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Public Health Service Celebrates One Hundred and Fiftieth Birthday

This week marks the 150th anniversary of the U. S. Public Health Service. An anniversary banquet for Service personnel is being held in Washington on July 17, and employees in other parts of the country are staging similar celebrations.

It was on July 16, 1798, that President John Adams signed a bill providing hospital service "for the relief of sick and disabled seamen." From this beginning evolved the Marine Hospital Service, forerunner of today's Public Health Service.

Under Treasury Department jurisdiction, deductions from seamen's wages provided funds to contract for hospital services in seaport towns. In 1803, the first Marine Hospital was built at Boston. Today, medical care is provided for many types of Federal beneficiaries in 24 Marine Hospitals (including two tuberculosis sanatoriums and a leprosarium), 17 dispensaries and 100 medical relief stations. The Service also operates 2 hospitals for mental and narcotic patients.

But operation of these hospitals is only one of the many functions assigned to the Public Health Service. With the growing demand for more effective control of disease, the Service became responsible for interstate and foreign quarantine and inspection of immigrants. With increased knowledge of the nature of disease and a realization of the value of medical research, a "hygienic laboratory" was established. This laboratory developed into the National Institute of Health, one of the world's great research centers.

Through cooperation, loan of personnel, and grants-in-aid, the Service has been increasing its assistance to States in strengthening health services. Today this assistance includes such fields as control of cancer, tuberculosis, and venereal disease; mental hygiene, sanitary engineering, industrial hygiene; and hospital and health-center construction.

Operating since 1939 as a branch of the Federal Security Agency, the Service's personnel today includes 15,000 civil-service employees and 2,000 commissioned officers.

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BACTERICIDAL PROPERTIES OF CHLORAMINES AND FREE CHLORINE IN WATER

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When chlorine was first used for the disinfection of drinking water supplies it was generally believed that some fixed amount of chlorine would sterilize all waters. Studies at that time were pointed toward the determination of this optimum dose. Later, it became known that enough chlorine had to be added: (a) to satisfy the chlorine demand of the water, and (b) to provide a residual chlorine concentration which would insure disinfection. Interest then centered for a number of years on the determination of residual chlorine, and of the standard chlorine residual which would insure proper disinfection of the water under any condition. The bactericidal results obtained by using a standard residual chlorine were inconsistent and the disinfection in many instances was unsatisfactory.

The development of chloramine treatment and break-point chlorination for the prevention or destruction, or both, of tastes and odors led to a recognition of many factors affecting the disinfection of water with chlorine. These are: (a) free chlorine is a much more potent disinfecting agent than chloramines; (b) the standard ortho-tolidine test did not differentiate between free chlorine and chloramine residuals; (c) both pH and temperature affected the bactericidal efficiency of free chlorine and chloramine, and (d) the habit of thinking of residual chlorine without differentiating between chloramine and free chlorine was without doubt responsible for the inconsistencies in the results obtained, differences of opinion, and failures to establish satisfactory standard residuals.

Prior to the development of adequate tests for the separate determination of free chlorine and chloramine, studies were made in our laboratory of the bactericidal properties of each one of these two substances under carefully controlled conditions, so that there could be no question concerning the purity of the active bactericidal agents. That is, tests were made with free chlorine with all traces of chloramine excluded, and in tests with chloramine no free chlorine was present. These studies (*1*, *2*) were made at pH values ranging from 6.5 to 10.7 and in two temperature ranges of 2° to 5° C., and 20° to 25° C. The bacteria used for the tests were not limited to organisms of the coliform group, *Escherichia coli* and *Aerobacter aerogenes*, but also included strains of *Pseudomonas pyocyaneae*, *Eberthella typhosa* and *Shigella dysenteriae*. The shigella or dysentery group, which might be considered the most important from a sanitation viewpoint, included a number of varieties of shiga, Flexner, Boyd 88 and sonnei strains.

In the following discussion these results are summarized with a view to making a practical application of the more important features. Comparison is made of the relative efficiency of free chlorine and chloramine in water disinfection processes. And certain minimum standards with the supporting data for the proposed safe residuals under the various conditions are presented for consideration.

For purpose of illustration, figure 1 presents an ideal diagrammatic residual chlorine curve in the presence of 0.9 p. p. m. of free ammonia, as nitrogen. With 0.9 p. p. m. of ammonia-nitrogen initially present: (a) there is no change in the ammonia-nitrogen content until 4.5 p. p. m. of chlorine have been added (chlorine: ammonia-nitrogen ratio about 5 to 1); (b) during this period the ortho-tolidine (O. T.) residual chlorine content is the same as the amount of chlorine added, and (c) all of the residual chlorine is present as chloramine.

When this point (popularly called the "hump") is reached, added amounts of chlorine result in corresponding decreases of O. T. residual chlorine, and ammonia-nitrogen, until, when about 9.0 p. p. m. have been added, the residual chlorine content and the ammonia-nitrogen content will be zero (*3*). During this period of decline the residual chlorine present is chloramine. Increments of chlorine after this zero point (referred to as "break-point") produce corresponding increases in residual chlorine and this residual chlorine is free chlorine.

If the amounts of chlorine added are so adjusted that this zero point is achieved, then there is neither free chlorine nor chloramine present and the water is free entirely of any bactericidal properties. This would be the case in the instance cited, although 9.0 p. p. m. of chlorine had been added to the water. This figure is presented primarily to demonstrate that exactly at break-point: (a) no free chlorine or chloramine remains, and (b) no bactericidal action occurs.

Although this exact end point in the reaction is difficult to attain, it has occurred in several of our tests and definite bacterial testimony showed that bactericidal action does not occur at this point. Post break-point chlorine is free chlorine which may be demonstrated by the test procedure indicated or by any one of several tests which have been developed by the chemists.

In figure 2, the influence of temperature on the bactericidal properties of free chlorine and chloramine is illustrated, and the relative efficiency of free chlorine and chloramine is contrasted. The points recorded for chloramine are based on results obtained after 60 minutes of exposure at the temperature given, and the results for free chlorine, after only 20 minutes of exposure. It is noted that under these conditions:

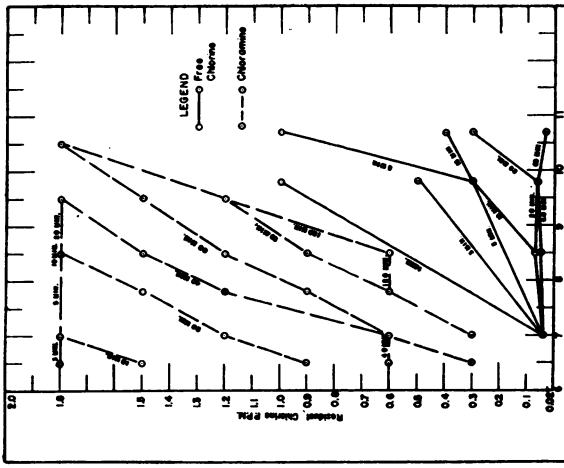

FIG. 3 Minutes for 100% kill of Esch. coli with free Chlorine and Chloramine at temperatures of 20°-25° C.

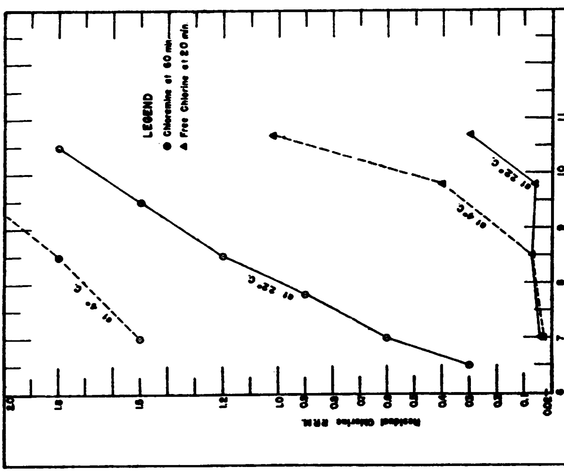

FIG. 2 100% kill of Escherichia Coli

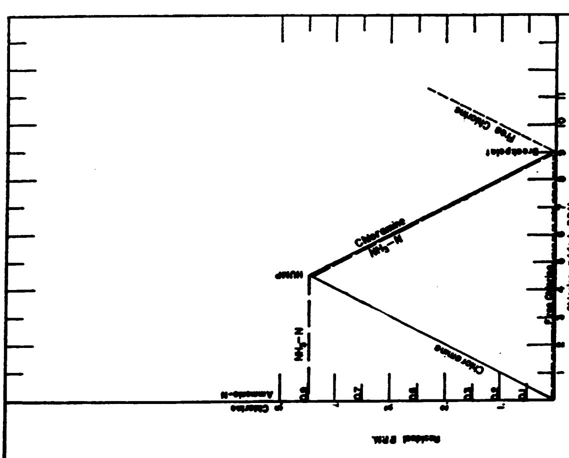

FIG. 1 Residual Chlorine Data When Chlorine is Added to Water Containing Ammonia

1. At pH 7.0 with chloramine, 0.6 p. p. m. produces a 100 percent kill at 22° C. and 1.5 p. p. m. are required to produce the same result at 4° C.

