790	802	
Akron .....	36			7	3	74
Albany <sup>4</sup> .....	21	9. 2	17. 3	0	4	0
Atlanta .....	90	20. 6	20. 6	9	16	
Baltimore <sup>4</sup> .....	218	14. 5	14. 6	38	38	113
Birmingham .....	91	23. 6	16. 0	14	12	
Boston .....	215	14. 4	13. 9	22	26	61
Bridgeport .....	33			6	3	96
Buffalo .....	128	12. 2	12. 3	14	10	59
Cambridge .....	45	21. 0	14. 0	6	3	104
Camden .....	30	12. 4	14. 7	1	7	16
Canton .....	7	3. 6	6. 8	3	3	65
Chicago <sup>4</sup> .....	671	11. 9	11. 7	81	98	76
Cincinnati .....	132	16. 9	15. 4	18	9	113
Cleveland .....	194	11. 1	10. 0	22	31	56
Columbus .....	72	14. 1	14. 6	7	6	66
Dallas .....	47	13. 0	12. 3	6	2	
Denver .....	91			18	4	
Des Moines .....	29	10. 4	14. 1	2	0	
Detroit .....	225			42	44	78
Duluth .....	18	8. 7	9. 8	1	2	22
Erie .....	20			0	2	0
Fall River <sup>4</sup> .....	31	13. 4	11. 6	3	3	42
Flint .....	13			3	0	52
Fort Worth .....	23	8. 1	12. 3	2	6	
Grand Rapids .....	37	13. 0	7. 1	5	0	78
Houston .....	26			6	6	
Indianapolis .....	65	9. 7	9. 9	7	10	51
Jacksonville, Fla. ....	47	23. 9	18. 2	1	4	
Jersey City .....	79	13. 2	11. 0	9	4	64
Kansas City, Kans. ....	29	12. 8	18. 9	1	9	19
Kansas City, Mo. ....	74	10. 7	17. 2	10	19	
Los Angeles .....	204			29	17	91
Louisville .....	79	15. 9	16. 4	3	6	28
Lowell .....	29	13. 1	10. 0	6	5	107
Memphis .....	65	19. 7	19. 6	8	15	
Milwaukee .....	105	11. 1	8. 8	17	15	81
Minneapolis .....	125	15. 6	11. 3	13	10	70
Nashville <sup>4</sup> .....	33	13. 9	14. 5	8	6	
New Bedford .....	23	9. 0	8. 8	3	5	47
New Haven .....	45	13. 3	10. 6	4	3	53
New Orleans .....	157	20. 0	21. 0	14	11	
New York .....	1, 389	12. 0	11. 0	169	161	69
Bronx Borough .....	170	10. 2	8. 8	20	14	70
Brooklyn Borough .....	447	10. 6	9. 8	46	54	49
Manhattan Borough .....	588	13. 6	13. 0	86	84	87
Queens Borough .....	121	11. 4	8. 7	13	7	65
Richmond Borough .....	63	25. 1	19. 6	4	2	73
Newark, N. J. ....	95	11. 1	12. 5	14	14	66
Norfolk .....	39	12. 4	7. 9	7	4	125
Oakland .....	82	17. 3	8. 9	7	3	88
Oklahoma City .....	34	17. 0				
Omaha .....	69	17. 3	9. 7	7	5	75
Paterson .....	35	13. 0	13. 1	6	3	102
Philadelphia .....	588	15. 7	14. 5	60	55	77
Pittsburgh .....	178	14. 8	16. 8	23	20	78
Portland, Oreg. ....	60	11. 3	9. 7	3	6	31
Providence .....	71	15. 2	14. 6	6	11	49
Richmond .....	53	15. 0	13. 8	4	14	49
Rochester .....	73	11. 7		7		55
St. Louis .....	226	14. 5	13. 9	17	16	
St. Paul .....	54	11. 5	11. 6	3	4	26
Salt Lake City <sup>4</sup> .....	31	12. 6	12. 4	0	3	0
San Antonio .....	63	17. 2	14. 7	17	16	
San Francisco .....	140	13. 3	13. 9	6	13	36

<sup>1</sup> Annual rate per 1,000 population.

<sup>2</sup> Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1923. Cities left blank are not in the registration area for births.

<sup>3</sup> Data for 62 cities.

<sup>4</sup> Deaths for week ended Friday, December 5, 1924.



Deaths from all causes in certain large cities of the United States during the week ended December 6, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, December 9, 1924, issued by the Bureau of the Census, Department of Commerce)—Contd.

City.	Week ended Dec. 6, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Dec. 6, 1924.
	Total deaths.	Death rate.		Week ended Dec. 6, 1924.	Corresponding week, 1923.	
Schenectady.....	24	12.5	7.4	1	2	30
Seattle.....	63			2	5	20
Somerville.....	19	9.9	10.6	1	5	27
Spokane.....	25			4	2	88
Springfield, Mass.....	26	9.1	10.1	4	3	68
Syracuse.....	46	12.8	12.7	7	6	87
Tacoma.....	21	10.6	9.7	1	2	24
Toledo.....	79	14.9	10.5	12	1	113
Trenton.....	47	18.9	13.9	7	5	116
Utica.....	27	13.4	13.1	7	6	153
Washington, D. C.....	143	15.3	11.2	14	13	81
Waterbury.....	20			3	2	70
Wilmington, Del.....	34	14.8	13.3	4	2	89
Worcester.....	48	12.8	11.7	11	4	132
Yonkers.....	14	6.7	7.8	0	1	0
Youngstown.....	30	10.1	9.7	7	6	96

# PREVALENCE OF DISEASE.

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

## UNITED STATES.

### CURRENT WEEKLY STATE REPORTS.

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

#### Reports for Week Ended December 13, 1924.

ALABAMA.	Cases.	CALIFORNIA.	Cases.
Cerebrospinal meningitis.....	3	Cerebrospinal meningitis:	
Chicken pox.....	55	Fresno.....	1
Diphtheria.....	25	Diphtheria.....	174
Influenza.....	130	Influenza.....	15
Malaria.....	20	Jaundice:	
Measles.....	32	Pasadena.....	•
Mumps.....	18	Measles.....	35
Ophthalmia neonatorum.....	1	Polio-myelitis:	
Pellagra.....	3	Alameda.....	1
Pneumonia.....	137	Berkeley.....	2
Scarlet fever.....	13	Colusa.....	1
Smallpox.....	73	Nevada County.....	1
Tuberculosis.....	31	Oakland.....	1
Typhoid fever.....	15	Pasadena.....	1
Whooping cough.....	8	Scarlet fever.....	155
		Smallpox:	
		Los Angeles.....	20
ARIZONA.		Los Angeles County.....	15
Chicken pox.....	8	Scattering.....	34
Diphtheria.....	4	Typhoid fever.....	26
Measles.....	110	Typhus fever:	
Mumps.....	19	Los Angeles.....	1
Scarlet fever.....	11		
Smallpox.....	5	COLORADO.	
Tuberculosis.....	113	(Exclusive of Denver.)	
Typhoid fever.....	4	Cerebrospinal meningitis.....	1
Whooping cough.....	4	Chicken pox.....	70
		Diphtheria.....	10
ARKANSAS.		Measles.....	1
Chicken pox.....	26	Mumps.....	15
Diphtheria.....	10	Pneumonia.....	3
Influenza.....	56	Scarlet fever.....	29
Malaria.....	35	Tuberculosis.....	28
Measles.....	2	Whooping cough.....	7
Mumps.....	3		
Paratyphoid fever.....	1	CONNECTICUT.	
Pellagra.....	5	Cerebrospinal meningitis.....	1
Scarlet fever.....	19	Chicken pox.....	78
Smallpox.....	3	Conjunctivitis (infectious).....	1
Trachoma.....	43	Diphtheria.....	52
Tuberculosis.....	5	Favus.....	1
Typhoid fever.....	17		
Whooping cough.....	7		

CONNECTICUT—continued.

	Cases.
German measles.....	30
Hookworm disease.....	1
Influenza.....	2
Measles.....	12
Mumps.....	22
Pneumonia (lobar).....	31
Poliomyelitis.....	1
Scarlet fever.....	176
Septic sore throat.....	19
Tuberculosis (all forms).....	35
Typhoid fever.....	6
Whooping cough.....	55

DELAWARE.

Cerebrospinal meningitis.....	1
Chicken pox.....	3
Diphtheria.....	3
Influenza.....	1
Measles.....	1
Mumps.....	1
Pneumonia.....	1
Scarlet fever.....	2
Tuberculosis.....	1

FLORIDA.

Diphtheria.....	25
Influenza.....	9
Malaria.....	12
Pneumonia.....	8
Poliomyelitis.....	1
Scarlet fever.....	4
Typhoid fever.....	18

GEORGIA.

Chicken pox.....	13
Conjunctivitis (infectious).....	5
Diphtheria.....	18
Hookworm disease.....	25
Influenza.....	31
Malaria.....	4
Measles.....	1
Mumps.....	25
Pneumonia.....	29
Scarlet fever.....	6
Smallpox.....	1
Tuberculosis (all forms).....	14
Whooping cough.....	3

ILLINOIS.

Cerebrospinal meningitis:	
Coles County.....	1
Will County.....	1
Diphtheria:	
Cook County.....	98
Scattering.....	77
Influenza.....	22
Lethargic encephalitis:	
Cook County.....	3
Measles.....	170
Pneumonia.....	285
Poliomyelitis:	
Clay County.....	1
Iroquois County.....	1
La Salle County.....	1

ILLINOIS—continued.

	Cases.
Scarlet fever:	
Cook County.....	228
Kane County.....	12
Schuyler County.....	11
Will County.....	18
Scattering.....	101
Smallpox:	
Christian County.....	21
Lake County.....	9
Scattering.....	28
Tuberculosis.....	172
Typhoid fever:	
Cook County.....	28
Randolph County.....	9
Scattering.....	29
Whooping cough.....	292

INDIANA.

Chicken pox.....	283
Diphtheria.....	49
Influenza.....	71
Measles.....	38
Mumps.....	16
Pneumonia.....	18
Scarlet fever:	
Bartholomew County.....	8
Marion County.....	13
Vigo County.....	10
Scattering.....	71
Smallpox:	
Marion County.....	13
Scattering.....	36
Trachoma.....	1
Tuberculosis.....	11
Typhoid fever.....	23
Whooping cough.....	16

IOWA.

Diphtheria.....	23
Poliomyelitis.....	1
Scarlet fever.....	41
Smallpox.....	60

KANSAS.

Chicken pox.....	138
Diphtheria.....	52
Influenza.....	10
Measles.....	9
Mumps.....	171
Pneumonia.....	18
Scarlet fever.....	105
Smallpox.....	4
Tuberculosis.....	58
Typhoid fever.....	3
Whooping cough.....	20

LOUISIANA.

