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EPIDEMIOLOGICAL STUDY OF THE MINOR RESPIRATORY DISEASES BY THE PUBLIC HEALTH SERVICE.

(Preliminary and Progress Report.)

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I. PURPOSE AND ORGANIZATION.

Early in the summer of 1923 the United States Public Health Service undertook a study of the epidemiological aspects of influenza and of the "common cold" and other minor respiratory disorders, because of the need for knowledge regarding the occurrence and behavior of these disorders, especially the interepidemic phases of influenza, as a basis for rational preventive measures.

With this in view, the machinery was organized to obtain many periodical reports as to the occurrence or nonoccurrence of nose and throat disorders in large groups of individuals over widely-distributed areas of the United States, these reports to cover a period of time long enough to make a morbidity and epidemiological study of value. The college groups were chosen on account of the comparatively easy access to organized groups of individuals situated in the same place and living under the same general conditions, and because it was assumed that relatively reliable and intelligent reports would be secured from persons of the class represented.

To offset the selective age grouping found in colleges and to study more intimately the behavior of minor respiratory affections in family life, groups of families all over the United States were also secured to render morbidity reports covering the occurrence or nonoccurrence of nose, throat, and chest troubles for each member of the family, including household servants. These groups represented the families of medical officers of the Army, medical officers of the Navy, the medical and scientific personnel of the Public Health Service, and the faculty members of the selected colleges.

The method of procedure was to distribute among the students of the various universities an enrollment record in which certain information was requested as to past influenza or pneumonia history, whether or not the reporter was subject to chronic nose and throat

diseases, habits as to amount of fresh air during sleep, kind of under-wear worn during the winter, amount of outdoor and indoor exercise generally taken, and the average number of colds experienced during the year.

After receipt of this information, blanks were mailed to each student twice each month, covering the periods from the 1st to the 15th and the 16th to the end of the month. He was requested to report on this blank whether or not any respiratory disorder was experienced during the period in question. If attacks had occurred, further information was requested as to duration, severity, symptoms, history of contact (if any), and other attending circumstances.

The same method of procedure was carried out with the family groups, but a different clinical report form was submitted semi-monthly on which the report was given for the entire family.

The following universities were selected for these investigations:

University.	Location.
Harvard.....	Boston, Mass.
Mount Holyoke.....	South Hadley, Mass.
Johns Hopkins.....	Baltimore, Md.
Georgetown.....	Washington, D. C.
Howard (colored).....	Washington, D. C.
Tulane.....	New Orleans, La.
Ohio State.....	Columbus, Ohio.
Chicago.....	Chicago, Ill.
Utah.....	Salt Lake City, Utah.
Montana.....	Missoula, Mont.
Arizona.....	Tucson, Ariz.
California.....	Berkeley, Calif.

The form used in collecting the clinical information is shown as follows:

**TREASURY DEPARTMENT
U. S. Public Health Service UNITED STATES PUBLIC HEALTH SERVICE
Form 2408 B**

Epidemiological Study of Common Colds and Other Minor Respiratory Affections

CLINICAL REPORT FOR THE PERIOD FROM _____ TO _____

1. During the above-mentioned period have you suffered from an attack of any of the ailments mentioned below? **yes** **no**
- 2 If so, please indicate by check (X) in proper spaces below the *nature* of such attack:

Nature of attacks reported (Check)	Was this attack re-ported in preceding report?		Date of onset	Are you now well?		If well, give date of re-recovery
	Yes	No		Yes	No	
<input type="checkbox"/> Cold (includes "cold in head" or "nose cold")						
<input type="checkbox"/> Bronchitis (includes cold in chest with cough)						
<input type="checkbox"/> Influenza (includes "grippe" or "flu")						
<input type="checkbox"/> Tonsillitis or pharyngitis (sore throat)						
<input type="checkbox"/> Hay fever ("pollen fever" or "rose cold")						
<input type="checkbox"/> Pneumonia (only if so diagnosed by physician)						

3. Did this attack keep you from work during this period? **yes** **no**
 No. of days in this period ----
4. Did this attack keep you in bed during this period? No. of days in this period ----
5. Did you have the attention of a physician for this attack?
6. Please indicate by checks (X) in proper spaces below the *symptoms* of the attack reported above (except in case of pneumonia):

- | | | |
|--|---|---|
| yes no | yes no | yes no |
| (1) <input type="checkbox"/> <input type="checkbox"/> Sudden onset | (6) <input type="checkbox"/> <input type="checkbox"/> Running of nose | (11) <input type="checkbox"/> <input type="checkbox"/> Expectoration |
| (2) <input type="checkbox"/> <input type="checkbox"/> Chill or chilliness | (7) <input type="checkbox"/> <input type="checkbox"/> Aching in body or limbs | (12) <input type="checkbox"/> <input type="checkbox"/> Sore throat |
| (3) <input type="checkbox"/> <input type="checkbox"/> Headache | (8) <input type="checkbox"/> <input type="checkbox"/> Obstruction of nostrils | (13) <input type="checkbox"/> <input type="checkbox"/> Constipation |
| (4) <input type="checkbox"/> <input type="checkbox"/> Fever | (9) <input type="checkbox"/> <input type="checkbox"/> Tightness of chest | (14) <input type="checkbox"/> <input type="checkbox"/> Other symptoms |
| (5) <input type="checkbox"/> <input type="checkbox"/> Inflammation of eyes | (10) <input type="checkbox"/> <input type="checkbox"/> Cough | (state) _____ |

7. Are you aware of any *special circumstances*, such as exposure to draft, chilling, wetting, overheating, or fatigue, which seem to you wholly or partly responsible for the onset of your attack? **yes** **no**
8. If "yes," please give brief statement of circumstances, with dates: _____
-
9. Have you any definite knowledge of having been in contact with any similar case within one to five days prior to the onset of your attack? **yes** **no**
10. If "yes," please give brief account of the exposure, with details as to intimacy and dates of contact: _____
-
11. In case you have reported an attack of "influenza," "flu" or "grippe," in this period, in what respect did it differ from an ordinary "cold?" _____
-

Dated _____, 192 . Signed _____

Please indicate any *change* of address here _____

INFORMATION FURNISHED UPON THIS RECORD WILL BE CONSIDERED CONFIDENTIAL, TO BE USED BY THE PUBLIC HEALTH SERVICE ONLY FOR STATISTICAL PURPOSES.

FIG. 1.—Form B or clinical report form upon which morbidity reports are received every two weeks.

The information as given on the enrollment record and the periodical data submitted on the clinical record are entered on an office form for each individual. Thus a continuous report is on file for future study.

The response to this appeal indicated the interest taken by the general public in assisting the Public Health Service to find out more about the respiratory diseases. The following tables give the status of the reporting universities and families from the time of enrollment to June 30, 1924:

TABLE 1.—*Status of semimonthly reports to the United States Public Health Service on respiratory diseases.*

Locality or group.	Date of enrollment.	Total enrollments on file.	Number discontinued. ¹	Number reporting at date of this report.	Percentage dropped from file.	Percentage reporting to total enrollment.	Percentage of reports delayed. ²
INDIVIDUALS.							
Baltimore.....	Nov. 1, 1923	630	47	583	7.5	92.5	14.6
Boston.....	do	1,126	172	954	15.3	84.7	23.5
Berkeley.....	Nov. 15, 1923	3,585	-----	3,585	-----	100.0	59.1
Columbus.....	do	2,302	301	2,001	13.1	86.9	42.2
Chicago.....	do	1,006	129	877	12.8	87.2	19.3
Tucson.....	Mar. 15, 1924	296	-----	296	-----	100.0	71.6
Salt Lake City.....	do	364	-----	364	-----	100.0	62.4
Missoula.....	do	55	-----	55	-----	100.0	85.4
South Hadley.....	Mar. 1, 1924	689	-----	689	-----	100.0	2.6
New Orleans.....	Oct. 15, 1923	872	288	584	33.0	67.0	30.7
Washington (colored).....	Nov. 1, 1923	1,102	529	573	48.0	52.0	39.8
Washington (white).....	Oct. 15, 1923	1,035	200	835	19.3	80.7	43.5
All localities.....		13,062	1,666	11,396	12.8	87.2	41.4
FAMILIES.							
Army.....	Jan. 1, 1924	509	62	447	12.2	87.8	2.9
Navy.....	do	97	9	88	9.3	90.7	2.3
Public Health Service.....	Oct. 1, 1923	701	79	622	11.3	88.7	1.8
Faculty.....	Jan. 1, 1924	463	60	403	12.9	87.1	11.9
All groups.....		1,770	210	1,560	11.9	88.1	4.7

¹ Discontinued either by request or nonreport.

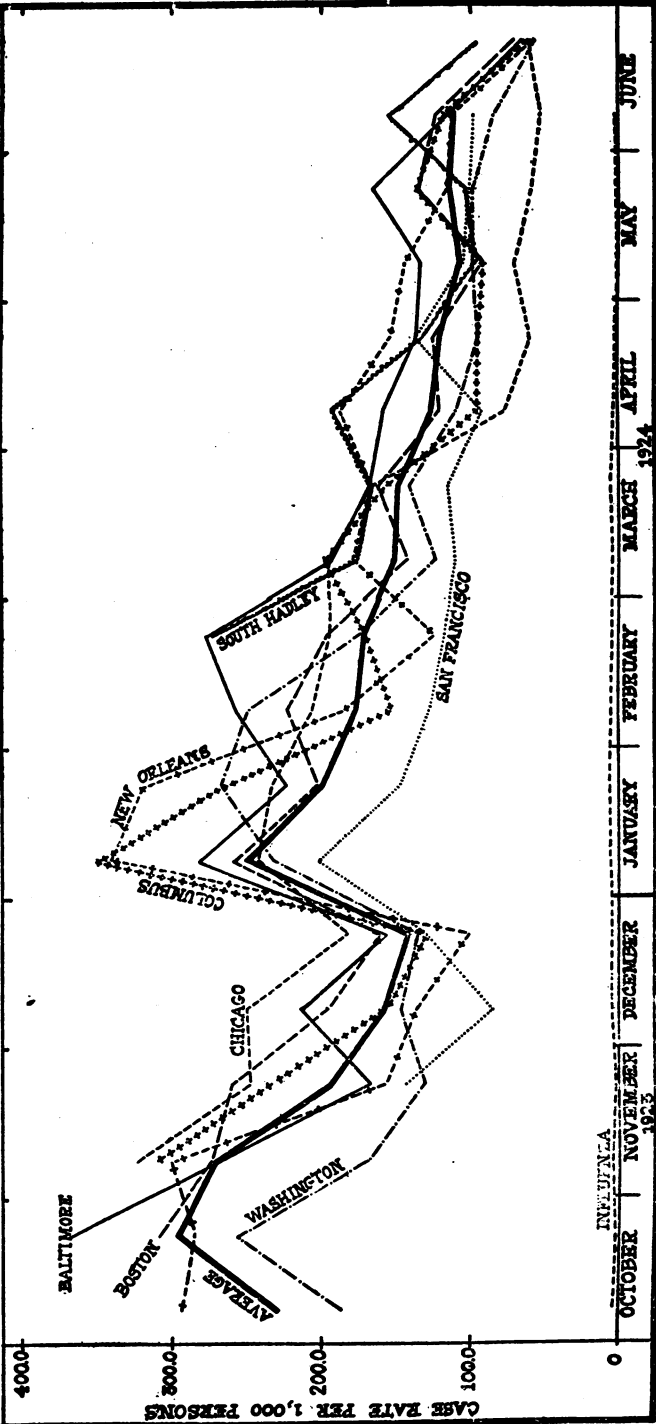
² By delayed reports is meant reports which are not submitted within two weeks after the receipt of blank by the reporter.

II. SOME PRELIMINARY OBSERVATIONS.

While no final tabulation of the data so far received has been made, some preliminary results may be presented on (1) the semi-monthly incidence rate of total respiratory affections in the various groups of college students, and (2) a trial tabulation of the records during the first five and one-half months from students in and around Boston (Oct. 15, 1923–Mar. 31, 1924).

A current morbidity chart is maintained in the office showing for every half-month the rate of total respiratory illnesses per 1,000 persons recorded. This chart is reproduced herewith for the period October 1, 1923, to June 30, 1924.

INCIDENCE OF RESPIRATORY ILLNESS PER 1,000 PERSONS REPORTING FOR EACH HALF-MONTH IN VARIOUS LOCALITIES IN THE UNITED STATES



INFLUENZA
1923

The most striking indication afforded by these graphs is the synchronous behavior of the incidence of respiratory affections in all of the localities plotted. While there are, of course, deviations from the general trend in individual localities, the major variations are common to all of the localities. The high incidence in the latter part of October was followed, in all of the localities, by a decline which continued until the latter part of December when the rate was 142 per 1,000; then a sharp rise occurred which, in all of the localities save one, reached its peak in the first part of January (rate 249 per 1,000), a period of only one-half month; this was followed by a gradual decline in the incidence in nearly all of the localities until the end of the period under consideration. In the more detailed tabulation, which will be made later, the records will be presented for shorter intervals in order to reveal whether or not there is any significant lag in the various localities represented. But even upon the basis of half-month intervals the synchronous variation of the incidence of respiratory affections in localities as widely scattered as San Francisco, New Orleans, Chicago, Boston, and Washington is unmistakably shown and is of extreme interest.

This sharp rise in respiratory affections in the first half of January suggested the possibility that there might be some easily recognizable difference between the types of the affections occurring during this rise and those occurring previous to it. Accordingly, a preliminary tabulation was made of the reports received for December 16 to 31, a period of relatively low incidence, and for January 1 to 15, a period of relatively high incidence, according to the diagnoses as given by the reporters. For San Francisco the low incidence period selected was December 1 to 15, and for Washington the high incidence period selected was January 16 to 31. The results are shown in Table 2.

TABLE 2.—Incidence of various respiratory affections, as diagnosed by the reporters, in a period of low prevalence as compared with a period of higher prevalence immediately following in several localities.

City.	Period.	Diagnosis.													
		Colds.		Bronchitis.		Influenza.		Sore throat.		Hay fever.		Pneumonia.		Others.	
		Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.	Number of cases.	Rate per 1,000.
Boston	Dec. 16-31—Low	117	141.8	7	8.5	2	2.4	6	7.3					15	18.2
	Jan. 1-15—High	190	228.6	8	9.6	2	2.4	15	18.0	1	1.2			26	31.3
Baltimore	Dec. 16-31—Low	56	124.2	2	4.4	2	4.4	10	22.2	1	2.2			15	33.3
	Jan. 1-15—High	108	243.8	7	15.8			9	20.3	1	2.2			17	38.4
Washington	Dec. 16-31—Low	49	120.7	3	7.4	2	4.9	1	2.5					6	14.8
	Jan. 1-15—High	82	232.3	7	19.8	4	11.3	1	2.8					12	34.0
New Orleans	Dec. 16-31—Low	35	88.4	2	5.1	1	2.5	2	5.1					5	12.6
	Jan. 1-15—High	124	313.1	4	10.1	3	7.6	4	10.1					11	27.8
Columbus	Dec. 16-31—Low	79	109.6	4	5.5	3	4.2	8	11.1					15	20.8
	Jan. 1-15—High	207	300.9	12	17.4	7	10.2	15	21.8					34	49.4
Chicago	Dec. 16-31—Low	77	150.7	4	7.8	5	9.8	7	13.7					16	31.3
	Jan. 1-15—High	86	200.9	3	7.0	5	11.7	9	21.0			1	2.3	18	42.1
San Francisco	Dec. 1-15—Low	93	76.8	5	4.1	3	2.5	2	1.7					10	8.3
	Jan. 1-15—High	467	177.1	22	8.3	17	6.4	24	9.1	4	1.5			67	25.4

¹ Rate per 1,000 persons from whom reports were received.

While it can not be assumed that the diagnoses as given by the student reporters are always accurate, it appears entirely proper to regard them as sufficiently accurate for the purpose of indicating whether or not any *very marked* difference in the character of the attacks occurred for the two periods in question. It will be noted that in nearly all instances the number of cases of bronchitis, influenza, and pneumonia was relatively small, the predominant form of respiratory attack apparently being the "common cold." Furthermore, while the incidence rates of bronchitis, influenza, and sore throat increased in the second period as compared with the first, they did not show significantly higher increases as compared with the increase in "common colds." The observation, therefore, seems to be warranted that this synchronous increase in respiratory affections in the several localities was of a type or kind generally similar to that prevalent in the period immediately preceding in all localities.

In order to check further the soundness of this observation, the frequency of each symptom, as given by the reporters, was ascertained for both periods in each locality. It should be remembered that the results here presented are preliminary and that the figures will probably be subject to some revision; they are, however, sufficiently accurate to indicate the main result, as shown in Table 3.

TABLE 3.—Percentage of cases of respiratory disorders with certain symptoms and attending circumstances in scattered cities of the United States during periods when respiratory morbidity rates were low and when they were high.

