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## PREPARATION OF CHAULMOOGRA OIL DERIVATIVES FOR THE TREATMENT OF LEPROSY.

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The following description is written to meet the request for a brief statement of the routine methods used at the University of Hawaii for making certain derivatives of chaulmoogra oil for therapeutic use.

The chaulmoogra oil used is obtained through the dealers and varies greatly in quality. Some lots are clear and liquid at our laboratory temperature (usually between 70° and 80° F.); others are dark, muddy looking oils with large quantities of precipitated material. The genuine chaulmoogra oil is expressed from the seeds of *Taraktogenos kurzii*. A number of closely related species of *Hydnocarpus* yield oils of similar composition, and some of the commercial oils are quite likely to be *Hydnocarpus* oils or mixtures of *Hydnocarpus* and *Taraktogenos* oils. There is probably little or no difference in the values of these oils for purposes of making preparations to be used in leprosy. The distinguishing characteristic of all of these oils is their power of rotating the plane of polarized light. The valuable oils show specific rotations around +50°. The differences in appearance noted above seem to have no correlation with differences in rotation, and quite satisfactory products can be made from oils of poor appearance.

The first step is to break up the glycerides into glycerol and the sodium soaps of the fatty acids by saponifying the oil with sodium hydroxide under pressure. Two hundred and forty grams of sodium hydroxide are dissolved in 1 liter of hot water, and this is thoroughly mixed with 1,500 grams of chaulmoogra oil in a 5-liter, round-bottom flask, and heated in an autoclave under 15 pounds of steam pressure for one hour. Loss by frothing is prevented by inserting a loosely fitting wooden plug or stopper in the neck of the flask, through which runs a piece of 16 mm. (inside diameter) glass tubing, which extends about 35 cm. above the flask, where two right-angle bends lead it into an 800 c. c. beaker, placed on a shelf in the autoclave.

A piece of cheesecloth tied over the top of the beaker, through which the bent tube projects, effectively prevents loss from spattering.

When the reaction is complete, the mixture is poured into 3 or 4 liters of hot water in a large precipitating jar and stirred until dissolved. The soap solution is now acidified with commercial hydrochloric acid, and the liberated fatty acids rise to the top of the water in the form of a thick oily layer. By means of a siphon, the lower aqueous layer containing sodium chloride and glycerol is drawn off and discarded. The remaining oil is washed with successive portions of hot water and finally transferred to a hot-water funnel, where, in the course of a few hours' heating, all the water settles out from the liquefied fatty acids and is drawn off. The acids are strained through linen before being allowed to solidify. The usual yield of mixed fatty acids at this point is between 1,350 and 1,400 grams.

These crude mixed fatty acids are treated in different ways to prepare the products which are described under the following headings: (a) Mixed ethyl esters, (b) Capsules, (c) Ethyl hydnocarpate, (d) Ethyl chaulmoograte, (e) Ethyl dihydrochaulmoograte.

*Mixed ethyl esters* (for intramuscular injection).—Mixed ethyl esters are prepared by esterifying the crude mixed fatty acids with ethyl alcohol. Eight hundred cubic centimeters of 92–94 per cent ethyl alcohol are added to 1,000 grams of acids in a 2-liter flat-bottom flask, heated to 50°–60° C., under a reflux condenser, and dry hydrochloric acid gas is led into the flask. This treatment is continued for about 20 minutes after a separation into two layers occurs. The hydrochloric acid gas is conveniently prepared by allowing concentrated sulphuric acid to drop into concentrated hydrochloric acid and drying the hydrogen chloride gas evolved by passing it through sulphuric acid.

When esterification is complete, the contents of the flask are poured into 2 or 3 liters of warm water and washed to remove excess hydrochloric acid and alcohol. The ethyl esters come to the top on standing, and the lower aqueous layer is siphoned off and discarded. The washing is continued with several successive portions of water. Any water held emulsified in the esters settles out upon being held for a time in a hot water funnel. These crude ethyl esters are reddish-brown in color. They can be used in this condition; but in order to get them as pure as possible they are distilled under high vacuum.

About 1,200 c. c. of the crude dry esters are put in a 2-liter distilling flask. A roll of wire gauze is inserted in the lower part of the neck of the flask and the neck is filled with glass beads or short lengths of glass tubing to form a fractionating column about

12 cm. in length. The flask is connected to the vacuum pump through a specially designed piece of apparatus with stopcocks so arranged that the receiver may be changed without interfering in any way with the distillation. (See Fig. 1.)

*Capsules* (for administration by way of the mouth).—Capsules are prepared by melting the mixed fatty acids and running the liquid into gelatine capsules of varying sizes containing  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and  $\frac{3}{4}$  gram of the fatty acids. When cool, the contents of the capsules become solid.

*Distillation of the mixed fatty acids.*—From the mixture of fatty acids, pure chaulmoogric acid and pure hydnocarpic acid have been prepared by fractional distillation under high vacuum followed by a fractional crystallization, using the same apparatus as that described for distilling the ethyl esters.

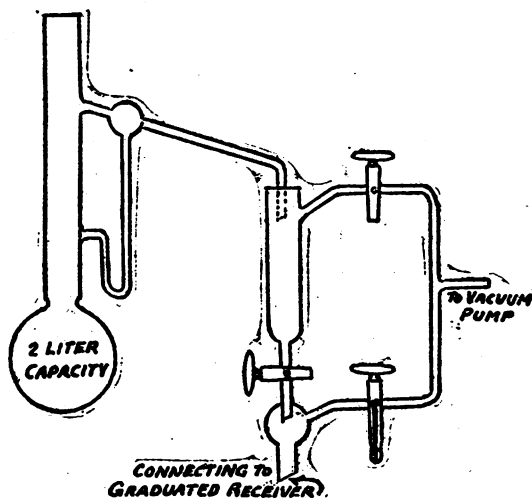


Fig. 1.

The vacuum is applied before the temperature of the liquid in the flask rises above  $100^{\circ}\text{C}$ ; otherwise serious frothing may result. It is best to have both stopcocks open to the vacuum, also the stopcock leading into the graduated receiver. There is usually a tendency for a little of the fatty acid vapor to solidify in the stopcocks, interfering with the vacuum. This difficulty may be obviated by playing a jet of steam against the stopcock. As the stopcocks must remain air-tight, even while hot, it is best to use a mixture of vaseline and talcum powder as a lubricant in them. Some of the patent stopcock lubricants also give good results.

The first 350 c. c. which distill over are worked for hydnocarpic acid. The next 200, composing the mixture fraction, are set aside to be redistilled as part of the next lot of mixed fatty acids. The remainder of the distillate is worked for chaulmoogric acid.

*Ethyl hydnocarpate.*—The hydnocarpic acid fraction noted above is recrystallized first from 80 per cent alcohol, using 20 c. c. of alcohol per 5 grams of acid, and recrystallization is continued from this solvent until the melting point of the solute is above  $35^{\circ}\text{C}$ .; then it is recrystallized from petroleum ether, using 30 c. c. of solvent per 5 grams of solute until its melting point is  $60^{\circ}\text{C}$ . The melting point of the

product from each crystallization moves upward very slowly in the case of this acid, from 12 to 16 recrystallizations being required to purify the acid completely and bring its melting point up to 60° C.

The hydnocarpic acid is esterified with ethyl alcohol in the same way that the mixed acids are, and the ethyl hydnocarpate is washed, dried, and distilled under high vacuum. The ethyl hydnocarpate is almost water white.

*Ethyl chaulmoograte.*—The chaulmoogric acid fraction is recrystallized from 80 per cent alcohol, using 20 c. c. of the alcohol to 5 grams of the acid, and recrystallization is continued until the product melts at 68° C. In general, four or five crystallizations are sufficient.

The pure chaulmoogric acid is treated with ethyl alcohol and esterified in the same manner as the mixed acids. The ethyl chaulmoograte is washed, dried, and distilled under high vacuum. It is almost water white in color.

*Dihydrochaulmoogric acid and ethyl dihydrochaulmoograte.*—Dihydrochaulmoogric acid is prepared from pure chaulmoogric acid by catalytic reduction. Two hydrogen atoms enter the double bond of chaulmoogric acid forming a saturated inactive acid.

One hundred grams of chaulmoogric acid are dissolved in 150 c. c. of 95 per cent ethyl alcohol. The flask containing the solution is kept at a temperature of 55–60° C. in a water bath, and hydrogen under 2–3 pounds pressure is bubbled through the solution. The catalyst, prepared as follows, is added to this solution: Five c. c. of a solution of platinum chloride (Pt. Cl<sub>4</sub>), containing 0.01 gram of platinum per c. c., and 5 c. c. of a solution of palladium chloride (Pd. Cl<sub>2</sub>), containing 0.01 gram of palladium per c. c., and 3 c. c. of a solution containing 0.01 gram of gum arabic per c. c. are mixed, and about 2 grams of hydroxylamine-hydrochloride added; then, with constant stirring, small amounts of sodium bicarbonate are added until the color due to the chloride disappears and a transluscent black begins to appear. It is then immediately added to the chaulmoogric acid solution.

The time necessary for complete reduction of the chaulmoogric acid varies from 24 hours to several days, and it is frequently necessary to add fresh portions of the catalyst from time to time. The reduction can be measured by taking samples at intervals and determining the iodine value. The iodine value of dihydrochaulmoogric acid is zero.

The pure dihydrochaulmoogric acid is obtained by recrystallizing from glacial acetic acid.

Ethyl dihydrochaulmoograte is obtained by treating the acid with ethyl alcohol. As this acid is much harder to esterify than any of the others, it is necessary to use absolute ethyl alcohol in excess and to pass in the hydrogen chloride until the solution is saturated, in

order to get complete esterification. The ethyl dihydrochaulmoograte is washed, dried, and distilled in the same manner as the mixed esters.

**HYGIENIC LABORATORY NOTE.**—For reference to the earlier work on the chemistry of chaulmoogra oil and its derivatives the following references may be consulted:

The Constitution of Chaulmoogric Acid, Part I. By Power and Gornall. Published in the Transactions of the Chemical Society, 1904.

The Constituents of the Seeds of *Gynocardia Odorata*, R. Br. By Power and Barrowcliff. Published in the Transactions of the Chemical Society, 1905.

The Constitution of Chaulmoogric and Hydnocarpic Acids. By Barrowcliff and Power. Published in the Transactions of the Chemical Society, 1907.

The foregoing were all published as reprints from the Wellcome Chemical Research Laboratories, Frederick B. Power, Director. These papers were referred to in an earlier paper by Professor Dean and Doctor Wrenshall, entitled "Fractionation of Chaulmoogra Oil," Reprint No. 646, from the Public Health Reports, April 1, 1921.

## THE NOTIFIABLE DISEASES.

### PREVALENCE DURING 1921 IN CITIES OF OVER 100,000.<sup>1</sup>

**ANTHRAX, CEREBROSPINAL MENINGITIS, DIPHThERIA, INFLUENZA, MALARIA, MEASLES, PELLAGRA, PNEUMONIA (ALL FORMS), POLIOMYELITIS (INFANTILE PARALYSIS), RABIES IN ANIMALS, RABIES IN MAN, SCARLET FEVER, SMALLPOX, TUBERCULOSIS (ALL FORMS AND PULMONARY), TYPHOID FEVER, AND TYPHUS FEVER—CASES AND DEATHS REPORTED, 1921; INDICATED CASE AND DEATH RATES PER 1,000 POPULATION; FATALITY RATES PER 100 CASES; AND MEDIAN NUMBER OF CASES REPORTED DURING PRECEDING YEARS.**

The following tables were compiled from data furnished by the city health officers. They include all cities in the United States of 100,000 population or over.

The populations given, and which were used in computing the rates, were estimated as of July 1, 1921, except where otherwise stated. For cities which are included in the Weekly Health Index, issued by the Bureau of the Census, the estimated populations as given in that publication were used. Estimates based on the censuses of April 15, 1910, and of January 1, 1920, were made for other cities.

The figures given are for the calendar year 1921, except for Portland, Oreg., where the year began December 1, 1920, and ended November 30, 1921.

<sup>1</sup> It will be noted that some of the cities are apparently much more successful in obtaining reports of the notifiable diseases than are others. This may be due to the greater activity of their health departments or to a greater interest in the public welfare on the part of their practicing physicians. That the health departments of certain cities are securing fairly complete information of the prevalence of preventable diseases is indicated in a number of instances by the large numbers of cases reported as compared with the numbers of deaths registered from the same causes.

Medians <sup>2</sup> of the total number of cases reported annually during the years 1913 to 1920 are given for cerebrospinal meningitis, diphtheria, measles, poliomyelitis (infantile paralysis), scarlet fever, smallpox, and typhoid fever. The column headed "Number of years" shows the number of years for which data were available. For pellagra, data were available only for the years 1915 to 1920, inclusive.

For all diseases except anthrax, rabies, and typhus fever there is given either the fatality rate per 100 cases or the number of cases reported for each death registered.

In comparing the figures for 1921 with the medians for preceding years, it should be borne in mind that there has been a gradual improvement in the reporting of communicable diseases during the last few years. An increase in the number of cases reported may be due to better reporting of the particular disease rather than to an increase in the number of cases existing.

In studying these tables it should be kept in mind that a relatively large number of reported cases of a communicable disease as indicated by a high case rate (and more especially when accompanied by a relatively small number of deaths, as indicated by a low fatality rate) usually means that the health department of that city is active and that the cases of the disease are being well reported by the practicing physicians. It does not usually mean that the disease is more prevalent in that city than in other cities. A high fatality rate may mean that the disease was unusually virulent in a city; that the physicians did not treat the disease in that city with the success usual elsewhere, or that the practicing physicians did not report all of their cases to the health department. On the other hand, an unusually low fatality rate may be due to the fact that the disease in the city was unusually mild; that the physicians treated it with unusual success; that the practicing physicians reported their cases satisfactorily; or that the registration of deaths was incomplete or the assignment of the causes of death inaccurate.

Cities in which no cases of a certain disease were reported in 1921 are not included in the table for that disease.

Considerable increases in the number of cases of diphtheria and scarlet fever are indicated by the tables. Sixty-eight cities reported nearly 82,000 cases of diphtheria for the calendar year 1921, as compared with about 59,000 cases per annum during the preceding eight years. The same cities reported nearly 64,000 cases of scarlet fever for 1921, but the median for the preceding years was less than 40,000 cases.

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<sup>2</sup> The median has been defined as the magnitude of the middle item in an array. If the numbers of cases reported are arranged so that the greatest number reported in any one year is first, the second greatest number is second, and so on, then the number of cases in the center of the array is the median. The following illustration shows the method followed when data for five years are available: In a city reporting 60 cases in 1915, 79 cases in 1916, 71 cases in 1917, 58 cases in 1918, and 53 cases in 1919, the median is 60 cases.

Measles was not so prevalent during 1921 as during the last few years in most of the cities.

During the calendar year 1921, 56 cities reported more than 17,000 cases of smallpox. The median for these cities during the preceding few years was less than 6,900 cases.

### Reported Prevalence for the Year 1921—Medians for Previous Years.

#### ANTHRAX.

City.	Cases reported, 1921.	Deaths registered, 1921.	City.	Cases reported, 1921.	Deaths registered, 1921.
California:			New Jersey:		
Los Angeles.....	3	0	Camden.....	7	0
Delaware:			Jersey City.....	1	0
Wilmington.....	5	1	Newark.....	1	0
Illinois:			New York:		
Chicago.....	2	1	New York.....	9	4
Louisiana:			Ohio:		
New Orleans.....	3	1	Cleveland.....	2	1
Maryland:			Pennsylvania:		
Baltimore.....	1	0	Philadelphia.....	10	1
Massachusetts:			Tennessee:		
Worcester.....	1	0	Memphis.....	1	1
Nebraska:			Nashville.....	1	.....
Omaha.....	1	0	Texas:		
			Houston.....	1	0

#### CEREBROSPINAL MENINGITIS.

City.	Estimated population, July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Alabama:								
Birmingham.....	186,133	8	13	11	0.06	6	0.03	54.5
California:								
Los Angeles.....	614,160	8	30	15	.02	8	.01	53.3
Oakland.....	226,472	3	5	12	.05	0	.....	.....
San Francisco.....	520,546	8	18	47	.09	9	.02	19.1
Colorado:								
Denver.....	263,152	7	2	.....	.....	1	.00	.....
Connecticut								
Bridgeport.....	143,555	8	12	15	.10	3	.02	20.0
Hartford.....	144,080	7	7	7	.05	4	.03	57.1
New Haven.....	167,007	6	12	6	.04	0	.....	.....
Delaware:								
Wilmington.....	113,408	3	3	2	.02	0	.....	.....
District of Columbia:								
Washington.....	143,571	7	7	8	.02	4	.01	50.0
Georgia:								
Atlanta.....	207,473	3	9	.....	.....	15	.07	.....
Illinois:								
Chicago.....	2,780,655	8	103	79	.03	33	.01	41.8
Indiana:								
Indianapolis.....	325,632	7	21	6	.02	5	.02	83.3
Iowa:								
Des Moines.....	132,663	4	4	.....	.....	1	.01	.....
Kansas:								
Kansas City.....	103,884	5	22	7	.07	3	.03	42.9
Kentucky:								
Louisville.....	236,083	7	29	5	.02	0	.....	.....
Louisiana:								
New Orleans.....	394,657	8	17	7	.02	4	.01	57.1
Maryland:								
Baltimore.....	750,864	7	36	24	.03	12	.02	50.0
Massachusetts:								
Boston.....	757,634	8	60	54	.07	28	.04	51.9
Cambridge.....	110,444	4	6	5	.05	2	.02	40.0
Fall River.....	123,668	8	8	5	.04	3	.02	60.0

<sup>1</sup> Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

CEREBROSPINAL MENINGITIS—Continued.

City.	Estimated population, July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
<b>Massachusetts—Continued.</b>								
Lowell.....	113,757	8	12			4	0.04	.....
New Bedford.....	125,012	5	3	12	0.10	4	.03	33.3
Springfield.....	135,877	7	4			4	.03	.....
Worcester.....	184,972	7	7	5	.03	1	.01	20.0
<b>Michigan:</b>								
Detroit.....	1,070,450	6	65	61	.06	32	.03	52.5
Grand Rapids.....	141,137	4	1			1	.01	.....
<b>Minnesota:</b>								
Minneapolis.....	392,815	4	13	8	.02	5	.01	62.5
St. Paul.....	237,781	6	5			1	.00	.....
<b>Missouri:</b>								
Kansas City.....	336,157	8	23	16	.05	10	.03	62.5
St. Louis.....	786,164	8	39	26	.03	12	.02	46.2
<b>Nebraska:</b>								
Omaha.....	197,066	5	5			6	.03	.....
<b>New Jersey:</b>								
Camden.....	119,672	4	3			1	.01	.....
Jersey City.....	302,788	8	10	14	.05	11	.04	78.6
Newark.....	424,885	8	34	23	.05	11	.03	47.8
Paterson.....	137,463	6	12	9	.07	6	.04	66.7
Trenton.....	122,760	6	2			7	.06	.....
<b>New York:</b>								
Albany.....	115,071	6	2			7	.06	.....
Buffalo.....	519,608	8	16	19	.04	13	.03	68.4
New York.....	5,751,867	8	280	279	.05	147	.03	52.7
Rochester.....	305,229	6	9	7	.02	1	.00	14.3
Syracuse.....	177,265	6	3	2	.01	1	.01	50.0
Yonkers.....	103,324	7	4	4	.04	3	.03	75.0
<b>Ohio:</b>								
Akron.....	1,208,435	6	15	6	.03	4	.02	66.7
Cincinnati.....	403,418	8	25	8	.02	3	.01	37.5
Cleveland.....	831,138	8	45	21	.03	9	.01	42.9
Columbus.....	245,358	7	10			1	.00	.....
Dayton.....	1,152,559	7	8	7	.05	0	.....	.....
Youngstown.....	139,432	3	14	4	.03	1	.01	25.0
<b>Oregon:</b>								
Portland.....	264,859	4	4	5	.02	1	.00	20.0
<b>Pennsylvania:</b>								
Philadelphia.....	1,866,212	8	53	35	.02	22	.01	62.9
Pittsburgh.....	602,452	8	16			14	.02	.....
Reading.....	105,593	7	1			4	.04	.....
Scranton.....	139,007	3	5			2	.01	.....
<b>Rhode Island:</b>								
Providence.....	239,645	8	18	11	.05	8	.03	72.7
<b>Tennessee:</b>								
Memphis.....	165,656	4	15	13	.08	5	.03	38.5
Nashville.....	122,036	8	10	6	.05	5	.04	83.3
<b>Texas:</b>								
Dallas.....	165,282	6	8	5	.03	0	.....	.....
Houston.....	144,340	5	4			3	.02	.....
San Antonio.....	171,387	7	7			7	.04	.....
<b>Utah:</b>								
Salt Lake City.....	121,595	7	5			5	.04	.....
<b>Virginia:</b>								
Norfolk.....	121,260	3	5	3	.02	2	.02	66.7
Richmond.....	175,686	4	3	5	.03	3	.02	60.0
<b>Washington:</b>								
Seattle.....	1,315,312	7	3			3	.01	.....
Spokane.....	104,442	4	1			1	.01	.....

DIPHTHERIA.

Alabama:								
Birmingham.....	186,133	8	175	271	1.45	8	0.04	3.0
<b>California:</b>								
Los Angeles.....	614,160	8	664	2,842	4.63	85	.14	3.0
Oakland.....	226,472	7	157	534	2.36	37	.16	6.9
San Francisco.....	520,546	8	827	1,712	3.29	141	.27	8.2
<b>Colorado:</b>								
Denver.....	263,152	8	399	734	2.79	33	.14	5.2

<sup>1</sup> Enumerated population Jan. 1, 1920.



## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## DIPHTHERIA—Continued.