Cerebrospinal meningitis.....	1
Diphtheria.....	27
Dysentery.....	1
Hookworm disease.....	6
Malaria.....	6
Pneumonia.....	34
Poliomyelitis.....	1
Scarlet fever.....	17
Smallpox.....	4
Tuberculosis.....	24
Typhoid fever.....	63

MAINE.	
	Cases.
Chicken pox.....	61
Diphtheria.....	15
German measles.....	1
Influenza.....	3
Measles.....	6
Mumps.....	75
Pneumonia.....	9
Poliomyelitis.....	2
Scarlet fever.....	41
Septic sore throat.....	2
Tuberculosis.....	5
Typhoid fever.....	4
Whooping cough.....	22

MARYLAND. <sup>1</sup>	
Chicken pox.....	94
Diphtheria.....	60
Influenza.....	101
Lethargic encephalitis.....	1
Measles.....	8
Mumps.....	30
Ophthalmia neonatorum.....	1
Paratyphoid fever.....	1
Pneumonia (all forms).....	91
Scarlet fever.....	108
Septic sore throat.....	3
Tuberculosis.....	55
Typhoid fever.....	11
Whooping cough.....	86

MASSACHUSETTS.	
Chicken pox.....	346
Conjunctivitis (suppurative).....	11
Diphtheria.....	165
German measles.....	32
Hookworm disease.....	2
Influenza.....	19
Lethargic encephalitis.....	2
Malaria.....	1
Measles.....	179
Mumps.....	79
Ophthalmia neonatorum.....	16
Pneumonia (lobar).....	128
Poliomyelitis.....	6
Scarlet fever.....	296
Septic sore throat.....	7
Trachoma.....	1
Trichinosis.....	1
Tuberculosis (all forms).....	117
Typhoid fever.....	25
Whooping cough.....	149

MICHIGAN.	
Diphtheria.....	115
Measles.....	152
Pneumonia.....	86
Scarlet fever.....	287
Smallpox.....	7
Tuberculosis.....	87
Typhoid fever.....	18
Whooping cough.....	74

MINNESOTA.	
Chicken pox.....	196
Diphtheria.....	76

MINNESOTA—continued.	
	Cases.
Measles.....	14
Pneumonia.....	4
Poliomyelitis.....	2
Scarlet fever.....	220
Smallpox.....	110
Tuberculosis.....	47
Typhoid fever.....	4
Whooping cough.....	19

MISSISSIPPI.	
Diphtheria.....	15
Scarlet fever.....	4
Smallpox.....	3
Typhoid fever.....	13

MISSOURI.	
Cerebrospinal meningitis.....	1
Chicken pox.....	71
Diphtheria.....	92
Epidemic sore throat.....	4
Influenza.....	20
Measles.....	6
Mumps.....	10
Ophthalmia neonatorum.....	2
Pneumonia.....	13
Scarlet fever.....	251
Smallpox.....	3
Trachoma.....	3
Tuberculosis.....	34
Typhoid fever.....	6
Whooping cough.....	3

MONTANA.	
Diphtheria.....	22
Scarlet fever.....	15
Smallpox.....	12

NEW JERSEY.	
Cerebrospinal meningitis.....	2
Chicken pox.....	236
Diphtheria.....	124
Influenza.....	20
Measles.....	63
Paratyphoid fever.....	5
Pneumonia.....	176
Scarlet fever.....	211
Smallpox.....	2
Trachoma.....	1
Typhoid fever.....	29
Whooping cough.....	232

NEW MEXICO.	
Anthrax.....	1
Chicken pox.....	16
Diphtheria.....	4
Measles.....	26
Pneumonia.....	5
Rabies in animals.....	1
Scarlet fever.....	10
Septic sore throat.....	1
Smallpox.....	2
Tetanus.....	1
Tuberculosis.....	10
Typhoid fever.....	4
Whooping cough.....	1

<sup>1</sup> Week ended Friday.

**NEW YORK.**

(Exclusive of New York City.)

	Cases.
Cerebrospinal meningitis.....	1
Diphtheria.....	142
Influenza.....	65
Lethargic encephalitis.....	5
Measles.....	136
Pneumonia.....	260
Poliomyelitis.....	4
Scarlet fever.....	266
Smallpox.....	13
Typhoid fever.....	39
Whooping cough.....	225

**NORTH CAROLINA.**

Chicken pox.....	207
Diphtheria.....	73
German measles.....	1
Measles.....	20
Scarlet fever.....	56
Septic sore throat.....	3
Smallpox.....	48
Typhoid fever.....	10
Whooping cough.....	108

**OKLAHOMA.**

(Exclusive of Oklahoma City and Tulsa.)

Diphtheria.....	27
Smallpox.....	9
Typhoid fever.....	51

**OREGON.**

Chicken pox.....	59
Diphtheria:	
Portland.....	20
Scattering.....	20
Measles.....	5
Mumps.....	7
Ophthalmia neonatorum.....	1
Pneumonia.....	19
Poliomyelitis.....	3
Scarlet fever:	
Hood River County.....	12
Jackson County.....	8
Scattering.....	24
Smallpox:	
Portland.....	9
Scattering.....	3
Tuberculosis.....	9
Typhoid fever.....	3

**SOUTH DAKOTA.**

Chicken pox.....	27
Diphtheria.....	2
Mumps.....	1
Pneumonia.....	6
Scarlet fever.....	41
Smallpox.....	18
Tuberculosis.....	1
Typhoid fever.....	3
Whooping cough.....	4

**TEXAS.**

Anthrax.....	2
Chicken pox.....	67
Dengue.....	34

**TEXAS—continued.**

	Cases.
Diphtheria.....	64
Dysentery.....	48
Influenza.....	365
Measles.....	107
Mumps.....	52
Ophthalmia neonatorum.....	2
Paratyphoid fever.....	4
Pellagra.....	53
Pneumonia.....	70
Poliomyelitis.....	2
Rabies in man.....	2
Scarlet fever.....	75
Smallpox.....	126
Trachoma.....	3
Tuberculosis.....	87
Typhoid fever.....	56
Typhus fever.....	3
Whooping cough.....	23

**VERMONT.**

Chicken pox.....	55
Diphtheria.....	1
Measles.....	11
Mumps.....	12
Scarlet fever.....	16
Typhoid fever.....	8
Whooping cough.....	22

**WASHINGTON.**

Chicken pox.....	174
Diphtheria.....	54
Measles.....	45
Mumps.....	73
Pneumonia.....	53
Poliomyelitis:	
Seattle.....	3
Tacoma.....	1
Yakima.....	1
Island County.....	1
Jefferson County.....	1
Yakima County.....	1
Scarlet fever.....	44
Smallpox.....	42
Tuberculosis.....	46
Typhoid fever.....	2
Whooping cough.....	5

**WEST VIRGINIA.**

Diphtheria.....	13
Scarlet fever.....	14
Smallpox:	
Charleston.....	9
Typhoid fever.....	3

**WISCONSIN.**

Milwaukee:	
Chicken pox.....	103
Diphtheria.....	18
German measles.....	106
Lethargic encephalitis.....	2
Measles.....	130
Mumps.....	61
Pneumonia.....	4
Scarlet fever.....	20
Whooping cough.....	15

<sup>1</sup> Deaths.

WISCONSIN—continued.

Scattering:	Cases.
Chicken pox.....	358
Diphtheria.....	44
German measles.....	5
Influenza.....	55
Measles.....	28
Mumps.....	133
Pneumonia.....	14
Polio-myelitis.....	4
Scarlet fever.....	117

WISCONSIN—continued.

Scattering—Con.	Cases.
Smallpox.....	28
Tuberculosis.....	17
Typhoid fever.....	1
Whooping cough.....	107
WYOMING.	
Chicken pox.....	16
Diphtheria.....	1
German measles.....	4
Mumps.....	2

Reports for Week Ended December 6, 1924.

DISTRICT OF COLUMBIA.

	Cases.
Chicken pox.....	36
Diphtheria.....	22
Influenza.....	2
Measles.....	4
Scarlet fever.....	32
Tuberculosis.....	27
Typhoid fever.....	10
Whooping cough.....	13

NEBRASKA.

Chicken pox.....	57
Diphtheria.....	16
German measles.....	2
Influenza.....	1
Lethargic encephalitis.....	1
Mumps.....	3
Scarlet fever.....	22
Smallpox.....	33

NORTH DAKOTA.

	Cases.
Cerebrospinal meningitis.....	1
Chicken pox.....	66
Diphtheria.....	10
Measles.....	18
Pneumonia.....	5
Polio-myelitis.....	3
Scarlet fever.....	45
Smallpox.....	26
Tuberculosis.....	1
Whooping cough.....	1

OKLAHOMA.

(Exclusive of Oklahoma City and Tulsa.)

Diphtheria.....	43
Smallpox.....	1
Typhoid fever.....	1

SUMMARY OF MONTHLY REPORTS FROM STATES.

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

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Polio-myelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
<i>September, 1924.</i>										
Colorado.....	1	95		2	11		1	57	3	55
<i>October, 1924.</i>										
Colorado.....	1	100			8		1	105		30
<i>November, 1924.</i>										
Connecticut.....	3	22	20	2	22		3	432	4	12
North Dakota.....		14			68		20	134	39	3
Vermont.....		29			116		1	79		2

PLAGUE IN LOS ANGELES, CALIF.

Reports from Los Angeles, Calif., to December 13, 1924, showed that the last case of human plague was reported November 18, 1924. Forty-seven plague-infected rats had been found.

**RODENT PLAGUE IN NEW ORLEANS, LA.**

During the week ended December 13, 1924, two additional plague-infected rats were reported in New Orleans, La.

**RODENT PLAGUE IN OAKLAND, CALIF.**

Under date of December 15, 1924, confirmation of the finding of a plague-infected rat in Oakland, Calif., was reported. A conference has been arranged between the State health officer and a representative of the Public Health Service for the purpose of discussing measures to prevent the spread of the disease.

**GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES.**

*Diphtheria.*—For the week ended November 29, 1924, 35 States reported 1,893 cases of diphtheria. For the week ended December 1, 1923, the same States reported 2,925 cases of this disease. One hundred and four cities, situated in all parts of the country and having an aggregate population of nearly 28,800,000, reported 960 cases of diphtheria for the week ended November 29, 1924. Last year, for the corresponding week, they reported 1,422 cases. The estimated expectancy for these cities was 1,556 cases of diphtheria. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

*Measles.*—Thirty States reported 834 cases of measles for the week ended November 29, 1924, and 6,918 cases of this disease for the week ended December 1, 1923. One hundred and four cities reported 364 cases of measles for the week this year, and 1,620 cases last year.

*Scarlet fever.*—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 2,868 cases; last year, 3,137 cases. One hundred and four cities—this year, 1,282 last year, 1,233 cases; estimated expectancy, 958 cases.

*Smallpox.*—For the week ended November 29, 1924, 35 States reported 604 cases of smallpox. Last year, for the corresponding week, they reported 510 cases. One hundred and four cities reported smallpox for the week as follows: 1924, 213 cases; 1923, 138 cases estimated expectancy, 66 cases. These cities reported 14 deaths from smallpox for the week this year, 12 of which occurred at Minneapolis.

*Typhoid fever.*—Four hundred and thirty-three cases of typhoid fever were reported for the week ended November 29, 1924, by 34 States. For the corresponding week of 1923 the same States reported 427 cases. One hundred and four cities reported 162 cases

of typhoid fever for the week this year, and 199 cases for the week last year. The estimated expectancy for these cities was 78 cases.

*Influenza and pneumonia.*—Deaths from influenza and pneumonia (combined) were reported for the week by 104 cities as follows: 1924, 754 deaths; 1923, 722 deaths.