City.	Period.	Total number sick.	Total morbidity rate per 1,000.	Symptoms.													Average number of days sick.	Pneumonia deaths. ¹
				Sudden onset.	Chill or chilliness.	Headache.	Fever.	Inflamed eyes.	Running nose.	Aching.	Obstruction in nostrils.	Tight chest.	Cough.	Expectoration.	Sore throat.	Constipation.			Other.
Boston	Dec. 16-31—Low	134	160.0	38.1	17.9	26.1	15.7	12.7	73.3	64.9	6.0	33.5	2.6	27.6	17.9	0	53	
	Jan. 1-15—High	239	250.9	40.2	23.1	23.0	10.9	15.6	46.9	12.7	12.1	33.6	3.6	34.0	19.7	0	6	
Baltimore	Dec. 16-31—Low	175	197.2	42.6	24.0	40.0	17.3	12.0	72.0	22.7	8.0	33.3	2.6	34.7	12.0	0	53	
	Jan. 1-15—High	137	232.2	43.8	16.1	36.8	13.9	13.9	72.3	13.9	13.9	44.3	3.2	35.3	13.3	0	62	
Washington	Dec. 16-31—Low	65	135.5	56.9	23.1	33.8	13.5	70.5	70.5	24.0	16.3	47.4	3.8	23.3	23.1	0	47	
	Jan. 1-15—High	114	236.3	50.0	13.8	48.2	21.0	23.7	70.2	24.6	20.3	47.4	3.9	23.8	17.7	0	31	
New Orleans	Dec. 16-31—Low	63	101.0	46.0	23.8	33.3	19.0	22.2	79.3	17.5	16.6	46.0	3.1	22.2	15.9	0	25	
	Jan. 1-15—High	154	340.9	48.7	17.8	44.1	13.6	18.8	77.3	17.5	16.6	50.6	4.6	31.8	14.2	0	22	
Columbus	Dec. 16-31—Low	120	130.4	31.6	23.3	42.5	16.7	12.5	76.7	22.5	8.3	37.5	21.7	32.5	11.7	0	4	
	Jan. 1-15—High	455	360.3	35.5	17.5	35.5	12.8	13.6	77.9	21.9	12.4	38.1	21.4	23.7	15.9	0	11	
Chicago	Dec. 16-31—Low	103	182.0	46.6	20.4	39.8	23.3	16.5	71.8	31.1	61.2	30.1	26.2	30.1	14.6	0	121	
	Jan. 1-15—High	146	243.0	47.3	17.8	32.2	23.3	16.4	79.4	24.7	58.2	30.9	38.4	35.6	21.2	0	187	
San Francisco	Dec. 1-15—Low	90	85.1	25.6	15.6	32.2	14.4	10.0	71.1	15.6	54.4	12.2	32.2	26.7	18.9	0	26	
	Jan. 1-15—High	539	202.5	28.4	12.2	27.3	13.0	10.6	74.2	16.2	11.5	39.3	25.2	28.3	14.7	0	31	
All cities	Both periods	2,464	197.8	38.1	16.8	33.6	16.1	14.1	74.4	18.7	12.9	39.5	32.1	29.8	16.3	0	670	
All cities	Low period	650	130.1	39.7	20.8	36.2	17.7	13.8	74.0	19.7	57.7	10.9	37.1	31.5	29.5	0	285	
All cities	High period	1,814	250.9	37.6	15.4	33.1	14.2	14.2	74.5	18.4	51.6	13.6	40.4	32.4	29.9	0	376	

¹ Low: Dec. 1-15; Dec. 15-29. High: Dec. 30-Jan. 2; Jan. 19-Feb. 2.

² Pneumonia deaths were not in personnel investigated but in general population locally corresponding.

A scrutiny of this table will reveal some variations in the relative frequency of the various symptoms in the different localities for the two periods, but there is no *constant* or *marked* difference apparent between the character of the respiratory affections occurring in the two periods under consideration. Furthermore, the relative frequency of the symptoms is very much the same for all of the localities. The average number of days sick varies but slightly (rarely over one day) for both the periods and for all localities. In this instance there was no marked correlation between severity and rates.

If the respiratory disease rates for the various groups of individuals may be considered representative of what occurred in the general populations of the localities, the mortality from pneumonia (all forms) in the total populations should be of interest. The number of deaths for periods of relatively low and relatively high respiratory disease prevalence has been shown in the last column of Table 3. While the number of deaths from pneumonia increased in all localities except New Orleans, these increases were *relatively* less in every instance save one (Washington, D. C.) than the increases of respiratory affections among the groups under observation.

With the reservation that a further tabulation of a larger mass of data in more detail may indicate more definite results, the preliminary tabulation would seem to point to a synchronous variation of respiratory affections of the same type or character in widely separated localities in the United States during the period under consideration.

In developing the details of tabulating the entire mass of data, a trial tabulation was made of 1,272 new cases of minor respiratory diseases among 685 persons, mostly students, in Boston, Mass., during the five and one-half months from October 15, 1923, to March 31, 1924. This small group may or may not be representative of all the populations observed, but it is thought that some of the results may be of some interest.

It was found that of the 685 individuals, of whom all were adult white male students, only 71 reported no attacks during the five and one-half months period; 90 per cent, therefore, suffered from one or more attacks. The 1,272 cases among this population represent a rate of 1.9 colds per person, or 1,900 colds per 1,000 population, an exceedingly high morbidity. That the Boston group was not exceptional may be seen from the chart already referred to. Furthermore, it may be stated that the reports actually given probably represent the minimum number of cases, for it may be assumed that individuals often failed to report attacks because they forgot them or because they did not care to take the trouble of stating the details.

As has already been pointed out, each student upon enrollment was asked as to how many colds per year he ordinarily had. The 679 individuals who gave this information definitely were classified

according to the number of colds experienced per year, and the number of attacks actually experienced during the five-month period beginning November 1 was ascertained for the individuals in each of these groups. The results are shown in Table 4.

TABLE 4.—Comparison of number of colds reported as usually experienced with number of those reported as actually experienced during the period of observation, November 1, 1923, to March 31, 1924.

Average number of colds reported as usually experienced per person per year. ¹	Total number of persons reporting.	Number of persons actually reporting specified number of acute respiratory affections.				
		No attacks.	One attack.	Two attacks.	Three attacks.	Four or more attacks.
No colds.....	4	2	1	1	-----	-----
One cold.....	103	18	38	37	5	5
Two colds.....	201	26	83	51	29	12
Three colds.....	178	11	62	69	27	21
Four colds.....	96	8	21	37	20	10
Five or more colds.....	97	6	20	30	21	20

PERCENTAGE DISTRIBUTION.

One cold.....	100.0	17.5	36.9	35.9	4.9	4.9
Two colds.....	100.0	12.9	41.3	25.4	14.4	6.0
Three colds.....	100.0	6.2	29.2	38.8	15.2	11.2
Four colds.....	100.0	8.3	21.9	38.5	20.8	10.4
Five or more colds.....	100.0	6.2	20.6	30.9	21.6	20.6

¹ Six persons did not state number of colds experienced.

It will be noted that a very apparent correlation exists between the incidence of colds of previous years as reported by the individuals and the number of colds actually occurring during even the short period of observation.

It was felt that the character of the diagnoses as given by the reporters could be tested in some degree by the character of the symptoms that they actually reported. The attacks diagnosed as influenza, colds, bronchitis, and sore throat, numbering 1,085 in all, have been tabulated in Table 5 in such a way as to indicate the frequency of the symptoms as given by the reporters for each diagnosis.

TABLE 5.—Classification of cases according to diagnosis reported and specified symptoms, November 1, 1923, to March 31, 1924.

Diagnosis.	Number of cases with specified symptoms.														
	Total cases.	Sudden onset.	Chill or chilliness.	Headache.	Fever.	Inflammation of eyes.	Running of nose.	Aching in body or limbs.	Obstruction of nostrils.	Tightness of chest.	Cough.	Expectoration.	Sore throat.	Constipation.	All other symptoms.
Total diagnoses.....	1,065	419	149	294	109	137	816	118	628	86	322	379	316	156	31
Influenza.....	13	8	12	10	11	3	3	10	6	1	4	5	3	3	3
Colds.....	940	359	123	249	72	124	781	94	588	53	266	325	239	134	31
Bronchitis.....	48	21	6	10	8	6	21	4	23	27	41	28	17	5	5
Sore throat.....	84	31	8	25	18	4	11	10	11	6	14	22	55	14	14

PERCENTAGE DISTRIBUTION.

Total diagnoses.....	100.0	38.6	13.7	27.1	10.0	12.6	75.2	10.9	57.9	7.9	29.7	34.9	29.1	14.4	2.9
Influenza.....	100.0	61.5	92.4	76.9	84.6	23.1	23.1	76.9	46.2	7.7	30.8	38.5	23.1	5	3
Colds.....	100.0	38.2	13.1	26.5	7.7	13.2	83.1	10.0	62.6	5.6	28.3	34.6	25.4	14.2	3.3
Bronchitis.....	100.0	43.8	12.5	20.8	16.7	12.5	43.8	8.3	47.9	56.2	85.4	58.3	35.4	10.4	10.4
Sore throat.....	100.0	36.9	9.5	29.8	21.4	4.8	13.1	11.9	13.1	7.1	16.7	26.2	65.5	16.7	16.7

A study of this table indicates a rather significant grouping of symptoms according to the diagnosis given of the complaints.

It is true that the number of true influenza cases reported (13) is too small to justify any conclusions, but it is interesting to note that the cardinal influenza symptoms prevailed with sudden onset in 61 per cent of cases, chill in 92.4 per cent, headache in 76.9 per cent, fever in 84.6 per cent, and aching in 76.9 per cent.

The 940 conditions reported as plain "colds" showed the occurrence of fever in only 7.7 per cent of the cases, but 83.1 per cent reported "running of the nose," 62.6 per cent "obstruction of nostrils," and 25.0 per cent "sore throat"—a natural grouping.

As would be expected in known bronchitis, the symptoms of tight chest, cough, expectoration, and sore throat prevailed in the reported cases under that diagnosis.

These facts are emphasized to point out that the conditions as reported by the individual are fairly accurate. This accuracy may be further checked by studying the duration of the illnesses as described by different diagnoses. The mean and modal duration in days were determined for each of the diagnoses, with the exception of influenza (the number of cases of which was too small), as follows:

	Duration in days.	
	Mean.	Modal.
Bronchitis.....	10.8	9.0
Sore throat.....	5.6	4.2
Colds without cough.....	8.5	5.2
Colds with cough.....	11.7	6.5

The number of attacks of the minor respiratory diseases during the five and one-half months' period as compared with miscellaneous information obtained from the enrollment records showed nothing very definite.

There were not enough cases studied to render satisfactory returns on the question of actual severity, such as whether or not the reporter was away from work and whether or not a physician was seen. Of the sore throats reported, 8.3 per cent were seen by a physician, 5.1 per cent of the bronchitis cases were visited by medical men, while 4.1 per cent of those reporting colds without cough and 8.9 per cent of those reporting colds with cough received the services of a physician.

As tabulation of the collected data from all places studied progresses, subsequent findings will be reported and published for comparative study.

REPORT OF REEXAMINATION OF A CHILD IN WHOM LEP- ROSY DEVELOPED AT NINETEEN MONTHS OF AGE.

By WILLIAM J. GOODHUE, Medical Superintendent Molokai Leper Settlement, and H. E. HASSELTINE, Surgeon, United States Public Health Service, Director United States Leprosy Investigation Station.

In 1916 one of us (W. J. G.), with McCoy, reported a case of "Leprosy in a Nineteen Months Old Child" (Public Health Bulletin No. 75).

After a reexamination of the child by one of us (H. E. H.) in January, 1924, followed by another examination in June, 1924, it is felt that a further record of this case is a worthy contribution to medical literature. In order to give the reader full information, the case report as published in 1916 is quoted below in full:

The history of the present case is as follows: The patient (H. K.), a female child, was 19 months of age at the time of our first examination. The father is a leper of the anesthetic type. He is 41 years of age and has lived at the Molokai Settlement 20 years. He is the father of three children by three other wives. None of these children, so far as known, have developed leprosy. The mother is a leper, also of the nerve type. She is 40 years of age and has been in the settlement about 16 years. She is the mother of five children by two former husbands. None of these children, so far as is known, have developed leprosy.

The patient was fairly well nourished and appeared to be as well developed as the average child at the nursery. The only other disease from which she had suffered was scabies.

The lesions were a triangular leucodermic area on the right cheek and a few irregularly shaped areas of the same nature on the back of each thigh, all of which had existed for some months. These areas were not anesthetic. We are uncertain as to their significance, as leucodermic areas are common among Hawaiians other than those having leprosy, though frequently they are early signs of the disease. On the flexor surface of the left forearm was a reddish-brown nodule about 12 millimeters in the long axis by 8 millimeters in the short one and projecting about 2 millimeters above the surface. It was said to have appeared

about two weeks before our examination was made. When cut into, the nodule had the grayish-white appearance so commonly seen in leprosy lesions.

A smear from the juice of the nodule showed a moderate number of acid-fast bacilli having the grouping characteristic of leprosy bacilli from tissue. A smear from the leucodermic area on the cheek was negative for acid-fasts, as were those from each nostril.

The histological appearance of the nodule was entirely consistent with a leprosy nodule. Acid-fasts were readily demonstrated in sections. There was no evidence of necrosis.

The child had been removed to clean (nonleprosy) surroundings within six hours after birth, as is the custom at the settlement, and since that time had not been in contact with lepers. Some of the caretakers of the children are the wives of lepers. So far as we have been able to determine, this is the first child to develop leprosy among about 100 that have been born at the Molokai Settlement since the plan was adopted of placing the children at once after birth in a nursery (removing them from a leprosy environment).

We examined the child a second time after an interval of four months and there was no evidence of progress of the disease. The scar left by the excision of the nodule was free from acid-fast organisms.

After the examination reported above (October, 1915), the child was kept apart from other children under observation, and it was hoped that the excision of the nodule might result in the eradication of the disease. However, in May, 1916, another examination showed a few atypical acid-fast organisms in the scar at the site of the excised nodule, and thereupon the child was declared a leper and returned to the custody of her parents in the Settlement (Report of President of Board of Health of Hawaii, 1916, p. 65).

In the light of information obtained by us from other cases where excision of nodules has been done, it is thought that, had observation been continued, negative bacteriological findings would probably have been obtained. In several cases where excision of a well-defined nodule has been made, snips made from the scar have yielded acid-fast organisms for a few months, but after a few more months the organisms could no longer be found in the scar.

REEXAMINATION ON JANUARY 8, 1924.

A well-developed, well-nourished Hawaiian girl. Age, 10 years. Weight, 86 pounds.

Face.—Forehead normal. Eyebrows and eyelids normal. No paralysis of any facial muscles present. In the lower portion of the right cheek is a leucodermic area, approximately triangular in shape, one side of the triangle following the margin of the lower jaw, the upper and posterior legs of the triangle being irregular and somewhat serrated in appearance. Antero-posteriorly this area is $1\frac{3}{4}$ inches at its greatest dimension and extends upward from the lower border of the jaw about $1\frac{1}{4}$ inches at its highest point. The mother states that this spot appeared when the patient was about one year of age.

Sensation in this leucodermic area is normal. In the left temporal region 1 inch posterior to the outer canthus of the eye is a circular scar $\frac{1}{4}$ inch in diameter. Mouth and lips normal. Nasal alae normal, and nasal cavities appear normal.

Ears.—Normal in size, shape, and thickness.

Neck.—Normal.

Body.—On the right side below the axilla is a circular scar $\frac{1}{4}$ inch in diameter. On the abdomen there are several ill-defined pigmented spots very commonly seen in members of the Hawaiian race.

Upper extremities.—On the outer aspect of the right arm is a small circular pigmented scar about $\frac{3}{8}$ inch in diameter, and on the outer aspect of the right forearm is a scar similar in size and shape. On the flexor aspect of the left forearm is a scar $1\frac{1}{4}$ inches by $\frac{1}{4}$ inch, the long dimension lying transverse to the long axis of the forearm. This scar marks the site of the nodule excised over eight years ago and on which the diagnosis of leprosy was based.

Lower extremities.—On both legs there are numerous small circular scars averaging $\frac{1}{4}$ inch in diameter. On the front of the left thigh are two irregular scars of recent sores which appear to be the result of infection of wounds received while at play. None of the scars is indurated, the skin seeming normal around each cicatrix.

No anesthesia could be found in any portion of the body, particular attention being given to tests for thermal anesthesia. Bacteriological specimens of serum were obtained from the scar on the forearm (the site of the former nodule), and a smear of the nasal mucus was also examined, but no acid-fast bacilli could be found.

EXAMINATION ON JUNE 21, 1924.

Another examination on June 21, 1924, found the child's condition unchanged, except that the recent sores on the legs, noted in January, were fully healed.