City.	Estimated population, July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Connecticut:								
Bridgeport.....	1 143, 555	8	206	478	3.33	27	0.19	5.6
Hartford.....	144, 080	7	361	425	2.96	15	.10	3.5
New Haven.....	167, 007	8	329	501	3.00	24	.14	4.8
Delaware:								
Wilmington.....	113, 408	7	84	87	.77	6	.05	6.9
District of Columbia:								
Washington.....	1 437, 571	8	646	935	2.14	57	.13	6.1
Georgia:								
Atlanta.....	207, 473	5	223	298	1.44	21	.10	7.0
Illinois:								
Chicago.....	2, 780, 655	8	7, 025	9, 313	3.35	683	.25	7.3
Indiana:								
Indianapolis.....	325, 632	8	539	1, 267	3.89	84	.26	6.6
Iowa:								
Des Moines.....	132, 663	4	169	294	2.22	21	.16	7.1
Kansas:								
Kansas City.....	103, 884	5	169	427	4.11	18	.17	4.2
Kentucky:								
Louisville.....	236, 083	8	255	946	4.01	32	.14	3.4
Louisiana:								
New Orleans.....	394, 657	8	853	335	.98	13	.03	3.4
Maryland:								
Baltimore.....	750, 864	8	1, 192	1, 423	1.90	89	.12	6.3
Massachusetts:								
Boston.....	757, 634	8	2, 672	2, 992	3.95	148	.20	4.9
Cambridge.....	110, 444	5	249	227	2.06	12	.11	5.3
Fall River.....	120, 668	8	184	223	1.85	23	.19	10.3
Lowell.....	113, 757	8	243	263	2.31	35	.31	13.3
New Bedford.....	125, 012	7	133	295	2.36	26	.21	8.8
Springfield.....	135, 877	8	160	249	1.83	23	.17	9.2
Worcester.....	184, 972	7	306	240	1.30	25	.14	10.4
Michigan:								
Detroit.....	1, 070, 450	8	3, 235	4, 689	4.38	334	.31	7.1
Grand Rapids.....	141, 197	8	183	451	3.19	43	.30	9.5
Minnesota:								
Minneapolis.....	392, 815	6	989	1, 452	3.70	54	.14	3.7
St. Paul.....	237, 781	8	907	822	3.46	36	.15	4.4
Missouri:								
Kansas City.....	338, 157	8	521	1, 221	3.63	81	.24	6.6
St. Louis.....	786, 164	8	3, 439	3, 564	4.53	162	.21	4.5
Nebraska:								
Omaha.....	197, 066	7	300	823	4.20	88	.45	10.6
New Jersey:								
Camden.....	119, 672	7	193	245	2.06	24	.20	9.8
Jersey City.....	302, 788	8	835	955	3.15	79	.26	8.3
Newark.....	424, 885	8	1, 111	1, 059	2.49	42	.10	4.0
Paterson.....	137, 463	8	243	386	2.81	32	.23	8.3
Trenton.....	122, 760	7	240	287	2.34	30	.24	10.5
New York:								
Albany.....	115, 071	8	126	356	3.09	21	.18	5.9
Buffalo.....	519, 608	8	967	1, 960	3.77	148	.28	7.6
New York.....	5, 751, 887	8	14, 090	15, 110	2.63	891	.15	5.9
Rochester.....	305, 229	7	367	1, 520	4.98	77	.25	5.1
Syracuse.....	177, 265	8	300	1, 080	6.09	77	.43	7.1
Yonkers.....	103, 324	7	269	187	1.81	13	.13	7.0
Ohio:								
Akron.....	1 208, 435	7	294	519	2.49	30	.14	5.8
Cincinnati.....	403, 418	8	548	1, 025	2.54	69	.17	6.7
Cleveland.....	831, 138	8	1, 960	1, 738	2.15	187	.22	10.5
Columbus.....	245, 358	8	321	1, 014	4.13	40	.16	3.9
Dayton.....	1 152, 559	8	266	211	1.38	19	.12	9.0
Toledo.....	253, 696	8	314	1, 493	5.88	92	.36	6.2
Youngstown.....	139, 432	5	184	172	1.23	4	.03	2.3
Oregon:								
Portland.....	264, 859	5	132	1, 567	5.92	50	.19	3.2
Pennsylvania:								
Philadelphia.....	1, 866, 212	8	2, 619	3, 382	1.81	323	.17	9.6
Pittsburgh.....	602, 452	8	1, 353	1, 633	2.71	131	.22	8.0
Reading.....	105, 593	7	171	341	3.23	39	.37	11.4
Scranton.....	139, 007	7	292	266	1.91	36	.26	13.5
Rhode Island:								
Providence.....	239, 645	8	822	569	2.37	18	.08	3.2
Tennessee:								
Memphis.....	165, 636	4	530	597	3.60	17	.10	2.8
Nashville.....	122, 036	8	102	575	2.25	13	.11	4.7

1 Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

DIPHTHERIA—Continued.

City.	Estimated population, July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
<b>Texas:</b>								
Dallas.....	165,282	6	126	268	1.66	14	0.08	5.4
Fort Worth.....	111,423	6	110	100	.90	4	.04	4.0
Houston.....	144,340	5	102	245	1.70	12	.08	4.9
San Antonio.....	171,387	7	167	184	1.07	20	.12	10.9
<b>Utah:</b>								
Salt Lake City.....	121,595	8	111	214	1.76	22	.18	10.3
<b>Virginia:</b>								
Norfolk.....	121,260	3	101	145	1.20	3	.02	2.1
Richmond.....	175,686	7	253	408	2.32	17	.10	4.2
<b>Washington:</b>								
Seattle.....	1,315,312	8	191	403	1.28	19	.06	4.7
Spokane.....	104,442	6	63	206	1.97	15	.14	7.3
<b>Wisconsin:</b>								
Milwaukee.....	468,386	7	1,017	1,404	3.00	84	.18	6.0
68 cities.....	28,176,530	.....	59,093	81,954	2.91	5,201	.18	6.3

INFLUENZA.

City.	Estimated population, July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
<b>Alabama:</b>						
Birmingham.....	186,133	.....	.....	37	0.20	.....
<b>California:</b>						
Los Angeles.....	614,160	125	0.20	21	.03	6.0
San Francisco.....	520,546	286	.55	33	.06	8.7
<b>Colorado:</b>						
Denver.....	263,152	.....	.....	20	.08	.....
<b>Connecticut:</b>						
Bridgeport.....	143,555	.....	.....	7	.05	.....
Hartford.....	144,080	15	.10	4	.03	3.7
New Haven.....	167,007	.....	.....	3	.02	.....
<b>District of Columbia:</b>						
Washington.....	1,437,571	66	.15	34	.08	1.9
<b>Georgia:</b>						
Atlanta.....	207,473	125	.60	19	.09	6.6
<b>Illinois:</b>						
Chicago.....	2,780,655	690	.25	111	.04	6.2
<b>Iowa:</b>						
Des Moines.....	132,663	.....	.....	11	.08	.....
<b>Kansas:</b>						
Kansas City.....	103,884	3	.03	1	.01	3.0
<b>Kentucky:</b>						
Louisville.....	263,083	11	.05	2	.01	5.5
<b>Louisiana:</b>						
New Orleans.....	394,657	.....	.....	54	.14	.....
<b>Maryland:</b>						
Baltimore.....	750,864	1,290	1.72	61	.08	21.1
<b>Massachusetts:</b>						
Boston.....	757,634	148	.20	22	.03	6.7
Cambridge.....	110,444	38	.34	2	.02	19.0
Fall River.....	120,668	13	.11	7	.06	1.9
Lowell.....	113,757	2	.02	1	.01	2.0
New Bedford.....	125,012	3	.02	0	.....	.....
Springfield.....	135,877	.....	.....	9	.07	.....
Worcester.....	184,972	45	.24	6	.03	7.5
<b>Michigan:</b>						
Detroit.....	1,070,450	89	.08	29	.03	3.1
Grand Rapids.....	141,197	7	.05	0	.....	.....
<b>Minnesota:</b>						
Minneapolis.....	392,515	.....	.....	31	.08	.....
St. Paul.....	237,781	.....	.....	11	.05	.....
<b>Missouri:</b>						
Kansas City.....	336,157	50	.18	49	.15	1.2
St. Louis.....	786,164	32	.04	8	.01	4.0

1 Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## INFLUENZA—Continued.

City.	Estimated population, July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Nebraska:						
Omaha.....	197,066			7	0.04	
New Jersey:						
Camden.....	119,672	5	0.04	2	.02	2.5
Jersey City.....	302,788			30	.10	
Newark.....	424,885	356	.84	18	.04	19.8
Paterson.....	137,463			1	.01	
Trenton.....	122,760	56	.46	14	.11	4.0
New York:						
Albany.....	115,071	127	1.10	10	.09	12.7
Buffalo.....	519,608	42	.08	3	.01	14.0
New York.....	5,751,867	2,486	.43	384	.07	6.5
Rochester.....	305,229			8	.03	
Syracuse.....	177,265			2	.01	
Yonkers.....	103,324	7	.07	4	.04	1.7
Ohio:						
Akron.....	1 208,435	15	.07	5	.02	3.0
Cincinnati.....	403,418			44	.11	
Cleveland.....	831,138	45	.05	25	.03	1.8
Columbus.....	245,358			21	.09	
Dayton.....	1 152,559			8	.05	
Toledo.....	253,696			22	.09	
Oregon:						
Portland.....	264,859			9	.03	
Pennsylvania:						
Philadelphia.....	1,866,212	176	.09	142	.08	1.2
Pittsburgh.....	602,452	79	.13	73	.12	1.1
Reading.....	105,593			12	.11	
Scranton.....	139,007			24	.17	
Rhode Island:						
Providence.....	239,645	13	.05	7	.03	1.9
Tennessee:						
Memphis.....	165,656			14	.08	
Nashville.....	122,036			34	.28	
Texas:						
Dallas.....	165,282	65	.39	17	.10	3.8
Fort Worth.....	111,423			7	.08	
Houston.....	144,340			7	.05	
San Antonio.....	171,387			7	.04	
Utah:						
Salt Lake City.....	121,505			4	.03	
Virginia:						
Richmond.....	175,686			19	.11	
Washington:						
Seattle.....	1 315,312			37	.12	
Spokane.....	104,442	33	.32	19	.18	1.7
Wisconsin:						
Milwaukee.....	468,386			7	.01	

## MALARIA.

Alabama:						
Birmingham.....	186,133	26	0.14	7	0.04	3.7
California:						
Los Angeles.....	614,160	11	.02	3	.00	3.7
Oakland.....	226,472	1	.00	0		
San Francisco.....	520,546	4	.01	2	.00	2.0
Connecticut:						
Hartford.....	144,080	1	.01			
District of Columbia:						
Washington.....	1 437,571			2	.00	
Georgia:						
Atlanta.....	207,473	50	.24	2	.01	25.0
Illinois:						
Chicago.....	2,780,655	23	.01	1	.00	23.0
Kansas:						
Kansas City.....	103,884	1	.01	0		
Kentucky:						
Louisville.....	236,083	6	.03	2	.01	3.0
Louisiana:						
New Orleans.....	394,657	59	.15	15	.04	3.9

1 Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

MALARIA—Continued.

City.	Estimated population, July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
<b>Maryland:</b>						
Baltimore.....	750,964	20	0.03	0		
<b>Massachusetts:</b>						
Boston.....	757,634	18	.02	0		
Fall River.....	120,668	3	.02	0		
Worcester.....	184,972	2	.01	0		
<b>Michigan:</b>						
Detroit.....	1,070,450	12	.01	0		
<b>Missouri:</b>						
Kansas City.....	338,157	4	.01	3	0.01	1.3
St. Louis.....	786,164			3	.00	
<b>Nebraska:</b>						
Omaha.....	197,066			1	.01	
<b>New Jersey:</b>						
Jersey City.....	302,788	7	.02	0		
Newark.....	424,685	15	.04	0		
Paterson.....	137,463	4	.03	0		
Trenton.....	122,760	4	.03	0		
<b>New York:</b>						
New York.....	5,751,867	110	.02	6	.00	18.3
<b>Ohio:</b>						
Cleveland.....	831,138	11	.01	1	.00	11.0
<b>Oregon:</b>						
Portland.....	264,850			3	.01	
<b>Pennsylvania:</b>						
Philadelphia.....	1,866,212	8	.00	1	.00	8.0
<b>Tennessee:</b>						
Memphis.....	165,656	251	1.52	62	.37	4.0
Nashville.....	122,036			4	.03	
<b>Texas:</b>						
Dallas.....	165,282	181	1.10	12	.07	15.1
Fort Worth.....	111,423			2	.02	
Houston.....	144,340			16	.11	
San Antonio.....	171,387			10	.06	
<b>Virginia:</b>						
Norfolk.....	121,260	6	.05	0		
Richmond.....	175,686			1	.01	
<b>Washington:</b>						
Seattle.....	1 315,312			1	.00	

MEASLES.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
<b>Alabama:</b>								
Birmingham.....	186,133	8	1,504	373	2.00	7	0.04	1.9
<b>California:</b>								
Los Angeles.....	614,160	8	3,415	4,077	6.64	8	.01	.2
Oakland.....	226,472	7	445	74	.33	0		
San Francisco.....	520,546	8	1,866	665	1.28	9	.02	1.4
<b>Colorado:</b>								
Denver.....	263,152	8	2,262	1,947	7.40	16	.06	.8
<b>Connecticut:</b>								
Bridgeport.....	1 143,555	7	308	77	.54	1	.01	1.3
Hartford.....	144,080	7	447	367	2.55	4	.03	1.1
New Haven.....	167,007	8	540	72	.43	1	.01	1.4
<b>Delaware:</b>								
Wilmington.....	113,408	5	111	24	.21	1	.01	4.2
<b>District of Columbia:</b>								
Washington.....	1 437,571	8	2,291	4,157	9.50	11	.03	.3
<b>Georgia:</b>								
Atlanta.....	207,473	4	535	486	2.34	8	.04	1.6

<sup>1</sup> Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## MEASLES—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Illinois:								
Chicago.....	2,780,655	8	12,078	8,731	3.14	120	0.04	1.4
Indiana:								
Indianapolis.....	325,632	8	3,818	292	.90	2	.01	.7
Iowa:								
Des Moines.....	132,663	2	71	50	.38	7	.05	14.0
Kansas:								
Kansas City.....	103,884	5	709	290	2.79	0	.....	.....
Kentucky:								
Louisville.....	236,063	8	278	1,004	4.25	0	.....	.....
Louisiana:								
New Orleans.....	394,657	8	972	883	2.24	32	.08	3.6
Maryland:								
Baltimore.....	750,864	8	4,637	2,236	2.98	25	.03	1.1
Massachusetts:								
Boston.....	757,634	8	5,484	3,396	4.48	38	.05	1.1
Cambridge.....	110,444	5	1,085	908	8.22	5	.05	.6
Fall River.....	120,668	8	560	391	3.24	28	.23	7.2
Lowell.....	113,757	8	516	731	6.43	6	.05	.8
New Bedford.....	125,012	7	439	35	.28	0	.....	.....
Springfield.....	135,577	8	625	146	1.07	4	.03	2.7
Worcester.....	184,972	7	349	1,192	6.44	19	.10	1.6
Michigan:								
Detroit.....	1,070,450	6	1,971	1,485	1.39	35	.03	2.4
Grand Rapids.....	141,197	8	1,085	43	.30	0	.....	.....
Minnesota:								
Minneapolis.....	392,815	6	1,043	397	1.01	4	.01	1.0
St. Paul.....	237,781	8	1,336	108	.45	1	.00	.9
Missouri:								
Kansas City.....	336,157	8	1,366	1,278	3.80	13	.04	1.0
St. Louis.....	786,164	7	5,321	302	.38	4	.01	1.3
Nebraska:								
Omaha.....	197,066	6	533	400	2.03	3	.02	.7
New Jersey:								
Camden.....	119,672	7	312	72	.60	0	.....	.....
Jersey City.....	302,783	8	1,157	588	1.94	24	.08	4.1
Newark.....	424,885	8	4,180	1,339	3.15	13	.03	1.0
Paterson.....	137,463	8	577	243	1.77	1	.01	.4
Trenton.....	122,760	7	346	300	2.44	4	.03	1.3
New York:								
Albany.....	115,071	8	586	891	7.74	3	.03	.3
Buffalo.....	519,608	8	3,469	1,463	2.82	26	.05	1.8
New York.....	5,751,867	8	28,047	7,738	1.35	165	.03	2.1
Rochester.....	305,229	7	1,674	82	.27	7	.02	8.5
Syracuse.....	177,265	8	1,640	1,211	6.83	6	.03	.5
Yonkers.....	103,324	7	785	267	2.58	0	.....	.....
Ohio:								
Akron.....	1 208,435	7	341	175	.84	0	.....	.....
Cincinnati.....	403,418	8	1,112	395	.98	13	.03	3.3
Cleveland.....	831,138	8	3,114	1,259	1.51	25	.03	2.0
Columbus.....	245,358	8	970	46	.19	3	.01	6.5
Dayton.....	1 152,559	8	613	36	.24	1	.01	2.8
Toledo.....	253,666	8	1,251	98	.39	0	.....	.....
Youngstown.....	139,432	5	370	1,104	7.92	11	.08	1.0
Oregon:								
Portland.....	264,859	5	1,527	1,581	7.10	0	.....	.....
Pennsylvania:								
Philadelphia.....	1,866,212	8	10,968	1,367	.73	23	.01	1.7
Pittsburgh.....	602,452	8	5,660	1,910	3.17	24	.04	1.3
Reading.....	105,593	7	945	419	3.97	3	.03	.7
Scranton.....	139,007	7	433	230	1.65	2	.01	.9
Rhode Island:								
Providence.....	239,645	8	351	2,410	10.06	45	.19	1.9
Tennessee:								
Memphis.....	165,656	4	620	1,818	10.97	4	.02	.2
Nashville.....	122,036	8	499	250	2.05	2	.02	.8
Texas:								
Dallas.....	165,282	6	64	1,919	11.61	6	.04	.3
Fort Worth.....	111,423	6	82	18	.16	2	.02	11.1
Houston.....	144,340	4	343	31	.21	0	.....	.....
San Antonio.....	171,357	7	137	293	1.71	5	.03	1.7

1 Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## MEASLES—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Utah:								
Salt Lake City.....	121,595	8	1,072	1,977	16.26	23	0.19	1.2
Virginia:								
Norfolk.....	121,260	3	327	959	7.91	0	.....	.....
Richmond.....	175,686	7	1,424	992	5.65	4	.02	.4
Washington:								
Seattle.....	1,315,312	8	1,923	124	.39	0	.....	.....
Spokane.....	104,442	6	1,005	399	3.82	1	.01	.3
Wisconsin:								
Milwaukee.....	468,386	7	1,527	305	.65	1	.00	.3
68 cities.....	28,176,530	.....	137,451	71,226	2.53	859	.03	1.2

## PELLAGRA.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Alabama:								
Birmingham.....	186,133	4	113	34	0.18	26	0.14	1.3
California:								
Los Angeles.....	614,160	6	7	3	.00	2	.00	1.5
San Francisco.....	520,546	8	1	5	.01	1	.00	5.0
Georgia:								
Atlanta.....	207,473	.....	.....	.....	.....	22	.11	.....
Illinois:								
Chicago.....	2,780,655	.....	.....	.....	.....	3	.00	.....
Indiana:								
Indianapolis.....	325,632	4	0	1	.00	.....	.....	.....
Kentucky:								
Louisville.....	236,083	5	2	.....	.....	1	.00	.....
Louisiana:								
New Orleans.....	394,657	6	52	30	.08	24	.06	1.2
Maryland:								
Baltimore.....	750,864	2	3	5	.01	4	.01	1.2
Massachusetts:								
Boston.....	757,634	6	6	5	.01	4	.01	1.2
Missouri:								
St. Louis.....	786,164	.....	.....	.....	.....	4	.01	.....
New York:								
Albany.....	115,071	8	0	.....	.....	1	.01	.....
New York.....	5,751,867	4	4	.....	.....	7	.00	.....
Syracuse.....	177,265	2	0	.....	.....	1	.01	.....
Ohio:								
Cleveland.....	831,138	4	1	.....	.....	1	.00	.....
Pennsylvania:								
Philadelphia.....	1,866,212	5	3	.....	.....	4	.00	.....
Pittsburgh.....	602,452	5	0	.....	.....	1	.00	.....
Tennessee:								
Memphis.....	165,656	2	103	33	.20	24	.14	1.4
Nashville.....	122,036	4	213	.....	.....	9	.07	.....
Texas:								
Dallas.....	165,262	5	35	27	.16	24	.15	1.1
Fort Worth.....	111,423	1	20	.....	.....	18	.16	.....
Houston.....	144,340	2	21	.....	.....	13	.09	.....
Virginia:								
Norfolk.....	121,260	1	3	.....	.....	7	.06	.....
Richmond.....	175,686	4	23	.....	.....	4	.02	.....
23 cities.....	17,584,057	.....	.....	.....	.....	205	.01	.....

<sup>1</sup> Enumerated population Jan. 1, 1920.<sup>2</sup> Indianapolis not included.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## PNEUMONIA (ALL FORMS).