*City reports for the week ended November 29, 1924*

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration 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 nonepidemic 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 1915 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.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths, reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
<b>NEW ENGLAND.</b>										
Maine:										
Lewiston.....	3	1	1	0	0	1	2	2	1	2
Portland.....	20	2	1	0	0	0	13	4	2	0
New Hampshire:										
Concord.....	0	0	0	0	0	1	0	1	1	0
Vermont:										
Barre.....	0	0	3	0	0	0	3	0	1	0
Burlington.....	8	2	0	0	0	1	1	1	1	1
Massachusetts:										
Boston.....	28	67	35	3	0	39	2	24	33	63
Fall River.....	0	6	6	0	0	0	0	1	1	1
Springfield.....	3	6	5	1	0	12	6	3	6	28
Worcester.....	43	6	1	2	0	1	1	6	11	17
Rhode Island:										
Pawtucket.....	0	2	0	0	0	3	0	0	1	4
Providence.....	0	16	7	0	0	1	0	7	9	9
Connecticut:										
Bridgeport.....	7	12	4	1	0	0	1	3	7	6
Hartford.....	2	11	4	1	2	0	3	4	6	10
New Haven.....	9	6	1	0	0	2	0	5	5	38
<b>MIDDLE ATLANTIC.</b>										
New York:										
Buffalo.....	39	36	6	2	0	32	10	11	21	26
New York.....	176	205	144	41	7	36	15	177	125	124
Rochester.....	7	14	2	0	0	6	26	3	10	26
Syracuse.....	5	13	6	0	0	2	1	3	14	1
New Jersey:										
Camden.....	8	5	6	0	0	0	0	0	3	1
Newark.....	33	22	10	4	0	20	1	14	15	42
Tranton.....	3	9	7	1	0	0	0	1	2	2
Pennsylvania:										
Philadelphia.....	136	85	85	-----	8	24	30	52	54	110
Pittsburgh.....	99	38	16	-----	0	35	27	36	27	57
Reading.....	10	6	2	0	0	1	4	3	2	0
Scranton.....	6	5	3	0	0	0	1	7	2	0
<b>E. NORTH CENTRAL.</b>										
Ohio:										
Cincinnati.....	21	25	5	0	1	0	0	6	14	10
Cleveland.....	87	55	33	-----	3	1	4	24	34	8
Columbus.....	5	15	6	-----	3	0	0	9	11	5
Toledo.....	20	21	10	0	0	2	1	3	15	18
Indiana:										
Fort Wayne.....	3	5	16	0	0	1	0	6	2	6
Indianapolis.....	98	27	15	0	0	1	8	8	11	20
South Bend.....	4	2	1	0	0	0	0	2	2	4
Terre Haute.....	4	4	1	0	1	0	0	3	2	2



## City reports for the week ended November 29, 1924—Continued.

Division, State, and city.	Chick- en pox, cases re- ported.	Diphtheria.		Influenza.		Meas- les, cases re- ported.	Mumps, cases re- ported.	Pneu- monia, deaths re- ported.	Scarlet fever.	
		Cases, esti- mated expect- ancy.	Cases re- ported.	Cases re- ported.	Deaths re- ported.				Cases, esti- mated expect- ancy.	Cases re- ported.
<b>E. NORTH CENTRAL—</b>										
continued.										
Illinois:										
Chicago.....	147	198	73	8	3	63	16	33	117	133
Cicero.....	4	3	3	0	0	1	0	2	1	5
Peoria.....	17	4	2	0	0	0	0	2	8	3
Springfield.....	2	3	8	0	0	1	0	0	3	1
Michigan:										
Detroit.....	64	92	48	.....	3	7	12	23	69	85
Flint.....	11	17	3	2	1	1	0	1	11	8
Grand Rapids.....	4	8	7	0	0	0	0	1	8	8
Saginaw.....	1	3	3	0	0	0	0	2	3	1
Wisconsin:										
Madison.....	7	1	1	0	.....	.....	59	.....	1	0
Milwaukee.....	72	31	11	0	0	0	15	8	32	10
Racine.....	2	3	2	0	0	0	1	0	4	1
Superior.....	0	2	1	0	0	0	0	0	1	1
<b>W. NORTH CENTRAL.</b>										
Minnesota:										
Duluth.....	13	4	1	0	0	0	0	0	4	13
Minneapolis.....	88	25	36	0	1	0	2	5	27	31
St. Paul.....	24	21	20	0	0	2	4	9	13	29
Iowa:										
Davenport.....	9	2	1	0	.....	.....	.....	.....	1	3
Des Moines.....	0	9	4	0	.....	.....	.....	.....	10	6
Sioux City.....	4	3	4	0	.....	.....	.....	.....	4	1
Waterloo.....	0	1	0	0	.....	.....	.....	.....	4	0
Missouri:										
Kansas City.....	11	15	5	3	2	1	0	8	9	34
St. Joseph.....	2	6	4	0	0	0	0	3	3	1
St. Louis.....	22	86	61	0	0	1	1	.....	30	124
North Dakota:										
Fargo.....	7	1	0	0	0	0	0	1	2	.....
Grand Forks.....	0	1	3	0	.....	.....	.....	.....	2	3
South Dakota:										
Aberdeen.....	11	.....	0	0	.....	.....	.....	.....	.....	0
Sioux Falls.....	0	1	1	0	0	0	0	0	2	3
Nebraska:										
Lincoln.....	4	2	4	0	0	1	1	2	3	3
Omaha.....	2	8	9	0	0	0	0	7	5	7
Kansas:										
Topeka.....	.....	3	.....	.....	.....	.....	.....	.....	3	.....
Wichita.....	5	11	3	0	0	0	0	1	4	1
<b>SOUTH ATLANTIC.</b>										
Delaware:										
Wilmington.....	3	3	5	0	0	0	0	3	3	2
Maryland:										
Baltimore.....	45	38	40	33	4	2	0	30	21	22
Cumberland.....	.....	2	2	0	0	0	.....	.....	1	1
Frederick.....	0	1	0	0	0	0	0	1	1	0
District of Col.:										
Washington.....	25	25	23	1	1	0	.....	15	17	18
Virginia:										
Lynchburg.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....
Norfolk.....	16	5	7	0	0	1	9	1	2	4
Richmond.....	8	12	17	0	0	1	0	5	7	6
Roanoke.....	2	4	4	0	1	0	0	1	1	0
West Virginia:										
Charleston.....	20	5	2	0	0	2	5	1	1	0
Huntington.....	6	3	2	0	0	0	0	0	2	2
Wheeling.....	15	4	0	0	0	1	0	2	1	1
North Carolina:										
Raleigh.....	6	2	2	0	0	0	0	2	2	0
Wilmington.....	3	1	0	0	0	0	0	3	1	1
Winston-Salem.....	0	3	4	0	0	0	1	3	2	0
South Carolina:										
Charleston.....	0	2	0	0	0	0	0	2	1	0
Columbia.....	0	2	1	0	0	0	7	1	0	0
Greenville.....	0	0	0	0	0	0	0	0	1	0

## City reports for the week ended November 29, 1924—Continued.

Division, State, and city.	Chick- en pox, cases re- ported.	Diphtheria.		Influenza.		Meas- les, cases re- ported.	Mumps, cases re- ported.	Pneu- monia, deaths, re- ported.	Scarlet fever.	
		Cases, esti- mated expect- ancy.	Cases re- ported.	Cases re- ported.	Deaths re- ported.				Cases, esti- mated expect- ancy.	Cases re- ported.
SOUTH ATLANTIC— continued.										
Georgia:										
Atlanta.....	0	6	6	3	1	0	1	12	5	7
Brunswick.....	0	1	0	0	0	0	0	0	0	0
Savannah.....	0	3	1	0	0	0	0	0	1	0
Florida:										
St. Petersburg..	0	0	2	0	0	0	0	0	0	0
Tampa.....	0	3	2	0	0	0	0	0	1	0
EAST SOUTH CEN- TRAL.										
Kentucky:										
Covington.....	0	3	3	0	0	0	0	4	2	3
Lexington.....	1	2	2	0	0	0	0	2	1	2
Louisville.....	5	15	7	3	0	0	0	5	4	1
Tennessee:										
Memphis.....	1	11	7	0	0	0	2	8	4	1
Nashville.....	1	6	2	0	1	0	0	4	3	0
Alabama:										
Birmingham....	3	7	0	3	3	0	2	20	5	4
Mobile.....	0	2	0	0	1	0	0	2	1	0
Montgomery....	0	1	2	1	0	0	4	0	1	1
WEST SOUTH CEN- TRAL.										
Arkansas:										
Fort Smith.....	1	2	0	0	0	0	3	0	2	1
Little Rock.....	0	2	0	0	0	1	0	0	3	3
Louisiana:										
New Orleans....	0	12	13	5	5	0	0	4	6	4
Shreveport.....	0	0	1	0	0	0	1	4	0	2
Oklahoma:										
Oklahoma.....	1	4	3	0	0	0	0	0	3	1
Tulsa.....	5	7	1	0	0	0	0	0	3	1
Texas:										
Dallas.....	8	15	9	0	0	0	0	5	4	6
Galveston.....	0	1	0	0	0	0	0	0	0	0
Houston.....	1	5	0	0	0	0	0	5	1	3
San Antonio....	0	5	4	0	0	1	0	3	1	1
MOUNTAIN.										
Montana:										
Billings.....	23	0	0	0	0	0	0	0	1	0
Great Falls....	3	1	1	0	0	0	0	1	1	2
Helena.....	0	0	0	0	0	0	0	0	0	0
Missoula.....	1	2	0	0	0	0	0	1	1	0
Idaho:										
Boise.....	7	0	0	0	0	0	0	0	1	1
Colorado:										
Denver.....	26	16	9	2	2	1	19	9	9	6
Pueblo.....	4	6	1	0	0	1	0	1	3	2
New Mexico:										
Albuquerque....	0	1	0	0	0	0	0	0	0	1
Arizona:										
Phoenix.....	1	0	0	0	0	0	0	2	0	0
Utah:										
Salt Lake City..	44	3	4	0	0	1	11	1	3	2
Nevada:										
Reno.....	3	0	0	0	0	0	0	0	0	2
PACIFIC.										
Washington:										
Seattle.....	31	7	8	0	0	1	11	0	6	12
Spokane.....	9	5	3	0	0	7	0	0	7	0
Tacoma.....	1	3	8	0	0	0	0	0	2	4
Oregon:										
Portland.....	25	6	18	0	0	1	1	11	6	8
California:										
Los Angeles....	44	26	0	3	2	8	6	13	17	31
Sacramento....	0	3	5	0	0	0	0	1	2	3
San Francisco..	9	24	20	12	0	2	15	9	10	8

## City reports for the week ended November 29, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
<b>NEW ENGLAND.</b>										
Maine:										
Lewiston.....	33,790	0	0	0	0	0	0	0	0	17
Portland.....	73,129	0	0	0	1	1	1	0	2	19
New Hampshire:										
Concord.....	22,408	0	0	0	0	0	0	0	0	8
Vermont:										
Barre.....	1,10,006	0	0	0	2	0	0	0	0	3
Burlington.....	23,613	1	0	0	0	0	0	0	0	14
Massachusetts:										
Boston.....	770,400	0	0	0	11	2	2	0	12	219
Fall River.....	120,912	0	0	0	1	1	0	0	7	26
Springfield.....	144,227	0	0	0	0	0	1	0	0	31
Worcester.....	191,927	0	0	0	0	0	0	0	18	53
Rhode Island:										
Pawtucket.....	68,799	0	0	0	0	0	0	0	0	23
Providence.....	242,378	0	0	0	4	1	3	0	0	62
Connecticut:										
Bridgeport.....	143,555	0	0	0	1	0	1	0	0	24
Hartford.....	138,036	0	0	0	1	0	0	0	0	35
New Haven.....	172,967	0	0	0	1	0	1	0	3	50
<b>MIDDLE ATLANTIC.</b>										
New York:										
Buffalo.....	536,718	0	2	0	5	2	1	0	27	113
New York.....	5,927,625	0	0	0	81	18	72	6	133	1,313
Rochester.....	317,867	0	0	0	3	1	1	0	5	64
Syracuse.....	184,511	0	0	0	1	0	0	0	0	44
New Jersey:										
Camden.....	124,157	0	7	0	0	1	0	0	2	29
Newark.....	438,699	0	0	0	13	1	8	1	68	97
Trenton.....	127,390	0	0	0	2	1	0	0	8	31
Pennsylvania:										
Philadelphia.....	1,922,788	0	0	0	36	4	7	0	66	496
Pittsburgh.....	613,442	0	0	0	8	2	1	0	12	191
Reading.....	110,917	0	0	0	1	1	0	0	8	31
Scranton.....	140,636	0	0	0	0	0	0	0	2	
<b>EAST NORTH CENTRAL.</b>										
Ohio:										
Cincinnati.....	406,312	1	0	0	7	1	1	0	5	107
Cleveland.....	888,519	2	0	0	14	2	1	0	20	180
Columbus.....	261,082	0	4	0	4	1	0	0	0	69
Toledo.....	268,338	1	0	0	2	1	1	0	15	44
Indiana:										
Fort Wayne.....	93,573	0	0	0	0	0	0	0	1	30
Indianapolis.....	342,718	3	5	0	5	1	1	3	5	99
South Bend.....	76,709	1	0	0	0	0	0	0	0	9
Terre Haute.....	68,939	1	5	0	1	0	0	0	0	26
Illinois:										
Chicago.....	2,886,121	1	0	0	55	2	4	0	149	565
Cicero.....	55,968	0	0	0	1	0	0	0	3	10
Peoria.....	79,675	0	0	0	0	0	0	0	0	10
Springfield.....	61,833	1	0	0	0	0	0	0	1	12
Michigan:										
Detroit.....	995,668	2	4	0	14	3	2	0	33	218
Flint.....	117,968	0	0	0	0	0	0	0	0	10
Grand Rapids.....	145,947	0	0	0	0	1	0	0	0	37
Saginaw.....	69,754	0	0	0	0	0	0	0	8	15
Wisconsin:										
Madison.....	42,519	1	0	0	0	0	0	0	3	4
Milwaukee.....	484,595	2	0	0	5	1	1	0	17	88
Racine.....	64,393	0	1	0	1	0	0	0	1	8
Superior.....	39,671	1	0	0	0	0	0	0	0	6