2. At pH 8.5 with chloramine, 1.2 and 1.8 p. p. m. were required to produce a 100 percent kill at 22° C. and at 4° C., respectively.

3. Comparisons cannot be made for chloramine at pH ranges above 8.5, as 2.0 p. p. m. of chloramine was the maximum amount used in these tests and 2.0 p. p. m of chloramine did not produce a 100 percent kill at 4° C. in 60 minutes (with 120 minutes of exposure 1.8 p. p. m. of chloramine produced a 100 percent kill at 4° C.).

4. With free chlorine at pH ranges of 7.0 and 8.5, the bactericidal properties are not affected materially by the low temperature, as 100 percent kills were obtained in 20 minutes with 0.03 to 0.06 p. p. m. of free chlorine.

5. With free chlorine at higher pH ranges, 9.8 and particularly 10.7, the lower temperature markedly affects the bactericidal efficiency, thus:

(a) At pH 9.8, 0.4 p. p. m. was required at 4° C., and only 0.06 p. p. m. at 22° C.

(b) At pH 10.7, 1.0 p. p. m. was required at 4° C., and only 0.3 p. p. m. at 22° C.

In figure 3 the relative efficiency of free chlorine and chloramine is contrasted by results obtained at 20° to 25° C., after various periods of exposure. In general, the lines of 100 percent kill intergrade very nicely for the various time intervals. With both free chlorine and chloramine plotted to the same scale, direct comparisons may be made. It is sufficient perhaps to note that under the same conditions of test the bactericidal efficiency of chloramine with 120 minutes of exposure does not quite equal the efficiency of free chlorine with 1 minute of exposure.

Comparisons of the amounts of free chlorine and chloramine required to obtain 100 percent kills in the same time interval are not possible for periods of less than 5 minutes, as chloramine in the concentrations used did not produce 100 percent kills in less than 5 minutes. As a matter of fact, results with chloramine were not consistent for periods of less than about 20 minutes. For instance, the respective amounts of free chlorine and chloramine required to produce 100 percent kills, were, after 20 minutes at pH 7.0—0.04 p. p. m. and 1.2 p. p. m. (1–30); at pH 8.5—0.07 p. p. m. and 1.8 p. p. m. (1–26). After 60 minutes at pH 7.0 they were 0.04 p. p. m. and 0.6 p. p. m. (1–15); at pH 8.5—0.05 p. p. m. and 1.2 p. p. m. (1–24); at pH 9.5—0.06 p. p. m. and 1.5 p. p. m. (1–25); at pH 10.7—0.03 p. p. m. and 1.8 p. p. m. (1–60).

These results indicate that if 100 percent kills are to be obtained in the same exposure time, then 15 to 60 times (average 30) as much chloramine must be used as compared with free chlorine. Thus, it can be conservatively stated that chloramines are much less efficient as bactericidal agents than free chlorine. A 100-percent kill under the same conditions, with the same amounts of free chlorine or chloramine, will require at least a 100 times longer exposure period for the chloramine. A 100-percent kill with the same period of exposure will require at least 25 times as much chloramine as free chlorine.

It is believed that this evidence on the influence of pH and temperature on the effectiveness of free chlorine and chloramines is

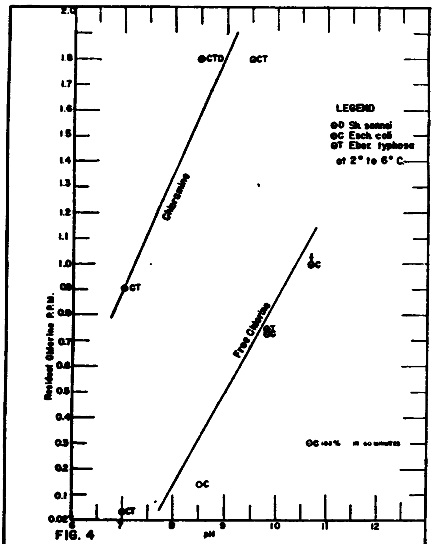

FIG. 4

100% Kill with Chloramine in 120 minutes with Free Chlorine in 10 minutes

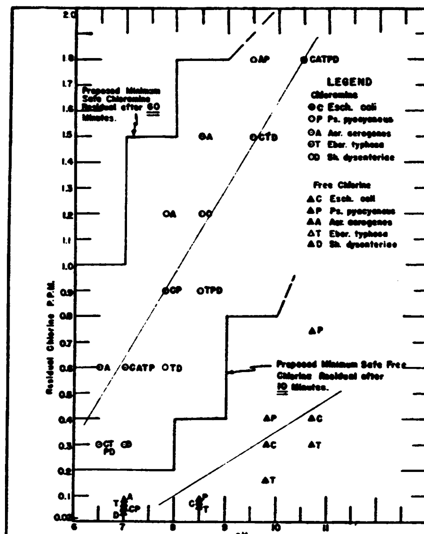

FIG. 5

100% kill after 60 minutes with Chloramine, 10 minutes with Free Chlorine.

sufficiently applicable to plant operation with natural waters to justify proposing suggested minimum standards for water chlorination. In formulating such proposals, however, the influence of both pH and temperature must be kept in mind. For this purpose figure 4 is presented to show the effect of low temperature. It is noted that at high pH ranges, 10 to 11, 2.0 p. p. m. of chloramine for 2 hours, or 1.0 p. p. m. of free chlorine for 10 minutes is not sufficient to produce a 100 percent kill. In the case of free chlorine, if the exposure period is increased to 60 minutes, then 0.3 p. p. m. is effective at pH 10.7. Similarly, with chloramine, if the time of exposure were increased to 4 hours, undoubtedly 100 percent kills would be obtained at this high pH. However, at pH ranges above 9 and particularly above 10, for contact periods of more than 1 hour, the hydroxyl ions show a marked bactericidal action and the results cannot be ascribed to residual chlorine alone (*4*).

Figure 5 includes all the data obtained at 20° to 25° C., for 60-minute exposures to chloramine and 10-minute exposures to free chlorine, with all strains of coli, aerogenes, pyocyaneae, typhosa, and dysenteriae tested. Straight lines [1] have been drawn to indicate the general trend of the 100 percent kill for all of the strains tested. Indicated, in addition, are the proposed minimum safe residuals for chloramine after 60 minutes of contact between organism and bactericidal agent, and for free chlorine after 10 minutes of such contact. In setting up such proposed minimum safe residuals it is essential to provide a liberal factor of safety to allow for varying conditions such as the: (a) frequency with which residual tests are made; (b) adequacy of operators in training and experience; (c) reliability of the chlorine feeding method; (d) variations in flow and in the chlorine demand of the water, etc.

For free chlorine, with waters of pH 6.0 to 8.0, a safe residual after 10 minutes would be not less than 0.2 p. p. m.; at pH 8.0 to 9.0, at least 0.4 p. p. m.; at pH 9.0 to 10.0, at least 0.8 p. p. m.; and at pH ranges of 10.0 and above more than 1.0 p. p. m. or preferably periods of contact of 4 hours. The better solution for the high pH problem, when possible to do so, would be to reduce the pH below 9.0.

For chloramine, with waters of pH 6.0 to 7.0, a safe residual after 60 minutes of contact would be not less than 1.0 p. p. m.; at pH 7.0 to 8.0, at least 1.5 p. p. m.; at pH 8.0 to 9.0, not less than 1.8 p. p. m.; and at pH ranges above 9.0, an undetermined amount of chloramine. Consequently, with chloramine, for pH ranges of 9.0 and above, it would be better to reduce the pH below 9.0, when possible to do so, or to extend the contact time to 4 hours, as in general 1.8 p. p. m. of chloramine will produce a 100-percent kill in 2 hours of contact at pH 9.5 at either of the temperature ranges investigated.

In the application of these proposed standards, if there is any doubt as to the nature of the active bactericidal agent (that is, whether it is free chlorine or chloramine, as determined by the break-point procedure outlined or by any of the chemical tests), then the safe procedure to follow is to assume that all of the residual chlorine present is chloramine and apply the chloramine standard. Detailed and complete data forming the basis for these proposed standards and observations, will be found in the tables of the references cited. The superiority of free chlorine as a bactericidal agent when compared with

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[1] This contrast has also been made using chloramine results after 120 minutes and free chlorine after 20 minutes of exposure without materially altering the trends of the lines of 100 percent kills, particularly if the low temperature results are included. Consequently, it is believed that the proposed minimums should be the same for these periods.

chloramine is quite evident. In addition, it is believed that the proper use of free chlorine will eliminate many taste and odor problems.