If the child were to be brought before a board of physicians as a suspect to determine whether she is or is not a leper, the evidence obtained from physical examination would be overwhelmingly in favor of declaring her not a leper. This is not to be construed as a criticism of the previous examiners who declared her a leper upon the findings reported by Goodhue and McCoy. Their evidence is unimpeachable. It therefore seems probable that the hope that was abandoned in May, 1916, has actually been realized. This belief is strengthened by the results more recently obtained by us by the surgical removal of nodules in other patients who have a few nodules which are small and well defined.

Thin, in his book on leprosy, makes the following statements: "On the hypothesis that leprosy is at first a purely local disorder, Dr. Beavan Rake considers that if a case is found sufficiently early,

free removal with the knife, followed by rubbing with nitric acid and the use of large doses of mercury internally, might arrest the disease. So far this treatment is purely experimental and the experiments have not been sufficiently continued." He also mentions a case of "a woman at Molde whose leg has been amputated because the limb was affected with leprosy," and the woman has continued well for seven years.

It should be added that the case reported herein has not received any medicinal treatment directed especially against leprosy. She has continued to live with her parents, both of whom are lepers of the nerve type. The parents would both be classed as a relatively slight danger to others, as the disease is not highly active in them. Recently a relative of the family, who is an extremely heavy and active case, has entered the Settlement, and taken up his abode with the family. If this child develops active leprosy in the future, the question of whether it is a recrudescence of her former infection or the result of a new infection received from others, including this recently arrived relative, is one that probably will never be definitely answered.

A COMPARATIVE STUDY OF THE SCHULTE-TIGGES AND THE ZIEHL-NEELSEN METHODS OF STAINING *B. LEPRAE*.

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In 1920 H. Schulte-Tigges¹ described a new method of staining tubercule bacilli, and in 1923 Shoub reported more favorable results with this method than with the Ziehl-Neelsen method (Journal of Bacteriology, vol. 8, p. 121).

In the hope that this method might give better results in the search for *B. leprae*, particularly in lepers who have improved to a degree that makes it difficult to find the organism in their lesions, a comparison of the two methods was made at the Leprosy Investigation Station at Honolulu, Hawaii.

Duplicate slides were prepared when the routine bacteriological examination of patients was made. Each slide carried two smears of serous fluid expressed from a nodule, or other leprosy lesion, and one smear of nasal mucus obtained by scraping the nasal mucosa at any point where the suspicion of leprosy lesions was greatest. These two classes of specimens are known in the laboratory as "snips" and "nasal scrapings."

The technique of obtaining these specimens may be of interest. A "snip" is made by grasping an area of affected skin between the

¹Deutsche Medizinische Wochenschrift, vol. 45, p. 1225.

thumb and index finger of the left hand and applying pressure until the part appears anemic. While still holding the area a slight incision of the skin is made with the corner of a safety-razor blade. The pressure causes a slight amount of serous fluid, more or less blood tinged, to appear in the incision. This is then taken up on the corner of the razor blade and smeared upon a slide. The blade is then reversed and a similar specimen obtained from another suspected area of skin with the other corner of the blade. The blade is then discarded. Too much blood should be avoided, but a small amount is desired, as it acts as a guide to locate the smear under the microscope.

The nasal smear is obtained by scraping the site of a nodule or ulcer on the septum or turbinates with a small instrument which has one edge sufficiently sharp to allow a slight incision to be made, if desired. This material is smeared on the slide, using the instrument to spread the same, after which the instrument is sterilized by passing through a free flame and is allowed to cool before being used on the next patient. In this way the two snips and nasal smear from a patient are placed on one slide, which allows staining of all three specimens at once. Each slide has a label, or mark, to identify it with the patient from whom it is taken. The slides are fixed by passing through a free flame.

The technique of staining by the two methods is as follows:

Ziehl-Neelsen method:

- (1) Flood the slide with carbol fuchsin solution (basic fuchsin, 1; 5 per cent phenol solution, 100; absolute alcohol, 10).
- (2) Heat the slide to steaming and continue the heat for *one* minute; avoid boiling.
- (3) Wash off the excess of stain with tap water and decolorize with 10 per cent sulphuric acid.
- (4) Wash off excess of acid with tap water and counterstain with Loeffler's methylene blue.
- (5) Wash with tap water. Stand slide on end to drain off water and allow to dry without blotting.

Schulte-Tigges method:

- (1) Flood the slide with carbol fuchsin solution (same solution as used in Ziehl-Neelsen method).
- (2) Heat the slide to steaming and continue *one* minute, avoiding boiling.
- (3) Wash off excess of stain in tap water and decolorize with 10 per cent aqueous solution of sodium sulphite.
- (4) Wash in tap water and counterstain with a saturated aqueous solution of picric acid.
- (5) Wash off excess of picric-acid solution. Stand slide on end to drain off water and allow to dry without blotting.

Duplicate slides were made from 100 lepers, one slide being stained by the Ziehl-Neelsen method, the other by Schulte-Tigges method, and the findings of each recorded. The results are shown in the following table:

	Snips.	Nasal scrapes.
Positive by both methods.....	79	41
Negative by both methods.....	100	53
Positive by Ziehl-Neelsen, negative by Schulte-Tigges.....	13	3
Negative by Ziehl-Neelsen, positive by Schulte-Tigges.....	8	3
Total.....	200	100

In this small series the Ziehl-Neelsen method gave five more positive results in the preparations made from the skin lesions than did the Schulte-Tigges method, while in the nasal smears the two methods were equally efficient.

However, it is the opinion of both of us that the blue background of the Ziehl-Neelsen method makes the search for the specimen much easier on the microscopist's eye than the yellowish-pink background of the Schulte-Tigges method. We feel that the Ziehl-Neelsen method is preferable for routine examinations for *B. leprae*.

NO DEATHS FROM SMALLPOX IN BUFFALO, N. Y., IN 1923—A CORRECTION.

The report of two deaths from smallpox in Buffalo, N. Y., in 1923, PUBLIC HEALTH REPORTS, July 11, 1924, page 1689, was an error, no deaths from smallpox having occurred in Buffalo in that year. The correction appearing on page 2574 of PUBLIC HEALTH REPORTS for October 10, 1924, should have been for Buffalo instead of Albany.

DEATHS DURING WEEK ENDED OCTOBER 11, 1924.

Summary of information received by telegraph from industrial insurance companies for week ended October 11, 1924, and corresponding week of 1923. (From the Weekly Health Index, October 15, 1924, issued by the Bureau of the Census, Department of Commerce.)

	Week ended October 11, 1924.	Corresponding week, 1923.
Policies in force.....	57, 217, 106	53, 673, 471
Number of death claims.....	9, 453	7, 755
Death claims per 1,000 policies in force, annual rate.....	8. 6	7. 5

Deaths from all causes in certain large cities of the United States during the week ended October 11, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, October 15, 1924, issued by the Bureau of the Census, Department of Commerce.)

City.	Week ended Oct. 11, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Oct. 11, 1924. ¹
	Total deaths.	Death rate. ¹		Week ended Oct. 11, 1924.	Corresponding week, 1923.	
Total (65 cities).....	5,977	11.5	10.8	789	808	
Akron.....	28			8	9	85
Albany ¹	29	12.8	11.1	3	5	68
Atlanta.....	79	18.1	16.4	11	12	
Baltimore ¹	194	12.9	12.7	35	26	104
Birmingham.....	51	13.2	8.5	5	2	
Boston.....	209	14.0	13.1	29	28	80
Bridgeport.....	22			3	5	48
Buffalo.....	123	11.8	12.5	22	21	92
Cambridge.....	19	8.9	8.8	2	1	35
Camden.....	19	7.8	8.0	1	3	16
Canton.....	12	6.1	10.0	2	3	44
Chicago ¹	606	10.7	10.4	84	105	78
Cincinnati.....	801	12.9	14.1	6	10	38
Cleveland.....	174	9.9	9.4	21	25	53
Columbus.....	59	11.5	15.4	13	11	123
Dallas.....	47	13.0	12.3	5	14	
Dayton.....	28	8.6	6.9	5	5	84
Denver.....	89			8	10	
Des Moines.....	29	10.4	9.3	3	8	
Detroit.....	225			44	31	82
Duluth.....	23	11.1	3.4	3	3	65
Erie.....	26			3	2	62
Fall River ¹	41	17.7	12.9	13	7	183
Flint.....	17			6	6	104
Fort Worth.....	23	8.1	10.5	7	6	
Grand Rapids.....	20	7.0	8.2	0	3	0
Houston.....	35			3	2	
Indianapolis.....	79	11.8	15.7	4	19	29
Jacksonville, Fla.....	34	17.3	18.2	5	5	
Jersey City.....	76	12.7	10.1	10	6	71
Kansas City, Kans.....	24	10.6	14.0	0	4	0
Kansas City, Mo.....	102	14.8	12.2	12	9	
Los Angeles.....	158			25	19	78
Louisville.....	55	11.1	11.1	10	7	93
Lowell.....	27	12.2	16.3	8	5	143
Lynn.....	22	11.1	10.2	1	1	25
Memphis.....	58	17.6	11.3	12	4	
Milwaukee.....	76	8.1	9.6	10	24	47
Minneapolis.....	69	8.6	9.0	4	10	21
Nashville ¹	39	16.5	14.5	8	2	
New Bedford.....	25	9.8	8.8	4	5	62
New Haven.....	49	14.5	11.5	6	9	79
New Orleans.....	127	16.2	15.2	13	11	
New York.....	1,271	11.0	9.3	155	132	63
Bronx Borough.....	133	8.0	6.5	17	10	60
Brooklyn Borough.....	423	10.0	8.5	56	46	60
Manhattan Borough.....	566	13.0	11.1	70	66	71
Queens Borough.....	116	10.9	7.9	10	7	50
Richmond Borough.....	33	13.2	13.1	2	3	37
Newark, N. J.....	62	7.3	8.6	9	9	42
Norfolk.....	25	7.9	13.1	2	6	36
Oakland.....	44	9.3	8.3	5	3	63
Oklahoma City.....	17	8.5		1		
Omaha.....	54	13.5	10.2	9	6	96
Paterson.....	26	9.6	10.1	2	2	34
Philadelphia.....	403	10.8	10.8	65	61	83
Pittsburgh.....	174	14.5	13.5	26	28	88
Portland, Oreg.....	56	10.5	9.7	3	6	31
Providence.....	56	12.0	14.4	10	12	81
Richmond.....	52	14.8	13.8	4	11	49
Rochester.....	70	11.2		12		95

¹ Annual rate per 1,000 population.

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

³ Data for 63 cities.

⁴ Deaths for week ended Friday, October 10, 1924.

Deaths from all causes in certain large cities of the United States during the week ended October 11, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, October 15, 1924, issued by the Bureau of the Census, Department of Commerce)—Continued.

City.	Week ended Oct. 11, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Oct. 11, 1924.
	Total deaths.	Death rate.		Week ended Oct. 11, 1924.	Corresponding week, 1923.	
St. Louis.....	195	12.5	11.6	18	22	.....
St. Paul.....	49	10.5	12.3	4	8	34
Salt Lake City ⁴	23	9.3	5.8	4	1	80
San Antonio.....	50	13.6	11.0	5	6	.....
San Francisco.....	133	12.6	11.8	6	7	36
Schenectady.....	21	10.9	11.1	3	2	89
Seattle.....	72	.....	.....	5	1	49
Somerville.....	19	9.9	10.0	2	2	54
Spokane.....	26	.....	.....	2	1	44
Springfield, Mass.....	24	8.4	10.1	6	9	101
Syracuse.....	54	15.0	9.6	9	3	112
Tacoma.....	17	8.6	7.7	1	2	24
Toledo.....	63	11.9	13.6	11	14	104
Trenton.....	42	16.9	6.5	8	3	133
Utica.....	24	11.9	14.1	3	3	65
Washington, D. C.....	111	11.9	12.5	17	15	99
Waterbury.....	19	.....	.....	3	1	70
Wilmington, Del.....	28	12.2	8.0	6	1	134
Worcester.....	47	12.5	10.6	4	13	48
Yonkers.....	19	9.0	6.8	2	2	44

⁴ Deaths for week ended Friday, October 10, 1924.

CONNECTICUT.		ILLINOIS—continued.	
	Cases.		Cases.
Cerebrospinal meningitis.....	2	Poliomyelitis:	
Chicken pox.....	21	Cook County.....	3
Diphtheria.....	39	Johnson County.....	1
Favus.....	1	Kane County.....	1
German measles.....	5	La Salle County.....	1
Influenza.....	2	Scarlet fever:	
Lethargic encephalitis.....	2	Cook County.....	82
Measles.....	4	La Salle County.....	13
Mumps.....	9	Scattering.....	89
Pneumonia (lobar).....	17	Smallpox:	
Poliomyelitis.....	2	Chicago.....	9
Scarlet fever.....	56	Carroll County.....	22
Septic sore throat.....	1	Edgar County.....	9
Tuberculosis (all forms).....	26	Scattering.....	4
Typhoid fever.....	6	Tuberculosis.....	253
Whooping cough.....	51	Typhoid fever.....	32
		Whooping cough.....	165
DELAWARE.		INDIANA.	
Chicken pox.....	1	Chicken pox.....	47
Diphtheria.....	3	Diphtheria.....	87
Scarlet fever.....	9	Influenza.....	23
Tuberculosis (pulmonary).....	2	Measles.....	10
Typhoid fever.....	3	Mumps.....	5
		Pneumonia.....	5
FLORIDA.		Poliomyelitis.....	2
Cerebrospinal meningitis.....	1	Scarlet fever.....	79
Diphtheria.....	17	Smallpox.....	38
Influenza.....	5	Trachoma.....	1
Malaria.....	23	Tuberculosis.....	31
Pneumonia.....	5	Typhoid fever.....	18
Poliomyelitis.....	1	Whooping cough.....	21
Scarlet fever.....	2		
Typhoid fever.....	11	IOWA.	
		Diphtheria.....	22
GEORGIA.		Poliomyelitis.....	1
Chicken pox.....	4	Scarlet fever.....	20
Diphtheria.....	78	Smallpox.....	15
Dysentery (amebic).....	1	Typhoid fever.....	1
Hookworm disease.....	14		
Influenza.....	12	KANSAS.	
Malaria.....	22	Chicken pox.....	46
Mumps.....	35	Diphtheria.....	95
Pneumonia.....	8	Measles.....	6
Scarlet fever.....	9	Mumps.....	32
Smallpox.....	6	Pneumonia.....	6
Tuberculosis.....	8	Poliomyelitis.....	1
Typhoid fever.....	11	Scarlet fever.....	74
Whooping cough.....	10	Septic sore throat.....	1
		Smallpox.....	1
ILLINOIS.		Tetanus.....	1
Cerebrospinal meningitis:		Trachoma.....	40
Bureau County.....	1	Tuberculosis.....	22
Cook County.....	1	Typhoid fever.....	28
Diphtheria:		Whooping cough.....	29
Cook County.....	66		
Williamson County.....	12	LOUISIANA.	
Scattering.....	61	Diphtheria.....	18
Influenza.....	17	Hookworm disease.....	106
Lethargic encephalitis:		Influenza.....	6
Fulton County.....	1	Malaria.....	44
Peoria County.....	1	Measles.....	7
Measles.....	40	Pneumonia.....	28
Pneumonia.....	142	Poliomyelitis.....	1
		Scarlet fever.....	4
		Tuberculosis.....	46
		Typhoid fever.....	34

MAINE.	
	Cases.
Chicken pox.....	18
Diphtheria.....	6
Measles.....	5
Mumps.....	28
Pneumonia.....	6
Poliomyelitis.....	15
Scarlet fever.....	24
Tuberculosis.....	4
Typhoid fever.....	17
Vincent's angina.....	1
Whooping cough.....	11

MARYLAND. ¹	
	Cases.
Cerebrospinal meningitis.....	2
Chicken pox.....	21
Diphtheria.....	52
Dysentery.....	4
Influenza.....	11
Malaria.....	3
Measles.....	1
Mumps.....	17
Ophthalmia neonatorum.....	2
Paratyphoid fever.....	1
Pneumonia (all forms).....	28
Poliomyelitis.....	11
Scarlet fever.....	33
Septic sore throat.....	1
Smallpox.....	1
Tuberculosis.....	40
Typhoid fever.....	37
Typhus fever.....	1
Whooping cough.....	59

MASSACHUSETTS.	
	Cases.
Cerebrospinal meningitis.....	6
Chicken pox.....	110
Conjunctivitis (suppurative).....	13
Diphtheria.....	118
Dysentery.....	1
German measles.....	5
Hookworm disease.....	1
Influenza.....	2
Measles.....	58
Mumps.....	30
Ophthalmia neonatorum.....	21
Pellagra.....	1
Pneumonia (lobar).....	54
Poliomyelitis.....	10
Scarlet fever.....	146
Septic sore throat.....	2
Tuberculosis (all forms).....	123
Typhoid fever.....	16
Whooping cough.....	62

MICHIGAN.	
	Cases.
Diphtheria.....	107
Measles.....	69
Pneumonia.....	53
Scarlet fever.....	203
Smallpox.....	12
Tuberculosis.....	202
Typhoid fever.....	17
Whooping cough.....	50

MINNESOTA.	
	Cases.
Chicken pox.....	88
Diphtheria.....	124
Lethargic encephalitis.....	1
Measles.....	7
Pneumonia.....	1
Poliomyelitis.....	13
Scarlet fever.....	185
Smallpox.....	87
Tuberculosis.....	42
Typhoid fever.....	9
Whooping cough.....	16

MISSISSIPPI.	
	Cases.
Diphtheria.....	15
Scarlet fever.....	10
Smallpox.....	1
Typhoid fever.....	22

MISSOURI.	
	Cases.
Chicken pox.....	27
Diphtheria.....	93
Influenza.....	4
Malaria.....	1
Measles.....	4
Mumps.....	7
Ophthalmia neonatorum.....	3
Pneumonia.....	13
Poliomyelitis.....	1
Scarlet fever.....	207
Smallpox.....	8
Tetanus.....	1
Trachoma.....	1
Tuberculosis.....	39
Typhoid fever.....	32
Whooping cough.....	10

MONTANA.	
	Cases.
Diphtheria.....	12
Poliomyelitis:	
Butte.....	1
Deer Lodge.....	1
Miles City.....	2
Scarlet fever.....	21
Smallpox.....	3
Typhoid fever.....	3

NEBRASKA.	
	Cases.
Cerebrospinal meningitis.....	1
Chicken pox.....	23
Diphtheria.....	33
Pneumonia.....	2
Scarlet fever.....	22
Septic sore throat.....	1
Smallpox.....	1
Tuberculosis.....	3
Typhoid fever.....	2
Whooping cough.....	2

NEW JERSEY.	
	Cases.
Chicken pox.....	79
Diphtheria.....	99
Influenza.....	4
Malaria.....	1
Measles.....	19
Pneumonia.....	50

¹ Week ended Friday.