1 Population Jan. 1, 1920.

City reports for the week ended November, 29, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
<b>WEST NORTH CENTRAL.</b>										
<b>Minnesota:</b>										
Duluth.....	106,289	1	0	0	1	0	0	0	1	23
Minneapolis.....	409,125	4	61	12	3	1	0	0	3	110
St. Paul.....	241,891	12	28	0	3	0	0	0	14	45
<b>Iowa:</b>										
Davenport.....	61,262	0	9	0	0	0	0	0	0	0
Des Moines.....	140,923	1	3	0	0	0	0	0	0	0
Sioux City.....	79,662	0	0	0	0	0	0	0	0	0
Waterloo.....	39,667	0	7	0	0	0	0	0	0	0
<b>Missouri:</b>										
Kansas City.....	351,819	2	0	0	3	1	0	0	0	79
St. Joseph.....	78,232	1	0	0	2	0	0	0	0	31
St. Louis.....	803,853	1	7	0	10	2	1	0	4	212
<b>North Dakota:</b>										
Fargo.....	24,841	1	0	0	0	0	0	0	0	10
Grand Forks.....	14,547	0	0	0	0	0	0	0	0	0
<b>South Dakota:</b>										
Aberdeen.....	15,829	0	0	0	0	0	0	0	0	0
Sioux Falls.....	29,206	0	0	0	0	0	0	0	0	3
<b>Nebraska:</b>										
Lincoln.....	58,761	1	0	0	1	0	0	0	0	18
Omaha.....	204,382	2	11	0	4	0	0	0	0	51
<b>Kansas:</b>										
Topeka.....	52,555	0	0	0	0	0	0	0	0	0
Wichita.....	79,261	1	0	0	1	0	1	0	13	23
<b>SOUTH ATLANTIC.</b>										
<b>Delaware:</b>										
Wilmington.....	117,728	0	0	0	1	1	0	0	0	23
<b>Maryland:</b>										
Baltimore.....	773,580	0	0	0	12	3	4	0	77	209
Cumberland.....	32,361	0	0	0	0	1	0	0	0	5
Frederick.....	11,301	0	0	0	0	0	0	0	0	3
<b>District of Columbia:</b>										
Washington.....	1,437,571	1	0	0	11	2	3	2	7	92
<b>Virginia:</b>										
Lynchburg.....	30,277	0	0	0	0	0	0	0	0	0
Norfolk.....	159,069	0	0	0	2	0	0	0	0	0
Richmond.....	181,044	0	0	0	4	1	3	0	0	53
Roanoke.....	55,502	0	0	0	2	0	0	1	0	16
<b>West Virginia:</b>										
Charleston.....	45,597	0	0	0	0	1	1	1	0	14
Huntington.....	57,918	0	2	0	0	0	0	0	0	0
Wheeling.....	1,56,208	0	0	0	0	0	0	0	0	15
<b>North Carolina:</b>										
Raleigh.....	29,171	0	0	0	0	0	1	0	1	14
Wilmington.....	35,719	0	0	0	1	0	0	0	2	9
Winston-Salem.....	56,230	1	2	0	2	0	0	1	0	26
<b>South Carolina:</b>										
Charleston.....	71,245	0	0	0	0	1	1	0	0	16
Columbia.....	39,688	0	0	0	0	0	1	0	1	18
Greenville.....	25,789	0	0	0	0	0	0	0	8	1
<b>Georgia:</b>										
Atlanta.....	222,963	2	1	0	4	1	1	1	1	54
Brunswick.....	15,937	0	0	0	0	0	0	0	0	1
Savannah.....	89,448	0	0	0	2	1	0	0	0	32
<b>Florida:</b>										
St. Petersburg.....	24,403	0	0	0	1	0	0	0	0	9
Tampa.....	56,050	0	0	0	2	0	0	0	0	22
<b>EAST SOUTH CENTRAL.</b>										
<b>Kentucky:</b>										
Covington.....	57,877	0	0	0	0	0	0	0	0	19
Lexington.....	43,673	0	0	0	1	1	0	0	0	15
Louisville.....	257,671	0	0	0	2	2	1	0	1	63
<b>Tennessee:</b>										
Memphis.....	170,067	1	1	0	0	1	12	2	0	55
Nashville.....	121,128	0	0	0	4	1	3	2	0	39

1 Population Jan. 1, 1920.

## City reports for the week ended November 29, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
<b>EAST SOUTH CENTRAL—contd.</b>										
Alabama:										
Birmingham.....	195,901	1	12	0	4	1	2	1	0	84
Mobile.....	63,858	0	0	0	0	0	1	0	0	17
Montgomery.....	45,383	0	0	0	0	0	0	0	0	16
<b>WEST SOUTH CENTRAL.</b>										
Arkansas:										
Port Smith.....	30,635	0	0			0	0		1	
Little Rock.....	70,916	0	1	0	1	1	3	0	0	
Louisiana:										
New Orleans.....	404,575	1	0	0	15	1	5	2	8	134
Shreveport.....	54,590		1	0	0		0	1	2	30
Oklahoma:										
Oklahoma.....	101,150	1	0	0	2	1	0	1	0	16
Tulsa.....	102,018	1	0			1	0			
Texas:										
Dallas.....	177,274	0	0	0	1	1	0	0	0	51
Galveston.....	40,877	0	0	0	4	0	0	0	0	6
Houston.....	154,970	0	5	0	4	0	0	0	0	51
San Antonio.....	184,727	0	0	0	6	0	0	0	0	57
<b>MOUNTAIN.</b>										
Montana:										
Billings.....	16,927	0	0	0	0	0	0	0	5	5
Great Falls.....	27,787	0	0	0	0	0	1	1	0	7
Helena.....	12,037	0	0	0	0	0	0	0	0	4
Missoula.....	12,668	0	1	0	1	0	0	0		5
Idaho:										
Boise.....	22,806	0	0	0	0	0	0	0	0	3
Colorado:										
Denver.....	272,031	5	0	0	9	1	0	0	7	79
Pueblo.....	43,519	0	0	0	1	0	0	0	0	8
New Mexico:										
Albuquerque.....	16,648	0	0	0	5	0	0	0	0	12
Arizona:										
Phoenix.....	33,899		0	0	8		0	0	0	39
Utah:										
Salt Lake City.....	126,241	2	0	0	2	1	1	0	0	26
Nevada:										
Reno.....	12,429	0	0	0	0	0	0	0	0	2
<b>PACIFIC.</b>										
Washington:										
Seattle.....	1,315,685	1	6			1	1		4	
Spokane.....	104,573	8	0			0	2		1	
Tacoma.....	101,731	1	0			0	0		0	
Oregon:										
Portland.....	273,621	5	5	0	2	1	0	1	0	
California:										
Los Angeles.....	666,853	1	34	2	21	3	2	0	14	198
Sacramento.....	69,950	0	5	0	4	1	0	0	0	20
San Francisco.....	539,038	0	2	0	8	0	1	1	5	150

1 Population Jan. 1, 1920.

City reports for the week ended November 29, 1924—Continued.

Division, State, and city.	Cerebro-spinal meningitis.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases, est. expectancy.	Cases.	Deaths.
<b>NEW ENGLAND.</b>									
Massachusetts:									
Boston.....	0	0	2	0	0	0	1	0	0
Worcester.....	0	0	0	0	0	0	0	2	0
<b>MIDDLE ATLANTIC.</b>									
New York:									
New York.....	3	3	9	6	0	0	3	7	2
Rochester.....	0	1	0	0	0	0	0	0	0
New Jersey:									
Newark.....	0	0	0	0	0	0	0	3	0
Pennsylvania:									
Philadelphia.....	3	1	2	2	0	0	0	0	0
<b>EAST NORTH CENTRAL.</b>									
Indiana:									
South Bend.....	0	0	0	0	0	0	0	1	0
Illinois:									
Chicago.....	0	0	0	1	0	0	1	3	0
Cicero.....	1	0	0	0	0	0	0	0	0
Michigan:									
Detroit.....	2	0	1	0	0	0	0	2	0
<b>WEST NORTH CENTRAL.</b>									
Minnesota:									
Minneapolis.....	0	0	0	0	0	0	0	1	0
St. Paul.....	0	0	0	0	0	0	0	1	0
Iowa:									
Davenport.....	0		0		0		0	1	
Missouri:									
St. Louis.....	1	1	0	0	0	0	0	0	0
North Dakota:									
Fargo.....	0	0	0	0	0	0	0	1	1
Grand Forks.....	0		0		0		0	1	
Nebraska:									
Omaha.....	0	0	0	0	0	0	0	1	0
<b>SOUTH ATLANTIC.</b>									
Delaware:									
Wilmington.....	1	1	0	0	0	0	0	0	0
Maryland:									
Baltimore.....	0	0	0	1	0	0	1	1	0
Virginia:									
Norfolk.....	1	0	0	0	0	0	0	0	0
North Carolina:									
Winston-Salem.....	0	0	0	0	1	0	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	1	0	0	0
<b>EAST SOUTH CENTRAL.</b>									
Alabama:									
Mobile.....	0	0	0	0	0	2	0	0	0
<b>PACIFIC.</b>									
Washington:									
Seattle.....	0		0		0		0	2	
Spokane.....	0		0		0		0	1	
Oregon:									
Portland.....	0	0	2	0	0	0	0	1	0
California:									
Los Angeles.....	2	1	3	0	0	0	0	0	0
San Francisco.....	0	0	0	0	2	0	0	3	1

The following table gives a summary of the reports from 105 cities for the 10-week period ended November 29, 1924. The cities included in this table are those whose reports have been published for all 10

weeks in the Public Health Reports. Eight of these cities did not report deaths. The aggregate population of the cities reporting cases was estimated at nearly 29,000,000 on July 1, 1923, which is the latest date for which estimates are available. The cities reporting deaths had more than 28,000,000 population on that date. The number of cities included in each group and the aggregate population are shown in a separate table below.

*Summary of weekly reports from cities, September 21 to November 29, 1924.*

DIPHThERIA CASES.