In general, the primary factors governing the bactericidal efficiency of both free chlorine and chloramine are:

1. The time of contact of organism and bactericidal agent:—the longer the time, the more effective sterilization.

2. The temperature of the water in which the contact is made:—the lower the temperature, the less effective the sterilization.

3. The pH of the water in which contact is made:—the higher the pH, the less effective the sterilization. Thus, when the combination of high pH and low temperature is encountered the poorest results are to be anticipated.

Comparing the relative efficiency of free chlorine and chloramine it can be stated:

1. Under the most favorable conditions, i. e., at pH 7.0 and a water temperature of 20° to 25° C., 100 percent kills cannot be obtained with chloramine residuals of about 1.2 p.p.m. in 10 minutes, but may be obtained with 20 minutes of contact. Under similar conditions with free chlorine 100 percent kills are obtained with 0.04 p.p.m. residuals in 1 minute of contact.

2. To obtain a 100 percent kill with the same contact period requires about 25 times as much chloramine as free chlorine.

3. To obtain a 100 percent kill using the same amounts of residual chloramine and free chlorine, requires approximately 100 times the contact period for chloramine.

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RELATION OF REPORTED CASES OF TYPHUS FEVER TO LOCATION, TEMPERATURE, AND PRECIPITATION [1]

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Approximately 36,000 cases of murine typhus fever in this country have been reported to the Public Health Service for the period 1913–1944. These are distributed within almost all States, but nearly 95 percent have been from North Carolina, Georgia, South Carolina, Florida, Alabama, Mississippi, Louisiana, and Texas (figure 1). Morbidity data used in this study of association between reported cases and temperatures and precipitation have been limited to these eight States.

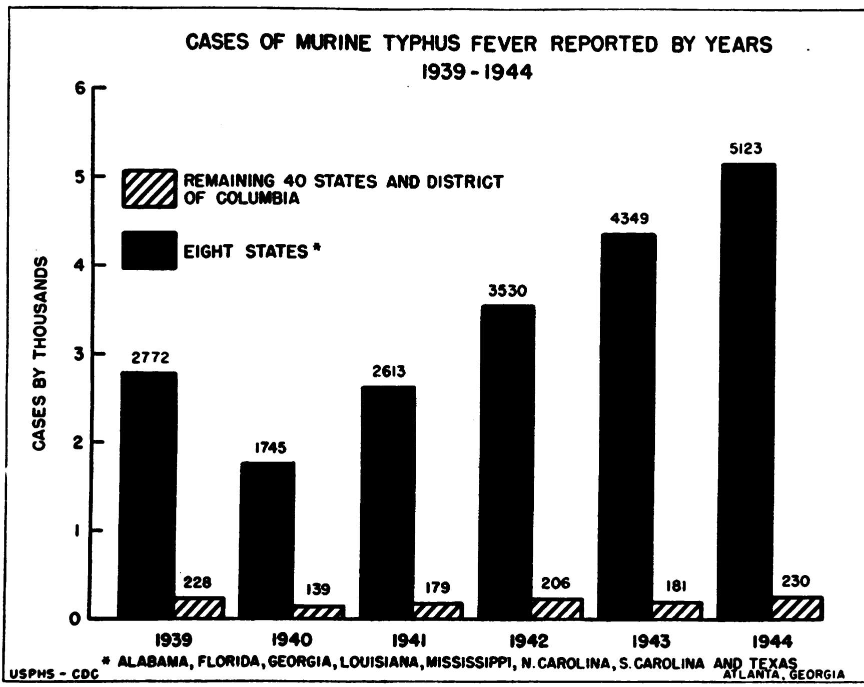

FIGURE 1.

Reports of typhus fever have increased numerically since its discovery due to improved diagnostic procedures, greater familiarity with the disease, and, perhaps, an actual increase in the incidence of the disease. With the exception of 1940 (figure 1), the number of cases reported has increased each year since recognition of the disease.

[1] From Communicable Disease Center, Bureau of State Services, Atlanta, Ga.

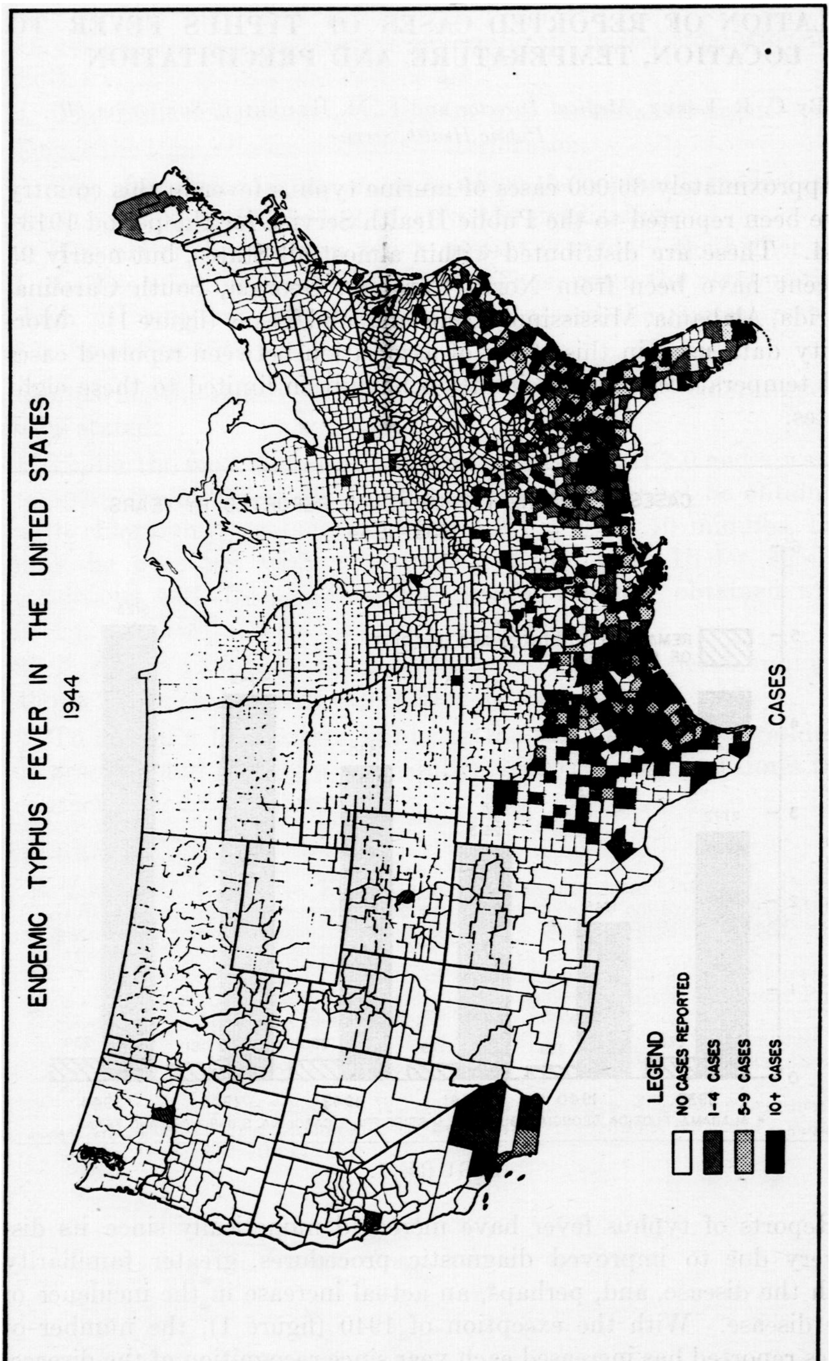
ENDEMIC TYPHUS FEVER IN THE UNITED STATES
1944
LEGEND
NO CASES REPORTED
1-4 CASES
5-9 CASES
10+ CASES

FIGURE 2.

This increase has been particularly noticeable in recent years. Sixty percent of all cases reported were during the 31-year period, 1913–1944, inclusive.