City.	Estimated population, July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Alabama:						
Birmingham.....	186,133			251	1.35	
California:						
Los Angeles.....	614,160	1,431	2.33	495	.81	2.9
Oakland.....	228,472			168	.74	
San Francisco.....	520,546			611	1.17	
Colorado:						
Denver.....	263,152			479	1.82	
Connecticut:						
Bridgeport.....	143,555	120	.84	168	1.17	
Hartford.....	144,080	113	.78	68	.47	
New Haven.....	167,007	49	.29	198	1.19	
Delaware:						
Wilmington.....	113,408			160	1.41	
District of Columbia:						
Washington.....	437,571			549	1.25	
Georgia:						
Atlanta.....	207,473			347	1.67	
Illinois:						
Chicago.....	2,780,655	8,336	3.00	2,152	.77	3.9
Indiana:						
Indianapolis.....	325,632			313	.96	
Kansas:						
Kansas City.....	103,884	120	1.16	53	.51	2.3
Kentucky:						
Louisville.....	236,083			258	1.09	
Louisiana:						
New Orleans.....	304,657			492	1.25	
Maryland:						
Baltimore.....	750,864	2,095	2.79	1,002	1.33	2.1
Massachusetts:						
Boston.....	757,634	1,098	1.45	883	1.17	
Cambridge.....	110,444	152	1.38	48	.43	
Fall River.....	120,668	168	1.39	179	1.48	
Lowell.....	113,757	92	.81	145	1.27	
New Bedford.....	125,012	72	.58	29	.23	
Springfield.....	135,877	145	1.07	114	.84	
Worcester.....	184,972	302	1.63	118	.64	
Michigan:						
Detroit.....	1,070,450	2,054	1.92	897	.84	2.3
Grand Rapids.....	141,197	216	1.53	84	.59	2.6
Minnesota:						
Minneapolis.....	392,815			336	.86	
St. Paul.....	237,781			194	.82	
Missouri:						
Kansas City.....	336,157			424	1.26	
St. Louis.....	786,164			1,206	1.53	
Nebraska:						
Omaha.....	197,086			244	1.24	
New Jersey:						
Camden.....	119,672			204	1.70	
Jersey City.....	302,783			453	1.50	
Newark.....	424,835	2,486	5.85	382	.90	6.5
Paterson.....	137,403			195	1.42	
Trenton.....	122,760	240	1.96	168	1.37	1.4
New York:						
Albany.....	115,071	419	3.64	101	.88	4.1
Buffalo.....	519,608	1,114	2.14	378	.73	2.9
New York.....	5,751,867	14,144	2.46	6,477	1.13	2.2
Rochester.....	305,229	548	1.80	235	.77	2.3
Syracuse.....	177,265	294	1.66	155	.87	1.9
Yonkers.....	103,324	216	2.09	99	.96	2.2
Ohio:						
Akron.....	1208,435			171	.82	
Cincinnati.....	403,418			427	1.06	
Cleveland.....	831,138	1,113	1.34	784	.94	1.4
Columbus.....	245,358			221	.90	
Dayton.....	152,559			103	.68	
Toledo.....	253,696			168	.66	
Youngstown.....	139,432			151	1.08	
Oregon:						
Portland.....	264,859			200	.76	

1 Enumerated population Jan. 1, 1920.

2 Lobar pneumonia only.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

City.	Estimated population, July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Pennsylvania:						
Philadelphia.....	1,866,212	3,525	1.99	2,441	1.31	1.4
Pittsburgh.....	602,452			1,730	2.87	
Reading.....	105,593			134	1.27	
Scranton.....	139,007			224	1.61	
Rhode Island:						
Providence.....	239,645			281	1.17	
Tennessee:						
Memphis.....	165,656			246	1.49	
Nashville.....	122,036			92	.75	
Texas:						
Dallas.....	165,282	200	1.21	132	.80	1.5
Fort Worth.....	111,423			106	.95	
Houston.....	144,340			113	.78	
San Antonio.....	171,387			181	1.06	
Utah:						
Salt Lake City.....	121,595			127	1.04	
Virginia:						
Richmond.....	175,696			220	1.25	
Washington:						
Seattle.....	1315,312			25	.08	
Spokane.....	104,442	153	1.46	133	1.27	1.2
Wisconsin:						
Milwaukee.....	468,386			404	.86	
67 cities.....	27,922,607			30,326	1.09	

## POLIOMYELITIS (INFANTILE PARALYSIS).

City.	Estimated population, July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Alabama:								
Birmingham.....	186,133	8	3	1	0.01	0		
California:								
Los Angeles.....	614,160	8	12	17	.03	5	0.01	29.4
Oakland.....	226,472	6	2	9	.04	0		
San Francisco.....	520,546	8	7	60	.12	11	.02	18.3
Colorado:								
Denver.....	263,152	6	3			3	.01	
Connecticut:								
Bridgeport.....	1143,555	6	2	8	.06	4	.03	50.0
Hartford.....	144,080	7	4	4	.03	2	.01	50.0
New Haven.....	167,007	6	2	9	.05	3	.02	33.3
District of Columbia;								
Washington.....	1437,571	8	6	40	.09	7	.02	17.5
Georgia:								
Atlanta.....	207,473	5	0	2	.01	0		
Illinois:								
Chicago.....	2,780,655	8	87	135	.05	30	.01	22.2
Indiana:								
Indianapolis.....	325,632	7	3	2	.01	0		
Iowa:								
Des Moines.....	132,663	3	2			6	.05	
Louisiana:								
New Orleans.....	394,657	8	4	5	.01	0		
Maryland:								
Baltimore.....	750,864	8	20	148	.20	22	.03	14.9
Massachusetts:								
Boston.....	757,634	8	21	50	.07	12	.02	24.0
Cambridge.....	110,444	5	6	4	.04	0		
Fall River.....	120,668	7	5	2	.02	0		

<sup>1</sup> Enumerated population, Jan. 1, 1920.



## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
<b>Massachusetts—Continued.</b>								
Lowell.....	113,757	7	9	1	.01	0	.....	.....
New Bedford.....	125,012	7	1	2	.02	0	.....	.....
Springfield.....	135,877	8	6	8	.06	0	.....	.....
<b>Michigan:</b>								
Detroit.....	1,070,450	6	17	111	.10	26	.02	23.4
Grand Rapids.....	141,197	7	4	4	.03	1	.01	25.0
<b>Minnesota:</b>								
Minneapolis.....	392,815	6	6	44	.11	10	.03	22.7
St. Paul.....	237,781	8	4	36	.15	4	.02	11.1
<b>Missouri:</b>								
Kansas City.....	336,157	6	5	23	.07	7	.02	30.4
St. Louis.....	796,164	8	14	51	.06	19	.02	37.3
<b>Nebraska:</b>								
Omaha.....	197,066	6	4	6	.03	3	.02	50.0
<b>New Jersey:</b>								
Camden.....	119,672	6	1	2	.02	0	.....	.....
Jersey City.....	302,788	8	2	16	.05	3	.01	18.7
Newark.....	424,885	8	20	15	.04	4	.01	26.7
Paterson.....	137,463	8	2	19	.14	3	.02	15.8
Trenton.....	122,760	7	1	4	.03	1	.01	25.0
<b>New York:</b>								
Buffalo.....	519,608	8	8	14	.03	5	.01	35.7
New York.....	5,751,867	8	136	588	.10	143	.02	24.3
Rochester.....	305,229	7	3	8	.03	1	.00	12.5
Syracuse.....	177,285	7	4	15	.08	2	.01	13.3
Yonkers.....	103,324	7	1	5	.05	2	.02	40.0
<b>Ohio:</b>								
Akron.....	1208,435	5	6	15	.07	8	.04	53.3
Cincinnati.....	403,418	7	8	10	.02	3	.01	30.0
Cleveland.....	831,138	8	28	36	.04	5	.01	13.9
Columbus.....	245,358	8	3	.....	.....	4	.02	.....
Dayton.....	1152,559	7	2	5	.03	2	.01	40.0
Toledo.....	253,696	6	10	4	.02	2	.01	50.0
Youngstown.....	139,432	5	3	12	.09	5	.04	41.7
<b>Oregon:</b>								
Portland.....	264,859	5	3	13	.05	4	.02	30.8
<b>Pennsylvania:</b>								
Philadelphia.....	1,866,212	8	18	52	.03	8	.00	15.4
Pittsburgh.....	602,452	8	13	21	.03	6	.01	28.6
Reading.....	105,593	7	2	.....	.....	1	.01	.....
<b>Rhode Island:</b>								
Providence.....	239,645	8	9	2	.01	0	.....	.....
<b>Tennessee:</b>								
Memphis.....	165,656	4	0	.....	.....	1	.01	.....
Nashville.....	122,036	6	1	.....	.....	2	.02	.....
<b>Utah:</b>								
Salt Lake City.....	121,595	6	4	.....	.....	8	.02	.....
<b>Virginia:</b>								
Norfolk.....	121,260	3	0	11	.09	0	.....	.....
Richmond.....	175,686	5	5	10	.06	1	.01	10.0
<b>Washington:</b>								
Seattle.....	1315,312	7	2	41	.13	14	.04	34.1
Spokane.....	104,442	6	1	35	.24	18	.17	51.4
<b>Wisconsin:</b>								
Milwaukee.....	468,386	5	16	32	.07	6	.01	18.7
58 cities.....	26,691,673	.....	.....	.....	.....	432	.02	.....

<sup>1</sup> Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

RABIES IN ANIMALS.

City.	Cases reported, 1921.	City.	Cases reported, 1921.
Alabama:		New Jersey:	
Birmingham.....	54	Jersey City.....	6
California:		New York:	
Los Angeles.....	40	New York.....	85
District of Columbia:		Ohio:	
Washington.....	12	Cincinnati.....	5
Kentucky:		Cleveland.....	106
Louisville.....	6	Dayton.....	5
Massachusetts:		Rhode Island:	
Boston.....	15	Providence.....	14
Springfield.....	2	Virginia:	
Michigan:		Richmond.....	3
Detroit.....	30	Wisconsin:	
Missouri:		Milwaukee.....	1
Kansas City.....	52		
St. Louis.....	26		

RABIES IN MAN.

City.	Cases reported, 1921.	Deaths registered, 1921.	City.	Cases reported, 1921.	Deaths registered, 1921.
California:			Ohio:		
Los Angeles.....	1	1	Cleveland.....		1
Kentucky:			Pennsylvania:		
Louisville.....	1	1	Pittsburgh.....	1	1
Massachusetts:			Rhode Island:		
Boston.....	1	1	Providence.....	2	2
New York:			Texas:		
New York.....		3	Houston.....	1	1
Rochester.....	1	1			

SCARLET FEVER.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Alabama:								
Birmingham.....	186,133	8	205	168	0.90	3	0.02	1.8
California:								
Los Angeles.....	614,160	8	450	853	1.39	28	.05	3.3
Oakland.....	226,472	7	281	269	1.19	2	.01	.7
San Francisco.....	520,546	8	429	574	1.10	5	.01	.9
Colorado:								
Denver.....	263,152	8	432	480	1.82	7	.03	1.5
Connecticut:								
Bridgeport.....	<sup>1</sup> 143,555	8	144	521	3.63	23	.16	4.4
Hartford.....	144,060	7	160	170	1.18	11	.08	6.5
New Haven.....	167,007	8	223	781	4.68	8	.05	1.0
Delaware:								
Wilmington.....	113,408	7	82	371	3.27	5	.04	1.3
District of Columbia:								
Washington.....	<sup>1</sup> 437,571	8	624	853	1.95	9	.02	1.1
Georgia:								
Atlanta.....	207,473	5	177	290	1.40	8	.04	2.8
Illinois:								
Chicago.....	2,780,655	8	6,553	5,459	1.96	180	.06	3.3
Indiana:								
Indianapolis.....	325,632	8	559	1,443	4.43	20	.06	1.4

<sup>1</sup> Estimated population Jan. 1, 1921.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## SCARLET FEVER—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Iowa:								
Des Moines.....	132,063	4	183	340	2.56	2	.02	.6
Kansas:								
Kansas City.....	103,884	5	179	143	1.38	0	.....	.....
Kentucky:								
Louisville.....	236,063	8	203	553	2.34	7	.03	1.3
Louisiana:								
New Orleans.....	394,657	8	119	247	.63	3	.01	1.2
Maryland:								
Baltimore.....	750,864	8	1,052	1,065	1.42	11	.01	1.0
Massachusetts:								
Boston.....	757,634	8	2,027	1,999	2.64	53	.07	2.7
Cambridge.....	110,444	5	161	258	2.34	2	.02	.8
Fall River.....	120,668	8	130	118	.98	2	.02	1.7
Lowell.....	113,757	8	111	50	.44	0	.....	.....
New Bedford.....	125,012	7	137	225	1.80	1	.01	.4
Springfield.....	135,877	8	178	336	2.47	2	.01	.6
Worcester.....	184,972	7	272	399	2.16	13	.07	3.3
Michigan:								
Detroit.....	1,070,450	8	1,751	3,125	2.92	117	.11	3.7
Grand Rapids.....	141,197	8	321	297	2.10	2	.01	.7
Minnesota:								
Minneapolis.....	392,815	6	690	2,359	6.01	54	.14	2.3
St. Paul.....	237,781	8	514	1,137	4.78	20	.08	1.8
Missouri:								
Kansas City.....	336,157	8	335	395	1.18	8	.02	2.0
St. Louis.....	786,164	8	1,134	1,735	2.21	40	.05	2.3
Nebraska:								
Omaha.....	197,066	7	412	344	1.75	5	.03	1.5
New Jersey:								
Camden.....	119,672	7	95	272	2.27	1	.01	.4
Jersey City.....	302,788	8	601	533	1.76	8	.03	1.5
Newark.....	424,985	8	852	1,948	4.58	25	.06	1.3
Paterson.....	137,463	8	118	226	1.64	6	.04	2.7
Trenton.....	122,760	7	94	266	2.17	8	.07	3.0
New York:								
Albany.....	115,071	8	163	144	1.25	2	.02	1.4
Buffalo.....	519,608	8	641	1,131	2.18	55	.11	4.9
New York.....	5,751,867	8	6,398	13,516	2.35	385	.07	2.8
Rochester.....	305,229	7	511	291	.95	19	.06	6.5
Syracuse.....	177,265	8	375	775	4.37	13	.07	1.7
Yonkers.....	103,324	7	167	334	3.72	9	.09	2.3
Ohio:								
Akron.....	1 208,435	7	279	540	2.59	12	.06	2.2
Cincinnati.....	403,418	8	459	644	1.60	13	.03	2.0
Cleveland.....	831,138	8	742	2,357	2.84	120	.14	5.1
Columbus.....	245,358	8	300	439	1.79	14	.06	3.2
Dayton.....	1 152,559	8	247	176	1.15	15	.10	8.5
Toledo.....	253,696	8	518	442	1.74	7	.03	1.6
Youngstown.....	139,432	5	172	364	2.61	13	.09	3.6
Oregon:								
Portland.....	264,859	5	392	265	1.00	3	.01	1.1
Pennsylvania:								
Philadelphia.....	1,966,212	8	1,806	6,432	3.45	104	.06	1.6
Pittsburgh.....	602,452	8	1,071	1,739	2.89	48	.08	2.8
Reading.....	105,593	7	143	161	1.52	1	.01	.6
Scranton.....	139,007	7	204	171	1.23	3	.02	1.8
Rhode Island:								
Providence.....	239,645	8	563	319	1.33	6	.03	1.9
Tennessee:								
Memphis.....	165,656	4	189	167	1.01	2	.01	1.2
Nashville.....	122,036	7	111	238	1.95	3	.02	1.3
Texas:								
Dallas.....	165,282	6	97	110	.67	0	.....	.....
Fort Worth.....	111,423	6	63	51	.46	0	.....	.....
Houston.....	144,340	5	38	50	.35	0	.....	.....
San Antonio.....	171,387	7	37	42	.25	0	.....	.....
Utah:								
Salt Lake City.....	121,595	8	188	342	2.81	4	.03	1.2
Virginia:								
Norfolk.....	121,260	3	70	182	1.50	2	.02	1.1
Richmond.....	175,686	7	221	231	1.31	1	.01	.4

1 Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

SCARLET FEVER—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Washington:								
Seattle.....	1 315, 312	8	218	300	0.95	2	0.01	0.7
Spokane.....	104, 442	6	116	290	2.78	4	.04	1.4
Wisconsin:								
Milwaukee.....	468, 386	7	1, 287	1, 322	2.82	54	.12	4.1
68 cities.....	28, 176, 530		39, 774	64, 217	2.28	1, 613	.06	2.5

SMALLPOX.

Alabama:								
Birmingham.....	186, 133	8	122	357	1.92	1	0.01	0.3
California:								
Los Angeles.....	614, 160	8	69	244	.40			
Oakland.....	226, 472	7	20	261	1.15	0		
San Francisco.....	520, 546	8	74	992	1.91	1	.00	.1
Colorado:								
Denver.....	263, 152	8	140	924	3.51	37	.14	4.0
Connecticut:								
Bridgeport.....	1 143, 555	8	0	7	.05	0		
District of Columbia:								
Washington.....	1 437, 571	8	68	66	.15			
Georgia:								
Atlanta.....	207, 473	4	175	653	3.15	3	.01	.5
Illinois:								
Chicago.....	2, 780, 655	8	117	246	.09	4	.00	1.6
Indiana:								
Indianapolis.....	325, 632	8	243	362	1.11	2	.01	.6
Iowa:								
Des Moines.....	132, 663	4	163	223	1.68			
Kansas:								
Kansas City.....	103, 884	5	244	243	2.34	15	.14	6.2
Kentucky:								
Louisville.....	236, 083	8	52	67	.28	0		
Louisiana:								
New Orleans.....	394, 657	8	145	372	.94	39	.10	10.5
Maryland:								
Baltimore.....	750, 864	7	34	15	.02	0		
Massachusetts:								
Boston.....	757, 634	8	4	6	.01	0		
Worcester.....	184, 972	5	0	6	.03	0		
Michigan:								
Detroit.....	1, 070, 450	8	472	846	.79	2	.00	.2
Grand Rapids.....	141, 197	7	39	13	.09	0		
Minnesota:								
Minneapolis.....	392, 815	6	541	2, 615	6.66	3	.01	.1
St. Paul.....	237, 781	8	219	1, 562	6.57	2	.01	.1
Missouri:								
Kansas City.....	336, 157	8	394	943	2.81	156	.46	16.5
St. Louis.....	786, 164	8	141	524	.67	0		
Nebraska:								
Omaha.....	197, 066	6	458	445	2.26	3	.02	.7
New Jersey:								
Camden.....	119, 672	5	3	12	.10	0		
Jersey City.....	302, 788	7	1	7	.02	0		
Newark.....	424, 885	5	2	13	.03	0		
Trenton.....	122, 760	5	0	16	.13	0		
New York:								
Albany.....	115, 071	8	0	1	.01	0		
Buffalo.....	519, 606	8	21	5	.01	1	.00	20.0
New York.....	5, 751, 867	8	19	29	.01	0		
Rochester.....	305, 229	6	2	3	.01	0		
Syracuse.....	177, 265	6	1	5	.03	0		
Ohio:								
Akron.....	1 208, 435	7	82	163	.78	0		
Cincinnati.....	403, 418	7	81	118	.29	1	.00	.8
Cleveland.....	331, 138	8	169	87	.10	0		
Columbus.....	245, 358	8	77	273	1.11	0		
Dayton.....	1 152, 559	7	17	67	.44	0		
Toledo.....	253, 696	8	189	504	1.99			
Youngstown.....	139, 432	5	202	9	.06	0		

<sup>1</sup> Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## SMALLPOX—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Oregon:								
Portland.....	264,850	5	137	561	2.12	1	0.00	0.2
Pennsylvania:								
Philadelphia.....	1,986,212	7	12	3	.00	0		
Pittsburgh.....	602,452	8	12	8	.01	0		
Rhode Island:								
Providence.....	239,645	7	0	1	.00	0		
Tennessee:								
Memphis.....	165,656	4	239	150	.91	0		
Nashville.....	122,036	8	33	125	1.02	0		
Texas:								
Dallas.....	165,282	6	299	140	.85	0		
Fort Worth.....	111,423	6	152	46	.41	2	.02	4.3
Houston.....	144,340	5	45	43	.30	1	.01	2.3
San Antonio.....	171,387	7	30	13	.08	2	.01	15.4
Utah:								
Salt Lake City.....	121,595	8	252	738	6.07	1	.01	.1
Virginia:								
Norfolk.....	121,280	3	76	19	.16	0		
Richmond.....	175,686	7	5	15	.09	0		
Washington:								
Seattle.....	1 315,312	8	93	565	1.79	1	.00	.2
Spokane.....	104,442	6	366	955	9.14	1	.01	.1
Wisconsin:								
Milwaukee.....	468,396	7	332	517	1.10	0		
56 cities.....	26,660,890		6,863	17,203	.65	279	.01	1.6

## TUBERCULOSIS (ALL FORMS).

City.	Estimated population July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Alabama:						
Birmingham.....	186,133			251	1.35	
California:						
Los Angeles.....	614,160	3,162	5.15	1,033	1.68	3.1
Oakland.....	226,472	165	.73	148	.65	1.1
San Francisco.....	520,546			638	1.23	
Colorado:						
Denver.....	263,152			575	2.19	
Connecticut:						
Bridgeport.....	1 143,555	227	1.58	140	.98	1.6
New Haven.....	167,007	405	2.43	124	.74	3.3
Delaware:						
Wilmington.....	113,408			110	.97	
District of Columbia:						
Washington.....	1 437,571	1,267	2.90	539	1.23	2.4
Georgia:						
Atlanta.....	207,473			242	1.17	
Illinois:						
Chicago.....	2,780,655	10,593	3.81	2,330	.84	4.5
Indiana:						
Indianapolis.....	325,632			398	1.22	
Iowa:						
Des Moines.....	132,663			77	.58	
Kansas:						
Kansas City.....	103,884	208	2.00	105	1.01	2.0
Kentucky:						
Louisville.....	236,083	469	1.99	260	1.10	1.8
Louisiana:						
New Orleans.....	394,657	1,102	2.79	746	1.89	1.5

1 Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## TUBERCULOSIS (ALL FORMS)—Continued.

City.	Estimated population July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Maryland:						
Baltimore.....	750,864	1,406	1.87	1,050	1.40	1.3
Massachusetts:						
Boston.....	757,634	2,543	3.36	877	1.16	2.9
Cambridge.....	110,444	243	2.20	136	1.23	1.8
Fall River.....	120,663	249	2.06	117	.97	2.1
Lowell.....	113,757	248	2.18	85	.75	2.9
New Bedford.....	125,012	359	2.71	152	1.22	2.2
Springfield.....	135,877	196	1.44	102	.75	1.9
Worcester.....	184,972	271	1.47	175	.95	1.5
Michigan:						
Detroit.....	1,070,450	2,255	2.11	888	.83	2.5
Grand Rapids.....	141,197	271	1.92	85	.60	3.2
Minnesota:						
Minneapolis.....	392,815	1,435	3.65	339	.86	4.2
St. Paul.....	237,781	579	2.44	238	1.00	2.4
Missouri:						
Kansas City.....	336,157			334	.99	.....
St. Louis.....	786,164	1,773	2.26	816	1.04	2.2
Nebraska:						
Omaha.....	197,066			147	.75	.....
New Jersey:						
Camden.....	119,672	132	1.10	90	.75	1.5
Jersey City.....	302,788	533	1.76	318	1.05	1.7
Newark.....	424,885	1,247	2.93	446	1.05	2.8
Paterson.....	137,463	279	2.03	112	.81	2.5
Trenton.....	122,760	265	2.16	164	1.34	1.6
New York:						
Albany.....	115,071	267	2.32	139	1.21	1.9
Buffalo.....	519,608	1,085	2.09	543	1.05	2.0
New York.....	5,751,867	13,457	2.34	5,922	1.03	2.3
Rochester.....	305,229	583	1.91	102	.33	5.7
Syracuse.....	177,265			124	.70	.....
Yonkers.....	103,324	256	2.48	107	1.04	2.4
Ohio:						
Akron.....	1208,435	425	2.04	84	.40	5.1
Cincinnati.....	403,418	1,137	2.82	588	1.46	1.9
Cleveland.....	831,138	1,806	2.25	803	.97	2.3
Columbus.....	245,358			231	.94	.....
Dayton.....	1152,559			127	.83	.....
Toledo.....	253,696			316	1.25	.....
Youngstown.....	139,432	123	.88	82	.59	1.5
Oregon:						
Portland.....	264,859	361	1.36	173	.65	2.1
Pennsylvania:						
Philadelphia.....	1,866,212	3,632	1.95	2,167	1.16	1.7
Pittsburgh.....	602,452			603	1.00	.....
Reading.....	105,593			71	.67	.....
Scranton.....	139,007			98	.71	.....
Rhode Island:						
Providence.....	239,645			236	.98	.....
Tennessee:						
Memphis.....	165,656	713	4.30	261	1.58	2.7
Nashville.....	122,036			184	1.51	.....
Texas:						
Dallas.....	165,282	240	1.45	140	.85	1.7
Houston.....	144,340	194	1.34	143	.99	1.4
San Antonio.....	171,387			421	2.46	.....
Utah:						
Salt Lake City.....	121,595			66	.54	.....
Virginia:						
Norfolk.....	121,260	193	1.59	145	1.20	1.3
Richmond.....	175,636			255	1.45	.....
Washington:						
Seattle.....	1315,312	458	1.45	219	.69	2.1
Spokane.....	104,442	127	1.22	67	.64	1.9
Wisconsin:						
Milwaukee.....	468,386			398	.66	.....
66 cities.....	27,921,027			29,112	1.04	.....