	1924, week ended—									
	Sept. 27.	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Nov. 1.	Nov. 8.	Nov. 15.	Nov. 22.	Nov. 29.
Total .....	779	757	883	936	988	965	1,128	1,112	1,115	955
New England .....	55	56	77	82	89	88	78	82	84	67
Middle Atlantic .....	255	198	209	259	228	235	304	312	314	284
East North Central .....	151	134	174	176	176	211	279	247	227	234
West North Central .....	92	116	126	136	149	127	128	147	160	<sup>1</sup> 150
South Atlantic .....	89	97	142	121	172	131	148	109	129	<sup>2</sup> 121
East South Central .....	22	20	28	42	41	27	35	26	32	21
West South Central .....	24	23	26	28	36	40	46	59	45	27
Mountain .....	18	24	14	18	23	28	38	36	27	17
Pacific .....	73	80	87	74	74	78	72	94	97	44

MEASLES CASES.

Total .....	104	134	130	193	197	241	310	322	400	364
New England .....	15	15	21	25	28	32	36	41	49	59
Middle Atlantic .....	38	65	56	97	92	112	144	135	154	156
East North Central .....	29	29	22	42	55	70	91	102	131	114
West North Central .....	7	9	5	7	3	7	7	10	14	<sup>1</sup> 5
South Atlantic .....	3	2	10	4	2	6	13	4	11	<sup>2</sup> 7
East South Central .....	2	1	2	1	0	0	2	2	2	0
West South Central .....	1	2	2	2	1	0	1	1	1	2
Mountain .....	3	2	0	5	2	3	2	4	4	3
Pacific .....	6	9	12	10	14	11	14	23	34	18

SCARLET FEVER CASES.

Total .....	586	570	774	795	938	1,021	1,153	1,097	1,238	1,284
New England .....	46	55	89	99	121	96	114	135	155	176
Middle Atlantic .....	128	129	154	168	213	298	354	330	365	389
East North Central .....	123	128	178	176	214	256	270	262	303	307
West North Central .....	172	148	218	227	253	216	225	220	228	<sup>1</sup> 247
South Atlantic .....	36	29	46	48	57	57	67	58	72	<sup>2</sup> 62
East South Central .....	17	13	21	11	14	24	29	14	17	10
West South Central .....	8	13	17	16	17	15	25	18	14	20
Mountain .....	16	18	15	19	13	19	19	20	24	15
Pacific .....	40	37	36	31	36	40	50	40	60	58

SMALLPOX CASES.

Total .....	84	86	72	99	134	134	138	192	188	213
New England .....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic .....	6	8	3	0	5	2	4	0	5	9
East North Central .....	27	23	21	30	19	16	6	11	14	19
West North Central .....	19	15	21	27	64	70	82	100	85	<sup>1</sup> 114
South Atlantic .....	3	6	2	0	3	1	3	7	6	<sup>2</sup> 3
East South Central .....	5	6	2	15	11	9	8	12	21	13
West South Central .....	1	0	0	3	2	2	2	8	6	7
Mountain .....	1	1	0	2	3	0	1	7	2	1
Pacific .....	22	27	23	22	27	34	32	47	49	47

<sup>1</sup> Figures for Topeka, Kans., estimated. Report not received at time of going to press.

<sup>2</sup> Figures for Lynchburg, Va., estimated.

Summary of weekly reports from cities, September 21 to November 29, 1924—Con.

TYPHOID FEVER CASES.

	1924, week ended—									
	Sept. 27.	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Nov. 1.	Nov. 8.	Nov. 15.	Nov. 22.	Nov. 29.
Total.....	281	217	214	159	136	106	124	107	133	162
New England.....	11	9	16	8	6	5	7	5	5	9
Middle Atlantic.....	59	67	45	47	40	35	23	33	46	90
East North Central.....	39	25	15	17	14	11	14	11	15	10
West North Central.....	17	15	16	11	5	9	9	3	8	13
South Atlantic.....	50	35	23	20	22	13	21	10	14	215
East South Central.....	51	29	17	12	21	12	14	20	14	19
West South Central.....	17	7	15	12	12	6	18	11	13	8
Mountain.....	18	18	58	23	10	5	9	8	2	2
Pacific.....	19	12	9	9	6	10	9	6	16	6

INFLUENZA DEATHS.

Total.....	18	20	21	20	18	35	38	43	41	56
New England.....	1	0	1	1	1	1	5	0	2	2
Middle Atlantic.....	5	10	13	11	9	21	23	17	17	15
East North Central.....	2	4	4	3	5	5	5	5	7	15
West North Central.....	1	1	0	2	0	0	0	0	0	13
South Atlantic.....	3	1	1	1	2	3	3	4	6	27
East South Central.....	3	1	0	1	0	1	1	4	2	5
West South Central.....	1	1	1	1	0	3	1	7	3	5
Mountain.....	1	1	1	0	0	0	0	1	4	2
Pacific.....	1	1	0	0	1	1	0	5	0	2

PNEUMONIA DEATHS.

Total.....	372	438	494	497	479	593	636	676	646	701
New England.....	20	29	39	28	27	42	33	35	38	58
Middle Atlantic.....	152	178	217	221	227	270	305	294	301	300
East North Central.....	82	94	84	90	77	95	109	116	122	126
West North Central.....	18	16	25	23	20	28	29	32	36	34
South Atlantic.....	42	52	50	50	65	87	75	83	57	83
East South Central.....	14	22	15	19	13	21	24	46	36	43
West South Central.....	13	11	31	16	17	21	22	34	20	21
Mountain.....	11	11	15	22	16	6	8	10	15	13
Pacific.....	20	25	18	28	17	23	31	26	21	23

<sup>1</sup> Figures for Topeka, Kans., estimated. Report not received at time of going to press.

<sup>2</sup> Figures for Lynchburg, Va., estimated.

Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923.

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.
Total.....	105	97	28,898,350	28,140,934
New England.....	12	12	2,098,746	2,098,746
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	17	17	7,032,535	7,032,535
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	22	22	2,566,901	2,566,901
East South Central.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,564	1,023,013
Mountain.....	9	9	546,445	546,445
Pacific.....	6	3	1,797,830	1,275,841



## FOREIGN AND INSULAR.

### BOLIVIA.

#### Smallpox—Typhus Fever—La Paz—October, 1924.

During the month of October, 1924, 11 deaths from smallpox and three deaths from typhus fever were reported at La Paz, Bolivia. Population, estimated, 100,000.

### CANADA.

#### Communicable Diseases — Ontario — October 26–November 29, 1924 (Comparative).

During the 5-week period ended November 29, 1924, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease.	1924		1923	
	Cases.	Deaths.	Cases.	Deaths
Cerebrospinal meningitis .....	10	8	2	—
Chancroid .....	3	—	2	—
Chicken pox .....	1,076	—	483	—
Diphtheria .....	494	37	374	22
German measles .....	44	—	—	—
Gonorrhoea .....	191	—	91	—
Influenza .....	—	8	—	7
Lethargic encephalitis .....	1	1	—	6
Measles .....	1,834	4	293	—
Mumps .....	641	—	25	—
Pneumonia .....	—	153	—	128
Polio-myelitis .....	20	2	1	—
Scarlet fever .....	736	10	680	11
Septic sore throat .....	—	—	11	1
Smallpox .....	21	—	58	—
Syphilis .....	142	—	187	—
Tuberculosis .....	165	63	116	58
Typhoid fever .....	89	11	68	13
Whooping cough .....	488	5	369	6

#### Smallpox in Municipalities.

Of the 21 cases of smallpox reported in the Province 20 occurred in 10 municipalities, the greatest number of cases, viz, 4, being reported at Wainfleet.

### LATVIA.

#### Communicable Diseases—September, 1924.

During the month of September, 1924, communicable diseases were reported in the Republic of Latvia as follows: Dysentery, 92 cases; typhoid fever, 235 cases; typhus fever, 6 cases; paratyphoid fever, 1 case.

**MADAGASCAR.****Plague—September 16–30, 1924.**

During the period September 16 to 30, 1924, 108 cases of plague with 87 deaths were reported in the island of Madagascar. Of these, 6 cases with 4 deaths (bubonic) occurred at the port of Diego Suarez, and 4 cases with 2 deaths (bubonic) at Fort Dauphin, a coast town. For distribution according to Provinces and types of the disease see page 3231.

**MEXICO.****Communicable Diseases—Tampico—November 11–20, 1924.**

Reports of communicable diseases at Tampico, Mexico, for the period November 11 to 20, 1924, included seven deaths from malaria and three from typhoid fever. One case of smallpox was reported.

**RUSSIA.****Epidemic Scarlet Fever—Moscow.**

Epidemic scarlet fever has been reported in Moscow, Russia, as follows: In June, 1924, 788 cases were reported; in July, 860 cases; in August, 1,105 cases, and in September, 1,716 cases. On October 1, 1924, 1,726 cases were reported in hospitals.

**SUMATRA.****Malaria—Batoe Bahra—August, 1924.**

During the month of August, 1924, 224 cases of malaria, of which 23 were fatal, were reported at Batoe Bahra, island of Sumatra.

**UNION OF SOUTH AFRICA.****Smallpox—Typhus Fever—September, 1924.**

During the month of September, 1924, 8 cases of smallpox, occurring in the colored or native population, and 109 cases of typhus fever with 5 deaths occurring in the colored population and 1 case in the white population, were reported in the Union of South Africa. For distribution of typhus fever prevalence according to States see page 3240.

**Outbreaks of Typhus Fever—October, 1924.**

Outbreaks of typhus fever were reported in the Cape Province during the week ended October 25, and in Natal during the two weeks ended October 18, 1924.

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

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

### Reports Received During Week Ended December 19, 1924.<sup>1</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Sept. 29-Oct. 11, 1924: Cases, 6,901; deaths, 3,883.
Madras.....	Nov. 2-8.....	5	1	
Siam: Bangkok.....	Oct. 9-18.....	1	1	

#### PLAGUE.

British East Africa: Kenya.....				Oct. 19-25, 1925: Cases, 402.
Ceylon: Colombo.....	Oct. 28-Nov. 1.....	1	1	
Ecuador: Eloy Alfaro.....	Oct. 1-31.....	1	1	Oct. 1-31, 1924: Rats taken, 19,511; found infected, 50.
Guayaquil.....	do.....	1	1	
India.....				
Bombay.....	Oct. 5-11.....	1		Sept. 16-30, 1924: Cases, 103; deaths, 87.
Madras Presidency.....	Nov. 2-8.....	102	75	
Madagascar.....				Bubonic. Do. Bubonic, pneumonic, septicemic. Bubonic. Do.
Province— Moramanga.....	Sept. 16-30.....	24	15	
Tananarive.....	do.....	74	66	
Tananarive.....	do.....	2	1	
Other localities.....	do.....	72	65	
Towns— Diego Suarez.....	do.....	6	4	
Fort Dauphin.....	do.....	4	2	

#### SMALLPOX.

Bolivia: La Paz.....	Oct. 1-31.....	8	11	Nov. 1-29, 1924: Cases, 21. Occurrence in municipalities, 20 cases. Corresponding period, year 1923—cases, 58.	
Brazil: Pernambuco.....	Oct. 5-18.....	2	1		
British East Africa: Kenya.....	Oct. 19-25.....	3			
Uganda.....	Oct. 5-11.....		1		
Canada: British Columbia— Vancouver.....	Nov. 9-15.....	11			
Manitoba— Winnipeg.....	Nov. 23-29.....	1			
Ontario.....					
Quebec— Bonaventure and Gaspé Counties.....	Nov. 1-30.....	2			
China: Amoy.....	Oct. 19-25.....				Present. Do. Do.
Foochow.....	Oct. 12-25.....				
Nanking.....	Oct. 25-Nov. 8.....				
Ecuador: Guayaquil.....	Oct. 1-31.....	1			
Egypt: Cairo.....	Aug. 20-26.....	4	1		
French Guiana: Cayenne.....	Dec. 9.....			Outbreak. Reported as alarm.	
Great Britain: England and Wales.....				Nov. 2-22, 1924; Cases, 196.	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

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

### Reports Received During Week Ended December 19, 1924—Continued.

#### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Sept. 28-Oct. 11, 1924: Cases, 1,112; deaths, 278.
Bombay	Oct. 5-18	5	3	
Karachi	Nov. 2-8	3	1	
Madras	do	6	2	
Java:				
East Java—				
Pasoeroean Residency	Sept. 27			Epidemic in four localities.
West Java—				
Bantem Residency—				
Bantem	Sept. 30-Oct. 6	1		
Cheribon Residency—				
Cheribon	Sept. 16-29	4		
Pekalongan Resi-				
dency—				
Brebes	Sept. 16-22	1		
Pekalongan	Sept. 16-Oct. 6	17	10	
Pemalang	do	2	1	
Tegal	Sept. 23-29	1		
Latvia				Sept. 1-30, 1924: One case.
Mexico:				
Durango	Nov. 1-30		3	
Tampico	Nov. 11-29	1		
Portugal:				
Lisbon	Oct. 20-Nov. 9		7	
Oporto	Nov. 9-15	1	1	
Spain:				
Madrid	Oct. 1-31		13	
Malaga	Nov. 16-22		14	
Tunis:				
Tunis	Nov. 11-24	12	13	
Union of South Africa				Sept. 1-30, 1924: Cases, 8 (native population).
Cape Province				Oct. 5-25, 1924: Outbreaks.