Cases reported during the 6-year period, 1939–1944, are the basis of this study. These were unequally distributed among and wi States. Spot maps of the successive years, however, show concentra-

AVERAGE MONTHLY INCIDENCE OF MURINE TYPHUS PER 100,000 POPULATION ACCORDING TO LATITUDE IN THE COMBINED AREA OF THE THREE STATES OF S.CAROLINA, N.CAROLINA AND GEORGIA FOR 6 YEARS 1939-44

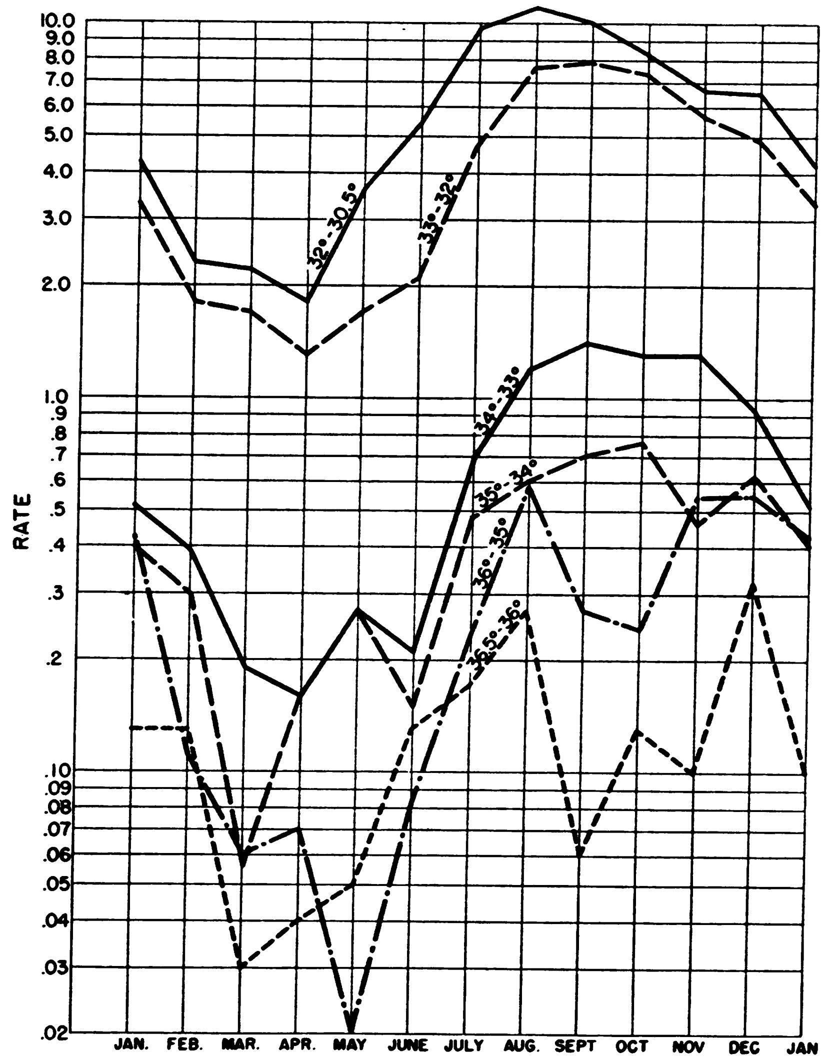

FIGURE 3.

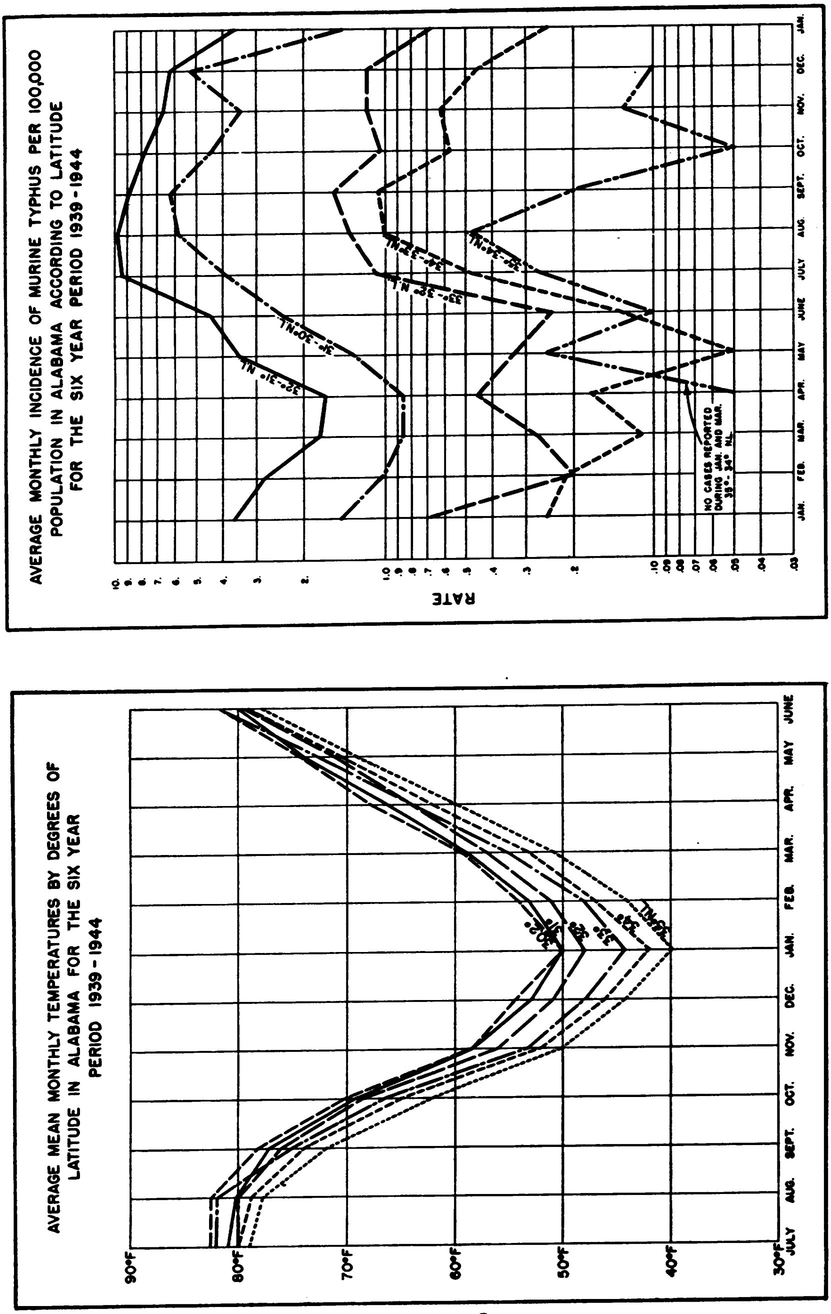
AVERAGE MONTHLY INCIDENCE OF MURINE TYPHUS PER 100,000 POPULATION IN ALABAMA ACCORDING TO LATITUDE FOR THE SIX YEAR PERIOD 1939-1944
RATE
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC. JAN.
NO CASES REPORTED DURING JAN. AND MAR. 35°-34° N.L.
AVERAGE MEAN MONTHLY TEMPERATURES BY DEGREES OF LATITUDE IN ALABAMA FOR THE SIX YEAR PERIOD 1939-1944
90°F
80°F
70°F
60°F
50°F
40°F
30°F
JULY AUG. SEPT. OCT. NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE

FIGURE 4.

tions in the same areas and indicate the occurrence of areas of different intensity. The heaviest foci occur in a belt from the Atlantic coastline of South Carolina and Georgia westward along the northern border of the Gulf of Mexico into the central portion of Texas (figure 2).

The concentration of reported cases diminishes north of this zone. These observations indicate a definite geographic localization of the disease as recognized previously by Maxcy (*1*) who found that endemic typhus fever occurring in Alabama in 1926 was generally confined to the southern portion of the State.

Distribution of Typhus Fever Cases

Figure 1 indicates reported cases of typhus fever in the United States by years from 1939 to 1944.

The location of cases of typhus fever reported during 1944 in the eight high-morbidity States is shown on figure 2. The pattern is representative of the distribution of reported cases for each year of the study. The majority of the cases was reported from Georgia, Alabama, and Texas.

Figures 1 and 2 suggest that specific physiography or climatology may be a causative factor in the occurrence of typhus fever. Figure 3 indicates the seasonal distribution of average monthly rates of reported typhus fever by latitudinal zones for the States of South Carolina, North Carolina, and Georgia for the 6 years, 1939–1944. This picture is representative of the entire endemic typhus fever area. Seasonal distributions are essentially similar in each zone, the lowest incidence occurring during the winter and spring months; the highest in the summer and fall months. Similarity of seasonal incidence in all zones suggests that uniform basic determinants, presumably biologic, operate in all zones, and that the difference in rates may be explained by secondary influences, such as temperature and rainfall, which vary geographically.

Temperature

Figure 4 shows the mean monthly temperatures by degrees of latitude in Alabama for 1939–44. The temperature chart is representative of all States studied with exception of Florida. The average monthly incidence of reported typhus fever cases per 100,000 population in Alabama by latitude is shown in figure 5. Although the seasonal incidence of reported cases for each zone is similar, there is a consistently progressive increase in rates for each zone southward from 35°–34° N. including 32°–31°. The fact that the rate in zone 31°–30° was lower than that of 32°–31° is not explained by low temperatures of winter months (fig. 4). Comparison of figures 4 and 5 shows a significant association between low typhus morbidity rates and low temperatures of winter months for each respective degree of latitude northward from 31°.