¹ Enumerated population Jan. 1, 1920.

## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## TUBERCULOSES (PULMONARY).

City.	Estimated population July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
<b>Alabama:</b>						
Birmingham.....	186,133	264	1.42	211	1.13	1.3
<b>California:</b>						
Los Angeles.....	614,160			870	1.42	
Oakland.....	226,472	162	.72	121	.53	1.3
San Francisco.....	520,546	1,347	2.59	520	1.00	2.6
<b>Colorado:</b>						
Denver.....	263,152			494	1.88	
<b>Connecticut:</b>						
Bridgeport.....	<sup>1</sup> 143,555	218	1.52	128	.89	1.7
Hartford.....	144,089	208	1.44	61	.42	3.4
New Haven.....	167,007	361	2.16	87	.52	4.1
<b>Delaware:</b>						
Wilmington.....	113,408			90	.79	
<b>District of Columbia:</b>						
Washington.....	<sup>1</sup> 437,571	1,244	2.84	463	1.06	2.7
<b>Illinois:</b>						
Chicago.....	2,780,655			1,935	.70	
<b>Indiana:</b>						
Indianapolis.....	325,632	614	1.89	319	.98	1.9
<b>Iowa:</b>						
Des Moines.....	132,663			64	.48	
<b>Louisiana:</b>						
New Orleans.....	394,657			650	1.65	
<b>Maryland:</b>						
Baltimore.....	750,864	1,390	1.85	889	1.18	1.6
<b>Massachusetts:</b>						
Boston.....	757,634	2,177	2.87	760	1.00	2.9
Cambridge.....	110,444	204	1.85	120	1.09	1.7
Fall River.....	120,668	215	1.77	93	.77	2.3
Lowell.....	113,757	219	1.93	62	.55	3.5
New Bedford.....	125,012	298	2.38	123	.98	2.4
Springfield.....	135,877	169	1.24	73	.54	2.3
Worcester.....	184,972	223	1.21	132	.71	1.7
<b>Michigan:</b>						
Detroit.....	1,070,450	2,079	1.94	736	.69	2.8
<b>Minnesota:</b>						
Minneapolis.....	392,815			289	.74	
St. Paul.....	237,781			191	.80	
<b>Missouri:</b>						
St. Louis.....	786,194			723	.92	
<b>Nebraska:</b>						
Omaha.....	197,066			123	.62	
<b>New Jersey:</b>						
Jersey City.....	302,788			274	.90	
Newark.....	424,885			392	.92	
Paterson.....	137,463			104	.76	
Trenton.....	122,760	244	1.99	151	1.23	1.6
<b>New York:</b>						
Albany.....	115,071			113	.98	
Buffalo.....	519,608	955	1.84	466	.90	2.0
New York.....	5,751,887	12,968	2.25	5,143	.89	2.5
Syracuse.....	177,285			82	.46	
Yonkers.....	103,324	241	2.33	93	.90	2.6
<b>Ohio:</b>						
Akron.....	<sup>1</sup> 208,435	356	1.71	71	.34	5.0
Cincinnati.....	403,418	1,070	2.65	518	1.28	2.1
Cleveland.....	831,138	1,792	2.16	650	.78	2.8
Columbus.....	245,358			183	.75	
Dayton.....	<sup>1</sup> 152,559			114	.75	
Toledo.....	253,686			280	1.10	
Youngstown.....	139,432	122	.87	60	.43	2.0
<b>Oregon:</b>						
Portland.....	264,859			116	.44	
<b>Pennsylvania:</b>						
Philadelphia.....	1,866,212			1,912	1.02	
Pittsburgh.....	602,452	920	1.53	481	.80	1.9
Reading.....	105,593	96	.91	70	.66	1.4
Scranton.....	139,007			66	.47	
<b>Rhode Island:</b>						
Providence.....	239,645			179	.75	
<b>Tennessee:</b>						
Memphis.....	165,656	638	3.85	219	1.32	2.9
Nashville.....	122,036			142	1.16	

<sup>1</sup> Enumerated population Jan. 1, 1920.

Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

TUBERCULOSIS (PULMONARY)—Continued.

City.	Estimated population July 1, 1921.	Cases reported, 1921.	Cases per 1,000 inhabitants.	Deaths registered, 1921.	Deaths per 1,000 inhabitants.	Cases reported for each death registered.
Texas:						
Dallas.....	165,282	238	1.44	122	0.74	2.0
Houston.....	144,340			120	.83	
Utah:						
Salt Lake City.....	121,595			56	.46	
Virginia:						
Richmond.....	175,686	648	3.69	211	1.20	3.1
Washington:						
Seattle.....	1 315,312	385	1.22	145	.46	2.2
Spokane.....	104,442	110	1.05	50	.48	2.7
Wisconsin:						
Milwaukee.....	468,386	835	1.78	246	.53	3.4
59 cities.....	26,322,765			23,166	.88	

TYPHOID FEVER.

City.	Estimated population July 1, 1921.	Median.		1921.				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
Alabama:								
Birmingham.....	186,133	8	364	206	1.11	32	0.17	15.5
California:								
Los Angeles.....	614,160	8	193	76	.12	16	.03	21.1
Oakland.....	226,472	7	73	60	.26	2	.01	3.3
San Francisco.....	520,546	8	186	139	.27	22	.04	15.8
Colorado:								
Denver.....	263,152	8	130	75	.29	12	.05	16.0
Connecticut:								
Bridgeport.....	1 143,555	8	30	12	.08	4	.03	33.3
Hartford.....	144,080	7	51	88	.61	10	.07	11.4
New Haven.....	167,007	8	72	97	.58	8	.05	8.2
Delaware:								
Wilmington.....	113,408	7	122	33	.29	5	.04	15.2
District of Columbia:								
Washington.....	1 437,571	8	323	195	.45	29	.07	14.9
Georgia:								
Atlanta.....	207,473	5	98	94	.45	24	.12	25.5
Illinois:								
Chicago.....	2,780,655	8	631	232	.08	30	.01	12.9
Indiana:								
Indianapolis.....	325,632	8	172	89	.27	23	.07	25.8
Kansas:								
Kansas City.....	103,884	4	57	47	.45	5	.05	10.6
Kentucky:								
Louisville.....	236,083	8	136	119	.50	13	.06	10.9
Louisiana:								
New Orleans.....	394,657	8	230	151	.38	37	.09	24.5
Maryland:								
Baltimore.....	750,864	8	643	269	.36	41	.05	15.2
Massachusetts:								
Boston.....	757,634	8	193	142	.19	24	.03	16.9
Cambridge.....	110,444	5	23	12	.11	0		
Fall River.....	120,668	8	149	77	.64	3	.02	3.9
Lowell.....	113,757	8	49	27	.24	6	.05	22.2
New Bedford.....	125,012	7	64	21	.17	3	.02	14.3
Springfield.....	135,877	8	42	11	.08	6	.04	54.5
Worcester.....	184,972	7	49	35	.19	6	.03	17.1
Michigan:								
Detroit.....	1,070,450	7	417	392	.37	55	.05	14.0
Grand Rapids.....	141,197	8	106	31	.22	6	.04	19.4
Minnesota:								
Minneapolis.....	392,815	6	160	145	.37	3	.01	2.1
St. Paul.....	287,781	8	78	121	.51	17	.07	14.0

<sup>1</sup> Enumerated population Jan. 1, 1920.



## Reported Prevalence for the Year 1921—Medians for Previous Years—Continued.

## TYPHOID FEVER—Continued.

City.	Estimated population July 1, 1921.	Median.		1921				
		Number of years.	Cases reported.	Cases reported.	Cases per 1,000 inhabitants.	Deaths registered.	Deaths per 1,000 inhabitants.	Fatalities per 100 cases.
<b>Missouri:</b>								
Kansas City.....	336,157	8	87	107	0.32	38	0.11	35.5
St. Louis.....	786,164	8	411	175	.23	30	.04	17.1
<b>Nebraska:</b>								
Omaha.....	197,066	6	36	39	.20	8	.04	20.5
<b>New Jersey:</b>								
Camden.....	119,672	7	43	27	.23	8	.07	29.6
Jersey City.....	302,788	8	50	58	.19	11	.04	19.0
Newark.....	424,885	7	111	74	.17	12	.03	16.2
Paterson.....	137,463	8	35	24	.17	8	.06	33.3
Trenton.....	122,760	7	42	161	1.31	11	.09	6.8
<b>New York:</b>								
Albany.....	115,071	8	86	27	.23	5	.04	18.5
Buffalo.....	519,608	8	221	107	.21	22	.04	20.6
New York.....	5,751,867	8	1,529	899	.16	123	.02	13.7
Rochester.....	305,229	7	50	59	.19	10	.03	16.9
Syracuse.....	177,265	8	60	136	.77	7	.04	5.1
Yonkers.....	103,324	7	16	9	.09	3	.03	33.3
<b>Ohio:</b>								
Akron.....	1208,435	7	84	51	.24	12	.06	23.5
Cincinnati.....	403,418	8	119	67	.17	14	.03	20.9
Cleveland.....	831,138	8	207	168	.20	29	.03	17.3
Columbus.....	245,358	8	135	82	.33	10	.04	12.2
Dayton.....	1152,559	8	80	47	.31	8	.05	17.0
Toledo.....	283,696	8	213	182	.72	22	.09	12.1
Youngstown.....	139,432	5	85	85	.61	17	.12	20.0
<b>Oregon:</b>								
Portland.....	264,859	5	47	34	.13	8	.03	23.5
<b>Pennsylvania:</b>								
Philadelphia.....	1,866,212	8	682	394	.21	42	.02	16.7
Pittsburgh.....	602,452	8	279	250	.41	26	.04	16.4
Reading.....	105,583	7	60	103	.93	14	.13	13.6
Scranton.....	139,007	7	22	13	.09	9	.06	69.2
<b>Rhode Island:</b>								
Providence.....	239,645	8	132	38	.16	6	.03	15.8
<b>Tennessee:</b>								
Memphis.....	165,656	4	183	115	.69	15	.09	13.0
Nashville.....	122,036	8	280	176	1.44	25	.20	14.2
<b>Texas:</b>								
Dallas.....	165,282	6	120	93	.56	21	.13	22.6
Fort Worth.....	111,423	4	66	26	.25	12	.11	42.9
Houston.....	144,340	4	71	47	.33	17	.12	36.2
San Antonio.....	171,387	7	84	69	.40	26	.15	37.7
<b>Utah:</b>								
Salt Lake City.....	121,595	8	110	43	.35	7	.06	16.3
<b>Virginia:</b>								
Norfolk.....	121,260	3	43	37	.31	6	.05	16.2
Richmond.....	175,686	7	105	72	.41	10	.06	13.9
<b>Washington:</b>								
Seattle.....	1315,312	8	61	100	.22	7	.02	7.0
Spokane.....	104,442	6	45	26	.25	5	.05	19.2
<b>Wisconsin:</b>								
Milwaukee.....	468,386	7	103	36	.08	9	.02	25.0
67 cities.....	28,043,867		11,034	7,254	.26	1,115	.04	15.4

## TYPHUS FEVER.

City.	Cases reported, 1921.	Deaths registered, 1921.	City.	Cases reported, 1921.	Deaths registered, 1921.
<b>California:</b>			<b>New York:</b>		
Los Angeles.....	5	1	New York.....	38	4
<b>Maryland:</b>			<b>Ohio:</b>		
Baltimore.....	3	1	Cleveland.....	1	0
<b>Massachusetts:</b>			Youngstown.....	1	0
Boston.....	1	0	7 cities.....	50	6
<b>New Jersey:</b>					
Paterson.....	1	0			

¹Enumerated population January 1, 1920.

**DEATHS DURING WEEK ENDED MAY 27, 1922.**

*Summary of information received by telegraph from industrial insurance companies for week ended May 27, 1922, and corresponding week, 1921. (From the Weekly Health Index, May 31, 1922, issued by the Bureau of the Census, Department of Commerce.)*

	Week ended May 27, 1922.	Corresponding week, 1921.
Policies in force.....	49, 911, 994	46, 990, 382
Number of death claims.....	9, 088	7, 671
Death claims per 1,000 policies in force, annual rate.....	9.5	8.5

*Deaths from all causes in certain large cities of the United States during the week ended May 27, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, May 31, 1922, issued by the Bureau of the Census, Department of Commerce.)*

City.	Estimated population July 1, 1922.	Week ended May 27, 1922.		Annual death rate per 1,000, corresponding week, 1921.	Deaths under 1 year.		Infant mor- tality rate, week ended May 27, 1922. <sup>3</sup>
		Total deaths.	Death rate. <sup>1</sup>		Week ended May 27, 1922.	Corresponding week, 1921.	
Total.....	26, 861, 831	6, 197	12.0	12.4	739	846	.....
Akron, Ohio.....	208, 435	25	6.3	3.6	6	5	64
Albany, N. Y.....	116, 223	45	20.2	19.0	7	3	157
Atlanta, Ga.....	220, 047	59	14.0	13.1	14	9	.....
Baltimore, Md.....	762, 222	204	14.0	13.3	15	21	42
Birmingham, Ala.....	191, 017	45	12.3	16.5	5	6	.....
Boston, Mass.....	764, 017	173	11.8	14.7	18	30	48
Bridgeport, Conn.....	143, 555	36	13.1	12.9	4	5	50
Buffalo, N. Y.....	528, 163	125	12.3	12.1	19	23	75
Cambridge, Mass.....	110, 944	19	8.9	18.4	4	6	73
Camden, N. J.....	121, 915	29	12.4	10.5	6	5	92
Chicago, Ill.....	2, 833, 288	577	10.6	12.8	67	116	.....
Cincinnati, Ohio.....	404, 865	120	15.5	14.0	9	8	60
Cleveland, Ohio.....	854, 003	163	10.0	10.4	30	24	77
Columbus, Ohio.....	253, 455	62	12.8	14.5	4	7	42
Dallas, Tex.....	171, 974	40	12.1	14.2	5	8	.....
Dayton, Ohio.....	161, 824	32	10.3	9.9	5	6	85
Denver, Colo.....	267, 591	60	13.4	16.2	6	11	.....
Fall River, Mass.....	120, 790	28	12.1	22.5	9	1	126
Fort Worth, Tex.....	114, 717	24	10.9	.....	2	.....	.....
Grand Rapids, Mich.....	143, 572	29	10.5	13.7	0	5	0
Houston, Tex.....	150, 087	34	11.8	13.0	8	1	.....
Indianapolis, Ind.....	333, 257	80	12.5	13.0	8	4	61
Jersey City, N. J.....	305, 911	60	10.2	12.4	10	12	64
Kansas City, Kans.....	105, 688	27	13.3	14.6	3	6	69
Kansas City, Mo.....	343, 988	96	14.6	12.4	12	7	.....
Los Angeles, Calif.....	634, 866	163	13.4	13.2	17	15	71
Louisville, Ky.....	236, 877	75	18.5	17.4	9	8	97
Lowell, Mass.....	114, 423	35	16.0	9.6	4	4	67
Memphis, Tenn.....	167, 882	65	20.2	22.7	8	7	.....
Milwaukee, Wis.....	476, 603	84	8.2	11.9	14	21	68
Minneapolis, Minn.....	400, 970	73	8.5	8.9	9	8	49
Nashville, Tenn.....	122, 832	24	10.2	10.3	4	3	.....
New Bedford, Mass.....	127, 642	20	8.2	11.3	4	3	59
New Haven, Conn.....	169, 987	42	12.9	11.9	10	8	122
New Orleans, La.....	399, 616	131	17.1	17.7	13	25	.....
New York, N. Y.....	5, 839, 746	1, 384	12.4	11.0	162	161	63
Newark, N. J.....	431, 792	98	11.8	10.4	11	15	49
Norfolk, Va.....	124, 915	23	9.6	9.9	3	9	53
Oakland, Calif.....	233, 279	45	10.1	10.4	3	2	38
Omaha, Nebr.....	200, 739	41	10.6	15.3	3	7	32
Paterson, N. J.....	138, 521	28	10.5	12.1	4	4	62
Philadelphia, Pa.....	1, 894, 500	442	12.2	11.1	42	57	50
Pittsburgh, Pa.....	607, 902	149	12.8	14.5	24	27	77
Portland, Oreg.....	269, 240	57	11.0	14.0	6	6	59
Providence, R. I.....	241, 011	59	12.8	15.9	11	19	87
Richmond, Va.....	178, 365	43	12.6	16.6	4	9	49
Rochester, N. Y.....	311, 548	64	10.7	8.9	8	10	62

<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 1921. Cities left blank are not in the registration area for births.

<sup>3</sup> Enumerated population Jan. 1, 1920.

Deaths from all causes in certain large cities of the United States during the week ended May 27, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, May 31, 1922, issued by the Bureau of the Census, Department of Commerce.)—Continued.

City.	Estimated population July 1, 1922.	Week ended May 27, 1922.		Annual death rate per 1,000, corresponding week, 1921.	Deaths under 1 year.		Infant mortality rate, week ended May 27, 1922.
		Total deaths.	Death rate.		Week ended May 27, 1922.	Corresponding week, 1921.	
St. Louis, Mo.....	735,008	175	11.5	13.8	17	18	.....
St. Paul, Minn.....	239,836	45	9.8	11.2	7	2	66
Salt Lake City, Utah.....	123,918	26	10.9	16.3	1	9	15
San Francisco, Calif.....	529,782	130	12.8	14.4	3	5	46
Seattle, Wash.....	* 315,312	60	9.9	8.0	6	6	51
Spokane, Wash.....	104,445	32	16.0	7.0	5	2	107
Springfield, Mass.....	140,052	19	7.1	12.7	2	5	30
Syracuse, N. Y.....	181,012	35	10.1	11.5	4	8	48
Toledo, Ohio.....	290,717	46	9.2	13.8	5	8	49
Trenton, N. J.....	126,075	40	16.7	17.4	4	3	61
Washington, D. C.....	* 437,571	119	14.2	12.7	11	7	63
Wilmington, Del.....	115,568	25	11.3	10.6	5	6	97
Worcester, Mass.....	188,449	53	14.7	13.8	8	6	87
Yonkers, N. Y.....	105,422	17	8.4	11.6	2	2	42
Youngstown, Ohio.....	144,970	29	10.4	10.8	5	2	66

\* Enumerated population Jan. 1, 1920.





MONTANA.		Cases.	NEW YORK—continued.		Cases.
Diphtheria		7	Smallpox:		
Rocky Mountain spotted or tick fever:			Niagara Falls		15
Big Flat		1	Typhoid fever		17
Billings		1	Whooping cough		257
Butte Creek		1	NORTH CAROLINA.		
Missoula (R. F. D.)		1	Cerebrospinal meningitis		2
Myers		1	Chicken pox		54
Roundup		1	Diphtheria		18
Scarlet fever		2	German measles		2
Smallpox		14	Measles		63
NEBRASKA.			Scarlet fever		19
Chicken pox		9	Smallpox		22
Diphtheria:			Typhoid fever		40
Omaha		9	Whooping cough		186
Scattering		4	OREGON.		
Measles:			Chicken pox		10
Lincoln		39	Diphtheria		9
Omaha		18	Influenza		11
Schuyler		11	Mumps		1
Scattering		20	Pneumonia		15
Mumps		22	Scarlet fever		9
Pneumonia		3	Septic sore throat		2
Poliomyelitis—McCook		1	Smallpox		13
Scarlet fever		17	Tuberculosis		6
Smallpox		1	Typhoid fever		1
Tuberculosis		14	Whooping cough		4
Typhoid fever		1	SOUTH DAKOTA.		
Whooping cough		5	Chicken pox		13
NEW JERSEY.			Diphtheria		5
Cerebrospinal meningitis		1	Measles		22
Chicken pox		137	Pneumonia		2
Diphtheria		87	Scarlet fever		15
Influenza		4	Smallpox		15
Malaria		1	Tuberculosis		2
Measles		1,086	Typhoid fever		1
Pneumonia		76	TEXAS.		
Poliomyelitis		1	Diphtheria		15
Scarlet fever		183	Influenza		11
Trachoma		1	Measles		63
Typhoid fever		6	Pneumonia		15
Whooping cough		117	Scarlet fever		9
NEW MEXICO.			Smallpox		33
Chicken pox		1	Typhoid fever		4
Conjunctivitis		5	VERMONT.		
Diphtheria		31	Chicken pox		26
Malaria		2	Diphtheria		2
Mumps		2	Measles		25
Pneumonia		3	Mumps		16
Scarlet fever		13	Scarlet fever		17
Smallpox		2	Whooping cough		15
Tuberculosis		29	WASHINGTON.		
Typhoid fever		2	Cerebrospinal meningitis—Tacoma		1
Whooping cough		2	Chicken pox		29
NEW YORK.			Diphtheria		9
(Exclusive of New York City.)			Lethargic encephalitis:		
Cerebrospinal meningitis		2	Buckley		1
Diphtheria		101	Centralia		1
Influenza		35	Measles:		
Lethargic encephalitis		1	Wenatchee		14
Measles		943	Scattering		6
Pneumonia		193			
Scarlet fever		170			

WASHINGTON—continued.	Cases.
Mumps.....	30
Pneumonia.....	1
Scarlet fever.....	16
Smallpox.....	17
Tuberculosis.....	33
Typhoid fever.....	6
Whooping cough.....	52
WEST VIRGINIA.	
Diphtheria.....	9
Scarlet fever.....	5
Typhoid fever.....	5
WISCONSIN.	
Milwaukee:	
Cerebrospinal meningitis.....	1
Chicken pox.....	41
Diphtheria.....	2
German measles.....	1
Measles.....	14
Pneumonia.....	1
Scarlet fever.....	7
Smallpox.....	7
Tuberculosis.....	10
Whooping cough.....	51
Scattering:	
Cerebrospinal meningitis.....	2
Chicken pox.....	54
Diphtheria.....	24
German measles.....	28
Influenza.....	8

WISCONSIN—continued.	Cases.
Scattering—Continued.	
Measles.....	34
Pneumonia.....	6
Scarlet fever.....	67
Smallpox.....	17
Tuberculosis.....	27
Typhoid fever.....	19
Whooping cough.....	83
WYOMING.	
Chicken pox.....	21
Diphtheria.....	2
Influenza.....	11
Measles.....	2
Mumps.....	6
Pneumonia.....	21
Rocky Mountain spotted or tick fever:	
Big Horn County.....	2
Carbon County.....	1
Fremont County.....	2
Lincoln County.....	1
Natrona County.....	1
Park County.....	1
Sheridan County.....	1
Uinta County.....	1
Scarlet fever.....	2
Smallpox.....	11
Typhoid fever.....	2
Whooping cough.....	13

Delayed Reports for Week Ended May 27, 1922.