#### TYPHUS FEVER.

Bolivia:				
La Paz	Oct. 1-31	1	3	
Chile:				
Valparaiso	Oct. 26-Nov. 11		3	
Latvia:				Sept. 1-30, 1924: Cases, 6.
Mexico:				
Durango	Nov. 1-30		1	
Mexico City	Oct. 26-Nov. 8	26		
Palestine:				
Jaffa	Nov. 4-10	1		
Majdal	Oct. 29-Nov. 4	1		
Ramleh	Oct. 21-27	1		
Poland:				Sept. 21-27, 1924: Cases, 40; deaths, 8.
Union of South Africa				Sept. 1-30, 1924: Cases, 110 (white) 1 case; deaths, 5 (colored).
Cape Province				Sept. 1-30, 1924: Cases, 82; deaths, 3 (colored).
Do	Oct. 19-25			Outbreaks.
Orange Free State				Sept. 1-30, 1924: Cases, 11; deaths, 2 (colored).
Natal	Oct. 5-18			Outbreaks.
Transvaal				Sept. 1-30, 1924: Cases, 16 (colored).
Yugoslavia:				
Belgrade	Oct. 27-Nov. 2	1		

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

Reports Received from June 28 to December 12, 1924.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Manchuria—				
Dairen.....	August, 1924.....	3		
Shanghai.....	Aug. 2-Sept. 6.....	1		
India.....				Apr. 20-June 28, 1924: Cases, 81,035; deaths, 56,740. June 29-Sept. 27, 1924: Cases, 98,405; deaths, 58,555.
Do.....				
Bombay.....	May 4-10.....	1		
Do.....	June 29-Oct. 4.....	48	23	
Calcutta.....	May 11-June 28.....	283	259	
Do.....	June 29-Sept. 27.....	182	150	
Madras.....	June 1-21.....	7	6	
Do.....	June 29-Nov. 1.....	50	31	
Rangoon.....	May 11-June 28.....	98	76	
Do.....	June 29-Oct. 25.....	26	24	
Indo-China.....				Jan. 1-June 30, 1924: Cases, 107, deaths, 52. July 1-31, 1924: Cases, 20; deaths, 10. Corresponding period 1923: Cases, 42; deaths, 30.
Province—				
Anam.....	June 1-30.....	4	1	
Do.....	July 1-31.....	3	1	
Cambodia.....	June 1-30.....	7	4	
Do.....	July 1-31.....	7	4	
Cochin-China.....	June 1-30.....	9	6	
Do.....	July 1-31.....	7	5	
Saigon.....	Apr. 27-June 28.....	6	4	Including 100 square kilometers of surrounding country. Do.
Do.....	June 29-Sept. 13.....	8	5	
Tonkin.....	June 1-30.....	9	4	
Do.....	July 1-31.....	3	1	
Persia:				
Bushire.....	June 1-30.....	1	1	
Philippine Islands.....				June 15-28, 1924: 32 cases, 22 deaths, including suspects. June 29-July 5, 1924: 5 cases, 4 deaths.
Manila.....	June 22-28.....	1		Suspect. Occurring in a non-resident.
Do.....	July 6-12.....	1	1	
Province—				
Batangas.....	July 1-12.....	4	3	
Bulacan.....	June 21.....	1	1	
Do.....	June 28-July 26.....	4	2	
Angat.....	July 20-26.....	1	1	
Malolos and Paombog.....	July 13-19.....	2	1	
Cagayan.....	Mar. 30-Apr. 5.....	1	1	
Laguna.....	May 18-24.....	1	1	
San Pablo.....	July 13-19.....	1	1	
Pangasinan.....				
Lingayen.....	Oct. 3.....	1	1	
Rizal.....	July 3.....	1	1	
Santo Tomas.....	July 6-12.....	1	1	
Russia.....				Summer of 1924. Cases, 9. 7 cases at Rostov and Nakhichevan. 1 case, Black Sea district. 1 case in Kolomensky Uyezd.
Don Province.....				
Kuban.....				
Moscow Province.....				
Rostov-on-Don.....	Aug. 5-7.....	3		
Siam:				
Bangkok.....	May 4-June 28.....	21	18*	
Do.....	June 29-Oct. 4.....	12	6	
Straits Settlements:				
Penang.....	June 1-7.....	1	1	
Singapore.....	June 15-28.....	9	6	
Do.....	June 29-July 5.....	2	1	
On vessel:				
S. S. Argalia.....		1		At Bassein, Lower Burma, India. Case in European member of crew. Case removed to hospital. Vessel left May 16, 1924, arrived June 8 at Durban, South Africa; left Durban June 10 for Trinidad and Cuba.

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

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

### Reports Received from June 28 to December 12, 1924—Continued.

#### PLAGUE.

Place.	Date	Cases.	Deaths.	Remarks.
Algeria: Mostaganem	July 21-28	4		Seaport.
Argentina: Chaco Territory				April, 1924: Cases reported.
Azores: St. Michael's	Sept. 21-Oct. 4	4		Suburbs of city: Arrifes, 1 case; Faja de Cima, 3 cases.
Brazil: Porto Alegre	July 6-12		1	
British East Africa: Kenya	Oct. 4-10	5		
Kisumu	July 13-Sept. 20	2	1	
Tanganyika Territory	Feb. 24-June 7	1	2	
Do	June 26-Oct. 4	3	11	
Uganda	Sept. 28-Oct. 4	11		May 1-June 30, 1924: Cases, 125; deaths, 107
Entebbe	Feb. 1-Apr. 30	59	54	
Canary Islands: Las Palmas	Sept. 8	2		
Teneriffe— La Laguna	June 20	1		
Celebes: Macassar and Menando	July 27-Aug. 2			1 plague rat
Ceylon: Colombo	May 11-June 28	11	7	10 plague rodents.
Do	June 29-Oct. 25	21	20	Plague-infected rodents, 17.
Chile: Antofagasta	June 1-16	4		
Do	Oct. 19-25	1		
China: Amoy	June 15-28		4	
Do	June 29-Aug. 9		13	
Chungking	Oct. 5-11			Present.
Foochow	May 4-June 21		25	Cases not reported.
Nanking	July 20-Oct. 18			Present.
Ecuador: Eloy Alfaro	May 16-31	1		
Do	Sept. 16-30	1		
Guayaquil	May 16-June 30	5	1	Rats taken, 23,717; found infected, 107.
Do	July 1-Sept. 30	2		Rats taken, 44,489; found plague-infected, 188.
Posorja	July 1-15	1		
Puna	July 16-31	1		
Egypt:				July 1-Sept. 5, 1924: Cases, 19.
City—				Total Jan. 1-Sept. 5, 1924—cases, 354; deaths, 177.
Alexandria		1	1	First case, Apr. 2; last, Apr. 2.
Ismailia		1	1	First case, July 6; last, July 6.
Port Said		5	2	First case, Apr. 24; last, Aug. 26.
Suez		16	8	First case, Jan. 2; last, Sept. 23.
Province—				
Assiout		44	35	First case, Apr. 1; last, Aug. 27.
Behera		1	1	First case, Aug. 9; last, Aug. 9.
Beni-Suef		3	3	First case, June 21; last, June 21.
Charkieh		1	1	First case, Jan. 31; last, Jan. 31.
Fayoum		106	33	First case, Feb. 18; last, July 18.
Gharbia		3	2	First case, Apr. 21; last, Aug. 22.
Ghirga		10	3	First case, Jan. 17; last, May 13.
Kalioubiah		10	1	First case, Jan. 6; last, May 22.
Kena		44	26	First case, Apr. 9; last, May 17.
Menoufieh		49	32	First case, Jan. 2; last, June 28.
Minia		58	28	First case, Feb. 5; last, Aug. 1.
France: Paris	Oct. 1-31	2		Aug. 1-31, 1924: Cases, 3. Bubonic, occurring in suburbs, St. Medard and St. Ouen.
Gold Coast				January-June, 1924: Cases, 173; deaths, 104. July-August, 1924: Cases, 142; deaths, 104.
Greece: Kalamata				Reported July 15, 1924: Cases, 29; deaths, 6.
Patras	July 7	36		
Saloniki	July 3-4	2		
Symi, Island of	Aug. 26	11	2	