NEW JERSEY—continued.

	Cases.
Poliomyelitis.....	2
Scarlet fever.....	56
Trachoma.....	2
Typhoid fever.....	18
Whooping cough.....	116

NEW MEXICO.

Conjunctivitis.....	1
Diphtheria.....	6
Influenza.....	4
Measles.....	5
Paratyphoid fever.....	1
Pneumonia.....	3
Scarlet fever.....	1
Tuberculosis.....	9
Typhoid fever.....	3
Whooping cough.....	7

NEW YORK.

(Exclusive of New York City.)

Diphtheria.....	103
Influenza.....	8
Lethargic encephalitis.....	2
Measles.....	88
Pneumonia.....	125
Poliomyelitis.....	25
Scarlet fever.....	133
Smallpox.....	8
Typhoid fever.....	37
Whooping cough.....	145

NORTH CAROLINA.

Cerebrospinal meningitis.....	2
Chicken pox.....	21
Diphtheria.....	306
Measles.....	12
Scarlet fever.....	71
Septic sore throat.....	5
Smallpox.....	7
Typhoid fever.....	20
Whooping cough.....	130

OKLAHOMA.

(Exclusive of Tulsa and Oklahoma City.)

Diphtheria.....	19
Influenza.....	2
Malaria.....	1
Smallpox.....	1
Typhoid fever.....	21

OREGON.

Chicken pox.....	23
Diphtheria:	
Portland.....	9
Scattering.....	23
Lethargic encephalitis.....	11
Measles.....	2
Mumps.....	1
Pneumonia.....	14
Poliomyelitis.....	6
Scarlet fever.....	22
Septic sore throat.....	1
Smallpox.....	7
Tuberculosis.....	4
Typhoid fever.....	5
Whooping cough.....	5

SOUTH DAKOTA.

	Cases.
Chicken pox.....	1
Diphtheria.....	1
Poliomyelitis.....	6
Scarlet fever.....	30
Smallpox.....	2
Typhoid fever.....	4

TEXAS.

Anthrax.....	3
Chicken pox.....	8
Dengue.....	24
Diphtheria.....	63
Dysentery (epidemic).....	40
Influenza.....	179
Lethargic encephalitis.....	1
Malta fever.....	3
Measles.....	65
Mumps.....	4
Ophthalmia neonatorum.....	6
Paratyphoid fever.....	3
Pellagra.....	26
Pneumonia.....	19
Scarlet fever.....	40
Smallpox.....	17
Tetanus.....	1
Trachoma.....	19
Typhoid fever.....	62
Tuberculosis.....	45
Whooping cough.....	23

VERMONT.

Chicken pox.....	10
Diphtheria.....	6
Measles.....	10
Mumps.....	8
Scarlet fever.....	2
Typhoid fever.....	1
Whooping cough.....	9

WASHINGTON.

Chicken pox.....	50
Diphtheria.....	35
Measles.....	6
Mumps.....	16
Poliomyelitis:	
Benton County.....	1
Chelan County.....	2
Grant County.....	1
Lewis County.....	1
Mason County.....	1
Pierce County.....	6
Skagit County.....	4
Spokane County.....	1
Stevens County.....	4
Thurston County.....	2
Yakima County.....	1
Seattle.....	6
Spokane.....	8
Tacoma.....	13
Vancouver.....	1
Yakima.....	1
Scarlet fever.....	24
Smallpox.....	3
Tuberculosis.....	25
Typhoid fever.....	16
Whooping cough.....	8

¹ Deaths.

WEST VIRGINIA.		Cases.
Diphtheria.....	11	
Scarlet fever.....	15	
Typhoid fever.....	13	
WISCONSIN.		Cases.
Milwaukee:		
Chicken pox.....	29	
Diphtheria.....	11	
German measles.....	4	
Measles.....	3	
Mumps.....	12	
Pneumonia.....	1	
Scarlet fever.....	12	
Tuberculosis.....	9	
Whooping cough.....	29	
Scattering:		
Chicken pox.....	91	
Diphtheria.....	61	
Influenza.....	12	

WISCONSIN—continued.		Cases.
Scattering—Continued.		
Measles.....	23	
Mumps.....	3	
Pneumonia.....	4	
Poliomyelitis.....	2	
Scarlet fever.....	99	
Smallpox.....	6	
Tuberculosis.....	32	
Typhoid fever.....	7	
Whooping cough.....	49	
WYOMING.		Cases.
Chicken pox.....	8	
Impetigo contagiosa.....	2	
Measles.....	1	
Mumps.....	2	
Scarlet fever.....	16	
Tuberculosis.....	1	
Whooping cough.....	5	

Reports for Week Ended October 11, 1924.

DISTRICT OF COLUMBIA.		Cases.
Chicken pox.....	2	
Diphtheria.....	9	
Measles.....	2	
Scarlet fever.....	14	
Smallpox.....	1	
Tuberculosis.....	23	
Typhoid fever.....	3	
Whooping cough.....	9	
NEBRASKA.		Cases.
Chicken pox.....	3	
Diphtheria.....	30	
Poliomyelitis.....	1	

NEBRASKA—continued.		Cases.
Scarlet fever.....	13	
Typhoid fever.....	3	
NORTH DAKOTA.		Cases.
Measles.....	2	
Mumps.....	2	
Pneumonia.....	2	
Poliomyelitis.....	5	
Scarlet fever.....	6	
Trachoma.....	6	
Tuberculosis.....	2	
Typhoid fever.....	1	
Whooping cough.....	45	

SUMMARY OF MONTHLY REPORTS FROM STATES.

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

State.	Cerebro-spinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
<i>September, 1924.</i>										
Arizona.....		7		3	1			15	2	21
Florida.....	1	59	9	109	9	19		1	1	49
Indiana.....	4	163	49		23		15	143	52	103
Louisiana.....	1	51	9	90	14	9	3	15	14	106
Michigan.....		334	5		148		285	489	44	118
New Jersey.....	7	224	11	7	58		23	150	15	71
New York.....	19	744	55	9	301		329	442	12	319
Vermont.....	0	7	0	0	14	0	5	29	0	0
West Virginia.....	2	103	14		18		6	101	2	204
Wisconsin.....	3	186	28	0	74	0	21	266	40	28
Wyoming.....		2			7		3	12	3	6

Number of Cases of Certain Communicable Diseases Reported for the Month of July, 1924, by State Health Officers.

State.	Chick- en pox.	Diph- theria.	Meas- les.	Mumps.	Scarlet fever.	Small- pox.	Tuber- culosis.	Typhoid fever.	Whoop- ing cough.
Alabama.....	32	88	160	96	39	102	154	340	216
Arizona.....	5	1	29	4	9	5	78	13	3
Arkansas.....	10	8	146	44	15	14	142	161	117
California.....	381	803	404	116	302	431	869	161	309
Colorado.....	73	86	49	20	36	10	218	20	178
Connecticut.....	100	133	261	164	123	26	162	25	213
Delaware ¹									
District of Columbia.....	36	15	15		38	1	139	10	52
Florida.....	1	33	26	16		2	152	75	47
Georgia.....	1	12	5	13	28	28	58	138	34
Idaho.....		8			5			3	
Illinois.....	364	367	926	405	383	168	1,582	126	847
Indiana.....		114			118			48	
Iowa.....	19	47	41	7	45	22		(²)	7
Kansas.....	35	60	88	203	89	35	216	63	281
Kentucky ¹									
Louisiana.....	9	35	18	1	12	5	163	130	18
Maine.....		30			50	2		63	
Maryland.....	68	80	220		78	2	418	111	242
Massachusetts.....	229	412	939	292	381	2	614	49	261
Michigan.....	473	315	635	258	538	206	467	64	547
Minnesota.....	189	164	120		392	150	308	35	121
Mississippi.....	245	50	282	361	21	21	287	448	840
Missouri.....	33	96	121	96	205	23	181	60	127
Montana.....	15	23	15	3	45	46	46	5	74
Nebraska ¹									
Nevada ¹									
New Hampshire ¹									
New Jersey.....	192	235	650		189	17	455	50	884
New Mexico.....	2	26	55	7	8		232	28	7
New York.....	763	1,124	2,702	675	689	28	1,943	280	2,163
North Carolina.....	68	114	284		65			352	1,010
North Dakota.....	37	12	47		94	64	11	10	32
Ohio.....	400	205	625	297	367	359	559	155	1,130
Oklahoma.....	68	28	183	20	25		41		6
Oregon.....	46	48	18	7	34	52	54	20	15
Pennsylvania.....		633			593			182	
Rhode Island.....	7	44	17	9	46		40	3	12
South Carolina.....	9	58	4	7	6	11	15	121	35
South Dakota.....	18	17	79	15	107	3	6	17	56
Tennessee.....	84	17	71		31	51	146	224	261
Texas ¹									
Utah.....	121	36	290	17	24	8	7	65	43
Vermont.....	48	12	116	29	41	1	116	3	99
Virginia.....	176	97	239		80	19	1,335	253	1,288
Washington.....	162	81	36	52	84	125	139	38	36
West Virginia.....	32	62	103		49	13	26	66	261
Wisconsin.....	360	150	413	26	275	85	178	17	489
Wyoming.....	11	6	19	8	2		3	6	17

¹ Pulmonary.² Reports not received at time of going to press.³ Reports not required by law.⁴ Reports received weekly.⁵ Reports received annually.

Case Rates Per 1,000 Population (Annual Basis) for the Month of July, 1924.

State.	Chicken pox.	Diph- theria.	Mea- sles.	Mumps.	Scarlet fever.	Small- pox.	Tuber- culosis.	Typhoid fever.	Whoop- ing cough.
Alabama	0.15	0.18	0.77	0.46	0.19	0.49	0.74	1.64	1.04
Arizona	.15	.03	.87	.12	.27	.15	2.34	.39	.09
Arkansas	.06	.05	.94	.28	.10	.09	1.27	1.04	.75
California	1.15	2.42	1.22	.35	.91	1.30	2.62	.49	.93
Colorado	.86	1.01	.58	.24	.42	.12	2.56	.24	2.09
Connecticut	.79	1.04	2.05	1.29	.97	.20	1.27	.20	1.67
Delaware ¹									
Dist. of Columbia	.97	.40	.40		1.03	.03	3.75	.27	1.40
Florida	.01	.36	.29	.18		.02	1.68	.83	.52
Georgia	.00	.05	.02	.05	.11	.11	.23	.54	.13
Idaho		.20			.12			.07	
Illinois	.62	.63	1.59	.70	.66	.29	2.72	.22	1.45
Indiana		.44			.46			.19	
Iowa	.09	.22	.19	.03	.21	.10		(²)	.03
Kansas	.23	.39	.58	1.33	.58	.23	1.41	.41	1.51
Kentucky ¹									
Louisiana	.06	.22	.11	.01	.08	.03	1.03	.82	.11
Maine		.45			.76	.03		.95	
Maryland	.53	.62	1.71		.61	.02	3.24	.86	1.88
Massachusetts	.66	1.19	2.72	.85	1.10	.01	1.78	.14	.76
Michigan	1.37	.91	1.84	.75	1.56	.60	1.36	.19	1.59
Minnesota	.88	.76	.56		1.83	.70	1.44	.16	.56
Mississippi	1.62	.33	1.86	2.38	.14	.14	1.89	2.95	5.54
Missouri	.11	.33	.41	.33	.70	.08	.62	.21	.43
Montana	.28	.43	.28	.06	.84	.86	.86	.09	1.39
Nebraska ²									
Nevada ²									
New Hampshire ²									
New Jersey	.66	.81	2.23		.65	.06	1.56	.17	3.03
New Mexico	.06	.82	1.73	.22	.25		7.29	.88	.22
New York	.82	1.21	2.91	.73	.74	.03	2.09	.30	2.33
North Carolina	.29	.49	1.23		.28			1.53	4.38
North Dakota	.64	.21	.82		1.63	1.11	.19	.17	.56
Ohio	.76	.39	1.19	.56	.70	.68	1.06	.29	2.15
Oklahoma	.31	.15	.98	.11	.13		.22		.03
Oregon	.65	.68	.25	.10	.48	.74	.76	.28	.21
Pennsylvania		.81			.78			.23	
Rhode Island	.13	.82	.32	.17	.86		.75	.06	.22
South Carolina	.06	.39	.03	.05	.04	.07	.10	.81	.23
South Dakota	.32	.30	1.41	.27	1.91	.05	.11	.30	1.00
Tennessee	.41	.08	.35		.15	.25	.72	1.10	1.28
Texas ¹									
Utah	2.95	.88	7.06	.41	.58	.19	.17	1.58	1.05
Vermont	1.61	.40	3.89	.97	1.37	.03	1.64	.10	3.32
Virginia	.86	.47	1.16		.39	.09	1.63	1.23	6.27
Washington	1.31	.66	.29	.42	.68	1.01	1.13	.31	.29
West Virginia	.24	.46	.77		.37	.10	.19	.49	1.96
Wisconsin	1.66	.64	1.76	.11	1.17	.36	.76	.07	2.08
Wyoming	.60	.33	1.03	.44	.11	.11	.16	.33	.93

¹ Pulmonary.

² Reports not received at time of going to press.

³ Reports not required by law.

⁴ Reports received weekly.

⁵ Reports received annually.

A CASE OF YELLOW FEVER REPORTED AT HOUSTON, TEX.

On September 24 a citizen of Mexico left Merida, Yucatan, for the United States, passing through Progreso, Mex., on September 25, arriving at New Orleans on September 28. It was noticed that he was jaundiced prior to his departure from Progreso, and the quarantine officer at New Orleans observed the same condition upon his arrival. He came to the United States for treatment, went to Houston, Tex., arriving October 1, where he became very ill shortly afterwards, dying on October 8, at which time a diagnosis of yellow fever was made. It is also alleged that this patient was a drug addict. All necessary measures have been taken.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM
CITIES.

Diphtheria.—For the week ended October 4, 1924, 35 States reported 1,887 cases of diphtheria. For the week ended October 6, 1923, the same States reported 2,629 cases of this disease. One hundred and one cities, situated in all parts of the country, and having an aggregate population of more than 28,600,000, reported 747 cases of diphtheria for the week ended October 4, 1924. Last year, for the corresponding week, they reported 1,134 cases. The estimated expectancy for these cities was 1,147 cases of diphtheria. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty States reported 424 cases of measles for the week ended October 4, 1924, and 1,599 cases of this disease for the week ended October 6, 1923. One hundred and one cities reported 131 cases of measles for the week this year and 324 cases last year.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 1,705 cases; last year, 1,755 cases. One hundred and one cities—this year, 556 cases; last year, 563 cases; estimated expectancy, 563 cases.

Smallpox.—For the week ended October 4, 1924, 35 States reported 568 cases of smallpox. Last year, for the corresponding week, they reported 278 cases. One hundred and one cities reported smallpox for the week as follows: 1924, 85 cases; 1923, 89 cases; estimated expectancy, 32 cases. These cities reported 10 deaths from smallpox for the week this year.