Table 1 shows average annual incidence by latitude of murine typhus fever reported in eight States from 1939–44. Rates were higher in southern than in northern latitudes, except in Florida. This table indicates that transmission of typhus fever occurred infrequently north of 33°. It is possible that the lower temperature of winter months in northern latitudinal zones was one of the factors producing low rates of typhus fever.

In 1940 the number of cases reported was approximately 37 percent lower than in 1939. (fig. 1). This reduction occurred in six States: Louisiana and Mississippi showed no decrease. Reports of

TABLE 1.—*Average annual incidence of murine typhus fever per 100,000 population* [1] *for the 6-year period, 1939–44, by State and latitude*

North latitude	North Carolina	South Carolina	Georgia	Alabama	Mississippi	Louisiana	Texas	Florida	Total
36½°-36°	1.6						0.0		1.5
36°-35°	3.2						3.2		3.2
35°-34°	6.7	4.7	2.9	1.7	1.2		6.2		4.2
34°-33°		7.7	8.9	5.1	0.4		3.4		4.5
33°-32°		34.3	54.2	9.5	4.5	3.2	11.1		17.8
32°-31°			71.9	65.6	7.7	5.1	10.5		30.8
31°-30°			68.8	37.0	18.8	8.3	25.8	17.9	21.1
30°-29°						9.2	24.1	13.6	18.5
29°-28°							25.6	12.4	19.8
28°-25°							23.6	11.4	15.3
Total	3.4	9.0	32.1	17.3	4.0	6.9	15.6	13.8	13.4

[1] The 1940 census population figures have been used throughout for estimating incidence.

the United States Weather Bureau indicate that temperatures for January of 1940 were abnormally low throughout the southern States. The lowest temperatures recorded during January 1940 in the extreme southern sections of the different States were as follows: South Carolina, 12°; Georgia, 10°; Alabama, 6°; and Texas, 3°. In the northern part of all four States the temperature fell to several degrees below zero. This was the only significant climatological change found which affected the entire area of the six States in which decrease of reported typhus fever cases was noted. The reduction, coincident with unusually low winter temperatures, tends to confirm the suggested role of temperature in transmission of typhus.

Indications are that the transmission of typhus fever is reduced at a mean monthly temperature below 45° to 48° F. (fig. 4). Highest rates were reported when mean monthly temperatures for any winter month were 48° or above.

Nonconformity of Florida data may be explained by excessively high summer temperatures, although comparison of rates between the same degrees of latitude in Texas and Florida having comparable temperatures during winter months do not bear out this hypothesis (table 1). Possibly, cases reported are not comparable. Reports from portions of Georgia and Florida in the same latitude are inconsistent. The Georgia rate for the 31°–30° north latitude zone was 68.8, while the Florida rate for the same zone was only 17.9. These wide differences in rates of reported cases within the same degree of latitude are not explained by physiographic or climatologic conditions.

Precipitation

Rainfall is a factor which can deter the development of ectoparasite populations of rodents and thus may be associated with reported typhus fever rates. Studies were made of association between average annual precipitation and typhus fever rates by latitude zones and between monthly precipitation and reported typhus fever cases. These studies indicated no significant association between precipitation and reported cases for the time periods and geographic locations studied.

Statistical Association With Temperature and Precipitation

Table 2 shows product-moment correlation coefficients solved by various combinations of the data to test degree of association mathematically. This shows that: (a) higher coefficients result when temperature is correlated with reported cases than when precipitation is correlated; (b) when monthly averages for the period are corre-

TABLE 2.—*Correlation coefficients of reported typhus incidence, temperature, and precipitation for Alabama and Georgia, 1939–44*

	Alabama 31°–32° r-S. E.	Georgia 31°–32° r-S. E.
ITEMS STUDIED BY MONTHLY DATA:		
1. January temperature: January cases, etc	0.32±0.11	−0.34±0.10
2. January temperature: February cases, etc	.53± .08	.54± .08
3. January precipitation: January cases, etc	.01± .12	.20± .11
4. January precipitation: February cases, etc	.00± .10	.09± .12
5. January precipitation: March cases, etc	.02± .12	−.01± .12
ITEMS STUDIED BY MONTHLY AVERAGE DATA:		
6. January temperature: January cases	.52± .21	.60± .18
7. January temperature: February cases	.84± .09	.63± .18
8. April temperature: May cases, etc	.65± .20	.75± .15
9. January precipitation: January cases, etc	−.07± .29−	.12± .25
10. January precipitation: February cases, etc	.02± .30	.25± .11
11. January precipitation: March cases, etc	−.04± .29	.23± .14

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lated, the coefficients and their accompanying standard errors are accentuated, and usually the coefficients are increased; (c) no significant degree of correlation is shown between monthly precipitation and reported cases; (d) a fair degree of correlation is shown between temperature and reported cases for each zone.

Summary

1. The paper presents analyses of the incidence of reported typhus fever and its association with latitude, precipitation and temperature for eight southern States where 95 percent of typhus fever in the United States occurred during the period 1939–44.

2. Typhus fever was concentrated in the area between 31° and 33° north latitude. Progressively greater rates were encountered southward in the zone.

3. Seasonal incidence of reported typhus fever cases was similar in all latitudes. Lowest number of cases was reported in winter and spring months and greatest number in months of August, July, or September. This indicates that basic biological factors favoring propagation of the disease operated similarly in all latitudes and suggested the possibility that climatic factors were associated with transmission of the disease.

4. Relative homogeneity of summer temperatures in the southern States suggests that low monthly temperatures of winter might be associated with reduction of the disease. Decline of cases in 1940, following an unusually cold month of January, adds credence to this thesis.

5. No significant degree of association was found between precipitation and rates of reported typhus fever.

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(*3*) Morbidity Data: Division of Public Health Methods, Public Health Service, Washington, D. C.; Statistical Branch, Communicable Disease Center, Public Health Service, Atlanta, Ga.

Notice on Veterans' Administration Records

The Veterans' Administration has in its custody the majority of syphilis records of those Army personnel who were treated for this disease while in active service, and in many instances can procure informative data from the syphilis records of other than Army personnel. Résumés of these records are available to physicians who are treating such veterans provided authorization for the release of the data is given by the veteran.

Requests for the résumés accompanied by an authorization for the release of the data, dated and signed by the veteran, should be addressed to the Dermatology and Syphilology Section, Veterans' Administration, Munitions Building, Washington 25, D. C. It is most important that the veteran's service serial number and other identifying information, such as the date of enlistment, the date of discharge, rank, and organization be included. Ordinarily, the résumés can be furnished in approximately 2 weeks from the date of the receipt of the request and signed authorization.

DEATHS DURING WEEK ENDED JUNE 19, 1948

[From the Weekly Mortality Index, issued by the National Office of Vital Statistics]

	Week ended June 19, 1948	Corresponding week 1947
Data for 93 large cities of the United States:		
Total deaths	8,582	8,489
Median for 3 prior years	8,628	
Total deaths, first 25 weeks of year	242,013	242,003
Deaths under 1 year of age	663	636
Median for 3 prior years	636	
Deaths under 1 year of age, first 25 weeks of year	17,011	19,338
Data from industrial insurance companies:		
Policies in force	71,052,571	67,278,470
Number of death claims	12,237	12,393
Death claims per 1,000 policies in force, annual rate	9.0	9.6
Death claims per 1,000 policies, first 25 weeks of year, annual rate	9.9	9.8

NOTIFIABLE DISEASES, FIRST QUARTER, 1948

The figures in the following table are the totals of the monthly morbidity reports received from State health authorities for January, February, and March, 1948. These reports are preliminary and the figures are more or less incomplete and subject to correction by final reports. The figures may be assumed to represent the civilian population only, although in some instances a few cases in the military population may be included. The comparisons made are with similar preliminary reports; but, owing to population shifts in many States since the 1940 census, the figures for some States may not be comparable with those for prior years, especially for certain diseases. Each State health officer has been requested to include in the monthly report for his State all diseases that are required by law or regulation to be reported in the State, although some do not do so. The list of diseases required to be reported is not the same for each State. Only 11 of the common communicable diseases are notifiable in all the States. In some instances cases are reported, in some States, of diseases that are not required by law or regulation to be reported and the figures are included although manifestly incomplete. There are also variations among the States in the degree of, and checks on, the completeness of reporting of cases of the notifiable diseases; therefore, comparisons as between States may not be justified for certain diseases. As compared with the deaths, incomplete case reports are obvious for such diseases as malaria, pellagra, pneumonia, and tuberculosis, while in many States other diseases, such as puerperal septicemia, rheumatic fever, and Vincent's infection, are not reportable.