CALIFORNIA.	Cases.
Cerebrospinal meningitis:	
Los Angeles.....	1
San Francisco.....	1
Diphtheria.....	120
Influenza.....	22
Lethargic encephalitis:	
Berkeley.....	1
Los Angeles.....	2
San Francisco.....	1
Measles.....	45
Scarlet fever.....	113
Smallpox.....	30
Typhoid fever.....	9
DELAWARE.	
Cerebrospinal meningitis—Greenwood.....	1
Chicken pox.....	9
Scarlet fever:	
Wilmington.....	11
Scattering.....	2
Tuberculosis.....	11
Typhoid fever.....	4
DISTRICT OF COLUMBIA.	
Chicken pox.....	30
Diphtheria.....	9
Measles.....	33
Scarlet fever.....	4
Smallpox.....	8
Tuberculosis.....	35
Typhoid fever.....	21
Whooping cough.....	11

KENTUCKY.	Cases.
Actinomycosis—Shelby County.....	1
Cerebrospinal meningitis—Jefferson County.....	1
Chicken pox.....	1
Diphtheria.....	13
Influenza.....	1
Malaria.....	1
Measles:	
Fayette County.....	10
Pendleton County.....	13
Scattering.....	11
Pneumonia.....	6
Scarlet fever.....	4
Smallpox.....	6
Trachoma.....	1
Tuberculosis:	
Jefferson County.....	28
Scattering.....	3
Typhoid fever.....	10
Whooping cough.....	3
MAINE.	
Cerebrospinal meningitis.....	1
Chicken pox.....	15
Diphtheria.....	3
Influenza.....	1
Lethargic encephalitis.....	1
Measles.....	13
Pneumonia.....	7
Scarlet fever.....	35
Tuberculosis.....	12
Typhoid fever.....	2
Whooping cough.....	13

MINNESOTA.		Cases.	MISSOURI—continued.		Cases.
Cerebrospinal meningitis	1		Pneumonia	14	
Chicken pox	13		Scarlet fever	13	
Diphtheria	68		Smallpox	6	
Influenza	2		Tuberculosis	8	
Measles	116		Typhoid fever	5	
Pneumonia	5		Whooping cough	17	
Scarlet fever	90				
Smallpox	22		WYOMING.		
Tuberculosis	90		Chicken pox	1	
Typhoid fever	6		Influenza	4	
Whooping cough	3		Measles	2	
			Mumps	1	
MISSOURI.			Pneumonia	1	
Cerebrospinal meningitis	2		Rocky Mountain spotted or tick fever:		
Chicken pox	17		Carbon	1	
Diphtheria	11		Fremont	1	
Epidemic sore throat	2		Natrona County	1	
Influenza	2		Trachoma	1	
Measles	38		Tuberculosis	4	
Mumps	7		Typhoid fever	4	
			Whooping cough	4	

**SUMMARY OF CASES REPORTED MONTHLY BY 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.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1922.										
Colorado (April)		130	62		31			102	76	7
Montana (March)	2	48	1,410		7			81	83	7
Montana (April)		55	14		5			28	53	5
Ohio (April)	9	571	181		3,268		2	727	300	45
Oklahoma (April)		14	72	1	5	1		10	175	3
Pennsylvania (March)	8	1,280			2,360			2,125	7	81
Vermont (April)		22	14		68			146		2
Wyoming (April)		6	118		4			10	20	6

**CITY REPORTS FOR WEEK ENDED MAY 20, 1922.**

**ANTHRAX.**

City.	Cases.	Deaths.
Connecticut: Meriden	1	



## CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.

## CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 20, 1922.		City.	Median for previous years.	Week ended May 20, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Michigan:			
Los Angeles.....	1	1	1	Hamtramck.....	2	1	1
Illinois:				Missouri:			
Chicago.....	5	1	2	Kansas City.....	1	2	1
Oak Park.....		1	1	Springfield.....	0		1
Rockford.....			1	New York:			
Indiana:				Buffalo.....	0	1	
Fort Wayne.....	0	1		New York.....	8	5	3
Iowa:				Poughkeepsie.....	0		1
Sioux City.....	0	1		Yonkers.....	0	1	
Maryland:				Ohio:			
Cumberland.....	0	1		Cincinnati.....	0	1	1
Massachusetts:				Wisconsin:			
Boston.....	1	1	1	Milwaukee.....	2	3	
Lowell.....	0	1					
Springfield.....	0	1	1				

## DIPHTHERIA.

See p. 1433; also Telegraphic weekly reports from States, p. 1422, and Monthly summaries by States, p. 1426.

## INFLUENZA.

City.	Cases.		Deaths, week ended May 20, 1922.	City.	Cases.		Deaths, week ended May 20, 1922.
	Week ended May 21, 1921.	Week ended May 20, 1922.			Week ended May 21, 1921.	Week ended May 20, 1922.	
California:				Michigan:			
Los Angeles.....		10	1	Detroit.....	3		
Sacramento.....	3		1	Muskegon.....		1	2
San Diego.....		2	2	Minnesota:			
San Francisco.....	10			Minneapolis.....			1
Colorado:				Missouri:			
Denver.....			1	Independence.....			1
Connecticut:				Kansas City.....	1	1	
Bridgeport.....			1	Nebraska:			
Hartford.....	1			Lincoln.....			1
Meriden.....	1			New Jersey:			
New Haven.....			1	East Orange.....		1	1
Florida:				Newark.....		7	
Tampa.....		1		Trenton.....	2		
Georgia:				New York:			
Atlanta.....			1	Albany.....	2	1	
Illinois:				Auburn.....		1	
Chicago.....	14	10	2	New York.....	17	19	5
Louisiana:				Rochester.....			1
New Orleans.....	1			Troy.....			1
Maryland:				Yonkers.....	1		
Baltimore.....	2	1		Ohio:			
Massachusetts:				Cincinnati.....			1
Boston.....	2	2		Cleveland.....		1	
Chelsea.....		1	1	Toledo.....			1
Clinton.....		1	1	Oregon:			
Everett.....	1	1		Portland.....			1
Haverhill.....	1	2		Pennsylvania:			
Lynn.....	1			Philadelphia.....	2	1	
Saugus.....	3			Texas:			
Somerville.....	1			Dallas.....			1
				Wisconsin:			
				Milwaukee.....		1	

CITY REPORTS FOR WEEK ENDED MAY 26, 1922—Continued.

LEPROSY.

City.	Cases.	Deaths.
Florida: Tampa.....	1	

LETHARGIC ENCEPHALITIS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama: Mobile.....		1	Nebraska: Omaha.....		1
Massachusetts: Chelsea.....	1		Oregon: Portland.....	1	

MALARIA.

Arkansas: Little Rock.....	2		New Jersey: Newark.....	1	
Georgia: Atlanta.....	2		New York: New York.....	1	
Brunswick.....	1		Tennessee: Memphis.....	4	
Savannah.....	1		Texas: Dallas.....	2	
Kentucky: Louisville.....	1				
Owensboro.....	2				
Louisiana: New Orleans.....	1				

MEASLES.

See p. 1433; also Telegraphic weekly reports from States, p. 1422, and Monthly summaries by States, p. 1426.

PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama: Birmingham.....	1		North Carolina: Winston-Salem.....	1	
Mobile.....		2	Tennessee: Nashville.....	1	
California: Riverside.....		1	Texas: Dallas.....	1	1
District of Columbia: Washington.....	1		Virginia: Norfolk.....		1
Louisiana: New Orleans.....	1		Petersburg.....	1	

PNEUMONIA (ALL FORMS).

Alabama: Birmingham.....		5	Connecticut—Continued. Greenwich.....	1	
Montgomery.....		2	Hartford.....		2
Arkansas: Fort Smith.....		1	Meriden.....	1	
Little Rock.....	1		New Haven.....		6
North Little Rock.....	28	8	New London.....	1	
California: Eureka.....		1	Delaware: Wilmington.....		3
Oakland.....	8	7	District of Columbia: Washington.....		10
Pasadena.....	2	1	Georgia: Atlanta.....		3
Riverside.....	1	1	Brunswick.....	1	
Sacramento.....	2	2	Savannah.....		1
San Bernardino.....	1	1	Illinois: Alton.....		1
San Diego.....	5	3	Aurora.....	2	1
San Francisco.....	6	3	Blue Island.....		1
Santa Ana.....	1		Chicago.....	203	67
Stockton.....	1	3	Decatur.....		3
Colorado: Denver.....		4	East St. Louis.....		2
Connecticut: Bridgeport.....		2	Kewanee.....	2	
Bristol.....	1	1	Oak Park.....	3	1
Fairfield.....	1	1	Pekin.....	1	

## CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.

## PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Illinois—Continued.			Missouri:		
Peoria.....		3	Jefferson City.....		1
Quincy.....		3	Kansas City.....	17	14
Rockford.....		4	St. Joseph.....		1
Springfield.....	6	2	Springfield.....		1
Indiana:			Montana:		
Anderson.....		1	Anaconda.....		1
Crawfordsville.....		1	Billings.....		1
East Chicago.....		4	Butte.....		1
Fort Wayne.....		1	Great Falls.....		2
Indianapolis.....		6	Missoula.....		1
Mishawaka.....		1	Nebraska:		
South Bend.....		1	Omaha.....		4
Iowa:			New Hampshire:		
Burlington.....	4	3	Keene.....		1
Kansas:			Nashua.....		
Kansas City.....	5				1
Lawrence.....		1	New Jersey:		
Topeka.....	2	1	Atlantic City.....	3	
Wichita.....		4	Belleville.....	3	
Kentucky:			Bloomfield.....	2	
Lexington.....		1	East Orange.....	3	
Louisville.....		11	Elizabeth.....		1
Louisiana:			Englewood.....	4	
New Orleans.....		7	Hackensack.....		1
Maine:			Harrison.....	1	
Bangor.....	2		Hoboken.....		4
Lewiston.....	1		Jersey City.....	4	
Portland.....		3	Newark.....	45	12
Maryland:			Orange.....	8	1
Baltimore.....	28	21	Passaic.....		2
Cumberland.....	1		Paterson.....	7	
Massachusetts:			Plainfield.....	3	1
Amesbury.....	1		Trenton.....	8	3
Arlington.....	1		West Hoboken.....	1	
Beverly.....	1		West New York.....		1
Boston.....		28	West Orange.....	1	
Braintree.....	1		New Mexico:		
Brookton.....	1		Albuquerque.....		1
Brookline.....	1		New York:		
Cambridge.....	7	3	Albany.....	12	
Chelsea.....	4		Auburn.....	5	1
Clinton.....	1		Buffalo.....		11
Everett.....	2	1	Cohoes.....		1
Fall River.....		1	Glens Falls.....		2
Framingham.....		2	Hornell.....		1
Gardner.....	1		Hudson.....	1	
Haverhill.....	1		Ithaca.....	2	
Holyoke.....		5	Jamestown.....	1	
Lowell.....	1		Lackawanna.....	1	
Lynn.....	3	2	Mount Vernon.....	6	
Malden.....		1	Newburgh.....	3	2
Methuen.....		1	New York.....	399	197
New Bedford.....		2	Niagara Falls.....	3	1
Newton.....		2	North Tonawanda.....		2
Pittsfield.....		3	Port Chester.....	1	
Somerville.....		2	Poughkeepsie.....	3	2
Southbridge.....		1	Rochester.....	13	8
Springfield.....	6		Rome.....	5	1
Taunton.....		1	Saratoga Springs.....	2	1
Wakefield.....	1		Schenectady.....		3
Waltham.....	1		Syracuse.....		3
Watertown.....	1		Troy.....		1
Webster.....	1		Watertown.....		1
Worcester.....	9	7	Yonkers.....	4	1
Michigan:			North Carolina:		
Ann Arbor.....		3	Charlotte.....		1
Battle Creek.....	1		Wilmington.....		3
Detroit.....	65	18	Winston-Salem.....		1
Flint.....	4	2	Ohio:		
Grand Rapids.....	5	1	Cambridge.....		1
Hamtramck.....	1		Canton.....		2
Kalamazoo.....		1	Cincinnati.....		5
Muskegon.....	3		Cleveland.....	49	
Pontiac.....	3		Columbus.....		5
Port Huron.....	2		Dayton.....	2	
Minnesota:			East Cleveland.....		1
Duluth.....	4	1	Fremont.....	1	
Minneapolis.....		8	Mansfield.....		1
St. Paul.....		4	Salem.....		1
			Sandusky.....	1	

**CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.**

**PNEUMONIA (ALL FORMS)—Continued.**

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Ohio—Continued.			Texas—Continued.		
Steubenville.....	2		Fort Worth.....		3
Toledo.....		5	Galveston.....		1
Zanesville.....		1	Houston.....		1
Oklahoma:			Waco.....		1
Oklahoma.....		1	Utah:		
Oregon:			Salt Lake City.....		1
Portland.....		9	Virginia:		
Pennsylvania:			Petersburg.....		2
Philadelphia.....	61	39	Richmond.....		2
Rhode Island:			Roanoke.....	3	
Pawtucket.....		4	West Virginia:		
Providence.....	1	5	Charleston.....		3
South Carolina:			Clarksburg.....		1
Charleston.....		2	Huntington.....		2
Tennessee:			Wisconsin:		
Memphis.....		5	Fond du Lac.....		1
Nashville.....		3	Milwaukee.....	16	
Texas:			Oshkosh.....		
Dallas.....	1		Racine.....		
El Paso.....		2			

**POLIOMYELITIS (INFANTILE PARALYSIS).**

City.	Median for years 1915 to 1921, inclusive.	Week ended May 20, 1922.	
		Cases.	Deaths.
New Jersey:			
Trenton.....	0		1
New York:			
New York.....	0	1	1
Wyoming:			
Cheyenne.....		1	

**RABIES IN ANIMALS.**

City.	Cases.	City.	Cases.
California:		Kentucky:	
Los Angeles.....	3	Louisville.....	1
Riverside.....	1	Missouri:	
Georgia:		Kansas City.....	2
Albany.....	1	New Jersey:	
		West Orange.....	1

**SCARLET FEVER.**

See p. 1433; also Telegraphic weekly reports from States, p. 1422, and Monthly summaries by States, p. 1426.

## CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.

## SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 20, 1922.		City.	Median for previous years.	Week ended May 20, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
<b>California:</b>				<b>Montana:</b>			
Los Angeles.....	1	2		Great Falls.....	2	5	
San Diego.....	0	1		<b>Nebraska:</b>			
San Francisco.....	3	3		Lincoln.....	3	1	1
Stockton.....	0	3		<b>New York:</b>			
<b>Colorado:</b>				Niagara Falls.....	0	4	
Denver.....	30	8	1	<b>North Carolina:</b>			
<b>Connecticut:</b>				Durham.....	0	1	
Bridgeport.....	0	3		<b>North Dakota:</b>			
New London.....	0	7		Grand Forks.....	0	8	
<b>Georgia:</b>				<b>Ohio:</b>			
Atlanta.....	5	10		Canton.....	0	1	
Savannah.....	0	5		Columbus.....	1	1	
<b>Illinois:</b>				Dayton.....	1	1	
Chicago.....	2	2		New Philadelphia.....	0	2	
Pekin.....	4	1		Sandusky.....	0	1	
Peoria.....	3	3		Springfield.....	0	5	
<b>Indiana:</b>				<b>Oklahoma:</b>			
Fort Wayne.....	0	5		Oklahoma.....	2	1	
Indianapolis.....	20	1		Tulsa.....	4	1	
<b>Iowa:</b>				<b>Oregon:</b>			
Council Bluffs.....	3	3		Portland.....	10	10	
Mason City.....	4	1		<b>South Carolina:</b>			
Waterloo.....	3	1		Columbia.....	0	1	
<b>Kansas:</b>				<b>South Dakota:</b>			
Coffeyville.....	0	1		Sioux Falls.....	1	4	
Hutchinson.....	0	1		<b>Tennessee:</b>			
Kansas City.....	5	2		Memphis.....	8	1	
<b>Kentucky:</b>				<b>Texas:</b>			
Louisville.....	2	1		Beaumont.....	0	1	
<b>Michigan:</b>				<b>Virginia:</b>			
Detroit.....	12	1		Richmond.....	0	1	
Flint.....	2	3		<b>West Virginia:</b>			
Grand Rapids.....	1	10		Martinsburg.....	0	1	
Ironwood.....	1	1		<b>Wisconsin:</b>			
Pontiac.....	2	1		Ashland.....		2	
<b>Minnesota:</b>				Milwaukee.....	1	1	
Minneapolis.....	26	6		Racine.....	0	1	
St. Paul.....	8	12		Superior.....	1	6	
<b>Missouri:</b>				Wausau.....	0	3	
Kansas City.....	14	7	3				

## TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
<b>Alabama:</b>			<b>Missouri:</b>		
Birmingham.....		1	St. Louis.....	1	
Mobile.....		1	<b>New York:</b>		
<b>California:</b>			Buffalo.....	1	
Riverside.....	1	1	New York.....	1	
<b>Maryland:</b>			Syracuse.....		1
Baltimore.....	2				

## TUBERCULOSIS.

See p. 1433; also Telegraphic weekly reports from States, p. 1422.

**CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.**

**TYPHOID FEVER.**

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended May 20, 1922.		City.	Median for previous years.	Week ended May 20, 1922.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Minnesota:			
Birmingham.....	2	6	1	Rochester.....	0	3	
Montgomery.....	0	1		Missouri:			
Arkansas:				Kansas City.....	1	1	
Little Rock.....	0	1		St. Louis.....	1	2	
California:				Montana:			
Los Angeles.....	2	5	1	Billings.....	0		1
Richmond.....	0	1		New Jersey:			
Sacramento.....	0	1		Hoboken.....	0	1	1
San Francisco.....	2	1		Newark.....	0	3	
Santa Ana.....	0	1		Plainfield.....	0		1
Stockton.....	0	3		New York:			
District of Columbia:				Buffalo.....	1	1	1
Washington.....	2	6	1	Jamestown.....	0	1	
Florida:				Newburgh.....	0	1	1
Tampa.....		1	1	New York.....	17	13	1
Georgia:				North Carolina:			
Rome.....	0	2		Durham.....	0	1	
Savannah.....	2	3		Ohio:			
Valdosta.....		1		Cincinnati.....	1	1	
Illinois:				Cleveland.....	2	2	
Chicago.....	3	5		Kenmore.....	0	1	
Kewanee.....	0	2		Martins Ferry.....	0	1	
Peoria.....	0		1	Steubenville.....	0	1	
Rockford.....	0	1		Oklahoma:			
Springfield.....	0	1		Tulsa.....	0	1	
Indiana:				Oregon:			
Indianapolis.....	1	1		Portland.....	1	2	
Iowa:				South Carolina:			
Davenport.....	0	1		Charleston.....	1		1
Kentucky:				Columbia.....	1	1	
Covington.....	1	3		Grossville.....	0	3	
Louisville.....	2	1		Tennessee:			
Owensboro.....		1		Memphis.....	1	5	
Louisiana:				Nashville.....	1	4	2
New Orleans.....	4	5	1	Texas:			
Maine:				Dallas.....	0	1	
Bangor.....	0	2		Galveston.....	1	1	
Maryland:				Virginia:			
Baltimore.....	6	3		Alexandria.....	2	1	
Massachusetts:				Norfolk.....	0	1	
Boston.....	3	1		Petersburg.....	1	1	
Danvers.....	0		1	Roanoke.....	0	1	
Lawrence.....	0	1		West Virginia:			
Malden.....	0	1		Huntington.....	0	1	
Newton.....	1	2		Wisconsin:			
Michigan:				Superior.....	0	2	
Detroit.....	5	2					
Flint.....	2	1					
Grand Rapids.....	1	4					

## CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Alabama:</b>										
Birmingham.....	178,370	62	1		3				7	4
Mobile.....	60,151	20	2							2
Montgomery.....	43,464	11								
<b>Arkansas:</b>										
Fort Smith.....	28,811	7	2			1				1
Hot Springs.....	11,695	5								
Little Rock.....	64,997		2						1	
North Little Rock.....	14,048		1							
<b>California:</b>										
Alameda.....	28,806	6	2	1			4			
Bureka.....	12,923	8	1		2					1
Long Beach.....	55,593	20	3			1			1	
Los Angeles.....	576,673	165	37	2	3	36		77	24	
Oakland.....	216,361	58	11		1	16		6	1	
Pasadena.....	45,354	8	4			4				
Richmond.....	16,843	4	1					1		
Riverside.....	19,341	10								1
Sacramento.....	65,857	23	4			1		8	2	
San Bernardino.....	18,721	9								
San Diego.....	74,683	38			4	2		9	5	
San Francisco.....	508,410	122	27	3	11	7		35	10	
Santa Ana.....	15,485	4								
Santa Barbara.....	19,441	3								
Stockton.....	40,296	12						1	4	
Vallejo.....	21,107	2	1							
<b>Colorado:</b>										
Denver.....	256,369	83	12	3			11			10
<b>Connecticut:</b>										
Bridgewater.....	143,538	33	3		20		9		4	7
Bristol.....	20,620	3			3					
Derby.....	11,238	1								
Fairfield (town).....	11,475	1								
Greenwich (town).....	22,122		1		1				1	
Hartford.....	138,036	26	6		85		4		3	1
Manchester (town).....	18,370	2				3				
Meriden (city).....	29,842		2		1				1	
Milford (town).....	10,193	1	1		4					
New Haven.....	162,519	40	4	1	105		3		5	1
New London.....	25,688	3	1		4		1		1	
<b>Delaware:</b>										
Wilmington.....	110,168	20					13			1
<b>District of Columbia:</b>										
Washington.....	437,571	102	13	2	23		5		30	11
<b>Florida:</b>										
Tampa.....	51,252	14	2		1					
<b>Georgia:</b>										
Albany.....	11,555		1							
Atlanta.....	200,616	60		2		1		1	5	
Brunswick.....	14,413	3						3		
Macon.....	52,995		1		5					
Rome.....	13,252		1			5				
Savannah.....	83,252	26				2		3	2	
Valdosta.....	10,783	3								
<b>Idaho:</b>										
Boise.....	21,393	3								
<b>Illinois:</b>										
Alton.....	24,682	4			2					
Aurora.....	36,397	15	2		19		2		3	1
Bloomington.....	28,725	5	1		2				3	
Blue Island.....	11,424	6	1		2					
Centralia.....	12,491	3			1					
Chicago.....	2,701,705	613	113	15	544	3	76	5	207	35
Cicero.....	44,995	8	5							1
Decatur.....	43,818	6					1			
East St. Louis.....	66,740	15	1							4
Elgin.....	27,454	6			2		1		1	
Evanston.....	37,215	7	1		3				1	
Freeport.....	19,669	2					2		3	
Galesburg.....	23,334	7	3						2	
Kewanee.....	16,026	3			1					
La Salle.....	13,050	1								
Mattoon.....	13,552	2								
Oak Park.....	39,830	13	1	1	12				1	