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

## Reports Received from June 28 to December 12, 1924—Continued.

### PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Hawaii				July 15, 1924: Near Kukuiahae, Island of Hawaii, 1 plague rat.
Honokaa				Aug. 19–Sept. 10, 1924: 5 plague-infected rodents found in vicinity. At Paauhau sugar plantation, Oct. 11, 1924, 1 plague rat (trapped).
India				Apr. 20–June 28, 1924: Cases, 102,874; deaths, 84,656.
Do				June 29–Sept. 27, 1924: Cases, 8,247; deaths, 6,216.
Bombay	May 4–June 21	50	44	
Do	June 29–Aug. 30	20	16	
Calcutta	May 11–June 14	10	10	
Karachi	May 18–June 21	16	13	
Do	Aug. 17–Sept. 25	10	8	
Madras Presidency	May 18–31	7	2	
Do	Aug. 3–Oct. 25	366	242	
Rangoon	May 11–June 23	77	72	
Do	June 29–Oct. 25	232	197	
Indo-China				Jan. 1–June 30, 1924: Cases, 734; deaths, 486. July 1–31, 1924: Cases, 26; deaths, 22. Corresponding period, 1923: Cases, 34; deaths, 30.
Province—				
Anam	June 1–30	6	5	June, 1923: Cases, 11; deaths, 10.
Do	July 1–31	4	4	
Cambodia	June 1–30	18	18	June, 1923: Cases, 140; deaths, 121.
Do	July 1–31	9	9	
Cochin-China	June 1–30	4	4	June, 1923: Cases, 14; deaths, 10.
Do	July 1–31	13	9	
Saigon	May 4–June 28	10	2	Including 100 square kilometers of surrounding country.
Do	July 20–Aug. 9	3	1	Do.
Iraq:				
Bagdad	Apr. 20–June 28	125	62	
Do	June 29–Aug. 9	7	4	
Italy:				
Naples	Sept. 15	3	1	Including suburb of Portici, 1 case. On Sept. 12 a plague-infected rat was found in port of Naples.
Japan				July 1–31, 1924: 1 case, 1 death.
Shizuoka Prefecture—				Jan.–July, 1924: Cases, 4; deaths, 3.
Higashi				To June 20, 1924: Cases, 2; death, 1.
Java:				
East Java—				
Soerabaya	June 8–21	14	14	
Do	Aug. 31–Sept. 6	1	1	
West Java—				
Cheribon	Aug. 19–Sept. 15	2	2	
Pekalongan	do	4	8	
Madagascar				Sept. 1–15, 1924: Cases, 47.
Diego Suarez	June 22–Sept. 23	50	42	Seaport.
Fort Dauphin	Sept. 3–24	6	4	
Moramanga	June 1–30	1	1	Interior.
Tamatave	June 6–30	5	4	Bubonic.
Tananarive Province				Apr. 1–June 30, 1924: Cases, 138; deaths, 128; bubonic, pneumonic, septicoemic. July 1–Sept. 15, 1924: Cases, 138; deaths, 130.
Tananarive Town	Apr. 1–June 30	12	12	
Do	July 1–Aug. 31	6	6	
Other localities	Apr. 1–May 31	105	97	
Do	July 1–Aug. 31	64	63	
Mauritius Island				Dec. 30, 1923–June 28, 1924: Cases, 35; deaths, 29. June 29–Sept. 6, 1924: Cases, 9; deaths, 8.
Morocco				Jan.–June, 1924: Cases, 53; deaths, 3.
Nigeria				July, 1924: Case, 1; death, 1.
Palestine:				
Jaffa	Oct. 16	1		Bubonic.
Jerusalem	Oct. 14–20	1		
Persia:				
Abadan	May 1–31	20	12	
Bander Abbas	do	11	6	
Bushire	do	1	1	Landed at quarantine.
Mohammerah	do	111	78	

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

**Reports Received from June 28 to December 12, 1924—Continued.**

**PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Peru.....				May 1-June 30, 1924: Cases, 9; deaths, 6.
Do.....				July 1-31, 1924: Cases, 6; deaths, 3.
Callao.....	June 1-30.....	1		
Do.....	July 1-Oct. 31.....	6	3	
Chancaý.....	Aug. 1-Oct. 31.....	1		
Huacho.....	do.....	3	1	
Huancabamba.....	do.....	6		
Huaral.....	June 1-30.....	1		
Do.....	July 1-31.....	1		
Lima (city).....	May 1-June 30.....	5	5	
Do.....	July 1-Oct. 31.....	16	12	
Lima (country).....	May 1-June 30.....	1		
Do.....	July 1-Oct. 31.....	1	2	
Miraflores.....	Aug. 1-Oct. 31.....	1		
Mollendo.....	May 1-31.....	1	1	
Russia.....				Jan.-June, 1924: Cases, 252.
Don Cossack Territory— Salsky district.....				Aug. 8, 1924: Reported present in marmots in 6 localities.
Siam:				
Bangkok.....	May 4-June 14.....	3	3	
Do.....	July 13-Sept. 27.....	5	4	
Siberia:				
Transbaikalia— Dauria.....	Aug. 9.....	2	2	At Substation 83, vicinity of Dauria.
Harenor.....	Sept. 18.....			Bubonic and pneumonic. On line of Chinese and Trans-Siberian Railway. In workers in tarabagan (marmot) skins.
South Nigeria (West Africa): Lagos.....	Sept. 8.....			Present.
Syria: Beirut.....	July 10-Aug. 20.....	7		
Tunis: Tunis.....	Sept. 23-29.....	1	1	
Union of South Africa.....				Apr. 27-June 7, 1924: Cases, 28; deaths, 14. Dec. 16, 1923, to May 31, 1924: Cases, 347; deaths, 208 (white, 51 cases, 26 deaths; native, 269 cases, 182 deaths). July 1-Aug. 31, 1924: Cases, 5; deaths, 2.
Cape Province— Uitenhage District.....				Sept. 28-Oct. 4, 1924: Plague-infected mouse found on Haarhof's Kraal farm. Plague reported on this farm in September and October, 1924.
Orange Free State.....				May 11-June 14, 1924: Cases, 21; deaths, 9. June 22-28, 1924: Plague-infected mouse found in Kroonstad district.
Philippolis district.....	Aug. 24-30.....	1		In natives on two farms.
Smithfield district.....	July 13-19.....	2		
On vessel: S. S. Amboise.....	July 10.....	1		At Marseille, France; removed to quarantine station. Case occurred in an Arab fireman embarked at Aden. Vessel left Yokohama May 30 and Colombo, Ceylon, June 22, 1924.

**SMALLPOX.**

Algeria: Algiers.....	Oct. 1-31.....	1	
Arabia: Aden.....	July 20-26.....		1
Bolivia: La Paz.....	May 1-June 30.....	10	9
Do.....	July 1-Sept. 30.....	28	21



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

## Reports Received from June 28 to December 12, 1924—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia	May 18-24	1		
Porto Alegre	May 18-June 28	1	2	
Do.	July 6-Aug. 2	2	3	
Rio de Janeiro	May 18-24	2		
Do.	July 20-Aug. 30	5		
British East Africa:				
Kenya—				
Mombasa	May 4-31	3		
Tanganyika Territory	June 15-21	1		
Do.	Aug. 17-23	1		
Uganda, Entebbe	Feb. 1-29	2		
British South Africa:				
Northern Rhodesia	May 6-June 30	74	1	Natives.
Do.	July 1-Oct. 13	71		
Canada:				
British Columbia				
Fernie	Sept. 12-Oct. 18	29		
Vancouver	Nov. 2-15	2		
Do.	June 15-28	11		
Victoria	June 29-Nov. 1	59		Not including suburbs.
Do.	Aug. 3-9	1		
Manitoba—				
Winnipeg	July 13-Aug. 1	3		
New Brunswick—				
Restigouche County	June 1-30	7		
Do.	July 6-Sept. 6	21		Year ended Oct. 31, 1924: Cases, 36; deaths, 1.
Westmoreland County	Aug. 17-23	1		June 1-30, 1924: Cases, 24; July 1-Oct. 25, 1924: Cases, 93. Corresponding period, 1923: Cases, 23.
Ontario				
Chatham Township	Sept. 28-Oct. 25	31		
Chatham	do	3		
Harwich Township	do	2		
Howard Township	do	14		
Macauley Township	do	1		
Sarnia	July 20-26	1		
Toronto	Sept. 28-Oct. 25	1		
Whitney	do	21		Unorganized.
Windsor	June 22-28	1		
Quebec—				
Montreal	June 8-14	1		
Do.	Sept. 14-20	1		
Saskatchewan—				
Regina	Oct. 5-Nov. 11	3		
Ceylon:				
Colombo	July 6-12	1		
Chile:				
Antofagasta	June 11			Under treatment at Lazaretto, 2 cases.
Do.	Aug. 24-30	1		This report covers the two principal districts of Valparaiso.
Valparaiso	June 1-7		1	
China:				
Amoy				
Do.	May 11-June 28			Present.
Antung	June 29-Oct. 11		1	Do.
Do.	June 9-29	41	3	
Do.	July 7-Oct. 19	11		
Chungking	May 11-June 28			Do.
Do.	June 29-Oct. 11			Do.
Foochow	May 18-June 28			Do.
Do.	July 6-Oct. 11			Do.
Hongkong	May 4-June 28	30	24	
Do.	June 29-July 12	3	3	
Manchuria—				
Dairen	May 12-June 28	22	7	
Do.	June 29-Aug. 23	5	1	
Harbin	May 13-June 23	2		
Nanking	May 18-June 28			Do.
Do.	July 6-Oct. 11			Do.
Shanghai	May 25-31		1	
Tientsin	May 4-June 28	11	1	British municipality.
Chosen:				
Fusan	May 1-31	1		
Do.	July 25-31	1		
Colombia:				
Barranquilla	Aug. 3-9		1	
Cuba:				
Matanzas	Sept. 1-30	1		

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

**Reports Received from June 28 to December 12, 1924—Continued.**

**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Czechoslovakia				Apr. 1-June 30, 1924: Cases, 7; deaths, 2.
State—				
Bohemia	Apr. 1-June 30	6	2	
Russsia	do	1		
Denmark:				
Copenhagen	May 18-31	3	1	
Dominican Republic:				
La Romana	Aug. 24-30	2		
Egypt:				
City—				
Alexandria	June 4-10	1		
Do	Sept. 3-Oct. 28	4	1	
Cairo	Feb. 19-June 24	163	45	
Do	June 25-Aug. 19	26	5	
Port Said	June 18-24	1	2	
Do	June 25-Sept. 9	4		
France:				
Limoges	Apr. 1-May 31		2	
Marseille	May 1-31		1	
Paris	May 21-31	2		
Gibraltar	July 21-Nov. 2	10	1	
Great Britain:				
England and Wales				May 25-June 28, 1924: Cases, 342; June 29-Nov. 1, 1924: Cases, 918.
Liverpool	Aug. 28	1		Mild. Admitted to port hospital from Lower Bebington district, 2 miles from docks.
Greece:				
Athens	Sept. 21-30		2	
Saloniki	Apr. 21-June 29		21	
Do	June 30-Oct. 4		41	
Haiti:				
Port au Prince	July 6-12	2		Developed at Cape Haitien.
Hungary:				
Budapest	July 20-Aug. 2	11		
India				Apr. 20-June 28, 1924: Cases, 23,396; deaths, 6,753.
Do				June 29-Sept. 27, 1924: Cases, 12, 284; deaths, 3,042.
Bombay	May 4-June 28	432	299	
Do	June 29-Oct. 4	207	134	
Calcutta	May 11-June 28	36	32	
Do	July 6-Oct. 25	110	85	
Karachi	May 18-June 28	51	18	
Do	June 29-Nov. 1	36	16	
Madras	May 18-June 28	32	10	
Do	June 29-Nov. 1	224	73	
Rangoon	May 11-June 28	53	21	
Do	June 29-Oct. 25	52	17	
Indo-China				Jan. 1-June 30, 1924: Cases, 4,934; deaths, 1,413. July 1-31, 1921: Cases, 119, deaths, 51. Corresponding period, 1923: Cases, 268; deaths, 108.
Province—				June, 1923: Cases, 2.
Anam	June 1-30	23	2	
Do	July 1-31	11	7	
Cambodia	June 1-30	35	21	June, 1923: Cases, 156.
Do	July 1-31	28	13	
Cochin-China	June 1-30	145	55	June, 1923: Cases, 70; deaths, 35.
Do	July 1-31	73	31	
Saigon	Apr. 27-June 28	145	79	Including 100 square kilometers of surrounding country.
Do	June 29-Oct. 4	70	27	Do.
Tonkin	June 1-30	31	2	
Do	July 1-31	7		
Iraq:				
Bagdad	Apr. 20-May 24	8	1	
Do	July 27-Aug. 2	1		
Italy:				
Messina	May 26-June 1	1		
Jamaica				June 1-28, 1924: Cases, 141; June 29-Oct. 25, 1924: Cases, 269. (Reported as alastrim.)
Kingston	June 1-28	6		Reported as alastrim.
Do	June 29-Oct. 25	27		Do.