Typhoid fever.—Eight hundred and seventy-four cases of typhoid fever were reported for the week ended October 4, 1924, by 34 States. For the corresponding week of 1923 the same States reported 802 cases. One hundred and one cities reported 215 cases of typhoid fever for the week this year and 183 cases for the week last year. The estimated expectancy for these cities was 196 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia (combined) were reported for the week by 101 cities as follows: 1924, 457 deaths; 1923, 399 deaths.

City reports for week ended October 4, 1924.

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

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city.	Chick- en pox, cases re- ported.	Diphtheria.		Influenza.		Meas- les, cases re- ported.	Mumps, cases re- ported.	Pneu- monia, deaths re- ported.	Scarlet fever.	
		Cases, esti- mated ex- pectancy.	Cases re- ported.	Cases re- ported.	Deaths re- ported.				Cases, esti- mated ex- pectancy.	Cases re- ported.
NEW ENGLAND.										
Maine:										
Lewiston.....	0	1	0	0	0	1	0	0	1	0
Portland.....	2	3	0	0	0	0	16	1	1	1
New Hampshire:										
Concord.....	0	0	0	0	0	0	0	0	0	2
Vermont:										
Barre.....	0	0	0	0	0	0	0	0	1	0
Burlington.....	0	1	2	0	0	0	0	1	2	0
Massachusetts:										
Boston.....	7	47	31	3	0	10	4	18	20	30
Fall River.....	1	4	0	0	0	0	1	1	1	1
Springfield.....	0	4	4	0	0	2	3	0	4	6
Worcester.....	-----	5	4	0	0	1	-----	3	3	5
Rhode Island:										
Pawtucket.....	0	1	3	0	0	0	0	4	1	0
Providence.....	0	9	7	0	0	2	0	0	4	1
Connecticut:										
Bridgeport.....	0	8	2	0	0	0	0	1	3	3
Hartford.....	0	6	4	0	0	0	0	0	3	2
New Haven.....	0	5	1	0	0	0	0	1	3	4
MIDDLE ATLANTIC.										
New York:										
Buffalo.....	0	25	12	2	0	10	0	8	12	10
New York.....	27	125	99	27	7	13	15	91	52	50
Rochester.....	1	8	0	0	0	1	2	6	4	5
Syracuse.....	0	11	1	0	0	0	0	4	6	2
New Jersey:										
Camden.....	1	5	4	0	0	0	1	4	1	0
Newark.....	6	14	12	0	0	8	5	8	8	4
Trenton.....	0	5	3	0	0	0	0	2	1	-----
Pennsylvania:										
Philadelphia.....	7	53	48	1	2	12	2	31	27	35
Pittsburgh.....	27	32	18	1	1	21	11	24	20	22
Reading.....	3	3	1	0	0	0	1	0	1	1
Scranton.....	0	5	1	0	0	0	0	8	1	0
E. NORTH CENTRAL.										
Ohio:										
Cincinnati.....	5	20	6	0	0	0	0	3	9	7
Cleveland.....	17	44	12	1	0	5	1	9	22	3
Columbus.....	0	8	2	0	0	0	0	3	6	4
Toledo.....	2	16	15	0	0	1	0	1	8	7
Indiana:										
Fort Wayne.....	0	4	4	0	0	0	0	1	1	1
Indianapolis.....	-----	25	10	1	1	3	-----	8	7	7
South Bend.....	-----	1	-----	-----	-----	-----	-----	-----	1	-----
Terre Haute.....	1	3	0	0	0	0	0	0	1	0
Illinois:										
Chicago.....	24	142	54	6	3	11	10	37	70	48
Cicero.....	0	6	0	0	0	0	0	0	1	1
Peoria.....	0	2	0	0	0	0	0	3	9	2
Springfield.....	-----	2	8	1	0	0	-----	1	3	1
Michigan:										
Detroit.....	12	70	22	0	0	1	2	24	42	25
Flint.....	2	12	2	0	0	0	0	1	6	3
Grand Rapids.....	4	7	2	0	0	2	1	4	5	7
Saginaw.....	2	2	1	0	0	0	0	1	2	6

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Chick- en pox, cases re- ported.	Diphtheria.		Influenza.		Meas- les, cases re- ported.	Mumps, cases re- ported.	Pneu- monia, deaths re- ported.	Scarlet fever.	
		Cases, esti- mated expect- ancy.	Cases re- ported.	Cases re- ported.	Deaths re- ported.				Cases, esti- mated expect- ancy.	Cases re- ported.
E. NORTH CENTRAL—contd.										
Wisconsin:										
Madison.....	2	1	1	0	0	0	12	0	1	1
Milwaukee.....	10	20	10	0	0	7	9	0	21	16
Racine.....	1	1	1	0	0	0	0	1	5	1
Superior.....	0	1	0	0	0	0	0	1	1	0
W. NORTH CENTRAL.										
Minnesota:										
Duluth.....	3	6	0	0	0	0	0	1	3	11
Minneapolis.....	9	28	27	0	0	1	1	4	16	30
St. Paul.....		17	22	0	0	1		2	8	8
Iowa:										
Des Moines.....	0	10	4	0	0	0	0	0	8	6
Sioux City.....	0	3	1	0	0	0	0	0	1	1
Waterloo.....	0	1	0	0	0	0	1	0	2	0
Missouri:										
Kansas City.....	5	14	9	1	1	1	0	6	5	7
St. Joseph.....	0	3	0	0	0	0	0	1	4	1
St. Louis.....	4	64	32	0	0	6	0	0	22	84
North Dakota:										
Fargo.....	0	0	0	0	0	0	0	0	1	0
Grand Forks.....	0	2	0	0	0	0	0	0	1	0
South Dakota:										
Aberdeen.....		0	0	0	0	0	0	0	0	0
Sioux Falls.....	0	1	0	0	0	0	0	0	1	0
Nebraska:										
Lincoln.....	1	1	6	0	0	0	0	1	1	2
Omaha.....	0	14	21	0	0	0	0	2	2	1
Kansas:										
Topeka.....	1	2	1	0	0	0	3	0	1	3
Wichita.....	1	3	3	0	0	0	1	0	3	1
SOUTH ATLANTIC.										
Delaware:										
Wilmington.....		2	2	0	0	0	0	0	2	1
Maryland:										
Baltimore.....	11	25	16	1	1	1	1	16	11	6
Cumberland.....	0	1	0	1	0	0	0	0	1	0
Frederick.....		1	0	0	0	0	0	0	1	0
Dist. of Columbia:										
Washington.....	1	12	7	0	0	1	0	6	9	5
Virginia:										
Lynchburg.....	1	1	5	0	0	0	2	1	1	0
Norfolk.....	0	3	0	0	0	0	1	3	1	0
Richmond.....	1	15	20	0	0	0	0	2	6	0
Roanoke.....		4	1	0	0	0	0	0	1	4
West Virginia:										
Charleston.....	0	3	1	0	0	0	0	2	2	2
Huntington.....	0	5	1	0	0	0	0	0	2	1
Wheeling.....	1	2	2	0	0	0	1	3	3	2
North Carolina:										
Raleigh.....	0	4	8	0	0	0	0	1	2	0
Wilmington.....	0	1	0	0	0	0	2	1	1	0
Winston-Salem.....	0	4	21	0	0	0	1	2	2	3
South Carolina:										
Charleston.....	0	2	1	0	0	0	0	3	1	0
Columbia.....	0	2	3	0	0	0	1	1	0	0
Greenville.....	0	1	0	0	0	0	0	2	1	1
Georgia:										
Atlanta.....	0	10	8	0	0	0	0	6	7	5
Brunswick.....		0	1	0	0	0	0	1	0	0
Savannah.....	0	4	0	0	0	0	0	1	1	0
Florida:										
St. Petersburg.....	0	0	0	0	0	0	0	0	0	0
Tampa.....		2	1	0	0	0	0	1	0	0
EAST SOUTH CENTRAL.										
Kentucky:										
Covington.....	0	2	0	0	0	0	0	1	1	0
Lexington.....	0	2	3	0	0	0	1	2	1	0
Louisville.....	0	13	11	0	0	0	0	10	3	0

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Chick- en pox, cases re- ported	Diphtheria.		Influenza.		Meas- les, cases re- ported.	Mumps, cases re- ported.	Pneu- monia, deaths re- ported.	Scarlet fever.	
		Cases, esti- mated expect- ancy.	Cases re- ported.	Cases re- ported.	Deaths re- ported.				Cases, esti- mated expect- ancy.	Cases re- ported.
EAST SOUTH CENTRAL—continued.										
Tennessee:										
Memphis.....		10	5	0	0	0		4	3	9
Nashville.....	0	5	0	0	0	0	0	3	4	0
Alabama:										
Birmingham.....	3	8	2	3	0	0	0	4	5	5
Mobile.....	0	3	1	0	1	0	0	0	1	2
Montgomery.....	0	2	1	0	0	1	2	0	1	0
WEST SOUTH CENTRAL										
Arkansas:										
Fort Smith.....	0	2	0	0		0	0		1	1
Little Rock.....	0	2	1	0	0	0	0	0	2	0
Louisiana:										
New Orleans.....	0	11	3	1	1	1	0	2	3	2
Shreveport.....	0		1	0	0	0	0	1		0
Oklahoma:										
Oklahoma.....	0	2	0	0	0	0	0	2	2	1
Texas:										
Dallas.....	3	10	8	0	0	1	0	1	3	4
Galveston.....	0	1	0	0	0	0	0	1	0	2
Houston.....		2	7	0	0	0		2	0	4
San Antonio.....		0	3	0	0	0		4	0	0
MOUNTAIN.										
Montana:										
Billings.....	0	1	0	0	0	0	0	0	1	2
Great Falls.....	1	1	2	0	0	0	0	0	1	2
Helena.....	0	0	0	0	0	0	0	0	0	0
Missoula.....	0	0	0	0	0	0	0	1	0	0
Idaho:										
Boise.....	0	1	0	0	0	0	0	0	0	0
Colorado:										
Denver.....	12	15	19	0	0	0	1	8	5	9
Pueblo.....	2	4	1	0	0	0	1	0	0	2
New Mexico:										
Albuquerque.....		2	1	0	0	0		0	0	0
Utah:										
Salt Lake City.....	11	2	2	0	1	2	1	2	4	1
Nevada:										
Reno.....	0	0	0	0	0	0	0	0	1	2
PACIFIC.										
Washington:										
Seattle.....	6	5	8	0		5	3		7	5
Spokane.....	2	4	7	0		3	0		6	11
Tacoma.....	0	3	2	0		0	1		3	0
Oregon:										
Portland.....	4	5	0	0	0	1	0	3	5	8
California:										
Los Angeles.....	15	31	48	2	0	0	3	11	8	12
Sacramento.....	0	2	3	0	0	0	0	3	2	1
San Francisco.....	9	16	21	1	1	1	6	11	6	8

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths re- ported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
NEW ENGLAND.										
Maine:										
Lewiston.....	33,790	0	0	0	0	0	0	0	0	12
Portland.....	73,129	0	0	0	2	1	0	1	0	28
New Hampshire:										
Concord.....	22,468	0	0	0	0	0	0	0	0	9
Vermont:										
Barre.....	10,008	0	0	0	1	0	0	0	2	4
Burlington.....	23,613	0	0	0	0	0	0	0	0	7
Massachusetts:										
Boston.....	770,400	0	0	0	19	6	2	0	10	216
Fall River.....	120,912	0	0	0	2	2	1	0	1	24
Springfield.....	144,227	0	0	0	1	0	0	1	4	33
Worcester.....	191,927	0	0	0	2	1	0	0	0	37
Rhode Island:										
Pawtucket.....	68,799	0	0	0	1	0	0	0	0	13
Providence.....	242,378	0	0	0	3	1	4	0	4	55
Connecticut:										
Bridgeport.....	1143,555	0	0	0	5	0	1	0	0	30
Hartford.....	1138,036	0	0	0	0	1	0	0	0	31
New Haven.....	172,967	0	0	0	2	3	1	0	5	52
MIDDLE ATLANTIC.										
New York:										
Buffalo.....	586,718	0	0	0	10	2	2	1	35	139
New York.....	5,927,625	0	0	0	88	35	32	4	112	1,205
Rochester.....	317,867	0	5	0	3	2	1	0	11	74
Syracuse.....	184,511	0	0	0	3	2	1	0	0	39
New Jersey:										
Camden.....	124,157	0	0	1	3	2	1	0	2	37
Newark.....	488,699	0	0	0	10	4	1	0	64	74
Trenton.....	127,390	0	3	0	2	1	0	0	5	25
Pennsylvania:										
Philadelphia.....	1,922,788	1	0	0	32	14	27	1	90	424
Pittsburgh.....	613,442	0	0	1	10	4	2	2	10	166
Reading.....	110,917	0	0	0	0	1	0	0	9	26
Scranton.....	140,636	0	0	0	2	0	1	0	8	---
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati.....	406,312	1	1	0	5	2	2	1	1	98
Cleveland.....	888,519	1	0	0	11	3	6	1	27	142
Columbus.....	261,982	0	3	0	4	1	1	0	0	58
Toledo.....	268,338	0	1	0	3	2	3	1	9	52
Indiana:										
Fort Wayne.....	93,573	0	2	0	0	1	0	0	0	22
Indianapolis.....	342,718	1	7	0	6	2	2	1	---	89
South Bend.....	76,709	0	0	0	1	1	0	0	0	---
Terre Haute.....	68,939	0	0	0	1	0	0	1	0	13
Illinois:										
Chicago.....	2,886,121	1	1	0	58	7	4	0	65	545
Cicero.....	55,968	0	0	0	1	1	0	0	1	10
Peoria.....	79,675	0	0	0	0	0	0	0	0	27
Springfield.....	61,833	0	0	0	1	1	1	0	---	15
Michigan:										
Detroit.....	995,668	2	6	4	24	6	7	1	42	245
Flint.....	117,968	1	0	0	0	0	0	0	0	23
Grand Rapids.....	145,947	1	0	0	1	1	0	0	2	31
Saginaw.....	69,754	0	0	0	3	2	0	0	0	17
Wisconsin:										
Madison.....	42,519	0	1	0	1	0	0	0	2	6
Milwaukee.....	484,595	1	0	0	2	0	1	0	17	---
Racine.....	64,393	1	2	0	0	0	1	0	1	11
Superior.....	139,671	1	0	0	1	1	0	0	0	11

¹ Population Jan. 1, 1920.

² Pulmonary only.

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Popula- tion July 1, 1923, estimated.	Smallpox.			Tubercu- losis, deaths re- ported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
WEST NORTH CENTRAL.										
Minnesota:										
Duluth.....	106, 289	1	0	0	0	0	2	0	1	17
Minneapolis.....	409, 125	2	9	4	7	2	1	0	3	59
St. Paul.....	241, 891	3	6	0	0	2	0	1		36
Iowa:										
Des Moines.....	140, 923	1	0			0	0		0	
Sioux City.....	79, 662	0	0			0	1		0	
Waterloo.....	39, 667	0	0			0	0		1	
Missouri:										
Kansas City.....	351, 819	1	0	0	8	2	1	1	1	100
St. Joseph.....	78, 232	1	0	0	1	0	2	0	0	20
St. Louis.....	803, 853	0	0	0	13	6	4	1	7	196
North Dakota:										
Fargo.....	24, 841	0				0				
Grand Forks.....	14, 547	0	0			0	0		0	
South Dakota:										
Aberdeen.....	15, 829		0				0		2	
Sioux Falls.....	29, 206	0	0	0	0	0	3	0	0	6
Nebraska:										
Lincoln.....	58, 761	0	1	0	2	0	0	0	0	13
Omaha.....	204, 382	1	0	0	0	2	0	0	0	25
Kansas:										
Topeka.....	52, 555	0	0	0	1	1	0	0	3	12
Wichita.....	79, 261	1	0	0	2	1	1	0	5	15
SOUTH ATLANTIC.										
Delaware:										
Wilmington.....	117, 728	0	0	0	0	2	0	0		20
Maryland:										
Baltimore.....	773, 580	0	0	0	19	12	13	1	57	207
Cumberland.....	32, 361	0	0	0	1	0	0	0	0	5
Frederick.....	11, 301	0	0	0	0	1	0	0	0	4
District of Columbia:										
Washington.....	1 437, 571	0	0	0	4	5	0	1	4	99
Virginia:										
Lynchburg.....	30, 277	0	0	0	0	1	0	0	0	10
Norfolk.....	159, 089	0	0	0	3	1	0	0	2	
Richmond.....	181, 044	0	0	0	4	2	0	0	1	42
Roanoke.....	55, 502	0	0	0	1	1	2	1		20
West Virginia:										
Charleston.....	45, 597	0	0	0	1	1	2	0	0	14
Huntington.....	57, 918	0	0	0	0	1	0	0	0	
Wheeling.....	1 56, 208	0	0	0	0	0	6	2	0	18
North Carolina:										
Raleigh.....	29, 171	0	1	0	1	0	0	0	3	8
Wilmington.....	35, 719	0	1	0	0	0	0	0	1	8
Winston-Salem.....	56, 230	1	2	0	0	1	0	0	0	15
South Carolina:										
Charleston.....	71, 245	0	0	0	0	2	6	0	0	21
Columbia.....	39, 688	0	1	0	1	1	2	0	0	22
Greenville.....	25, 789	0	1	0	0	0	0	0	2	10
Georgia:										
Atlanta.....	222, 963	1	0	0	8	3	0	0	10	54
Brunswick.....	15, 937	0	0	0	2	0	1	0	0	9
Savannah.....	89, 448	0	0	0	1	1	3	0	0	25
Florida:										
St. Petersburg.....	24, 403	0	0	0	0	0	0	1	0	7
Tampa.....	56, 050	0	0	0	1	0	0	0		16
EAST SOUTH CENTRAL.										
Kentucky:										
Covington.....	57, 877	0	0	0	2	0	1	0	0	15
Lexington.....	43, 673	0	0	0	1	0	0	0	0	17
Louisville.....	257, 671	1	0	0	1	4	7	1	0	86
Tennessee:										
Memphis.....	170, 067	0	1	0	5	1	14	5		65
Nashville.....	121, 128	0	0	0	4	4	0	1	0	40

¹ Population Jan. 1, 1920.