CITY REPORTS FOR WEEK ENDED MAY 29, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Peoria.....	76,121	22	4				2			3
Quincy.....	35,978	13			1		1			2
Rockford.....	65,651	26	5		21		3			2
Springfield.....	59,183	21					1		5	
Indiana:										
Anderson.....	29,767	8			3					1
Clinton.....	10,962	7								
Crawfordsville.....	10,139	3					2			
East Chicago.....	35,967	17	2	1	1					1
Fort Wayne.....	36,549	22	10		1					
Frankfort.....	11,585	0								
Gary.....	55,378	9	1							1
Hammond.....	36,004	8			1					
Indianapolis.....	314,194	65	1		106		7		10	11
Kokomo.....	30,067	4							1	
La Fayette.....	22,486	3	1							2
Logansport.....	21,626	5								
Mishawaka.....	15,195	3	2		1				2	
Muncie.....	36,624	2	1							
South Bend.....	70,983	7			14				6	1
Terra Haute.....	68,083	12						1		
Iowa:										
Burlington.....	24,057	12	1							
Cedar Rapids.....	45,566		1							
Clinton.....	24,151		3							
Crane.....	36,162	8	2		4		1			1
Marshalltown.....	15,731		1		1	1	4			
Mason City.....	20,065	4	1							
Muscatine.....	16,068	4	1							
Sioux City.....	71,227		2				2			
Waterloo.....	36,220		2				2			
Kansas:										
Coffeyville.....	13,452	2	1							
Fort Scott.....	10,693	1								
Hutchinson.....	23,298		1				1			
Kansas City.....	101,177		4				1			
Lawrence.....	12,456	3	4				1			
Parsons.....	16,028	5								
Salina.....	15,085	6								
Topeka.....	50,022	12	3				3		8	2
Wichita.....	72,128	54	2		4		5		3	3
Kentucky:										
Covington.....	57,121	22			12					1
Lexington.....	41,534	15			43					1
Louisville.....	234,891	60	5		3		1		23	7
Owensboro.....	17,424				5				3	
Paducah.....	24,735						1			
Louisiana:										
New Orleans.....	387,219	108	10	1			2		23	14
Maine:										
Auburn.....	16,985	3					4			
Bath.....	14,731	4								
Biddford.....	18,008	2								
Lewiston.....	31,791	9					5		2	
Portland.....	69,272	29					10			2
Maryland:										
Baltimore.....	733,826	212	18		238	2	16		26	28
Cumberland.....	29,837	8								2
Massachusetts:										
Adams.....	12,967	4								1
Amesbury.....	10,036	3	1							
Arlington.....	18,665	7	1		2		1		2	1
Attleboro.....	19,731	2							1	
Belmont.....	10,749	3					3			
Beverly.....	22,561	7	1		1		1			
Boston.....	748,080	198	54	3	236	1	51		53	17
Braintree.....	10,580	5					2			3
Brockton.....	66,138	15	4		12		20		1	1
Brookline.....	37,748	7	2		39				1	
Cambridge.....	109,694	22	2		91		12		5	2
Chelsea.....	43,184	4	1		4		4		2	
Chicopee.....	36,214	3	1		10					1





CITY REPORTS FOR WEEK ENDED MAY 20, 1922—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Montana:</b>										
Anaconda.....	11,668	6								
Billings.....	15,100	4					1		2	
Butte.....	41,611	13								1
Great Falls.....	24,121	9	5						1	
Missoula.....	12,668	4								
<b>Nebraska:</b>										
Lincoln.....	54,934	13			54					
Omaha.....	191,601	33	1		26		2			4
<b>Nevada:</b>										
Reno.....	12,016	4								
<b>New Hampshire:</b>										
Berlin.....	16,104	4							3	
Concord.....	22,167	7			1					1
Dover.....	13,029	5								
Keene.....	11,210	5								
Nashua.....	28,379	13			3				5	
Portsmouth.....	13,669				8					
<b>New Jersey:</b>										
Asbury Park.....	12,400	5			12		1			
Atlantic City.....	60,682	10			1		1		7	2
Bayonne.....	76,754		3		8		2		4	
Belleville.....	15,660		1		4		3			
Bloomfield.....	22,019	2	2		10		4		1	
Clifton.....	26,470	2			3		6			
East Orange.....	50,710	8	1				6		1	
Elizabeth.....	95,682		10		31		7		1	
Englewood.....	11,627	5	1		8		1			2
Garfield.....	19,381	2			5		3		2	
Hackensack.....	17,667	6			51					1
Harrison.....	15,721		1		17					
Hoboken.....	68,166	22	3	1	6	2	3		3	1
Jersey City.....	297,864		22		19		21		13	
Montclair.....	28,810	2	2		8		2			1
Morristown.....	12,548	3			1					
Newark.....	414,216	109	15	3	204	2	31	1	35	11
Orange.....	33,268	4			10		6		1	
Passaic.....	63,824	12	3	1	10		8		5	
Paterson.....	135,866		8		116		6			
Phillipsburg.....	16,923	2								
Plainfield.....	27,700	12	1		13		1		1	1
Rahway.....	11,042	2			8					
Summit.....	10,174	2			14					
Trenton.....	119,289	25	4		43	2	3		6	1
Union.....	20,651		1		2		3			
West Hoboken.....	40,068	7			9		7		2	1
West New York.....	29,926	6			4		5		1	
West Orange.....	15,573	2	1		6		3		1	
<b>New Mexico:</b>										
Albuquerque.....	15,157	9	7				1		8	5
<b>New York:</b>										
Albany.....	113,344		2		2				9	
Auburn.....	36,192	9					1		1	
Buffalo.....	506,775	128	10		2		20	1	15	14
Cohoes.....	22,987	5	1				1			1
Geneva.....	14,643	3								1
Glens Falls.....	16,638	7			1				1	
Hornell.....	15,025	3			46					
Hudson.....	11,745	3								
Ithaca.....	17,004	8	1						1	
Jamestown.....	38,917	8	1		12		5		1	
Lackawanna.....	17,918	4								
Little Falls.....	13,029	1								
Lockport.....	21,308	4	1		1		1		1	
Middletown.....	18,420	1			1				4	
Mount Vernon.....	42,726	8	1		37		3		1	
Newburgh.....	30,366	10			25					1
New York.....	5,621,151	1,415	300	25	2,251	65	353	8	1,379	189
Niagara Falls.....	50,760	15	1		19		3			2
North Tonawanda.....	15,482	3	1		1		4			
Olean.....	20,506	4								

<sup>1</sup> Pulmonary tuberculosis only.





## FOREIGN AND INSULAR.

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### PLAGUE-INFECTED RODENTS ON VESSEL.

#### Steamship "Elpenor"—Liverpool, England.

At Liverpool, England, the finding of a plague-infected rat on the steamship *Elpenor* from oriental ports was reported during the two-week period ended April 29, 1922, and the finding of a plague-infected mouse from the same vessel during the week ended May 6, 1922.

The itinerary of the steamship *Elpenor* shows that the vessel left New York December 17, 1921, arriving at Yokohama January 25, 1922. From that port the vessel proceeded to Kobe, arriving February 2; to Shanghai, arriving February 24; to Saigon, arriving March 1; sailing from that port for Singapore March 13; arriving April 9 at Genoa, April 12 at Marseille, and April 22 at Liverpool, and sailing from that port May 3 for the Clyde.

### HONDURAS.

#### Hookworm Infection—Hemoglobinuria.

Examinations for hookworm infection made in six towns in the Tegucigalpa district, Honduras, during February and March, 1922, by a representative of the Rockefeller Foundation, show a high rate of infection in the towns of Amapala, Choluteca, and Nacaome, as follows: In Choluteca, 212 examinations showed 89 per cent; in Amapala, 241 examinations showed 76.3 per cent; in Nacaome, 170 examinations showed 74.8 per cent. Results of hemoglobinuria tests were as follows: 235 tests in Amapala gave 67.9 per cent; 158 tests in Choluteca gave 65 per cent; and 134 tests in Nacaome gave 57 per cent.

It was stated that examinations of both sexes were made indiscriminately and that the age of persons examined varied greatly. As only a small percentage of the total population was examined, the percentages of general infection can not be assumed to be the same as those given.

### ITALY.

#### Quarantine Measures Against Patras.

According to information dated May 5, 1922, quarantine measures against importation of plague have been ordered to be enforced at Italian ports against arrivals from Patras, Greece.

## MADAGASCAR.

## Plague - Summary - November, 1921-February, 1922.

Corrected statements of the prevalence of plague in the island of Madagascar show the occurrence at Tamatave of one fatal case during the week ended February 12, 1922, the type of the disease being bubonic. At Tananarive, from November 23, 1921, to February 27, 1922, 49 cases with 30 deaths were reported. The types of the disease were stated to be bubonic, pneumonic, and septicemic. On March 5, 1922, Tananarive was officially declared free from plague. The number of rats taken was reported as follows: January, 1922, 6,799; February, 1922, 8,145; March, 1922, 22,286.

## POLAND.

Communicable Diseases.<sup>1</sup>

Communicable diseases have been reported in Poland, exclusive of the districts of Brest-Litovsk, Minsk, and Wilno, as follows:

*January 29-February 25, 1922.*

Disease.	Cases.	Deaths.	Locality of highest proportional mortality.
Cerebrospinal meningitis.....	37	18	Warsaw.
Cholera.....	1	.....	Do.
Diphtheria.....	392	54	Polesia.
Measles.....	1,933	77	Tarnopol.
Scarlet fever.....	1,228	174	Stanislawow.
Smallpox.....	197	61	Do.
Tuberculosis.....	318	840	Lwow.
Typhoid fever.....	1,806	163	Volhynia.
Typhus fever.....	7,005	583	Bialystok.
Typhus fever, recurrent.....	9,188	357	Polesia.

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

Reports Received During Week Ended June 9, 1922.<sup>2</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	Mar. 26-Apr. 1....	1	.....	
Calcutta.....	Apr. 9-22.....	172	146	
Rangoon.....	Apr. 2-15.....	11	10	
Poland:				
Warsaw.....	Jan. 29-Feb. 25...	1	.....	
Siam:				
Bangkok.....	Mar. 19-Apr. 8....	5	2	

## PLAGUE.

British East Africa:			
Kenya Colony—			
Nairobi.....	Apr. 2-8.....	2	2
Ceylon:			
Colombo.....	Apr. 9-15.....	1	1

<sup>1</sup> Public Health Reports, Mar. 31, 1922, p. 787.

<sup>2</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 June 9, 1922—Continued.

### PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	Apr. 16-22.....		7	
Hongkong.....	May 14-20.....	96	20	
India:				Mar. 19-Apr. 1, 1922: Cases, 5,428; deaths, 4,353.
Bombay.....	Mar. 19-Apr. 1.....	75	61	
Calcutta.....	Apr. 9-22.....	22	20	
Karachi.....	Apr. 16-29.....	190	154	
Madras.....	do.....	222	101	Presidency.
Rangoon.....	Apr. 2-15.....	137	130	
Madagascar:				
Tamatave.....	Feb. 6-12.....	1	1	
Tananarive.....				Nov. 23, 1921-Feb. 27, 1922: Cases, 49; deaths, 30.
Mauritius (Island).....	Feb. 16.....	1		
Mesopotamia:				
Bagdad.....	Mar. 1-31.....		1	
Siam:				
Bangkok.....	Mar. 19-Apr. 15.....	8	6	
Straits Settlements:				
Singapore.....	Apr. 2-15.....	5	4	
Syria:				
Beirut.....	Apr. 9-23.....	3		
On vessel:				
S. S. Elpenor.....	Apr. 16-May 6.....			At Liverpool, England, from oriental ports, 1 plague-infected rat and 1 infected mouse.

### SMALLPOX.

Arabia:				
Aden.....	Apr. 23-29.....		3	
Brazil:				
Rio de Janeiro.....	Apr. 23-May 6.....	24	8	
British East Africa:				
Kenya Colony—				
Nairobi.....	Apr. 2-20.....	8		
Canada:				
New Brunswick—				
Charlotte County.....	May 7-13.....	1		
Madawaska County.....	do.....	4		
Ontario—				
Ottawa.....	May 14-27.....	4		
Toronto.....	do.....	9		
Ceylon:				
Colombo.....	Apr. 16-22.....	2		
China:				
Amoy.....	do.....		1	Present.
Chungking.....	Apr. 9-22.....			
Hongkong.....	do.....	33	24	
Manchuria—				
Harbin.....	Apr. 3-16.....	2		Do.
Nanking.....	Apr. 9-22.....			
Shanghai.....	Apr. 17-30.....		2	
Tsingtau.....	Mar. 20-Apr. 9.....	3		
Dominican Republic:				
San Pedro de Macoris.....	May 6-13.....			In country, about 63 cases present.
Great Britain:				
Nottingham.....	Apr. 16-May 6.....	5		
India:				
Bombay.....	May 19-Apr. 1.....	12	6	
Calcutta.....	Apr. 9-22.....	52	36	
Karachi.....	Apr. 16-29.....	27	28	
Madras.....	do.....	222	81	
Rangoon.....	Apr. 2-15.....	11	3	
Japan:				
Nagasaki.....	Apr. 24-30.....	1		
Java:				
West Java—				
Batavia.....	Apr. 7-20.....	2	1	
Mexico:				
Guadalajara.....	Apr. 1-30.....	6	1	
Mexico City.....	Apr. 9-22.....	80		
Monterey.....	May 10-16.....		2	
San Luis Potosi.....	May 14-20.....		2	

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

Reports Received During Week Ended June 9, 1922—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Panama:				
Panama.....	Apr. 26-May 11....	2		One case, reported May 11, imported from Chiriqui Province. Jan. 29-Feb. 25, 1922: Cases, 197, deaths, 61.
Poland.....				
Siam:				
Bangkok.....	Mar. 19-25.....	1		
Siberia:				
Vladivostok.....	Mar. 1-31.....	2		
Spain:				
Huelva.....	Mar. 1-31.....		1	
Straits Settlements:				
Singapore.....	Apr. 2-15.....	20	3	
Switzerland:				
Zurich.....	Apr. 1-30.....	38		
Syria:				
Beirut.....	Apr. 9-16.....	1		
Turkey:				
Constantinople.....	Apr. 30-May 6.....	12	3	
Union of South Africa:				
Southern Rhodesia.....	Apr. 13-19.....	7		

### TYPHUS FEVER.

Algeria:				
Algiers.....	May 1-10.....	5		
China:				
Harbin.....	Apr. 3-16.....	3		
Egypt:				
Cairo.....	Feb. 19-Mar. 4....	5	1	
Germany:				
Berlin.....	Apr. 8-15.....		1	
Königsberg.....	Apr. 16-22.....		1	
Greece:				
Saloniki.....	Apr. 8-30.....	17	29	Among Russian refugees, 16 cases, 5 deaths.
Mesopotamia:				
Bagdad.....	Mar. 1-31.....		3	
Mexico:				
Mexico City.....	Apr. 9-22.....	29		Jan. 29-Feb. 25, 1922: Cases, 7,005; deaths, 583. Recurrent typhus: Cases, 9,188; deaths, 357.
Poland.....				
Portugal:				
Oporto.....	Apr. 23-May 6....	8		
Siberia:				
Vladivostok.....	Mar. 25-31.....	2	1	
Syria:				
Aleppo.....	May 7-13.....			Present in interior localities.
Turkey:				
Constantinople.....	Apr. 30-May 6....	9	1	

### YELLOW FEVER.

Brazil:				
Bahia.....	Apr. 16-22.....	1	1	

Reports Received from December 31, 1921, to June 2, 1922.

### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Oct. 2-Dec. 31, 1921: Deaths, 37,749. (Corrected report.) Jan. 1-28, 1922: Deaths, 2,823.
Bombay.....	Oct. 30-Nov. 5....	1		
Do.....	Jan. 29-Feb. 4....	1	1	
Calcutta.....	Oct. 23-Dec. 31....	71	60	
Do.....	Jan. 1-Apr. 8.....	562	470	



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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

## CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India—Continued.</b>				
Karachi.....	Nov. 6-12.....	.....	1	
Madras.....	Dec. 11-31.....	4	1	
Do.....	Jan. 1-Apr. 8.....	15	9	
Rangoon.....	Oct. 1-Dec. 31.....	30	24	
Do.....	Jan. 1-Apr. 1.....	43	35	
<b>Indo-China:</b>				
Saigon.....	Nov. 6-12.....	1	1	
Do.....	Jan. 29-Mar. 18.....	34	30	Including 100 km. surrounding country.
<b>Java:</b>				
<b>West Java—</b>				
Batavia.....	Nov. 1-7.....	2	2	At Lebak.
<b>Philippine Islands:</b>				
Manila.....	Nov. 13-Dec. 31.....	49	18	
Do.....	Jan. 1-Apr. 15.....	84	28	
<b>Province—</b>				
Bulacan.....	Dec. 25-31.....	1	.....	
Do.....	Feb. 12-Mar. 11.....	3	3	
Cavite.....	Jan. 1-7.....	1	1	
Cebu.....	Jan. 8-14.....	1	.....	
Pampanga.....	Dec. 25-31.....	1	.....	
Rizal.....	Jan. 15-28.....	18	12	
Zambales.....	Dec. 11-31.....	31	18	
Do.....	Jan. 1-7.....	5	4	
Poland.....	.....	.....	.....	Aug. 14-Sept. 10, 1921: Cases, 4; deaths, 1.
Russia.....	.....	.....	.....	Including the Ukraine; outbreaks reported; May 2, 1922.
Kharkoff.....	Jan. 28.....	.....	.....	Present.
Kief.....	Dec. 15-Jan. 11.....	259	.....	
<b>Lettonia—</b>				
Riga.....	.....	.....	.....	At quarantine station in October 1921: 1 case.
Lithuania.....	.....	.....	.....	Present, Feb. 19, 1922, with 30 cases and mortality of 33 per cent, Kovno and vicinity.
Odessa.....	Jan. 28.....	.....	.....	Present.
<b>Siam:</b>				
Bangkok.....	Oct. 23-Dec. 24.....	8	4	
Do.....	Jan. 29-Mar. 11.....	9	4	
Syria.....	.....	.....	.....	Apr. 16-22, 1922: Reported present in interior cities.

## PLAGUE.

<b>Asia Minor:</b>				
Smyrna.....	Nov. 27-Dec. 3.....	1	1	
Do.....	Apr. 9-15.....	1	.....	
<b>Australia:</b>				
<b>New South Wales—</b>				
Sydney.....	Nov. 27-Dec. 3.....	2	2	Dec. 7-13, 1921: 4 plague rats.
Do.....	Jan. 29-Apr. 29.....	15	1	Jan. 15-21, 1922: 1 plague rat.
<b>Queensland—</b>				
Aramac.....	Mar. 19-25.....	1	1	Inland town on railroad about 150 miles from coast.
Brisbane.....	Oct. 30-Dec. 31.....	27	20	Total, Aug. 22-Dec. 31, 1921: Cases, 41; deaths, 27. Total infected rats, 54. Total cases, Jan. 1-Apr. 8, 1922: 10. Total infected rats, 16.
Do.....	Jan. 1-Mar. 18.....	10	.....	
Bundaberg.....	Mar. 5-11.....	1	.....	
Cairns.....	Oct. 30-Dec. 31.....	6	3	Plague rats, 9.
Do.....	Jan. 1-7.....	.....	1	Pestis minor.
Cooktown.....	Oct. 30-Nov. 5.....	1	.....	
Ingham.....	.....	.....	.....	Nov. 6-Dec. 24, 1921: Plague rats, 14. Jan. 1-14, 1922: 2 plague rats.
Inisfail.....	.....	.....	.....	Nov. 27-Dec. 3, 1921: 1 plague rat.
Ipswich.....	Dec. 11-17.....	1	1	
Port Douglas.....	Nov. 13-19.....	1	1	
Townsville.....	Nov. 20-Dec. 3.....	2	2	Total cases, 27; deaths, 18.
Do.....	Jan. 1-14.....	.....	2	To Jan. 14, 1922: Cases, 32; deaths, 21.