In spite of these known deficiencies, however, these monthly reports, which are published quarterly and annually in consolidated form, have proved of value in presenting early information regarding the reported incidence of a large group of diseases and in indicating trends by providing a comparison with similar preliminary figures for prior years. The table gives a general picture of the geographic distribution of certain diseases, as the States are arranged by geographic areas.

Leaders are used in the table to indicate that no case of the disease was reported.

Consolidated monthly State morbidity reports for January, February, and March, 1948

Division and State	Anthrax	Chickenpox	Conjunctivitis [1]	Diphtheria*	Dysentery, amebic	Dysentery, bacillary	Dysentery, undefined	Encephalitis, infectious	German measles	Hookworm disease	Influenza	Malaria [2]	Measles*	Meningitis, meningococcus*	Mumps	Ophthalmia	Pellagra	Pneumonia, all forms
NEW ENGLAND																		
Maine	......	1,053	......	8	......	......	......	2	34	1	29	2	85	4	246	......	......	251
New Hampshire	......	229	......	1	......	......	......	......	19	......	9	......	160	3	44	......	......	27
Vermont	......	833	......	5	......	2	......	1	41	......	6	......	91	8	206	......	......	35
Massachusetts	2	6,568	87	59	1	34	......	7	267	......	......	11	7,464	27	5,597	[3] 42	......	[4] 411
Rhode Island	......	937	......	7	......	3	......	......	4	......	4	......	26	3	64	......	......	132
Connecticut	1	3,984	9	2	1	......	......	......	58	......	39	9	495	27	666	......	......	708
MIDDLE ATLANTIC																		
New York	3	10,415	4	118	101	48	......	18	[5] 520	[5] 38	[5] 141	26	16,570	83	[5] 4,572	[3] 9	......	4,391
New Jersey	6	9,145	......	57	20	......	......	2	655	......	116	10	12,604	28	13,061	[3] 1	......	1,197
Pennsylvania	6	10,529	......	85	4	2	......	3	......	......	58	......	9,344	75	6,623	1	......	1,242
EAST NORTH CENTRAL																		
Ohio	......	7,540	7	112	10	......	2	......	161	......	66	1	12,242	34	954	[3] 111	1	842
Indiana	......	1,909	3	146	......	7	......	13	68	......	243	2	8,042	9	2,135	......	......	170
Illinois	......	6,382	85	24	46	23	......	24	224	1	31	[6] 8	23,202	63	4,574	......	......	1,335
Michigan	......	8,254	67	51	61	8	......	......	230	7	42	7	16,532	23	4,903	[3] 4	......	651
Wisconsin	......	14,167	......	22	4	......	......	2	385	......	918	8	10,158	21	7,451	[3] 2	......	[4] 191

WEST NORTH CENTRAL																		
Minnesota		1,014		57	5	1	2			3	11	22	4,369	10				
Iowa		1,319		21	4						42	10	6,400	19	1,253			45
Missouri		1,658		72			9		4		109	12	2,021	23	2,687			344
North Dakota		240	13	8	44			3			30		538	5				209
South Dakota		215		3								1	265	3	44			13
Nebraska		1,034		8	4						250		920	8	155			54
Kansas		2,939	13	31				4	37		661		273	12	1,242			225
SOUTH ATLANTIC																		
Delaware	1	176		1				2					592	6	306			8
Maryland		1,849		81		1	19		42		44	2	882	13	2,307	11		538
District of Columbia		393		1	2	2					2	1	1,351	6	133			291
Virginia		1,698		71	6		918	2			10,346	4	2,058	25	974		3	1,378
West Virginia		686		76		5			176		1,599	1	4,025	29	745	[3] 1		335
North Carolina				152	7	7		1				7	67	26				
South Carolina		1,423		111	14	61		3	53	443	12,804	407	626	17	1,423	[3] 5	153	2,770
Georgia		861	12	63	5	16		1		1,776	785	28	541	9	615		10	447
Florida		790	11	72	27	2	2	1	18	1,509	195	13	1,134	13	498	[3] 7	1	182
EAST SOUTH CENTRAL																		
Kentucky		562		75	3	6			75		33	16	1,079	36	304			361
Tennessee		945	1	65	20	8	3	9	12	1	1,734	4	1,640	46	195	[3] 3	13	1,080
Alabama		668		74	9			3	9		6,157	55	707	34	277		5	1,405
Mississippi		240		48	28	6		1		498	669	17	642	14	264	[3] 10	5	365
WEST SOUTH CENTRAL																		
Arkansas		981		47	72	1	18		3	5	5,352	83	1,729	5	237			853
Louisiana		160		34	30	1			6	137	997	12	969	30	71			828
Oklahoma		659		67	7		4		24	2	2,700	24	343	27	146		6	516
Texas		8,125		260	163	3,047	1,634	1			51,123	491	15,663	82	3,165	[3] 16	99	6,341
MOUNTAIN																		
Montana		860		45	1				35		257		1,662	4	1,666			91
Idaho		511	21	49		1			73		458		388	4	1,130			127
Wyoming		179	2	6	2			1	47				800	3	260			40
Colorado		2,430		67	3			1	108		922	4	3,390	8	3,578			439
New Mexico		204	9	33	1	11		1	12		52		140	4	230			332
Arizona		820		58			207		78		9,375	2	674	4	325	[3] 3	1	901
Utah		1,807		32		1			42		705		263		878			77
Nevada		118	9	1	1			2			166		30	1	105			28
PACIFIC																		
Washington		3,772	114	19	10	3	44		214		3,128	1	3,003	15	5,169			264
Oregon		1,050	34	35	20	6	1	1			2,755	1	498	9	1,123			453
California		16,041	4	184	66	74		8	1,238		13,659	14	16,670	151	8,626			[4] 681
Total	19	138,372	505	2,724	802	3,387	2,863	117	4,981	4,421	128,825	[6] 1,316	196,697	1,115	91,250	226	297	33,719
First quarter, 1947	16	143,050	578	[7] 3,655	[7] 682	4,336	2,818	106	3,558	3,585	305,716	[7] 2,766	[7] 70,707	[7] 1,092	57,491	282	[7] 362	[7] 31,434
Median 1943—47	14	128,054		3,917	667	4,336	1,271	113	13,044	3,585	213,750	6,378	201,111	3,231	61,511	367	900	44,995
Alaska		63							1		263		20		15			30
Hawaii Territory		705			2	26			34	4	4		17		1,044			[4] 32
Panama Canal Zone [8]		36		47	17	22						492	57	3	4			[9] 53

See footnotes on page 954.

Consolidated monthly State morbidity reports for January, February, and March, 1948—Continued

Division and State	Poliomyelitis*	Rabies in man	Rheumatic fever	Rocky Mountain spotted fever	Scarlet fever*	Septic sore throat	Smallpox*	Tetanus	Trachoma	Trichinosis	Tuberculosis, all forms*	Tuberculosis, respiratory	Tularemia	Typhoid fever*	Paratyphoid fever	Typhus fever, endemic	Undulant fever*	Vincent's infection	Whooping cough*
NEW ENGLAND																			
Maine					249	10				2	133	130					5	7	352
New Hampshire					55	60					34						4	8	108
Vermont	1				58						64				3		11		733
Massachusetts	3				1,556	22			1	15	718	669		4	13		11		988
Rhode Island			25		107	13				3	125	[10] 36					3	2	154
Connecticut	2				459	59				7	349	320		3			32		337
MIDDLE ATLANTIC																			
New York	38			1	[11] 3,316	([12])		4		43	3,422	2,816		19	3	2	66		1,696
New Jersey	8				1,079	53				5	841			9			9		816
Pennsylvania	13		236		3,326					3	1,162		1	46	[13] 5		30		1,333
EAST NORTH CENTRAL																			
Ohio	9		26		4,495	25	1	2		9	2,029		5	22	2	1	27	16	1,345
Indiana	13				945	13	3		1		538	499	6	6			20	9	446
Illinois	8		45	1	1,779	29			2	2	1,426	1,306	14	15	2		123	75	791
Michigan	8		159		2,045	153		1		1	1,342		1	6	[13] 12		51		1,364
Wisconsin	1				913	140	1		1		539		2	1	1		65		1,287
WEST NORTH CENTRAL																			
Minnesota	9		20		594	52		1	18		728			2	[13] 3		44		462
Iowa	14				618	23					231			6			99		142
Missouri			32		542	34	2				680		24	9	1	5	17	2	349
North Dakota	1		2		72		1		4		79	73						6	176
South Dakota	1				65	4			5		63			1			14	1	55
Nebraska	6				345		1				131		1	2			31		118
Kansas	2				432	9	5	2			252	245	4	2		1	26	69	577
SOUTH ATLANTIC																			
Delaware	1				91						54	54		1					25
Maryland	1		17		387	31		1		1	640	630	2	4			13	1	291
District of Columbia					148						([14])	([14])	4	3	3		2		93
Virginia	4				341	606		1			871	868	19	23	7	3	21		769
West Virginia	6		4		363	22	1	4	2		605	604		10				6	339
North Carolina	27			3	322	7	1				727	700	14	6	3	7	4		553
South Carolina	8		133		80	2,396		1			140		9	3		9	9		1,211
Georgia	1		18		215	71	1	7			627	621	23	5	18	22	30	8	197
Florida	18				159	26		9			928	928	3	24	[13] 33	[15] 32	22	41	240