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Population, July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
EAST SOUTH CENTRAL—continued.										
Alabama:										
Birmingham.....	195,901	1	5	0	3	2	7	1		65
Mobile.....	63,858	0	0	0	1	0	0	0	0	19
Montgomery.....	45,383	0	0	0	0	0	0	0	0	13
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith.....	30,635	0	0	0		1	0		1	
Little Rock.....	70,916	0	0	0	6	1	3	0	0	
Louisiana:										
New Orleans.....	404,575	1	0	0	14	3	3	0	1	116
Shreveport.....	54,590		0	0	0		0	0	0	23
Oklahoma:										
Oklahoma.....	101,150	0	0	0	0	1	3	0	0	28
Texas:										
Dallas.....	177,274	0	0	0	2	2	1	0	2	42
Galveston.....	46,877	0	0	0	0	0	0	0	0	9
Houston.....	154,970	0	0	0	0	0	0	0	0	28
San Antonio.....	184,727	0	0	0	4	0	0	0	0	47
MOUNTAIN.										
Montana:										
Billings.....	16,927	0	0	0	0	0	0	0	0	6
Great Falls.....	27,787	0	0	0	0	0	0	0	0	6
Helena.....	12,037	0	0	0	0	0	0	0	0	2
Missoula.....	12,668	0	1	0	0	0	0	0	0	5
Idaho:										
Boise.....	22,806	1	0	0	0	0	0	0	0	2
Colorado:										
Denver.....	272,031	2	0	0	7	4	2	1	0	60
Pueblo.....	43,519	0	0	0	0	1	1	0	0	10
New Mexico:										
Albuquerque.....	16,648	0	0	0	4	3	1	0		9
Utah:										
Salt Lake City.....	126,241	1	0	0	1	2	14	0	0	19
Nevada:										
Reno.....	12,429	0	0	0	0	0	1	0	0	2
PACIFIC.										
Washington:										
Seattle.....	1,315,685	1	0			1	2		3	
Spokane.....	104,573	2	1			1	2		1	
Tacoma.....	101,731	0	0			1	4		0	
Oregon:										
Portland.....	273,621	3	3	0	3	2	1	1	0	57
California:										
Los Angeles.....	666,853	0	22	0	33	6	3	0	5	204
Sacramento.....	69,950	0	3	0	2	2	1	0	0	23
San Francisco.....	539,038	0	1	0	9	1	0	0	2	147

¹ Population Jan. 1, 1920.

City reports for week ended October 4, 1924—Continued.

Division, State, and city.	Cerebro-spinal meningitis.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).		Typhus fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
NEW ENGLAND.										
Massachusetts:										
Boston.....	1	0	1	2	0	0	1	4	1	0
Fall River.....	0	0	0	0	0	0	0	1	0	0
Springfield.....	0	1	0	0	0	0	0	0	0	0
Worcester.....	1	1	0	0	0	0	0	1	0	0
Connecticut:										
Hartford.....	0	0	0	0	0	0	0	1	0	0
MIDDLE ATLANTIC.										
New York:										
Buffalo.....	0	0	0	0	0	0	0	1	0	0
New York.....	2	2	3	4	0	0	15	21	4	1
Syracuse.....	0	0	0	0	0	0	1	2	0	0
New Jersey:										
Camden.....	0	0	0	0	0	0	0	1	0	0
Newark.....	0	1	1	0	0	0	0	2	0	0
Trenton.....	0	0	0	0	0	0	0	1	0	0
Pennsylvania:										
Pittsburgh.....	1	1	0	0	0	0	1	0	0	0
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati.....	0	0	0	0	0	0	0	1	0	0
Cleveland.....	0	0	0	0	0	0	1	1	1	0
Illinois:										
Chicago.....	0	0	0	0	0	0	4	5	1	0
Peoria.....	0	1	0	0	0	0	0	0	0	0
Michigan:										
Detroit.....	0	0	0	0	0	0	1	16	3	0
Grand Rapids.....	0	0	0	0	0	0	0	0	1	0
Saginaw.....	0	1	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL.										
Minnesota:										
Minneapolis.....	0	0	1	0	0	0	0	0	0	0
St. Paul.....	0	0	0	0	0	0	1	1	0	0
Missouri:										
Kansas City.....	0	0	0	0	0	0	1	1	0	0
St. Louis.....	2	0	0	0	0	0	1	2	0	0
SOUTH ATLANTIC.										
Maryland:										
Baltimore.....	0	0	0	0	0	0	1	11	0	0
District of Columbia:										
Washington.....	0	0	2	0	0	0	1	5	0	0
Virginia:										
Richmond.....	0	0	0	0	0	0	0	2	0	0
South Carolina:										
Charleston.....	0	0	0	1	0	1	0	0	0	0
WEST SOUTH CENTRAL.										
Arkansas:										
Little Rock.....	0	0	0	0	0	2	0	0	0	0
Louisiana:										
New Orleans.....	0	0	1	0	0	0	0	1	0	0
Texas:										
Houston.....	0	0	0	0	0	0	0	0	1	0
MOUNTAIN.										
Montana:										
Helena.....	0	0	0	0	0	0	0	2	0	0
Missoula.....	0	0	0	0	0	0	0	4	0	0
PACIFIC.										
Washington:										
Seattle.....	0	0	0	0	0	0	10	0	0	0
Spokane.....	0	0	0	0	0	0	5	0	0	0
Tacoma.....	0	0	0	0	0	0	22	0	0	0
Oregon:										
Portland.....	0	0	0	0	0	0	2	0	0	0
California:										
Los Angeles.....	4	0	0	0	0	0	0	1	0	0

The following table gives a summary of the reports from 105 cities for the 10-week period ended October 4, 1924. The cities included in this table are those whose reports have been published for all 10 weeks in the Public Health Reports. Eight of these cities did not report deaths. The aggregate population of the cities reporting cases was estimated at nearly 29,000,000 on July 1, 1923, which is the latest date for which estimates are available. The cities reporting deaths had more than 28,000,000 population on that date. The number of cities included in each group and the aggregate population are shown in a separate table below.

Summary of weekly reports from cities, July 27 to October 4, 1924.

DIPHTHERIA CASES.

	1924, week ended—									
	Aug. 2.	Aug. 9.	Aug. 16.	Aug. 23.	Aug. 30.	Sept. 6	Sept. 13.	Sept. 20.	Sept. 27.	Oct. 4.
Total	477	538	456	494	480	455	521	643	779	757
New England.....	47	60	47	48	35	49	¹ 35	56	55	56
Middle Atlantic.....	188	197	149	189	167	139	139	177	255	198
East North Central.....	83	103	91	88	² 69	85	88	³ 125	151	⁴ 134
West North Central.....	40	43	38	49	50	47	91	90	⁵ 92	⁶ 116
South Atlantic.....	28	22	40	39	⁶ 68	70	⁷ 73	94	89	97
East South Central.....	3	6	7	9	8	7	7	13	22	20
West South Central.....	12	7	13	15	11	10	18	13	24	23
Mountain.....	5	10	22	14	16	19	12	15	18	24
Pacific.....	71	90	49	43	56	29	58	60	73	89

MEASLES CASES.

Total	406	253	178	136	121	109	102	94	104	134
New England.....	41	11	23	23	26	11	¹ 14	9	6	15
Middle Atlantic.....	160	97	65	46	41	56	40	36	3	65
East North Central.....	126	75	51	37	² 25	18	25	³ 28	1	⁴ 29
West North Central.....	16	11	7	4	9	3	4	2	⁵ 2	⁶ 9
South Atlantic.....	34	36	16	10	⁶ 11	11	⁷ 11	8	3	2
East South Central.....	3	2	4	5	1	1	1	0	7	1
West South Central.....	3	0	1	1	0	1	0	1	29	2
Mountain.....	7	3	1	1	4	2	4	0	38	2
Pacific.....	16	18	10	9	4	6	3	10	15	9

SCARLET FEVER CASES.

Total	369	360	248	291	307	253	359	455	586	568
New England.....	40	36	24	28	29	35	¹ 33	38	46	55
Middle Atlantic.....	73	85	49	55	69	50	48	97	128	129
East North Central.....	126	108	57	74	² 74	68	97	³ 99	123	⁴ 127
West North Central.....	65	61	61	75	58	48	104	142	⁵ 172	⁶ 147
South Atlantic.....	20	21	12	21	⁶ 26	22	⁷ 24	32	36	29
East South Central.....	2	3	10	13	9	2	6	14	17	13
West South Central.....	11	5	9	5	5	5	10	10	8	13
Mountain.....	7	12	5	4	17	3	10	9	16	18
Pacific.....	25	29	21	16	20	20	27	14	40	37

¹ Figures for Barre, Vt., estimated. Report not received at time of going to press.

² Figures for Cleveland, Ohio, estimated.

³ Figures for Superior, Wis., estimated.

⁴ Figures for South Bend, Ind., estimated.

⁵ Figures for Fargo, N. Dak., estimated.

⁶ Figures for Raleigh, N. C., estimated.

⁷ Figures for Wilmington, Del., and Tampa, Fla., estimated.

Summary of weekly reports from cities, July 27 to October 4, 1924—Continued.

SMALLPOX CASES.

	1924, week ended—									
	Aug. 2.	Aug. 9.	Aug. 16.	Aug. 23.	Aug. 30.	Sept. 6.	Sept. 13.	Sept. 20.	Sept. 27.	Oct. 4.
Total.....	116	106	93	71	88	66	64	86	83	86
New England.....	0	0	0	0	0	0	10	0	0	0
Middle Atlantic.....	9	7	8	3	11	4	2	3	6	8
East North Central.....	28	23	16	20	12	9	16	14	27	23
West North Central.....	18	15	28	5	25	9	11	23	18	15
South Atlantic.....	3	4	6	4	2	5	2	1	3	6
East South Central.....	16	8	13	14	13	16	3	8	5	6
West South Central.....	2	0	0	1	1	1	4	3	1	0
Mountain.....	2	1	1	2	2	0	0	2	1	1
Pacific.....	38	48	21	22	22	22	26	32	22	27

TYPHOID FEVER CASES.

Total.....	191	250	232	238	220	199	229	195	281	217
New England.....	4	6	15	8	12	6	19	12	11	9
Middle Atlantic.....	59	63	63	65	41	50	59	54	59	67
East North Central.....	20	30	29	22	22	27	31	25	39	25
West North Central.....	9	22	22	17	28	11	19	21	17	15
South Atlantic.....	31	44	37	35	34	36	47	32	50	35
East South Central.....	36	40	24	49	48	32	25	15	51	29
West South Central.....	17	19	26	29	25	10	15	15	17	7
Mountain.....	4	5	9	0	7	13	9	8	18	18
Pacific.....	11	21	7	13	3	14	15	13	19	12

INFLUENZA DEATHS.

Total.....	13	8	8	7	13	4	6	7	18	20
New England.....	2	0	0	0	1	0	10	1	1	0
Middle Atlantic.....	6	3	4	1	4	3	2	1	5	10
East North Central.....	0	2	2	2	3	0	3	0	2	4
West North Central.....	2	0	0	0	0	0	0	1	1	1
South Atlantic.....	1	2	0	3	2	1	1	1	3	1
East South Central.....	1	0	0	0	1	0	0	0	3	1
West South Central.....	0	1	0	1	2	0	0	3	1	1
Mountain.....	0	0	0	0	0	0	0	0	1	1
Pacific.....	1	0	2	0	0	0	0	0	1	1

PNEUMONIA DEATHS.

Total.....	292	269	271	251	315	313	306	308	371	438
New England.....	17	14	14	12	19	14	16	12	20	29
Middle Atlantic.....	131	121	115	102	136	152	120	125	152	178
East North Central.....	50	51	48	48	55	53	53	67	82	94
West North Central.....	14	9	17	13	18	9	23	22	17	16
South Atlantic.....	36	29	32	38	34	32	37	37	42	52
East South Central.....	12	10	10	5	12	17	15	9	14	22
West South Central.....	11	14	12	10	11	8	10	13	13	11
Mountain.....	4	8	7	10	13	11	10	8	11	11
Pacific.....	17	13	16	13	17	17	22	15	20	25

¹ Figures for Barre, Vt., estimated. Report not received at time of going to press.

² Figures for Cleveland, Ohio, estimated.

³ Figures for Superior, Wis., estimated.

⁴ Figures for South Bend, Ind., estimated.

⁵ Figures for Fargo, N. Dak., estimated.

⁶ Figures for Raleigh, N. C., estimated.

⁷ Figures for Wilmington, Del., and Tampa, Fla., estimated.

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

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

FOREIGN AND INSULAR.

BOLIVIA.

Law Governing Entry Into the Republic.

The following law regulating the entry of persons into Bolivian territory has been passed by the National Congress and promulgated by the Governor:

ARTICLE 1. Entry into national territory is prohibited in the case of persons affected with contagious or infectious disease, idiots, insane persons, the mentally deficient, epileptics, chronic alcoholics, paralytics, polyneuritics, persons who have lost their limbs, blind persons, deaf-mutes, and persons suffering from grave injuries who might become a public charge. The foregoing refers only to foreigners without legal domicile in the Republic.

ART. 2. A certificate of antismallpox vaccination is necessary for admission into Bolivian territory.

ART. 3. Every immigrant is required to present to the proper police authority on the Bolivian frontier a sanitary passport issued by a Bolivian consul and based on a medical certificate furnished by the immigrant.

ART. 4. Any individual entering national territory without a sanitary passport and found to be subject to the prohibitions appearing in article 1 shall be required to leave the country within 24 hours.

ART. 5. The executive shall enforce this law.

BRAZIL.

Conditions for the Study and Practice of Medicine.

According to a communication dated September 2, 1924, the following motion was introduced in the chamber of deputies at Rio de Janeiro, Brazil, August 13, 1924:

ARTICLE 1. Foreign doctors who intend to practice medicine in Brazil shall be obliged to attend the courses of the universities of Brazil, in accordance with the regulations in force regarding discipline and length of the school term.

ART. 2. In order to matriculate in the colleges of medicine, the foreign professionals shall submit documents which show that they have followed a regular course of instruction in any country, and a certificate showing that they have passed an examination in the Portuguese language, in geography, and in the history of Brazil in the official secondary schools of this country.

ART. 3. The regular professors of the official foreign secondary schools may exercise their profession freely, provided there is reciprocity with the respective countries in reference to the professors in Brazilian universities.

ART. 4. Professors and technical experts are exempt from submitting proofs of their professional ability when under the terms of a special contract. Their function shall be limited to institutions of learning, technical institutes, laboratories, and hospitals.

ART. 5. All provisions to the contrary are hereby revoked.

BRITISH EAST AFRICA.**Leprosy—Zanzibar.**

During the period May 1 to July 31, 1924, four cases of leprosy were reported in Zanzibar, Kenya, British East Africa. The cases were stated to have been sent to the Funzi Leper Settlement.

CANARY ISLANDS.**Plague—Las Palmas.**

Under date of September 20, 1924, the occurrence of a case of plague, notified September 8, 1924, was reported at Las Palmas, Canary Islands. The case was stated to be of mild type.

COSTA RICA.**School for Sanitary Inspectors—San Jose.**

According to information received under date of September 26, 1924, a law passed by the congress of Costa Rica, August 13, 1924, and approved by the President of that country September 18, 1924, provides for the establishment of a school for sanitary inspectors, to be located at San Jose, the capital city, to function for four years, the course being of two years' duration.

The purpose of the school was stated to be to train sanitary inspectors who may be called on at any time by the general government or municipalities to combat epidemics or to introduce sanitary methods. It was stated that a program was being prepared and that the school was expected to open early in 1925.

CUBA.**Communicable Diseases—Habana.**

Communicable diseases have been notified at Habana as follows:

Disease.	Sept. 21-30, 1924.		Remain- ing under treat- ment Sept. 30, 1924.
	New cases.	Deaths.	
Chicken pox.....	3		
Diphtheria.....	9		3
Leprosy.....	1	1	10
Malaria.....	39	1	119
Measles.....	7		1
Scarlet fever.....	6		4
Typhoid fever.....	70	10	172

¹ From the interior, 8.