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

### PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Azores:</b>				
<b>Islands—</b>				
Fayal.....	Jan. 16-22.....	2	2	
Horta.....	Feb. 2-8.....	4	2	
St. Michael.....	.....			Nov. 27-Dec. 31, 1921: Cases, 23; deaths, 9. Jan. 1-21, 1922: Cases, 13; deaths, 8. Jan. 22-Apr. 1, 1922: Cases, 62; deaths, 31; occurring at Arrifes, Capelas, Fenaes, Ribeira Grande, and Santo Antonio; distance from port of Ponta Delgada, 3 to 9 miles.
Arrifes.....	Dec. 25-31.....	1	1	3 miles from port.
Do.....	Jan. 1-7.....	1		
Fenaes d'Ajuda.....	Nov. 27-Dec. 3.....			Present. 6 miles from port.
Do.....	Jan. 15-21.....	3	2	
Ribeira Grande.....	Nov. 13-Dec. 10.....	19	8	9 miles from port.
Do.....	Jan. 8-14.....	9	6	
Livramento.....	Dec. 4-10.....	2		
Ponta Delgada.....	.....do.....	1		Vicinity of Ponta Delgada.
<b>Brazil:</b>				
Bahia.....	Oct. 30-Dec. 31.....	13	12	
Do.....	Jan. 1-Mar. 25.....	16	12	
Para.....	Feb. 6-12.....		1	
Pernambuco.....	Feb. 26-Mar. 4.....	1	1	
Porto Alegre.....	Feb. 12-18.....	3	2	
Rio de Janeiro.....	Jan. 22-28.....	1	1	
<b>British East Africa:</b>				
Uganda.....	Aug. 1-Dec. 31.....	256	229	Aug. 1-Oct. 31, 1921: Reports of inspectors, deaths, 343; reports of chiefs, deaths, 631.
Do.....	Jan. 1-31.....	57	56	Present. No plague mortality reported during previous 5-month period. August, 1921: Cases, 6; deaths, 3.
<b>Cape Verde Islands:</b>				
St. Vincent.....	Mar. 16.....			Oct. 30-Dec. 24, 1921: Rodent plague, 6. Infected rats, 12.
<b>Ceylon:</b>				
Colombo.....	Oct. 30-Dec. 31.....	13	10	
Do.....	Jan. 1-Apr. 8.....	30	28	Mar. 5-11, 1922: 1 plague rat,
<b>Chile:</b>				
Antofagasta.....	.....			
<b>China:</b>				
Amoy.....	Feb. 13-Mar. 4.....			Present in surrounding country
Hongkong.....	Nov. 20-Dec. 17.....	6		
Do.....	Jan. 1-May 13.....	581	366	
<b>Ecuador:</b>				
Guayaquil.....	Nov. 16-Dec. 31.....	18	6	Rats examined, 2,953; found infected, 90. Total, July-Dec. 15, 1921: Cases, 28. Jan. 1-Apr. 15, 1922: Rats examined, 21,000; found infected, 575.
Do.....	Jan. 1-Apr. 15.....	43	15	
Naranjito.....	Mar. 1-15.....	1		
<b>Egypt:</b>				
<b>City—</b>				
Alexandria.....	Dec. 5-30.....	7	2	Jan. 1-Dec. 31, 1921: Cases, 356; deaths, 153. Jan. 1-Apr. 27, 1922: Cases, 90; deaths, 40.
Do.....	Jan. 17-Apr. 26.....	16	10	Feb. 12-18, 1922: 1 plague rodent.
Port Said.....	Dec. 20.....	1		Mar. 12-16, 1922: 1 case, 1 death, septicemic.
Do.....	Mar. 15-Apr. 27.....	3	3	
Suez.....	Nov. 22-Dec. 31.....	16	9	
Do.....	Jan. 2-Apr. 27.....	22	8	
<b>Province—</b>				
Assiout.....	Mar. 25-Apr. 27.....	3	3	Septicemic.
Assouan.....	Feb. 28.....	1	1	Do.
Benisouf.....	Apr. 24.....	4		
Fayoum.....	Feb. 17-Mar. 9.....	5	1	
Gharbieh.....	Feb. 17-Mar. 27.....	5	1	
Girgeh.....	Jan. 12-Mar. 30.....	5		Do.
Keneh.....	Dec. 1.....	1		Do.
Do.....	Jan. 21-Feb. 28.....	5	3	Pneumonic, 1 case, 1 death; septicemic, 1 case.
Minieh.....	Feb. 21-Apr. 26.....	7	4	Septicemic.
<b>France:</b>				
Dunkirk.....	Mar. 24.....		1	In hospital, from steamship City of Genoa, from Bombay.

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

**Reports Received from December 31, 1921, to June 2, 1922—Continued.**

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain: Liverpool.....				Mar. 31, 1922: Finding of 3 plague-infected rats reported; in warehouse in which material from steamship Warwickshire was stored. <sup>1</sup>
Greece: Preveza.....	Feb. 8.....			Outbreak. Port on the Ionian Sea.
India.....				Oct. 23-Dec. 31, 1921: Cases, 11,229; deaths, 8,465. Jan. 1-Mar. 18, 1922: Cases, 23,161; deaths, 22,152.
Bombay.....	Oct. 23-Dec. 24.....	7	6	
Do.....	Jan. 1-Mar. 18.....	158	122	
Calcutta.....	Jan. 29-Apr. 8.....	37	37	
Karachi.....	Nov. 6-Dec. 31.....	5	5	
Do.....	Jan. 1-Apr. 15.....	395	295	
Madras.....	Dec. 11-17.....	1		
Madras Presidency.....	Nov. 13-Dec. 31.....	2,047	1,435	
Do.....	Jan. 1-Apr. 15.....	4,037	2,871	
Rangoon.....	Oct. 1-Dec. 31.....	139	129	
Do.....	Jan. 1-Apr. 1.....	345	303	
Indo-China: Saigon.....				Nov. 6-Dec. 24, 1921: Rodent plague, 10. Jan. 8-Mar. 18, 1922: Rodent plague, 12.
Italy: Catania.....	Nov. 27.....	1	1	Total, Oct. 16-Nov. 27, 1921: Cases, 8 (of which 1 doubtful); deaths, 5. Jan.-Feb., 1922: 23 plague-infected rats found.
Naples (Province)— Torre Annunziata.....	Oct. 22-Dec. 27.....	2		17 miles from city of Naples.
Venice.....	Oct. 27.....	1		
Java.....				Islands of Java and Madoera; Nov. 1-Dec. 31, 1921: Deaths, 1,781. Jan. 1-Feb. 28, 1922: Deaths, 2,571.
East Java— Soerabaya.....	Oct. 30-Dec. 10.....	11	12	
Do.....	Jan. 1-Mar. 25.....	16	16	
Madagascar: Tananarive.....	Jan. 23-Feb. 29.....	9	5	Bubonic, pneumonic, and septicemic.
Mauritius (Island). Port Louis.....	Oct. 29-Dec. 30.....	241	142	Jan. 23-Feb. 6, 1922: Cases, 12; deaths, 3.
Do.....	Dec. 31-Jan. 22.....	16	6	Plague-infected rats, 176; plague-infected cats, 36. (Corrected report.) Dec. 1-30, 1921: Dead rats found, 155; dead cats, 4.
Mesopotamia: Bagdad.....	Oct. 1-31.....	1	1	Dead rats found, Dec. 31, 1921-Jan. 11, 1922, 17.
Do.....	Feb. 1-28.....	2	1	
Mexico: Tampico.....				Dec. 18-31, 1921: Infected rodents found, 5; total, Jan. 1-Dec. 3, 1921, infected rodents, 322; Jan. 1-May 6, 1922, 16 plague-infected rodents.
Vera Cruz.....				One infected rodent caught Dec. 5, 1921. Apr. 4-28, 1922: 3 infected rodents found.
Peru.....				Nov. 17-Dec. 31, 1921: Cases, 94; deaths, 35. Occurring in Callao, Huarcho, Huaras, Lima, Magdalena Vieja, Païta, Salaverry, and Secura. Jan. 1-Feb. 28, 1922: Cases, 141; deaths, 62. (Corrected report to Feb. 15, 1922.) Mar. 16-31, 1922: Cases, 23; deaths, 14.

<sup>1</sup> Public Health Reports, Mar. 31, 1922, p. 784.

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

**PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Peru—Continued.</b>				
<b>Localities—</b>				
Bambamarca.....	Jan. 1-15.....	1		Present. Rural.
Barranco.....	Jan. 16-31.....	7	4	Rural. Year, 1921: Deaths, 30.
Callao.....	Jan. 1-Feb. 28.....	11	3	
Casma.....	Feb. 1-28.....	19	16	
Chiclayo.....	Jan. 16-Feb. 28.....	11	2	
Chilca.....	Jan. 16-Feb. 15.....	1		Rural.
Cutervo.....	Jan. 1-15.....	7	2	
Guadalupe.....	Jan. 1-31.....	3		
Huacho.....	Jan. 1-Feb. 15.....			Province. Present.
Hualgayoc.....	Jan. 16-31.....	2		
Huaral.....	Jan. 1-15.....			Present.
Jayanca.....	.....do.....			
Lambayeque.....	Jan. 16-Feb. 15.....	8	1	
Lima.....	Jan. 1-Feb. 28.....	14	4	In district, 20 cases, 6 deaths.
Mollendo.....	Feb. 1-28.....	3		
Pacasmayo.....	.....do.....	1		
Payta.....	Jan. 1-Feb. 28.....	28	21	
Piura.....	Feb. 1-15.....	1		
Salaverry.....	Jan. 16-31.....	1		
San Pedro.....	Jan. 1-15.....	1		
Sullana.....	Jan. 1-Feb. 28.....	3	3	
Trujillo.....	Feb. 1-15.....			Present.
Tumbes.....	.....do.....	4		
<b>Portugal:</b>				
Lisbon.....	Dec. 15.....	1	1	
Do.....	Feb. 1-28.....	6		Pneumonic; occurring in one family.
<b>Portuguese West Africa:</b>				
<b>Angola—</b>				
Loanda.....	Oct. 9-Nov. 5.....		2	
Do.....	Jan. 29-Feb. 4.....		2	
Mossamedes.....	Feb. 14.....			Present. In vicinity Mar. 1-22, 1922: Cases, 11. No cases reported in city since Feb. 28, 1922.
Rhodes (Island) (Aegean Sea).....	Oct. 13.....	3	1	
<b>Senegal:</b>				
Dakar.....	Jan. 1-Mar. 31.....	4	1	
<b>Siam:</b>				
Bangkok.....	Oct. 23-Dec. 31.....	7	6	
Do.....	Jan. 8-Mar. 11.....	37	28	
<b>Straits Settlements:</b>				
Singapore.....	Nov. 6-Dec. 31.....	3	3	
Do.....	Jan. 15-Mar. 18.....	37	18	
<b>Syria:</b>				
Beirut.....	Oct. 9-Nov. 20.....	10	4	
Do.....	Mar. 27-Apr. 2.....	1		
<b>Turkey:</b>				
Constantinople.....	Jan. 1-7.....	1		Mar. 26-Apr. 1, 1922: One death.
<b>Union of South Africa:</b>				
<b>Orange Free State—</b>				
Boschrand Farm.....	Jan. 15.....	3	3	10 miles from Kroonstad. Plague-infected mouse found.
Bothaville.....	Nov. 19.....			Plague mortality among rodents.
Gelukfontein Farm.....	Feb. 28.....			Winburg district, vicinity of Ventersburg Road Station.
Granville Farm.....	Mar. 1-15.....	4	4	
Hoopstad.....	Dec. 4-10.....	1		In native herd boy.
Klipfontein Farm.....	Feb. 10.....	1	1	12 miles from Bothaville. Plague infection found in rats on adjoining farm, week ended Feb. 4, 1922.
Rientfontein Farm.....	Feb. 17.....			Plague-infected squirrel found.
<b>On vessels:</b>				
S. S. City of Genoa.....	Mar. 9-15.....	4	2	At Suez and Port Said, Egypt, from Karachi and Bombay, India, for Plymouth, England. One fatal case at sea en route to Suez; 1 case on arrival. At Port Said, 2 cases, of which 1 fatal. At Dunkirk, France, Mar. 24, 1922: Several cases on arrival; 1 fatal case in hospital at Dunkirk.

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

## PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels—Continued.				
S. S. Polycarp.....	Feb. 3.....	1		At Para, Brazil, from Ceara, via Manaus, Maranham, and Para for New York.
S. S. Tango Maru.....	Dec. 31.....	1		At Thursday Island Quarantine, Australia, from Kobe, via Nagasaki, Hongkong, Manila, and Zamboanga.
S. S. Warwickshire.....	Feb. 12.....			At Liverpool, England, from Rangoon. Plague rats, 27; 1 plague mouse.

## SMALLPOX.

Algeria:				
Algiers.....	Jan. 1-Mar. 31.....	4		
Arabia:				
Aden.....	Dec. 25-31.....		1	
Do.....	Jan. 8-Apr. 1.....		2	
Asia Minor:				
Kovlitz.....	Apr. 23-29.....	27		Interior.
Panderma.....	do.....	2		Do.
Smyrna.....	Jan. 15-Apr. 15.....	9		In district.
Bolivia:				
La Paz.....	Aug. 1-Dec. 31.....	60	41	
Do.....	Jan. 1-Feb. 28.....	32	21	
Brazil:				
Bahia.....	Nov. 6-Dec. 17.....	4		
Do.....	Jan. 6-Feb. 4.....	2		
Pernambuco.....	Apr. 2-8.....	1		
Rio de Janeiro.....	Nov. 13-Dec. 31.....	13	2	
Do.....	Jan. 1-Apr. 22.....	59	20	
Santos.....	Feb. 20-26.....		1	
Sao Paulo.....	Oct. 31-Dec. 25.....	11		
Do.....	Dec. 26-Jan. 8.....	2		
British East Africa:				
Kenya Colony—				
Nairobi.....	Mar. 26-Apr. 1.....	1		
Uganda.....	Aug. 1-Dec. 31.....	33	6	
Do.....	Jan. 1-31.....	36	3	
Canada:				
British Columbia—				
Vancouver.....	Dec. 25-31.....	3		
Do.....	Jan. 29-Feb. 4.....	1		
Victoria.....	Mar. 12-18.....	1		
Manitoba.....				Year 1921: Cases, 71.
Winnipeg.....	Nov. 20-Dec. 3.....	2		
Do.....	Apr. 2-8.....	3		
New Brunswick—				
Charlotte County.....				Dec. 17, 1921: 31 cases occurring at Andersonville and Blacks Harbor Dec. 18-24, 1921: Cases, 3. Dec. 25-31, 1921: Cases, 2. Feb. 19-20, 1922: Cases, 2.
St. Stephen.....	Dec. 11-17.....	2		
Madawaska County.....	Apr. 30-May 6.....	1		Dec. 11-31, 1921: Cases, 3. Feb. 12-25, 1922: Cases, 4. 20 miles from Campbellton.
Restigouche County.....				
Charlo.....	Feb. 19-25.....	2		
Westmoreland County.....	Mar. 5-Apr. 1.....	22		
York County.....	Dec. 11-17.....	1		
Do.....	Jan. 29-Feb. 4.....	1		
Ontario:				
Port William and Port Arthur.....	Jan. 1-21.....	3		Dec. 1-31, 1921: Cases, 128. Jan. 1-31, 1922: Cases, 170. Feb. 1-Apr. 30, 1922: Cases, 377.
Hamilton.....	Jan. 22-Mar. 25.....	4		
Kingston.....	Jan. 17-Feb. 11.....	5		Jan. 16-20, 1922: Two cases reported.
Niagara Falls.....	Dec. 11-24.....	2		
Do.....	Jan. 15-May 20.....	50		Feb. 19-25, 1922: Cases, 6.
North Bay.....	Feb. 12-18.....	1		
Ottawa.....	Dec. 11-24.....	17		
Do.....	Jan. 1-May 13.....	40		
Sault Ste. Marie.....	Jan. 15-21.....	1		
Toronto.....	Dec. 11-24.....	4		
Do.....	Jan. 1-May 13.....	109		
Windsor.....	Jan. 8-Mar. 4.....	3		

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

## Reports Received from December 31, 1921, to June 2, 1922—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Quebec—				
Montreal.....	Dec. 11-24.....	1		
Saskatchewan—				
Regina.....	Jan. 1—Feb. 11.....	4		
Saskatoon.....	Dec. 1-18.....	6		
Do.....	Feb. 5-18.....	3		
Canal Zone:				
Ancon.....				Admitted to hospital by transfer from Panama, Nov. 30, 1921, 1 case. Arrived on sailing vessel from a village on south coast.
Ceylon:				
Colombo.....	Nov. 27—Dec. 3.....	1		Port case.
Do.....	Jan. 29—Apr. 1.....	7		One port case.
Chile.....				
				Jan.—Sept., 1921: Cases, 5,500 (approximately); deaths, 2,500 (approximately). Nov. 15-21, 1921: Diffused in southern Provinces; not epidemic.
Concepcion.....	Nov. 23—Dec. 26.....		25	Nov. 15-21, 1921: Present. In vicinity, at Hualqui, cases, 23; deaths, 5. Dec. 4-17, 1921. Present.
Do.....	Dec. 27—Mar. 13.....		42	
Coronel.....	Nov. 15—Dec. 17.....			Present.
Curanilahue.....	Nov. 15-21.....	4		
Lota.....				Oct. 28, 1921—Jan. 31, 1922: Cases, 879; deaths, 338. Reported Mar. 16.
Ollague.....	Mar. 12-25.....	1		From beginning of outbreak to Feb. 15, 1922: Cases, 87.
Osorno.....	Nov. 15—Dec. 24.....	6		Jan. 6-28, 1922. Present.
Talcahuano.....	Jan. 29—Feb. 18.....	5		
Do.....	Nov. 15-21.....	9		From beginning of outbreak to Feb. 15, 1922: Cases, 122.
Temuco.....	Oct. 23—Dec. 31.....		94	
Valparaiso.....	Jan. 1—Mar. 25.....		39	
China:				
Amoy.....	Nov. 16—Dec. 31.....		7	Nov. 23-29, 1921: Present. Jan. 22-28, 1922: Present.
Do.....	Jan. 1—Apr. 15.....		21	
Antung.....	Nov. 28—Dec. 18.....	4	1	
Do.....	Mar. 19-26.....	1		
Canton.....	Dec. 1-31.....			Present.
Do.....	Feb. 1—Mar. 31.....			Do.
Changsha.....	Jan. 16-22.....	1		Do.
Chungking.....	Nov. 6—Dec. 31.....			Do.
Do.....	Jan. 1—Mar. 25.....			Manchuria.
Dairen.....	Mar. 13—Apr. 9.....	3		Present.
Foochow.....	Nov. 6—Dec. 31.....			Do.
Do.....	Jan. 1—Apr. 1.....			Do..
Hankow.....	Nov. 13—Dec. 31.....			
Do.....	Jan. 1-21.....	2		
Harbin.....	Nov. 14—Dec. 11.....	5		
Do.....	Dec. 26—Apr. 2.....	5		Manchuria.
Hongkong.....	Dec. 3-31.....	5		
Do.....	Jan. 1—Apr. 8.....	75	57	
Mukden.....	Nov. 20—Dec. 31.....			Manchuria. Present.
Do.....	Jan. 15—Apr. 15.....			Do.
Nanking.....	Nov. 20—Dec. 17.....			Present.
Do.....	Jan. 15—Apr. 8.....			Do.
Shanghai.....	Oct. 31—Dec. 31.....	23	194	Cases, foreign; deaths, Chinese and foreign. Population: Native, 790,000; foreign, 24,000. Corrected report.
Do.....	Jan 2—Apr. 16.....	35	508	Cases, foreign; deaths, native, Jan. 14, 1922: Seriously prevalent.
Tientsin.....	Dec. 11-17.....	2		In Mission Hospital.
Tsingtau.....	Jan. 1—Mar. 19.....	35	14	
Chosen (Korea):				
Fusan.....	Dec. 1-31.....	3	1	
Do.....	Jan. 1—Apr. 30.....	214	59	
Gensan.....	Feb. 1-28.....	1		
Seoul.....	Jan. 1—Mar. 31.....	12	5	
Colombia:				
Cartagena.....	Nov. 22-28.....		1	
Santa Marta.....	Feb. 19-25.....			Present.

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Cuba.....				Dec. 4-31, 1921: Cases, 361. Jan. 1-31, 1922: Cases, 257.
Antilla.....	Dec. 12-31.....	3		At Preston.
Do.....	Jan. 8-Feb. 4.....	13	1	
Cienfuegos.....	Jan. 22-May 13.....	15	1	Two cases from outside city limits. Apr. 16-22, 1922: Cases 6, found at Senado, about 25 miles distant.
Matanzas.....				In Province, Apr. 16-30, 1922.
Nuevitas.....	Apr. 10-16.....	3		
Santiago.....	Jan. 1-Apr. 30.....	11	1	
Dominican Republic.....				Oct. 1-31, 1921: Cases, 653; deaths, 54. Jan. 2-Feb. 4, 1922: Cases, 6,922; deaths, 185.
Puerto Plata.....	Jan 13.....	109	5	In district, widely diffused, with 1,000 estimated cases, with 100 deaths.
San Pedro de Macoris.....	Nov. 20-Dec. 31.....	31	1	Estimate of about 500 cases of smallpox in the district of Macoris; of these, 50 within the city limits.
Do.....	Jan. 14-Apr. 22.....	199	9	Including vicinity. In surrounding country, Feb. 12-25; 66 cases. Feb. 26-Apr. 1: About 60 cases; Apr. 30, 75 cases.
Santo Domingo.....	Nov. 15-Dec. 5.....			In district, 401 cases estimated. Dec. 17-24, 1921: Present in vicinity, Jan. 9-16, 1922: In surrounding country, 1,745 cases (estimated). Mar. 19-Apr. 1, 1922: About 20 cases, with 1 death, in surrounding country. Apr. 2-15, 1922: Cases, 25; deaths, 8. Apr. 23-29: Cases, 29; deaths, 4. Apr. 30-May 6, 1922: Present, with 4 reported deaths.
Ecuador:				
Guayaquil.....	Nov. 16-Dec 3.....	7		And vicinity.
Do.....	Jan. 1-Apr. 15.....	5		
Egypt:				
Alexandria.....	Nov. 26-Dec. 2.....	1	1	
Cairo.....	do.....	2		
Port Said.....	Dec. 20-26.....	1		Dec. 16-23, 1921: 1 case.
Do.....	Jan. 22-Apr. 29.....	2		
Finland.....				Nov. 16-30, 1921: 1 case.
Do.....				Feb. 4-15, 1922: Cases, 19. Mar. 1-Apr. 15, 1922: Cases, 33.
Flume.....				Dec. 27, 1921-Jan. 2, 1922: Cases, 2.
France:				
Bordeaux.....	Mar. 31-Apr. 6.....		1	
Great Britain:				
Manchester.....	Jan. 1-7.....	4		
Nottingham.....	Dec. 4-31.....	18		
Do.....	Jan. 8-Mar. 25.....	10		
Sheffield.....	Apr. 23-29.....	3		
Swansea.....	Jan. 17-23.....	2		Imported on vessel from Persian Gulf.
Greece:				
Saloniki.....	Mar. 19-Apr. 9.....	14	9	
Haiti.....				Jan. 22-May 6, 1922: Present.
Cape Haitien.....	Dec. 11-24.....	8		
Do.....	Jan. 1-Feb. 18.....	21	1	
Port au Prince.....	Dec. 11-31.....			Present.
Do.....	Jan. 15-21.....	2		
India.....				Oct. 2-8, 1921: Deaths, 28. Oct. 23-Nov. 19, 1921: Deaths, 266.
Bombay.....	Oct. 23-Dec. 31.....	3	2	Nov. 27-Dec. 31, 1921: Deaths, 533. Jan. 1-28, 1922: Deaths, 700.
Do.....	Jan. 1-Mar. 18.....	27	6	
Calcutta.....	Nov. 13-Dec. 31.....	37	28	
Do.....	Jan. 1-Apr. 8.....	378	261	
Karachi.....	Nov. 11-Dec. 31.....	28	9	
Do.....	Jan. 1-Apr. 15.....	266	144	
Madras.....	Nov. 13-Dec. 31.....	183	59	
Do.....	Jan. 1-Apr. 15.....	1,377	492	
Rangoon.....	Oct. 1-Dec. 31.....	6		
Do.....	Jan. 15-Apr. 1.....	87	2	

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

### SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China:				
Saigon	Dec. 18-24	1	1	City and district.
Do	Jan. 8-Mar. 18	17	8	
Italy:				
Catania	Feb. 20-26	1		In Province.
Genoa	Nov. 10-20	1		
Messina—				
Messina	Nov. 28-Dec. 4	1		
Pettino	Nov. 14-Dec. 4	2		
Venice	Jan. 30-Feb. 5	2		
Japan:				
Kobe	Jan. 23-Apr. 30	2	2	
Nagasaki	Mar. 13-19	1		
Taiwan Island	Dec. 1-31	2	1	
Do	Feb. 14-Mar. 10	2	1	
Yokohama	Jan. 9-Apr. 23	4		Corrected report.
Java:				
East Java—				
Soerabaya	Jan. 1-7	4		
West Java—				
Bandoeng	Nov. 18-Dec. 8	2		
Batavia	Nov. 18-Dec. 22	11	9	City and Province.
Do	Dec. 30-Mar. 2	5	3	
				In Province: Cases, 23; deaths, 4; 13 cases, with 3 deaths, not locally stated. Feb. 3-Mar. 30, 1922: Cases, 21; deaths, 5.
Buitenzorg	Nov. 25-Dec. 8	7	1	
Krawang	Nov. 18-24	1		
Lebak	Nov. 18-Dec. 8	7	4	
Pandegiang	Nov. 25-Dec. 1	1		
Tangerang	Nov. 18-Dec. 8	5	1	
Liberia:				
Grand Bassa County	Nov. 30			Present at Lower Buchanan.
Mesopotamia:				
Bagdad	Oct. 1-Nov. 30	117	50	Epidemic, with high mortality, November, 1921.
Do	Feb. 1-23	6	4	
Mexico:				
Chihuahua	Dec. 5-11		1	
Do	Jan. 23-Feb. 19		2	
Guadalajara	Nov. 1-Dec. 31	6		
Do	Jan. 1-Mar. 4	35	6	
Manzanillo	Apr. 25-May 1		1	
Mexico City	Nov. 20-Dec. 31	64		Including municipalities in Federal District.
Do	Jan. 1-Apr. 8	232		
Monterey	Apr. 12		2	Epidemic. Apr. 23; estimated about 16 deaths daily. Apr. 25-May 1, 1922; 9 deaths, in children.
				From San Salvador, Zacatecas, 1; from Tampico, 1.
Saltillo	Jan. 29-May 6		9	
San Luis Potosi	Dec. 18-24		2	
Do	Jan. 8-Apr. 1		18	
Torreón	Dec. 1-31		134	
Do	Jan. 1-Feb. 23		82	
Newfoundland:				
St. John	Feb. 4-10	1		
Nicaragua:				
Managua	Mar. 5			Present.
Palestine:				
Jerusalem	Jan. 10-Feb. 20	27		
Panama:				
Bocas del Toro Province—				
Sursuba	Jan. 18-Feb. 8	11		Village 24 miles from Almirante.
Chiriqui Province	Dec. 22			Present.
Do	Jan. 26			Present with center of prevalence at Boquete Bajo. At Boquete Bajo, Jan. 22-Mar. 23, 1922, 59 admissions to lazaretto. On Mar. 20, 1922, 16 cases of smallpox, confluent type.
Panama	Dec. 14	1		On Dec. 21, 1921, 1 additional case from country district of Sabanas admitted to hospital. Total admissions, Jan. 1-Dec. 21, 1921, 207.
Persia:				
Tcheran				May 22-Nov. 22, 1921: Deaths, 23.