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

## Reports Received from June 28 to December 12, 1924—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Japan.....				July 1-31, 1924: Cases, 51; deaths, 9; Jan. 1-July 31, 1924: Cases, 1,693; deaths, 264.
Kobe.....	May 26-June 21	3		
Nagoya.....	June 8-14	2		
Tokyo.....	do	1		
Java:				
East Java—				
Madoera Residency—				
Sampang.....	May 22			Epidemic.
Malang.....	May 25-31	5	1	
Paseroean Residency	July 4-Sept. 2	7		Epidemic in some localities.
Rembang.....	Aug. 29-Sept. 2			Do.
Soerabaya.....	Apr. 13-June 28	501	143	
Do.....	June 29-Oct. 4	1,430	388	Epidemic Aug. 10, 1924, in 4 localities.
West Java—				
Batavia.....	May 31-June 27	3		
Do.....	July 6-Aug. 22	6		Province.
Brebes.....	Aug. 26-Sept. 15	4	1	
Cheribon.....	Aug. 19-25	1		
Pekalongan Province				
Pekalongan.....	Aug. 19-Sept. 15	14	3	Aug. 19-25, 1924: Cases, 12; deaths, 2.
Pemalang.....	Aug. 19-Sept. 1	5	7	
Tegal.....	Aug. 19-Sept. 8	7		
Latvia.....				Apr. 1-June 30, 1924: Cases, 3; July 1-31, 1924: Case, 1.
Mexico:				
Cecilia.....	Oct. 11-17	5	1	State of Tamaulipas.
Durango.....	June 1-30		2	
Do.....	Sept. 1-Oct. 31		2	
Guadalajara.....	May 1-June 30	9	4	
Do.....	July 8-14		1	
Mexico City.....	May 4-June 28	96		Including municipalities in Federal district.
Do.....	June 29-Oct. 18	76		Do.
Progreso.....	Oct. 19-25		1	
Salina Cruz.....	May 25-31	1	1	
Saltillo.....	Nov. 2-8		2	
Tampico.....	June 14-20	2		
Do.....	July 1-Nov. 10	17	11	
Tuxtepec.....	July 3-18	3	1	State of Oaxaca.
Vera Cruz.....	Sept. 21-Nov. 16		16	
Palestine:				
Samaria Province—				
Samak.....	May 27-June 2	1		June 17-23, 1924: 20 cases in northern districts.
Paraguay:				
Asuncion.....	June 2			Present.
Encarnacion.....	do			Many cases reported.
Persia:				
Bushire.....	June 1-30	2		
Peru:				
Arequipa.....	Jan. 1-June 30		5	
Poland:				
Do.....				Mar. 30-June 28, 1924: Cases, 299; deaths, 27.
Do.....				June 29-Sept. 20, 1924: Cases, 48; deaths, 9.
Portugal:				
Lisbon.....	May 25-June 28	7	2	
Do.....	June 29-Oct. 19	34	8	
Oporto.....	May 11-June 28	18	16	
Do.....	June 29-Nov. 1	22	27	
Russia:				
Moscow.....	July 27-Aug. 9	37		Jan. 1-31, 1924: 2,243 cases.
Siam:				
Bankok.....	Apr. 27-June 14	3	5	
Do.....	Sept. 7-13	1		
Spain:				
Barcelona.....				Year 1923: Cases, 160.
Do.....	August-September	23	2	
Cadiz.....	June 1-30		5	
Do.....	July 1-Sept. 30		114	
Madrid.....	Aug. 1-Sept. 30		6	July-September, 1924: Cases, 300; deaths, 30. Oct. 6, 1924: Increase in prevalence reported.
Malaga.....	June 29-Nov. 15		117	
Santander.....	Aug. 24-30		4	
Valencia.....	June 8-21	3		
Do.....	July 13-Oct. 25	5	1	
Vigo.....	Aug. 17-23		1	
Straits Settlements:				
Singapore.....	May 4-24	2	1	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received from June 28 to December 12, 1924—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Sumatra:				
Medan	Jan. 1-31	5		
Switzerland:				
Berne	May 25-June 28	22		
Do	June 29-Sept. 27	13		
Lucerne	Aug. 1-Oct. 31	45		
Syria:				
Damascus	May 28-June 12	12		
Do	Aug. 7-Oct. 22	7		
Tunis:				
Tunis	May 27-June 30	17	4	
Do	July 1-Nov. 10	50	38	
Turkey:				
Constantinople	June 1-7	1		
Do	Aug. 17-Sept. 27	2		
Union of South Africa				Mar. 1-June 30, 1924: Cases, 167 (white, 15; native, 152). July 1-Aug. 31, 1924: 4 cases (white); 36 cases, 12 deaths (native).
Cape Province	May 4-31			Outbreaks.
Do	July 20-Sept. 20			Do.
East London	July 27-Aug. 2	1		Do.
Orange Free State	May 4-10			Do.
Do	Aug. 17-Sept. 13			Do.
Transvaal	May 4-10			Do.
Do	July 20-Aug. 16			Do.
Johannesburg	July 6-12	1		
Yugoslavia				January-June, 1924: Cases, 308; deaths, 62. July, 1924: Cases, 9; deaths, 3.
Belgrade	July 28-Aug. 3	1		
On vessels:				
S. S. Dront	Sept. 14-21	1		At Pernambuco, Brazil. Case removed to hospital. Vessel left Cadix, Spain, Aug. 20, 1924.
S. S. Karoa	May 7	1		At Durban, South Africa, from Bombay, India. Vessel left Bombay Apr. 16, 1924. Patient, European.
S. S. Mount Evans	July 8	1		At Key West, Fla., from Manchester, England.

**TYPHUS FEVER.**

Algeria				Year 1923: Cases, 1,166, of which 27 were in the military population.
Algiers	May 1-June 30	24	9	
Do	July 1-Oct. 31	5	2	
Argentina:				
Rosario	Sept. 1-30	1		
Bolivia:				
La Paz	July 1-Sept. 30		2	
Brazil:				
Port Alegre	June 1-7		1	
Bulgaria:				
Sofia	Aug. 17-23	1		
Chile:				June 16, 1924: 2 cases in lazarettó.
Antofagasta				
Concepcion	May 20-26		3	
Do	July 8-Oct. 13		6	
Iquique	June 22-28		1	
Do	Oct. 19-25		2	
Talcahuano	May 25-31	2		
Do	June 29-Nov. 8		44	
Valparaiso	May 25-June 21		11	
Do	June 29-Oct. 25		41	
China:				
Antung	June 2-16	6		
Chungking	May 11-June 14			Present.
Manchuria—				
Hartwin	Sept. 17-23	2		
Chosen:				
Chemulpo	May 1-June 30	10		
Do	July 1-31	6	2	
Seoul	May 1-June 30	43	5	
Do	July 1-Sept. 30	3		

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

## Reports Received from June 28 to December 12, 1924—Continued.

### TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Czechoslovakia				Apr. 1-June 30, 1924: Cases, 6.
State—				
Slovakia	Apr. 1-June 30	4		
Egypt:				
Alexandria	June 25-Aug. 26	5	1	
Cairo	Feb. 19-June 24	53	16	
Do	June 25-Sept. 23	25	14	
Port Said	July 24-Aug. 5	3		
Estonia				Apr. 1-June 30, 1924: Cases, 37;
Germany:				July 1-Sept. 30, 1924: Cases, 3.
Coblenz	July 13-19	2		
Great Britain:				
England—				
St. Helens	July 13-Sept. 20	8	3	One suspect case: July 10, 1924.
Ireland—				Locality, vicinity of Liverpool.
Dublin	June 8-14	1		
Do	July 13-19	1		
Lismore	July 19	1		
Longford	do	1		
Greece				Jan.-Apr., 1924: Cases, 178;
Saloniki	Apr. 20-May 4	6		deaths, 27.
Do	Aug. 10-Sept. 27	2	2	
Hungary				Jan.-June, 1924: Cases, 221;
Iraq:				deaths, 19.
Bagdad	Apr. 27-May 10	2		
Do	Aug. 3-9	1		
Ireland:				
Ballinasloe	Nov. 2-8	1		
Japan:				July 1-31, 1924: Cases, 2. Jan. 1-
City—				July 31, 1924: Cases, 3; deaths, 1.
Riga	June 1-30	1		Apr. 1-June 30, 1924: Cases, 108.
Lithuania				July 1-Aug. 31, 1924: Cases, 17.
Mexico:				Jan.-June, 1924: Cases, 556;
Durango	July 1-31		2	deaths, 48. July, 1924: Cases,
Guadalajara	May 1-June 30	2	2	24.
Mexico City	May 24-June 28	59		Including municipalities in Fed-
Do	June 29-Nov. 8	151		eral district.
Torreón	July 1-Oct. 31		6	Do.
Palestine:				
Acre	Aug. 19-25	1		
Jaffa	June 17-23	1		
Do	July 8-Oct. 20	6		
Jerusalem	July 1-Sept. 29	7		
Kantara	July 15-21	1		
Khulde	Aug. 17	1		
Ramleh district	Oct. 14-20	1		
Safad	Aug. 26-Sept. 1	1		
Tiberias	Aug. 19-25	1		
Peru:				
Arequipa	Jan. 1-June 30		4	
Do	July 1-Aug. 31		3	
Poland:				Mar. 30-June 28, 1924: Cases,
Do				2,947; deaths, 277.
Portugal:				June 29-Sept. 20, 1924: Cases, 641;
Oporto	June 15-21		1	deaths, 34.
Russia:				Jan. 1-31, 1924: Cases, 14,275.
Moscow	July 27-Aug. 9	4		
Spain:				
Barcelona	July 10-16		1	
Malaga	Sept. 6-Oct. 11		2	
Switzerland:				
Lucerne	Sept. 1-Oct. 31	2		
Syria:				
Aleppo	July 8-14	1		
Damascus	July 14-20	1		
Tunis:				
Tunis	May 27-June 9	4		
Turkey:				
Constantinople	May 18-June 21	7	2	
Do	July 6-Oct. 18	14	13	

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received from June 28 to December 12, 1924—Continued.****TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa.....	-----	-----	-----	Mar. 1-June 30, 1924: Cases, 418; deaths, 45. July 1-Aug. 31, 1924: Cases, 212; deaths, 31. (Colored, 203 cases; white, 9 cases.)
Cape Province.....	-----	-----	-----	Mar. 1-June 30, 1924: Cases, 249; deaths, 23.
Do.....	-----	-----	-----	July 1-Aug. 31, 1924: Cases, 122; deaths, 16. Sept. 14-20, outbreaks.
Natal.....	-----	-----	-----	Mar. 1-June 30, 1924: Cases, 27; deaths, 5. July 1-Aug. 31, 1924: Cases, 12; deaths, 1.
Durban.....	Apr. 20-June 28.....	2	-----	-----
Orange Free State.....	-----	-----	-----	Mar. 1-June 30, 1924: Cases, 83; deaths, 11. July 1-Aug. 31, 1924: Cases, 40; deaths, 12.
Harrismith District.....	Sept. 28-Oct. 4.....	-----	-----	Outbreak. On farm.
Transvaal.....	-----	-----	-----	Mar. 1-May 31, 1924: Cases, 39; deaths, 5. July 1-Aug. 31, 1924: Cases, 29; deaths, 2.
Johannesburg.....	May 11-24.....	2	-----	-----
Do.....	June 29-Sept. 13.....	3	-----	-----
Yugoslavia.....	-----	-----	-----	January-June, 1924: Cases, 252; deaths, 14. July 1-31, 1924: Cases, 9; deaths, 3.
Zagreb.....	Sept. 7-13.....	1	-----	-----

**YELLOW FEVER.**

Brazil:				
Pernambuco.....	May 11-17.....	2	1	
British Honduras.....	-----	-----	-----	Nov. 22, 1924: Prevalent in Stann Creek District near Belize. Dec. 4, 1924: Cases, 3.
Gold Coast.....	-----	-----	-----	May, 1924: Cases, 2; deaths, 2. July, 1924: Cases, 2; deaths, 1.
Salvador:				
San Salvador.....	June 10-Aug. 25.....	-----	-----	Present in San Salvador and vicinity.