² From the interior, 35.

GIBRALTAR.**Epidemic Scarlet Fever—Year, 1923.**

The annual report for Gibraltar, for the year 1923, shows that the only epidemic disease present at Gibraltar during the year was scarlet fever.

GREECE.**Plague—Island of Symi, Ægean Sea.**

During the month of August, 1924, plague was reported present on the island of Symi, Ægean Sea, with 10 reported cases and two deaths. Anti-plague vaccination of the population was extensively carried out and strict quarantine of vessels maintained. The source of the outbreak had not been determined to date of report.

HAWAII**Pneumonic Plague—Hamakua**

A fatal case of pneumonic plague occurring in the person of a Filipino, was reported at Hamakua, Hawaii, September 27, 1924. The last previous case of plague occurring in this locality was reported September 22, 1923, but numerous infected rodents have been found since that date.

HUNGARY.**Health Conditions—Tuberculosis—Thyroid Enlargement—Budapest.**

According to information dated August 23, 1924, the health commissioner of the city of Budapest, Hungary, in his semiannual report, shows the occurrence of 2,220 deaths from tuberculosis during the first six months of the year and reports the presence of 11,000 cases of the disease, which, owing to existing living conditions, can not be isolated. The report also states that cases of thyroid enlargement have increased, which condition is attributed to the fact that in recent years the salt used in Hungary has been deficient in iodine content.

JAPAN.**Lethargic Encephalitis.**

Information dated September 17, 1924, shows the recent occurrence of 4,882 cases of lethargic encephalitis in Japan, with 2,630 fatalities, and 1,707 cases present at date of the report. A number of cases were stated to have occurred at Tokyo. The districts most seriously affected were stated to be the prefectures of Kagawa, Nyogo, Toyama, and Yamagata.

PARAGUAY.**Expenditure for Campaign Against Smallpox.**

According to information received under date of September 5, 1924, an executive decree has been promulgated authorizing the expenditure of 100,000 Paraguayan pesos (paper) in the campaign being conducted against smallpox in Paraguay.

RUSSIA.**Cholera—Summer of 1924.**

During the summer months of the year 1924, 9 cases of cholera were reported in Russia. Of these, 7 occurred in the Don Oblast (Province) at Rostov and Nakhichevan; 1 case in Kuban, Black Sea district, at Krasnodar; 1 in Kolomensky Uyezd, Moscow Province. Eight cases of suspected cholera were reported during the period under report.

Poliomyelitis (Infantile Paralysis)—Odessa.

Under date of September 17, 1924, increase in number of cases of poliomyelitis (infantile paralysis), reported as "spinal paralysis," was reported at Odessa, Russia. In August, 10 cases were notified.

SPAIN.**Smallpox—Barcelona—Madrid.**

Under date of October 2, 1924, an increase of smallpox was reported at Madrid, Spain, and it was stated that orders had been issued for the vaccination of all the inhabitants of the city. The members of the royal family set the example by being vaccinated first.

In Barcelona, Spain, less opposition to vaccination was encountered than in some other places. Twenty-three cases of smallpox with 2 deaths were reported at Barcelona during August and September, 1924.

TUNIS.**Plague—Tunis.**

A fatal case of plague was reported at Tunis, Tunis, during the week ended September 29, 1924. The case was believed to be sporadic.

UNION OF SOUTH AFRICA.**Plague—Orange Free State.**

During the week ended August 30, 1924, a fatal case of plague was reported in the Orange Free State, Union of South Africa. The case occurred on a farm in the Philippolis district.

Smallpox—Typhus Fever.

During the same period outbreaks of smallpox were reported in three districts of the Orange Free State, and of typhus fever in one district of the Cape Province and in the Hoopstad district of the Orange Free State.

VENEZUELA.

Safeguarding the Sale of Milk—Caracas.

Information received under date of August 27, 1924, shows that on August 26, 1924, resolutions for safeguarding the sale of milk in the city of Caracas were promulgated by the council of ministers of the federal district to the following effect:

That all milk sold in the city shall be required to be pasteurized.

That the industries having charge of the sale of milk in the city shall be required to dispense the milk in glass bottles or other containers which shall carry a seal of guarantee from the company dispensing the milk that the same has been properly pasteurized, and another seal so placed as to prevent the opening of the bottle or container before being consigned to the buyer, this seal to show the date and hour of pasteurization. Pasteurized milk shall not be offered for sale until 24 hours after pasteurization. The National Sanitation Office will appoint a chemical expert, maintained by the purveyors of the milk, to have oversight of the purchase and pasteurization of the milk. These resolutions were made effective 30 days from publication, and violations of the same were made punishable by law.

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

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

Reports Received During Week Ended October 24, 1924.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Aug. 10-16, 1924: Cases, 6,334; deaths, 3,750.
Bombay.....	Aug. 24-30.....	10	7	
Madras.....	Sept. 7-13.....	2	1	
Philippine Islands:				
Province—				
Bulacan.....				July 13-26, 1924: Cases, 3; deaths, 2.
Angat.....	July 20-26.....	1	1	
Malolos and Paombong.....	July 13-19.....	2	1	
Russia.....				Summer of 1924: Cases, 9.
Don Province.....				Seven cases at Rostov and Nakhichevan.
Kuban.....				One case. Black Sea district.
Moscow Province.....				One case in Kolomensky Uyezd.

PLAGUE.

Canary Islands:				
Las Palmas.....	Sept. 8.....	1		
Ceylon:				
Colombo.....	Oct. 31-Sept. 6....	2	2	
Greece:				
Symi, Island of.....				Reported present in August, 1924: Cases, 10; deaths, 2.
Hawaii:				
Hamakua.....	Sept. 27.....		1	Pneumonic.
India.....				Aug. 10-16, 1924: Cases, 226; deaths, 160.
Bombay.....	Aug. 24-30.....	1	2	
Karachi.....	Sept. 6-13.....	2	1	
Tunis:				
Tunis.....	Sept. 23-29.....	1	1	
Union of South Africa:				
Orange Free State.....	Aug. 24-30.....	1	1	On farm in Philippolis district.

¹ 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 October 24, 1924—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
British South Africa: Northern Rhodesia.....	Aug. 19-25.....	5		
China:				
Amoy.....	Aug. 17-23.....			Present.
Chungking.....	do.....			Do.
Manchuria— Dairen.....	do.....	1		
Nanking.....	do.....			Do.
Cuba: Matanzas.....	Sept. 1-30.....	1		
Great Britain: England and Wales.....				July 27-Aug. 30, 1924: Cases, 213.
Counties—				
Derby.....	July 27-Aug. 30.....	37		
London.....	Aug. 10-30.....	2		
Northumberland.....	July 27-Aug. 30.....	54		
Nottingham.....	do.....	41		
Yorks (North Riding).....	do.....	36		
Yorks (West Riding).....	do.....	10		
India.....				Aug. 10-16, 1924: Cases, 620; deaths, 163.
Bombay.....	Aug. 24-30.....	11	7	
Karachi.....	Sept. 7-13.....	3	2	
Madras.....	do.....	12	3	
Indo-China: Saigon.....	Aug. 10-23.....	8	5	Including 100 sq. km. of sur- rounding territory.
Mexico: Durango.....	Sept. 1-30.....		1	
Mexico City.....	Sept. 7-13.....	9		Including municipalities in Fed- eral District.
Portugal: Lisbon.....	Sept. 1-7.....		2	
Oporto.....	Sept. 21-27.....		2	
Spain: Barcelona.....				Aug.-Sept., 1924: Cases, 23; deaths, 2.
Madrid.....	Aug. 1-31.....	1		Oct. 6, 1924: Increase in preva- lence reported.
Malaga.....	Sept. 14-27.....		14	
Valencia.....	Sept. 20-27.....	1	1	
Union of South Africa: Orange Free State.....	Aug. 24-30.....			Outbreaks.

TYPHUS FEVER.

Chile: Talcahuano.....	Sept. 7-20.....	12	9	About 45 cases present.
Mexico: Mexico City.....	Sept. 7-13.....	10		Including municipalities in Fed- eral District.
Union of South Africa: Cape Province.....	Aug. 24-30.....			Outbreaks in one district.
Orange Free State.....	do.....			Outbreaks in the Hoopstad dis- trict.
Yugoslavia: Zagreb.....	Sept. 7-13.....	1		

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

Reports Received from June 28 to October 17, 1924.

CHOLERA.

Place.	Date.	Cases	Deaths.	Remarks.
China:				
Shanghai	Aug. 2-Sept. 6	1		
India:				Apr. 20-June 28, 1924: Cases, 81,035; deaths, 56,740.
Do.				June 29-Aug. 9, 1924: Cases, 47,419; deaths, 27,794.
Bombay	May 4-10	1		
Do.	June 29-Aug. 23	25	14	
Calcutta	May 11-June 28	293	259	
Do.	June 29-Aug. 30	143	123	
Madras	June 1-21	7	6	
Do.	June 29-Sept. 6	25	15	
Rangoon	May 11-June 28	98	76	
Do.	June 29-Aug. 23	24	22	
Indo-China:				Jan. 1-May 31, 1924: Cases, 78; deaths, 37.
Saigon	Apr. 27-June 28	6	4	Including 100 square kilometers of surrounding country.
Do.	June 29-Aug. 9	6	5	Do.
Persia:				
Bushire	June 1-30	1	1	
Philippine Islands:				June 15-28, 1924: 32 cases, 22 deaths, including suspects.
				June 29-July 5, 1924: 5 cases, 4 deaths.
Manila	June 22-28	1		Suspect. Occurring in a non-resident.
Do.	July 6-12	1	1	
Provinces—				
Batangas	July 1-12	4	3	
Bulacan	June 21	1	1	
Do.	June 28-July 4	1		
Cagayan	Mar. 30-Apr. 5	1	1	
Laguna	May 18-24	1	1	
San Pablo	July 13-19	1	1	
Rizal	July 3	1	1	
Santo Tomas	July 6-12	1	1	
Russia:				
Rostov-on-Don	Aug. 5-7	3		
Siam:				
Bangkok	May 4-June 28	21	18	
Do.	June 29-Aug. 16	8	4	
Straits Settlements:				
Penang	June 1-7	1	1	
Singapore	June 15-23	9	6	
Do.	June 29-July 5	2	1	
On vessel:				
S. S. Argalia		1		At Bassein, Lower Burma, India. Case in European member of crew. Case removed to hospital. Vessel left May 16, 1924, arrived June 8 at Durban, South Africa; left Durban June 10 for Trinidad and Cuba.

PLAGUE.

Algeria:				
Mostaganem	July 21-28	4		Seaport.
Argentina:				
Chaco Territory				April 1924: Cases reported.
Brazil:				
Porto Alegre	July 6-12		1	
British East Africa:				
Kenya:				
Kisumu	July 13-Aug. 16	2		
Tanganyika Territory	Feb. 24-June 7	1	2	
Do.	June 26-July 3	3	2	
Uganda:				
Entebbe	Feb. 1-Apr. 30	59	54	May 1-31, 1924: Cases, 28, deaths, 23. June 1-30, 1924: Cases, 97; deaths, 84.

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

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

Reports Received from June 23 to October 17, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canary Islands:				
Teneriffe—				
La Laguna.....	June 20.....	1		
Celebes:				
Macassar and Menando.....	July 27-Aug. 2.....			1 plague rat.
Ceylon:				
Colombo.....	May 11-June 28.....	11	7	10 plague rodents.
Do.....	June 29-Aug. 16.....	17	15	Plague-infected rodents, 17.
Chile:				
Antofagasta.....	June 1-16.....	4		
China:				
Amoy.....	June 15-28.....		4	
Do.....	June 29-Aug. 9.....		13	
Foochow.....	May 4-June 21.....		25	Cases not reported.
Nanking.....	July 20-Aug. 16.....			Present.
Ecuador:				
Eloy Alfaro.....	May 16-31.....	1		
Guayaquil.....	May 16-June 30.....	5	1	Rats taken, 23,717; found infected, 107.
Do.....	July 1-Aug. 31.....	2		Rats taken, 34,185; found plague-infected, 93.
Posorja.....	July 1-15.....	1		
Puna.....	July 16-31.....	1		
Egypt.....				July 2-Sept. 5, 1924: Cases, 19. Total, Jan. 1-Sept. 5, 1924—cases, 354; deaths, 177; corresponding period, preceding year—cases, 1,337.
City—				
Alexandria.....		1	1	First case, Apr. 2; last, Apr. 2.
Ismailia.....		1	1	First case, July 6; last, July 6.
Port Said.....		5	2	First case, Apr. 24; last, Aug. 26.
Suez.....		15	8	First case, Jan. 2; last, Aug. 10.
Province—				
Assiout.....		44	35	First case, Apr. 1; last, Aug. 27.
Behera.....		1	1	First case, Aug. 9; last, Aug. 9.
Beni-Suef.....		3	3	First case, June 21; last, June 21.
Charkieh.....		1	1	First case, Jan. 31; last, Jan. 31.
Fayoum.....		106	33	First case, Feb. 18; last, July 18.
Gharbia.....		3	2	First case, Apr. 21; last, Aug. 22.
Ghirga.....		10	3	First case, Jan. 17; last, May 13.
Kalioubiah.....		10	1	First case, Jan. 6; last, May 22.
Kena.....		44	26	First case, Apr. 9; last, May 17.
Menoufieh.....		49	32	First case, Jan. 2; last, June 28.
Minia.....		58	28	First case, Feb. 5; last, Aug. 1.
Greece:				
Kalamata.....				Reported July 15, 1924: Cases, 29; deaths, 6.
Patras.....	July 7.....	36		
Saloniki.....	July 3-4.....	2		
Hawaii.....				July 15, 1924: Near Kukuihaele, Island of Hawaii, 1 plague rat.
Honokaa.....				Aug. 19-Sept. 10, 1924: Five plague-infected rodents found in vicinity.
India.....				Apr. 20-June 28, 1924: Cases, 102,874; deaths, 84,656.
Do.....				June 29-Aug. 9, 1924: Cases, 3,639; deaths, 3,214.
Bombay.....	May 4-June 21.....	50	44	
Do.....	June 29-Aug. 23.....	19	14	
Calcutta.....	May 11-June 14.....	10	10	
Karachi.....	May 18-June 21.....	16	13	
Do.....	Aug. 17-Sept. 8.....	5	5	
Madras Presidency.....	May 18-31.....	7	2	
Do.....	Aug. 3-Sept. 6.....	42	25	
Rangoon.....	May 11-June 28.....	77	72	
Do.....	June 29-Aug. 23.....	164	148	
Indo-China.....				Jan. 1-May 31, 1924: Cases, 706; deaths, 463.
Saigon.....	May 4-June 28.....	10	2	Including 100 square kilometers of surrounding country.
Do.....	July 20-Aug. 9.....	3	1	Do.
Iraq:				
Bagdad.....	Apr. 20-June 28.....	125	62	
Do.....	June 29-Aug. 9.....	7	4	
Japan.....				July 1-31, 1924: 1 case, 1 death.
Shizuoka Prefecture—				Jan.-July, 1924: Cases, 4; deaths, 3.
Higashi.....				To June 20, 1924: Cases, 2; death, 1.

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

Reports Received from June 28 to October 17, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
East Java—				
Soerabaya.....	June 8-21.....	14	14	
Madagascar:				
Diego Suarez.....	June 22-July 10.....	14	8	Seaport.
Moramanga.....	June 1-30.....	1	1	Interior.
Tamatave.....	June 6-30.....	5	4	Bubonic.
Tananarive Province.				
Tananarive Town.....	Apr. 1-June 30.....	12	12	Apr. 1-June 30, 1924: Cases, 138; deaths, 128; bubonic, pneumonic, septicemic. July 1-31, 1924: Cases, 53; deaths, 53.
Do.....	July 1-31.....	5	5	Bubonic and pneumonic.
Other localities.....	Apr. 1-June 30.....	105	97	
Do.....	July 1-31.....	48	48	Bubonic, pneumonic, and septicemic.
Persia:				
Abadan.....	May 1-31.....	20	12	
Bander Abbas.....	do.....	11	6	
Bushire.....	do.....	1	1	Landed at quarantine.
Mohammerah.....	do.....	111	78	
Peru.....				May 1-June 30, 1924: Cases, 9; deaths, 6.
Do.....				July 1-31, 1924: Cases, 6; deaths, 3.
Callao.....	June 1-30.....	1		
Do.....	July 1-31.....	2		
Huaral.....	June 1-30.....	1		
Do.....	July 1-31.....	1		
Lima (city).....	May 1-June 30.....	5	5	
Do.....	July 1-31.....	3	2	
Lima (country).....	May 1-31.....	1		
Do.....	July 1-31.....		1	
Mollendo.....	do.....	1	1	
Russia:				
Don Cossack Territory—				
Salsky District.....				Aug. 8, 1924: Reported present in marmots in 6 localities.
Siam:				
Bangkok.....	May 4-June 14.....	3	3	
Do.....	July 13-Aug. 2.....	2	2	
South Nigeria (West Africa):				
Lagos.....	Sept. 8.....			Present.
Syria:				
Beirut.....	July 10-Aug. 20.....	7		
Union of South Africa.....				Apr. 27-June 7, 1924: Cases, 28; deaths, 14. Dec. 16, 1923, to May 31, 1924: Cases, 347; deaths, 208 (white, 51 cases, 26 deaths; native, 269 cases, 182 deaths). July 1-31, 1924: Cases, 4; deaths, 2.
Orange Free State.....				May 11-June 14, 1924: Cases, 21; deaths, 9. June 22-28, 1924: Plague-infected mouse found in Kroonstad District.
Smithfield District.....	July 13-19.....	2		In natives on two farms.
On vessel:				
S. S. Amboise.....	July 10.....	1		At Marseille, France; removed to quarantine station. Case occurred in an Arab fireman embarked at Aden. Vessel left Yokohama May 30 and Colombo, Ceylon, June 22, 1924.