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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

## SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Peru:				
Lima.....	Nov. 1-Dec. 31....		3	
Poland.....				Aug. 14-Dec. 31, 1921: Cases, 578; deaths, 146. Jan. 1-23, 1922: Cases, 219; deaths, 55. Exclusive of Brest-Litovsk, Minsk, and Wilno districts.
Silosia.....	May 2.....			Epidemic.
Portugal:				
Lisbon.....	Nov. 13-Dec. 31....	48	12	
Do.....	Jan. 1-Apr. 30....	187	9	1 death in January, 1 in February, 7 deaths in March.
Portuguese East Africa:				
Lourenco Marques.....	Oct. 1-Nov. 5....	2	4	
Portuguese West Africa:				
Angola—				
Loanda.....	Oct. 9-Dec. 31....		7	
Do.....	Jan. 1-Mar. 25....		6	
Rumania:				
Bucharest.....	Nov. 1-30.....		33	
Cahul.....	Jan. 1-31.....	1		District.
Chisinau.....	Dec. 1-31.....	33		Do.
Do.....	Feb. 1-23.....	17		Do.
Russia:				
Esthonia.....	Oct. 1-Dec. 31....	38		
Do.....	Feb. 1-Mar. 31....	7		
Lettonia.....	do.....	75		Name of country official, changed from Latvia to Lettonia.
Do.....	Jan. 1-Feb. 28....	38		
Senegal:				
Dakar.....	do.....	5	3	
Serbia:				
Belgrade.....	Oct. 2-Nov. 26....	16	4	
Siam:				
Bangkok.....	Oct. 23-Nov. 5....	1		
Siberia:				
Vladivostok.....	Feb. 22-28.....	1	1	
Spain:				
Barcelona.....	Jan. 8-14.....		1	
Corunna.....	Apr. 2-May 6.....		2	
Huelva.....	Oct. 1-Dec. 31....		3	
Do.....	Jan. 1-Feb. 28....	1	2	
Malaga.....	Nov. 1-Dec. 31....		60	
Do.....	Jan. 1-31.....		8	
Seville.....	Nov. 16-Dec. 31....		7	
Do.....	Jan. 8-Apr. 20....		82	
Valencia.....	Jan. 27-Mar. 25....	5	1	Mar. 9-15, 1922: One case.
Straits Settlements:				
Singapore.....	Nov. 6-Dec. 24....	49	13	
Do.....	Jan. 1-Apr. 1....	202	42	
Switzerland:				
Glarus, Canton.....	Dec. 10.....			Epidemic.
Lucerne.....	Feb. 1-23.....	12		
St. Gall.....	Feb. 12-18.....	1		
Zurich.....	Dec. 10.....	2		In vicinity.
Do.....	Mar. 12-Apr. 8....	6		
Syria:				
Adana.....	Dec. 18-24.....			Present.
Do.....	Jan. 1-14.....			Do.
Aleppo.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Apr. 15....			Do.
Alexandretta.....	do.....			Do.
Beirut.....	Oct. 9-Nov. 13....	5	2	
Do.....	Jan. 8-Mar. 27....	24	11	Dec. 29, 1921-Jan. 4, 1922: Cases, 14; deaths, 2.
Cilicia.....	Jan. 8-Feb. 4....			Present.
Diarbekir.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4....			Do.
Mersina.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-7.....			Do.
Urfa.....	Dec. 18-24.....			Do.
Do.....	Jan. 1-Feb. 4....			Do.
Tunis:				
Tunis.....	Nov. 26-Dec. 23....	17	15	
Do.....	Jan. 1-Apr. 8....	4	6	
Turkey:				
Constantinople.....	Nov. 27-Dec. 24....	20	4	
Do.....	Jan. 15-Apr. 29....	139	27	

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

**SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa.....				Nov. 1-Dec. 31, 1921: Cases, 342; deaths, 6 (colored). White, 10 cases. Jan. 1-Feb. 28, 1922: Cases, 37; deaths, 3.
Cape Province.....	Nov. 5-Dec. 31.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 42; deaths, 1 (colored).
Do.....	Jan. 8-Apr. 1.....			Outbreaks.
Natal.....	do.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 209; deaths, 5 (colored).
Durban.....	Apr. 2-8.....	1		
Orange Free State.....	Oct. 23-Dec. 24.....			Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 8 (colored).
Do.....	Feb. 5-25.....			Outbreaks.
Southern Rhodesia.....	Dec. 29-Apr. 5.....	323		Natives.
Transvaal.....	Oct. 23-Dec. 31.....			Outbreaks.
Do.....	Jan. 1-Mar. 25.....			Outbreaks. Dec., 1921: Cases, 15. Nov. 1-Dec. 31, 1921: Cases, 22 (colored). Among white population, 8 cases, State not designated.
Johannesburg District.....	Dec. 1-31.....	2		
Do.....	Jan. 1-Feb. 23.....			Outbreaks.
Venezuela:				
Ciudad Bolivar.....	Mar. 22.....	3		
Yugoslavia:				July 3-30, 1921: Cases, 37.
Bosnia Herzegovina.....	July 3-9.....	2		
Croatia Slavonia.....	do.....	1		
Dalmatia.....	do.....	1		
Serbia.....	do.....	3		
Belgrade.....	Dec. 11-17.....	4		
Do.....	Jan. 1-Feb. 18.....	6		
Slovenia.....	July 3-9.....	1		
Voivodina.....	do.....	3		
On vessels:				
S. S. Empire State.....	Apr. 7.....	1		At Honolulu, Hawaii, Mar. 31. In Chinese woman, embarked at Hongkong, Mar. 15, unvaccinated; arrived Shanghai Mar. 19, states did not go ashore; at Kobe Mar. 22; left Yokohama Mar. 24. Case was passed on inspection; developed Apr. 5, 1922.
S. S. Victoria.....	Jan. 16.....	1	1	At Thursday Island Quarantine, Australia. Vessel left Hongkong Jan. 3; case isolated Jan. 10. Vessel left for Townsville, Sydney, and Melbourne. Released at Melbourne Feb. 4, 1922.
S. S. West O'Rowa.....	Jan. 5-8.....	3	1	At Kobe, Japan, from Shanghai, China.
S. S. —.....	Jan. 17-23.....	2		At Swansea, Wales, from Persian Gulf.

**TYPHUS FEVER.**

Algeria:				
Algiers.....	Nov. 1-Dec. 31.....	3		
Do.....	Jan. 11-Apr. 30.....	15	1	
Oran.....	Dec. 21-31.....	1		
Do.....	Jan. 1-Apr. 20.....	24	14	
Argentina:				
Rosario.....	Mar. 1-31.....		1	
Asia Minor:				
Brousa.....	Jan. 15-21.....	1		
Smyrna.....	Apr. 15-21.....	1		
Austria:				
Vienna.....	Dec. 4-31.....	10		
Do.....	Jan. 1-28.....	9	1	
Bolivia:				
La Paz.....	Aug. 1-Dec. 31.....	121	98	
Do.....	Jan. 1-31.....	15	12	
Brazil:				
Sao Paulo.....	Feb. 6-12.....	12	2	

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

## TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Bulgaria:</b>				
Sofia.....	Dec. 18-24.....	1		
Do.....	Feb. 12-Apr. 8....	3		
<b>Chile:</b>				
Concepcion.....	Nov. 22-Dec. 26... ..		3	
Do.....	Jan. 3-30.....		3	
Talcahuano.....	Jan. 29-Feb. 18....	3		
Valparaiso.....	Oct. 23-Nov. 26... ..		6	
Do.....	Jan. 1-7.....		1	
<b>China:</b>				
Antung.....	Dec. 26-Jan. 1.....	1		
Do.....	Feb. 6-Apr. 9.....	9		
Harbin.....	Nov. 7-Dec. 25....	12		
Do.....	Dec. 26-Apr. 2....	42		Jan. 23, 1922: Reported extending from Soviet Russia along railway line to maritime provinces.
<b>Czechoslovakia:</b>				
Prague.....	Jan. 22-Apr. 15....	4		
<b>Danzig (free city):</b>	Feb. 23.....	1		In district, at Zoppot. In merchant from Warsaw.
<b>Egypt:</b>				
Alexandria.....	Nov. 19-Dec. 31... ..	3	1	
Do.....	Jan. 15-Apr. 22....	23	6	
Cairo.....	Oct. 1-Dec. 31....	16	14	Corrected report.
Do.....	Jan. 1-Feb. 18....	13	7	
Port Said.....	Jan. 22-Apr. 8....	3		
<b>Finland:</b>				
Helsingfors.....	Jan. 1-31.....	1		In courier from Moscow.
<b>Germany:</b>				
Breslau.....	Dec. 25-31.....	2	1	
Do.....	Jan. 1-Feb. 5.....	55	8	Including district.
Frankfort-on-Oder.....	Feb. 16.....	26		In persons returning from Russia.
Hamburg.....	Dec. 11-17.....	4		
<b>Great Britain:</b>				
Birkenhead.....	Apr. 6.....	13	3	Vicinity of Liverpool.
Glasgow.....	Dec. 25-31.....	1		
London.....	Apr. 29.....	1		Stated to have probably been contracted in Warsaw.
<b>Greece:</b>				
Patras.....	Apr. 3-9.....			One death, recurrent typhus.
Saloniki.....	Jan. 23-Apr. 9.....	105	1	Apr. 3-9, 1922: Recurrent typhus: 27 cases; Russian refugees.
<b>Mesopotamia:</b>				
Bagdad.....	Oct. 1-Dec. 31....	3	9	
Do.....	Feb. 1-28.....	1		
<b>Mexico:</b>				
Mexico City.....	Nov. 20-Dec. 31... ..	242		Including municipalities in Federal District.
Do.....	Jan. 1-Apr. 8.....	301		Do.
San Luis Potosi.....	Dec. 18-24.....		1	Dec. 25-31, 1921: Present.
Do.....	Jan. 8-Feb. 25....			Present, 1 death.
<b>Palestine:</b>				
Jerusalem.....	Dec. 27-May 1.....	18		
<b>Poland:</b>				
District—				Aug. 14-Nov. 5, 1921: Cases, 2,399; deaths, 173. Nov. 6-Dec. 3, 1921: Cases, 1,512; deaths, 105. Nov. 20-Dec. 10, 1921: Cases, 1,162; deaths, 89. Dec. 4-31, 1921: Cases, 3,600; deaths, 313. Jan. 1-28, 1922: Cases, 6,452; deaths, 643; recurrent typhus—cases, 6,268; deaths, 330. Jan. 29-Mar. 18, 1922: Cases, 12,119; recurrent typhus, 14,529. All statistics are exclusive of Brest-Litovsk, Minsk, and Wilno districts.
Bialystok.....	Nov. 20-Dec. 10... ..	116	3	
Do.....	Jan. 1-7.....	253		Jan. 1-7, 1922: Cases, 61.
Galicia—				
Lemberg.....	Jan. 3.....	229		
Kielce.....	Nov. 20-Dec. 10... ..	31	8	
Do.....	Jan. 1-7.....	28		
Krakow.....	Nov. 20-Dec. 10... ..	45	6	
Do.....	Jan. 1-7.....	53		
Lodz.....	Nov. 20-Dec. 10... ..	67		
Do.....	Jan. 1-7.....	41		
Lublin.....	Nov. 20-Dec. 10... ..	59		
Do.....	Jan. 1-7.....	147		
Lwow.....	Nov. 20-Dec. 10... ..	121	16	

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

### TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Poland—Continued.				
District—Continued.				
Nowogrod.....	Nov. 20-Dec. 10...	249	15	
Polesia.....	do.....	83	5	
Do.....	Jan. 1-7.....	450		
Posen.....	do.....	1		
Stanislawow.....	Nov. 20-Dec. 10...	88	8	
Do.....	Jan. 1-7.....	54		
Tarnopol.....	Nov. 20-Dec. 10...	86	17	
Do.....	Jan. 1-7.....	28		
Volhynia.....	Nov. 20-Dec. 10...	89	4	
Do.....	Jan. 1-7.....	107		
Warsaw.....	Nov. 20-Dec. 10...	81	2	
Do.....	Jan. 1-7.....	32		
Warsaw City.....	Nov. 20-Dec. 10...	47	5	
Do.....	Jan. 1-7.....	67		Feb. 26-Apr. 22, 1922: Cases, 255. Occurring in permanent and transient residents.
Portugal:				
Oporto.....	Jan. 8-Apr. 22.....	88	2	
Rumania:				
Bucharest.....	Nov. 1-30.....	3		
Cahul.....	Jan. 1-Feb. 28.....	7		District.
Clisinau.....	Nov. 1-Dec. 31.....	28		District. Dec. 1-31, 1921: Recurrent typhus; cases, 19.
Do.....	Feb. 1-28.....	10		
Russia:				
Esthonia.....	Oct. 1-Dec. 31.....	53		Nov. 28-Dec. 10, 1921: In Soviet Russia, cases, 7,681.
Do.....	Jan. 1-Mar. 31.....	97		Recurrent typhus, 51 cases.
Lettonia.....	Oct. 1-Dec. 31.....	341		Corrected report Oct. 1-Nov. 30, 1921: Cases, 127.
Do.....	Jan. 1-Feb. 18.....	456		
Libau.....	Jan. 15-Feb. 1.....	4		
Lithuania.....	Jan. 1-31.....	814	73	Recurrent typhus: Cases, 357; deaths, 12. Typhus: Feb. 19, 1922, 400 cases, vicinity of Kovno, with mortality of 7 per cent.
Perm.....	Nov. 23-Dec. 10...	1,408		Oct. 1-31, 1921: Cases, 839. Nov. 1-31, 1921: Cases, 2,389.
Saratov District— Markstadt.....				Sept. 1-Dec. 31, 1921: Cases, 1,967; mortality, about 10 per cent; hospital cases.
Serbia:				
Belgrade.....	Oct. 2-Nov. 26....	3	2	
Siberia.....				
Chita.....	Dec. 26.....			Jan. 23, 1922: Present in western districts.
Vladivostok.....	Dec. 25-31.....	5	1	Epidemic.
Spain:				
Madrid.....	Dec. 1-31.....		1	
Do.....	Jan. 1-Mar. 31.....		13	Corrected report.
Syria.....				
Aleppo.....	Mar. 19.....			Apr. 16-22, 1922: Reported present in interior cities.
Diarbekir.....	Mar. 5-Apr. 15.....			Present. Apr. 23-29, 1922: Present in interior localities.
Mardin.....	do.....			Present.
Do.....				Do.
Tunis:				
Tunis.....	Feb. 5-Mar. 25....	4	3	
Turkey:				
Constantinople.....	Nov. 20-Dec. 31....	19		
Do.....	Jan. 1-Apr. 8.....	122	1	
Union of South Africa.....				
Cape Province.....				Nov. 1-Dec. 31, 1921: Cases, 1,368; deaths, 295 (colored). White, 20 cases; deaths, 4. Jan. 1-30, 1922: Cases, 945; deaths, 131, occurring in native population; 14 cases with 4 deaths occurring in white population.
				Oct. 23-Dec. 24, 1921: Outbreaks. Nov. 1-Dec. 31, 1921: Cases, 1,053; deaths, 158 (colored). Among white population, 19 cases, 3 deaths.

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

Reports Received from December 31, 1921, to June 2, 1922—Continued.

### TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa—Contd.				
Cape Province.....				Jan. 1—Apr. 1, 1922: Outbreaks. Jan. 1—Feb. 28, 1922: Cases, 688; deaths, 9 (colored); cases, 11; deaths, 4 (among white population).
East London.....	Oct. 30—Dec. 24....	3		One death of European at Jenseville, Dec. 6, 1921.
Do.....	Jan. 29—Feb. 11....	2		Natives.
Durban.....	Jan. 15—21.....	1		Imported.
Natal.....	Nov. 5—Dec. 17....			Outbreaks. Stated to be prevalent only in Newcastle district. Nov. 1—Dec. 31, 1921: Cases, 135; deaths, 25 (colored). Jan. 1—Feb. 28, 1922: Cases, 41; deaths, 10 (colored). Among white population 3 cases, 1 death.
Orange Free State.....	Nov. 13—Dec. 31....			Outbreaks. Nov. 1—Dec. 31, 1921: Cases, 158; deaths, 21 (colored).
Do.....	Jan. 1—Apr. 1.....			Outbreaks. Jan. 1—Feb. 28, 1922: Cases, 176; deaths, 25.
Transvaal.....	Jan. 8—Apr. 1.....			Outbreaks. Nov. 1—Dec. 31, 1921: Cases, 35; deaths 4 (colored). White, 1 case, 1 death. Jan. 1—Feb. 28, 1922: Cases, 40; deaths, 3 (colored).
Johannesburg District.	Jan. 12—Feb. 28....	35	11	
Venezuela:				
Maracaibo.....	Dec. 20—25.....		1	
Yugoslavia.....				July 3—30, 1921: Cases, 13.
Bosnia—Herzegovina.....	July 3—9.....	1		
Croatia Slavonia—				
Zagreb.....	Jan. 1—Mar. 25....	4		
Montenegro.....	July 3—9.....	3		

### YELLOW FEVER.

Brazil:				
Pernambuco.....	Feb. 19—Mar. 18....	3	2	
Mexico.....				Year 1921: Cases, 115; deaths, 53.
Colima (State).....				Year 1921: Cases, 7; deaths, 4.
Colima.....	Oct. 27.....	4	3	
Manzanillo.....	Aug. 21.....	3	1	
Jalisco (State).....				Year 1921: Cases, 13; deaths, 7.
Guadalajara.....	Nov. 1—30.....	1	1	Imported.
Puerta Vallarta (Las Penas). Do.....	Oct. 5—Dec. 17.... Jan. 22—31.....	13 3	5 1	
Tonila.....	Aug. 31.....	1	1	
Oaxaca (State)—				
Rincon Antonio.....	Jan. 10.....	1	1	
Quintana Roo (Territory)—				
Payo Obispo.....	Aug. 8.....	1	1	Year 1921: Cases, 18; deaths, 9.
Sinaloa (State).....				
Culliacan.....	Sept. 17.....	4	1	
Guamuchil.....	Oct. 10.....	1	1	
Mazatlan.....	Aug. 21.....	1	1	Imported.
Palmar de los Leales.....	Sept. 30.....	12	7	
Tamaulipas (State).....				Year 1921: Cases, 1; deaths, 1.
Tampico.....	Jan. 11.....	1	1	
Vera Cruz (State).....				Year 1921: Cases, 75; deaths, 31.
Alamo.....	June 21.....	4	1	Oil camp.
Alvarado.....	July 3.....	1	1	
Barra de Penn.....	July 18.....	1	1	
Cordoba.....	Sept. 22.....	5	3	
Cosamalcapam.....	July 18.....	14	6	
Nogales.....	Oct. 28.....	1	1	
Orizaba.....	do.....	1	1	
Papantla.....	Jan. 14.....	6	3	
Providencia.....	Oct. 28.....	3	1	
Purga.....	Feb. 7.....	1	1	
Rancho de Santa Rosa.....	Oct. 8.....	2	1	

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

**Reports Received from December 31, 1921, to June 2, 1922—Continued.**

**YELLOW FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Vera Cruz (State)—Contd.				
Rancho "El Jaguey".....	Sept. 14.....	2	2	
San Cristobal.....	Mar. 24.....	1	.....	
San Pablo (Papantla).....	Sept. 12.....	1	.....	
San Ildefonso.....	Oct. 17.....	2	.....	
Tierra Blanca.....	Sept. 24—Nov. 12..	4	3	
Tlacotalpan.....	Sept. 14.....	1	1	
Tuxpam.....	Jan. 3.....	8	2	
Vera Cruz.....	Jan. 15.....	18	7	Two of these cases imported. Dec. 20-26, 1921: Cases, 1; deaths, 1, imported. March, 1922: One case on plantation 105 miles from port of Vera Cruz.