EAST SOUTH CENTRAL																			
Kentucky	4		2		441	15	2		9		476	468	2	11		2	5	11	173
Tennessee	10		34		484	104		9			1, 255		33	13	3	3	17	78	472
Alabama	14				172			8			573		3	2		13	10		407
Mississippi	3				74						523	503	17	6		9	6		42
WEST SOUTH CENTRAL																			
Arkansas	2				72	243	1	4	15	2	526	519	15	8			12		572
Louisiana	6		22		49	17	4	11			694	665	15	34		11	5		156
Oklahoma	4				215	44	1	3	91		459	449	5	9	51		14	2	502
Texas	25	2			518	770	2		23		2, 129		9	43	14	61	99		4, 700
MOUNTAIN																			
Montana	12		3		205	32			39		193			4					135
Idaho	29		13		97	95	1		81		23			2	1		7	2	125
Wyoming					46	1					18		3	5			2	3	75
Colorado	2		[16] 35		325	44	2	1			291			4			82	13	1, 082
New Mexico	2		2		97	6			33		347	338		1			4		256
Arizona	1				89		1		94		538	523	1	1	1		8		620
Utah	7		31		291	23					31	29	1				38		218
Nevada	1				12	7			1		22							8	8
PACIFIC																			
Washington	20		[16] 81		879	52		1		2	567			1			17	190	385
Oregon	17		17		323	77					229	216		4	4		21		211
California	47		263		1, 298	193		6	8	3	2, 266	2, 119	1	36	14	3	34		1. 411
Total	409	2	1, 220	5	30, 843	5, 581	31	76	428	98	30, 638	16, 328	237	416	197	184	1, 170	558	28, 897
First quarter 1947	[7] 624	2	1, 288	11	35, 802	4, 121	[7] 71	89	276	132	29, 726	14, 914	[7] 455	430	[13] 151	[7] 548	[7] 1, 347	605	[7] 33, 170
Median 1943–47	416	3	831	5	50, 075	2, 513	136	66	526	130	29, 320	15, 065	242	565	108	600	1, 000	554	33, 170
Alaska			4		8	10					30	28						2	39
Hawaii Territory	1		1		4	7		2			292	285			1	2			233
Panama Canal Zone [8]	6					1	1	2			[9] 9			6	1				

See footnotes on page 954.

FOOTNOTES FOR TABLE ON PAGES 950 TO 953

*Diseases marked with an asterisk (*) are reportable by law or regulation in all the States, including the District of Columbia. Typhoid fever is reportable in all the States; paratyphoid fever in all except 6 States. Syphilis is reportable in all the States and the District of Columbia but is not included in the table. Some States have increased and some have reduced the list of reportable diseases since the latest published compilation of reportable diseases (PUBLIC HEALTH REPORT 59:317-340) (Mar. 10, 1944. Reprint No. 2544).

[1] Includes cases of kerato- and suppurative conjunctivitis and pink eye.

[2] In some instances the infection was probably acquired outside the United States.

Reported as ophthalmia neonatorum.

[4] Lobar pneumonia only.

[5] New York City only.

[6] Exclusive of 16 cases of artificially induced malaria.

[7] Figures corrected by later reports.

[8] Includes the cities of Colon and Panama.

[9] In the Canal Zone only.

[10] For the month of March only.

[11] Includes septic sore throat.

[12] Included in scarlet fever.

[13] Includes cases reported as salmonella infection.

[14] Figures not available.

[15] Corrected total number of cases of typhus fever reported in Florida for the year 1947, including delayed reports, is 340 cases, instead of 206 as published on page 391 in PUBLIC HEALTH REPORTS for Mar. 19, 1948. The corrected total for the United States is 2,035, instead of 1,901.

[16] Includes cases reported as rheumatic heart trouble.

The following list includes certain rare conditions, diseases of restricted geographical distribution, and those reportable in or reported by only a few States; last year's figures in parentheses (where no figures are given, no cases were reported last year):

Actinomycosis: New York 2, Indiana 1, South Dakota 2, Nevada 3.

Botulism: New Jersey 3 (1), Oregon 3, California 1.

Cancer: North Dakota 142, Kansas 855, South Carolina 443, Georgia 62, Florida 450 Tennessee 601, Alabama 727, Mississippi 523, Arkansas 146, Louisiana 523, Montana 88, Idaho 217, New Mexico 165, Utah 95.

Coccidioidomycosis: California 13 (10).

Dengue: South Carolina 4 (2).

Dermatitis: New Hampshire 4 (5), Missouri 16 (53).

Diarrhea: Connecticut 1, New York 15 (80), New Jersey 3 (11), Pennsylvania 55 (17) (includes enteritis), Ohio 54 (68) (includes enteritis), Indiana 8, Illinois 16 (9), Michigan 32, Maryland 7 (41), South Carolina 2,772 (3,477), Florida 82 (8), Idaho 6 (includes enteritis), Colorado 2 (2) (includes enteritis), New Mexico 9, California 63 (77).

Dog bite: Illinois 2,182 (1,840) all animal bites, Michigan 1,288 (999), Arkansas 102 (128).

Favus: Kentucky 5 (3).

Food poisoning: New Jersey 101 (4), Illinois 6 (17), Minnesota 43, West Virginia 2, Louisiana 2 (4), Idaho 5 (1), Colorado 300 (1), Oregon 1 (1), California 25 (116).

Granuloma inguinale: Missouri 1, Florida 88 (81), Kentucky 4, Tennessee 13 (24), Mississippi 88 (145), Louisiana 53 (38), Idaho 1, Nevada 1.

Impetigo contagiosa: Rhode Island 1, Ohio 9 (4), Indiana 15 (7), Illinois 6 (5), Michigan 345 (350), Missouri 8 (3), North Dakota 41 (1), Kansas 23 (12), Maryland 1, Kentucky 4, Montana 3 (15), Idaho 35 (13), Wyoming 11 (12), Colorado 49 (2), Nevada 50 (48), Washington 366 (334), Alaska 2 (2), Hawaii Territory 28 (7).

Jaundice (including hepatitis and Weil's disease): Maine 1 (14), New Hampshire 2 (4), New York 61 (236), Pennsylvania 15, Indiana 1 (6), Illinois 3 (9), Michigan 5 (5), Minnesota 29 (8), North Dakota 1 (12), Maryland 1 (4), Florida 3 (13), Kentucky 3, Tennessee 7 (3), Montana 1, Washington 1 (4), Oregon 3 (20), California 30 (41), Hawaii Territory 5 (4), Panama Canal Zone 8.

Leprosy: New York 3, Louisiana 1 (2), Texas 1 (3), California 5 (7), Hawaii Territory 8 (4), Panama Canal Zone 1.

Lymphocytic choriomeningitis: Tennessee 2 (6).

Lymphogranuloma venereum: New Hampshire 1, Missouri 3 (12), Florida 28 (108), Tennessee 19 (28), Louisiana 40 (26).

Mononucleosis: Connecticut 4, Michigan 35, Minnesota 43, Maryland 4, Tennessee 4, Montana 1, Idaho 7, Oregon 5.

Psittacosis: New York 1 (1), New Jersey 1.

Puerperal septicemia: Tennessee 1, Mississippi 2 (7), Arkansas 1, New Mexico 1 (1).

Rabies in animals: Rhode Island 2, New York 165 (147), Ohio 156 (190), Indiana 183, Illinois 29 (88), Michigan 51 (70), Minnesota 1, Iowa 5, Kansas 6 (11), Virginia 55, South Carolina 59 (54), Florida 156 (64), Kentucky 30, Alabama 107 (155), Arkansas 26 (26), Louisiana 12 (4), Oklahoma 18, Texas 316 (323), Colorado 1 (8), New Mexico 2 (2), Arizona 9, California 105 (78).

Relapsing fever: Texas 13 (10), Panama Canal Zone 2.

Rickettsialpox: New York 12.

Ringworm disease (including ringworm of the scalp): Connecticut 61, Ohio 24 (22), Indiana 49, Illinois 824 (1,366), Michigan 446 (492), Minnesota 17 (9), Missouri 34, Kansas 22 (8), Maryland 2 (1), West Virginia 21, Kentucky 8, Montana 6 (1), Idaho 10 (13), Utah 21 (75), Nevada 3, Washington 219 (232).