SMALLPOX.

Arabia:				
Aden.....	July 20-26.....			1
Bolivia:				
La Paz.....	May 1-June 30.....	10		9
Do.....	July 1-Aug. 31.....	21		12
Brazil:				
Bahia.....	May 18-24.....	1		
Porto Alegre.....	May 18-June 28.....	1		2
Do.....	July 6-Aug. 2.....			3
Rio de Janeiro.....	May 18-24.....	2		
Do.....	July 20-Aug. 30.....	5		

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

Reports Received from June 28 to October 17, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Kenya—				
Mombasa	May 4-31	3		
Tanganyika Territory	June 15-21	1		
Do.	Aug. 17-23	1		
Uganda—				
Entebbe	Feb. 1-29	2		
British South Africa:				
Northern Rhodesia	May 6-June 30	74	1	Natives.
Do.	July 1-Aug. 18	37		
Canada:				
British Columbia—				
Vancouver	June 15-28	11		
Do.	June 29-Sept. 20	40		Not including suburbs.
Victoria	Aug. 3-9	1		
Manitoba—				
Winnipeg	July 13-Aug. 1	3		
New Brunswick—				
Restigouche County	June 1-30	7		
Do.	July 6-Sept. 6	21		
Westmoreland County	Aug. 17-23	1		
Ontario				June 1-30, 1924: Cases, 24. July 1-Sept. 27, 1924: Cases, 20.
Sarnia	July 20-26	1		
Windsor	June 22-23	1		
Quebec—				
Montreal	June 8-14	1		
Do.	Sept. 14-20	1		
Ceylon:				
Colombo	July 6-12	1		
Chile:				
Antofagasta	June 11			Under treatment at lazaretto, 2 cases.
Do.	Aug. 24-30	1		
Valparaiso	June 1-7		1	This report covers the two principal districts of Valparaiso.
China:				
Amoy	May 11-June 28			Present.
Do.	June 29-Aug. 29			Do.
Antung	June 9-29	41	3	
Do.	July 7-13	4		
Chungking	May 11-June 28			Do.
Do.	June 29-Aug. 30			Do.
Foochow	May 18-June 28			Do.
Do.	July 6-Aug. 23			Do.
Hongkong	May 4-June 28	30	24	
Do.	June 29-July 12	3	3	
Manchuria—				
Dairen	May 12-June 28	22	7	
Do.	June 29-Aug. 10	4	1	
Harbin	May 13-June 23	2		
Nanking	May 18-June 28			Do.
Do.	July 6-Aug. 16			Do.
Shanghai	May 25-31		1	
Tientsin	May 4-June 28	11	1	British municipality.
Chosen:				
Fusan	May 1-31	1		
Do.	July 25-31	1		
Colombia:				
Barranquilla	Aug. 3-9		1	
Czechoslovakia:				
State—				Apr. 1-June 30, 1924: Cases, 7; deaths, 2.
Bohemia	Apr. 1-June 30	6	2	
Russsia	do	1		
Denmark:				
Copenhagen	May 18-31	3	1	
Dominican Republic:				
La Romana	Aug. 24-30	2		
Egypt:				
City—				
Alexandria	June 4-10	1		
Cairo	Feb. 19-June 24	163	45	
Do.	June 25-July 1	7		
Port Said	June 18-24	1	2	
Do.	June 25-Sept. 9	4		
France:				
Limoges	Apr. 1-May 31		2	
Marseille	May 1-31		1	
Paris	May 21-31	2		

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

Reports Received from June 23 to October 17, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Gibraltar.....	July 21-Sept. 21...	8		
Great Britain:				
England and Wales.....				May 25-June 28, 1924: Cases, 342;
Counties—				June 29-July 26, 1924: Cases,
Derby.....	May 25-June 28.....	159		213.
Do.....	June 29-July 26.....	66		
London.....	June 29-July 26.....	1		
Northumberland.....	May 25-June 28.....	61		
Do.....	June 29-July 26.....	39		
Nottingham.....	May 25-June 28.....	29		
Do.....	June 29-July 26.....	32		
Yorks (North Rid- ing).....	May 25-June 28.....	54		
Do.....	June 29-July 26.....	27		
Yorks (West Rid- ing).....	May 25-June 28.....	5		
Do.....	June 29-July 26.....	27		
Liverpool.....	Aug. 28.....	1		Mild. Admitted to port hospital from Lower Bebington dis- trict, 2 miles from docks.
Greece:				
Saloniki.....	Apr. 21-June 15.....	7	9	
Haiti:				
Port au Prince.....	July 6-12.....	2		Developed at Cape Haitien.
Hungary:				
Budapest.....	July 20-Aug. 2.....	11		
India:				
Do.....				Apr. 20-June 28, 1924: Cases, 28,396; deaths, 6,753. June 29-Aug. 9, 1924: Cases, 7,483; deaths, 1,927.
Bombay.....	May 4-June 28.....	432	299	
Do.....	June 29-Aug. 23.....	169	108	
Calcutta.....	May 11-June 28.....	36	32	
Do.....	July 6-Aug. 30.....	54	39	
Karachi.....	May 18-June 28.....	51	18	
Do.....	June 29-Sept. 8.....	32	14	
Madras.....	May 18-June 28.....	32	10	
Do.....	June 29-Sept. 6.....	117	40	
Rangoon.....	May 11-June 28.....	53	21	
Do.....	June 29-Aug. 23.....	27	11	
Indo-China:				
Saigon.....	Apr. 27-June 28.....	145	79	Jan. 1-May 31, 1924: Cases, 4,700; deaths, 1,353. Including 100 sq. km. of sur- rounding country.
Do.....	June 29-Aug. 2.....	43	16	Do.
Iraq:				
Bagdad.....	Apr. 20-May 24.....	8	1	
Do.....	July 27-Aug. 2.....	1		
Italy:				
Messina.....	May 26-June 1.....	1		
Jamaica:				
Kingston.....	June 1-28.....	6		June 1-28, 1924: Cases, 141. June 29-Sept. 13, 1924: Cases, 217. (Reported as alastrim.)
Do.....	June 29-Sept. 13.....	20		Reported as alastrim. Do.
Japan:				
Kobe.....	May 26-June 21.....	3		July 1-31, 1924: Cases, 51; deaths, 9; Jan. 1-July 31, 1924: Cases, 1,693; deaths, 264.
Nagoya.....	June 8-14.....	2		
Tokyo.....	do.....	1		
Java:				
East Java—				
Madoera Residency—				
Sampang.....	May 22.....			Epidemic.
Malang.....	May 25-31.....	5	1	
Pasoerean Residency.....	July 4-26.....	7		
Soerabaya.....	Apr. 13-June 28.....	501	143	
Do.....	June 29-Aug. 9.....	349	97	Epidemic Aug. 5, 1924.
West Java—				
Batavia.....	May 31-June 27.....	3		
Do.....	July 6-Aug. 22.....	6		Province.
Latvia.....				Apr. 1-June 30, 1924: Cases, 3. July 1-31, 1924: Case 1.
Mexico:				
Durango.....	June 1-30.....		2	
Guadalajara.....	May 1-June 30.....	9	4	
Do.....	July 8-14.....		1	
Mexico City.....	May 4-June 28.....	96		Including munic:palities in Fed- eral district.
Do.....	June 29-Sept. 6.....	62		Do.

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

Reports Received from June 28 to October 17, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico—Continued.				
Salina Cruz	May 25-31	1	1	
Tampico	June 14-20	2		
Do.	July 1-Aug. 20	8	7	
Tuxtepec	July 3-18	3	1	State of Oaxaca.
Vera Cruz	Sept. 21-27		1	
Palestine				
Samaría Province— Samak	May 27-June 2	1		June 17-23, 1924: 20 cases in northern districts.
Paraguay:				
Asuncion	June 2			Present.
Encarnacion	do.			Many cases reported.
Persia:				
Bushire	June 1-30	2		
Peru:				
Arequipa	Jan. 1-June 30		5	
Poland				
Do.				Mar. 30-June 28, 1924: Cases, 299; deaths, 27. June 29-July 27, 1924: Cases, 25; deaths, 5.
Portugal:				
Lisbon	May 25-June 28	7	2	
Do.	June 29-Sept. 6	20	2	
Oporto	May 11-June 28	18	16	
Do.	June 29-Sept. 13	21	19	
Russia				
Moscow	July 27-Aug. 9	37		Jan. 1-31, 1924: 2, 243 cases.
Siam:				
Bangkok	Apr. 27-June 14	3	5	
Spain:				
Barcelona	July 31-Aug. 6		1	Year 1923: Cases, 160.
Cadiz	June 1-30		5	
Do.	July 1-31		28	
Malaga	June 29-Sept. 13	8	23	
Santander	Aug. 24-30		4	
Valencia	June 8-21	3		
Do.	July 13-19	1		
Vigo	Aug. 17-23		1	
Straits Settlements:				
Singapore	May 4-24	2	1	
Sumatra:				
Medan	Jan. 1-31	5		
Switzerland:				
Berne	May 25-June 28	22		
Do.	June 29-Sept. 6	10		
Lucerne	Aug. 1-31	12		
Syria:				
Damascus	May 28-June 12	12		
Do.	Aug. 7-13	6		
Tunis:				
Tunis	May 27-June 30	17	4	
Do.	July 1-Sept. 22	10	12	
Turkey:				
Constantinople	June 1-7	1		
Do.	Aug. 17-23	1		
Union of South Africa				
Cape Province	May 4-31			Mar. 1-June 30, 1924: Cases, 167 (white, 15; native, 152), 1 death, June 29-July 31, 1924: 12 native deaths; 3 white cases.
Do.	July 20-Aug. 23			Outbreaks.
East London	July 27-Aug. 2	1		Do.
Orange Free State	May 4-10			Do.
Transvaal	May 4-31			Do.
Do.	July 20-Aug. 23			Do.
Johannesburg	July 6-12	1		
Yugoslavia:				
Belgrade	July 28-Aug. 3	1		
On vessels:				
S. S. Karoa	May 7	1		At Durban, South Africa, from Bombay, India. Vessel left Bombay Apr. 16, 1924. Patient, European.
S. S. Mount Evans	July 8	1		At Key West, Fla., from Manchester, England.

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

Reports Received from June 28 to October 17, 1924—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths	Remarks.
Algeria:				
Algiers.....	May 1-June 30.....	24	9	Year 1923: Cases, 1,166, of which 27 were in the military population.
Do.....	July 1-31.....	1		
Bolivia:				
La Paz.....	do.....		1	
Brazil:				
Porto Alegre.....	June 1-7.....		1	
Bulgaria:				
Sofia.....	Aug. 17-23.....	1		
Chile:				
Antofagasta.....				June 16, 1924: 2 cases in Lazaretto.
Concepcion.....	May 20-26.....		3	
Do.....	July 8-21.....		3	
Iquique.....	June 22-28.....		1	
Talcahuano.....	May 25-31.....	2		
Do.....	June 29-Sept. 6.....	16	19	Aug. 30, 1924: 53 cases reported present. Sept. 6, 1924: About 31 cases in vicinity.
Valparaiso.....	May 25-June 21.....		11	
Do.....	June 29-Sept. 6.....		29	
China:				
Antung.....	June 2-16.....	6		
Chungking.....	May 11-June 14.....			Present.
Chosen:				
Chemulpo.....	May 1-June 30.....	10		
Do.....	July 1-31.....	6	2	
Seoul.....	May 1-June 30.....	43	5	
Do.....	July 1-31.....	2		
Czechoslovakia				Apr. 1-June 30, 1924: Cases, 6.
State—				
Slovakia.....	Apr. 1-June 30.....	4		
Egypt:				
Alexandria.....	June 25-Aug. 26.....	5	1	
Cairo.....	Feb. 19-June 24.....	53	16	
Do.....	June 25-July 1.....	1		
Port Said.....	July 24-Aug. 5.....	3		
Esthonia:				Apr. 1-June 30, 1924: Cases, 37. July 1-31, 1924: Cases, 2.
Germany:				
Coblenz.....	July 13-19.....	2		
Great Britain:				
England—				
St. Helens.....	July 13-Sept. 20.....	8	3	One suspect case: July 10, 1924. Locality, vicinity of Liverpool. Last previous outbreak of typhus in England: At Birkenhead, Feb.-Mar., 1922: Cases, 12; deaths, 3.
Ireland—				
Dublin.....	June 8-14.....	1		
Do.....	July 13-19.....	1		
Lismore.....	July 19.....	1		
Longford.....	do.....	1		
Greece:				
Saloniki.....	Apr. 20-May 4.....	6		
Iraq:				
Bagdad.....	Apr. 27-May 10.....	2		
Do.....	Aug. 3-9.....	1		
Japan				July 1-31, 1924: Cases, 2. Jan. 1-July 31, 1924: Cases, 8; deaths, 1.
Latvia				Apr. 1-June 30, 1924: Cases, 108.
City—				
Riga.....	June 1-30.....	1		
Mexico:				
Durango.....	July 1-31.....		2	
Guadalajara.....	May 1-June 30.....	2	2	
Mexico City.....	May 4-June 28.....	59		Including municipalities in Federal district.
Do.....	June 29-Sept. 6.....	75		
Torreón.....	July 1-Aug. 31.....		4	Do.
Palestine:				
Acre.....	Aug. 19-25.....	1		
Jaffa.....	June 17-23.....	1		
Do.....	July 8-Aug. 25.....	2		
Jerusalem.....	July 1-Sept. 8.....	6		
Kantara.....	July 15-21.....	1		
Khulde.....	Aug. 17.....	1		
Safad.....	Aug. 26-Sept. 1.....	1		
Tiberias.....	Aug. 19-25.....	1		
Peru:				
Arequipa.....	Jan. 1-June 30.....		4	
Do.....	July 1-31.....		1	
Poland:				Mar. 30-June 28, 1924: Cases, 2,947; deaths, 277.
Do.....				June 29-July 27, 1924: Cases, 332; deaths, 23.

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

Reports Received from June 28 to October 17, 1924—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Portugal: Oporto.....	June 15-21.....		1	
Russia: Moscow.....	July 27-Aug. 9.....	4		Jan. 1-31, 1924: 14,275 cases.
Spain: Barcelona.....	July 10-16.....		1	
Malaga.....	Sept. 6-13.....		1	
Syria: Aleppo.....	June 8-14.....	1		
Damascus.....	July 14-20.....	1		
Tunis: Tunis.....	May 27-June 9.....	4		
Turkey: Constantinople.....	May 18-June 21.....	7	2	
Do.....	July 6-Aug. 30.....	6	1	
Union of South Africa.....				Mar. 1-June 30, 1924: Cases, 418; deaths, 45. July 1-31, 1924: Cases, 101; deaths, 19. (Colored, 93 cases; white, 8 cases.)
Cape Province.....				Mar. 1-June 30, 1924: Cases, 249; deaths, 23.
Do.....				July 1-31, 1924: Cases, 50; deaths, 6. Aug. 17-23, 1924: Outbreaks.
Natal.....				Mar. 1-June 30, 1924: Cases, 27; deaths, 5. July 1-31, 1924: Cases, 9.
Do.....	July 6-Aug. 2.....			Outbreaks.
Durban.....	Apr. 20-June 28.....	2		
Orange Free State.....				Mar. 1-June 30, 1924: Cases, 83; deaths, 11. July 1-31, 1924: Cases, 26; deaths, 11.
Transvaal.....				Mar. 1-May 31, 1924: Cases, 39; deaths, 5. July 1-31, 1924: Cases, 8; deaths, 2. Aug. 17-23, 1924: Outbreaks.
Johannesburg.....	May 11-24.....	2		
Do.....	June 29-July 26.....	2		

YELLOW FEVER.

Brazil: Pernambuco.....	May 11-17.....	2	1	
Salvador: San Salvador.....	June 10-Aug. 25.....			Present in San Salvador and vicinity.