Scabies: Rhode Island 3 (8), Pennsylvania 50 (186), Ohio 34 (25), Indiana 9, Michigan 369 (382), Missouri 9 (39), North Dakota 25 (2), Kansas 21 (49), Kentucky 30, Montana 24 (70), Idaho 40 (78), Wyoming 2 (5), Nevada 13 (21), Alaska 7 (2).

Schistosomiasis: New York 7.

Silicosis: New Hampshire 5 (1), Pennsylvania 1 (anthraciosis).

INCIDENCE OF DISEASE

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

UNITED STATES

REPORTS FROM STATES FOR WEEK ENDED JUNE 26, 1948

Summary

The reported incidence of poliomyelitis increased from 253 cases last week to 309 for the current week, as compared with 204 in 1946, the largest number reported for a corresponding week of the past 5 years, and 74, the least, reported for the same week last year. Of the current total, 248 cases occurred in the 10 States reporting 5 or more cases each. Only 3 States reported more than 7 cases each, as follows (last week's figures in parentheses): Texas 78 (74), North Carolina 64 (58), California 62 (37). The 10 States reporting more than 10 cases each during the 3-week period since June 5 are as follows: Texas 237, North Carolina 161, California 128, Iowa 21, New York, New Jersey, Nebraska, and Oklahoma 12 each, and Indiana and Virginia 11 each. The total for the 14-week period since March 20, the approximate average date of seasonal low incidence, is 1,659 cases, as compared with 511 for the corresponding period last year, the least number reported for a corresponding period of the past 5 years 1,112, the largest, in 1946, and a 5-year median of 592.

Of 21 cases of Rocky Mountain spotted fever reported currently (last week 31, 5-year median 29), 12 occurred in the South Atlantic area, 3 in Oklahoma, 2 each in Indiana and Colorado, and 1 each in New Jersey and Mississippi. The total for the year to date is 168, as compared with a 5-year median of 153, reported last year.

No occurrence of smallpox or anthrax was reported during the week. Two cases of leprosy were reported, one each in New York and Texas.

Cumulative figures to date are slightly above the respective median expectancies for measles, tularemia, and undulant fever, and 33 percent above for the dysenteries.

Deaths recorded during the week in 93 large cities in the United States totaled 8,531, as compared with 8,582 last week, 8,737 and 8,557, respectively, for the corresponding weeks of 1947 and 1946, and a 3-year (1945–47) median of 8,637. The total for the year to date is 250,544, as compared with 250,640 for the same period last year. Infant deaths totaled 606 for the week, as compared with 663 last week and a 3-year median of 623. The cumulative figure is 17,617, as compared with 20,003 for the same period last year.

Telegraphic morbidity reports from State health officers for the week ended June 26, 1948, and comparison with corresponding week of 1947 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none was reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1943–47	Week ended—		Median 1943–47	Week ended—		Median 1943–47	Week ended—		Median 1943–47
	June 26, 1948	June 21, 1947		June 26, 1948	June 21, 1947		June 26, 1948	June 21, 1947		June 26, 1948	June 21, 1947	
NEW ENGLAND												
Maine	0	0	0	------	------	------	44	14	69	0	0	0
New Hampshire	0	0	0	------	------	------	18	2	7	0	0	0
Vermont	0	0	0	------	------	------	23	129	129	0	0	0
Massachusetts	9	4	3	------	------	------	1,359	274	548	1	0	3
Rhode Island	0	0	0	------	1	------	42	140	91	0	0	1
Connecticut	0	0	1	------	1	1	137	525	200	0	0	1
MIDDLE ATLANTIC												
New York	5	17	15	[1] 3	[1] 4	[1] 4	1,920	567	638	4	10	14
New Jersey	1	3	3	1	4	4	1,928	450	450	0	1	3
Pennsylvania	4	6	9	(2)	(2)	(2)	1,055	162	553	2	1	10
EAST NORTH CENTRAL												
Ohio	2	2	2	1	4	2	285	627	357	4	7	7
Indiana	5	7	4	------	------	1	112	63	63	3	0	2
Illinois	4	3	6	8	------	1	335	288	315	5	10	17
Michigan [3]	1	12	9	1	1	1	1,107	235	334	4	2	6
Wisconsin	0	1	1	1	14	9	1,460	866	866	1	1	2
WEST NORTH CENTRAL												
Minnesota	2	2	2	------	------	------	87	377	117	2	1	2
Iowa	1	0	0	------	------	------	86	108	85	1	1	1
Missouri	1	9	2	------	------	------	26	86	71	2	0	5
North Dakota	0	0	1	------	2	4	6	33	13	0	0	0
South Dakota	1	0	0	------	------	------	15	4	5	0	0	0
Nebraska	0	0	1	------	------	------	26	4	48	0	0	0
Kansas	4	3	3	------	------	1	27	10	40	1	1	2
SOUTH ATLANTIC												
Delaware	0	0	0	------	------	------	6	------	3	0	0	0
Maryland [3]	6	3	5	1	3	3	816	12	74	1	0	2
District of Columbia	0	0	0	------	------	------	53	8	46	0	0	2
Virginia	0	0	3	128	94	66	203	135	115	1	2	3
West Virginia	1	3	1	------	17	2	18	18	18	2	1	0
North Carolina	3	1	4	------	------	------	30	35	76	2	1	1
South Carolina	3	1	2	138	88	80	91	53	53	0	0	1
Georgia	1	2	2	3	6	3	8	26	26	1	0	0
Florida	2	16	2	2	16	6	110	37	33	3	3	3
EAST SOUTH CENTRAL												
Kentucky	3	4	2	------	------	1	33	13	17	2	1	3
Tennessee	4	5	4	7	12	8	38	20	28	0	0	3
Alabama	4	0	3	7	1	14	37	104	78	2	1	5
Mississippi [3]	2	6	2	5	3	------	15	9	------	3	0	0
WEST SOUTH CENTRAL												
Arkansas	1	2	3	55	8	8	72	39	36	0	0	1
Louisiana	1	5	3	------	1	1	11	45	42	2	0	1
Oklahoma	0	1	1	10	35	15	40	4	32	1	2	1
Texas	14	9	22	228	219	219	736	169	260	2	6	6
MOUNTAIN												
Montana	0	0	0	------	2	1	19	91	91	0	0	0
Idaho	4	0	0	5	4	4	57	4	5	0	0	1
Wyoming	0	0	0	------	1	------	11	2	12	0	0	0
Colorado	1	1	4	13	9	12	225	55	55	0	1	1
New Mexico	0	1	2	------	4	2	71	27	17	0	0	1
Arizona	0	1	1	7	25	26	137	37	35	0	0	0
Utah [3]	5	4	0	------	------	2	272	19	98	0	0	1
Nevada	0	0	0	0	------	------	------	------	1	1	0	0
PACIFIC												
Washington	2	0	5	1	------	1	545	11	123	0	1	3
Oregon	0	3	2	------	5	2	269	14	54	0	0	0
California	1	8	19	6	6	9	1,573	127	944	2	3	11
Total	98	145	168	631	590	609	15,594	6,078	7,556	55	57	122
25 weeks	4,428	6,016	6,016	135,820	298,811	187,745	504,808	164,502	499,064	1,868	2,060	5,275
Seasonal low week [4]	(27th) July 5–11			(30th) July 26–Aug. 1			(35th) Aug. 30–Sept. 5			(37th) Sept. 13–19		
Total since low	10,786	13,582	14,943	179,378	331,786	331,786	539,754	187,389	537,077	2,650	3,032	7,727

[1] New York City only. [2] Philadelphia only.
[3] Period ended earlier than Saturday.
[4] Dates between which the approximate low week ends. The specific date will vary from year to year.

Telegraphic morbidity reports from State health officers for the week ended June 26, 1948, and comparison with corresponding week of 1947 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended—June 26, 1948	Week ended—June 21, 1947	Median 1943–47	Week ended—June 26, 1948	Week ended—June 21, 1947	Median 1943–47	Week ended—June 26, 1948	Week ended—June 21, 1947	Median 1943–47	Week ended—June 26, 1948[6]	Week ended—June 21, 1947	Median 1943–47
NEW ENGLAND												
Maine	0	0	0	11	4	14	0	0	0	0	0	0
New Hampshire	0	0	0	1	2	2	0	0	0	0	1	0
Vermont	0	0	0	1	0	4	0	0	0	0	0	0
Massachusetts	2	0	0	174	54	164	0	0	0	4	0	3
Rhode Island	0	1	0	6	4	5	0	0	0	0	0	0
Connecticut	1	1	2	8	18	18	0	0	0	0	1	1
MIDDLE ATLANTIC												
New York	3	4	7	[5] 116	165	219	0	0	0	4	2	5
New Jersey	7	1	1	32	43	71	0	0	0	0	0	1
Pennsylvania	1	0	1	88	66	127	0	0	0	5	9	3
EAST NORTH CENTRAL												
Ohio	5	2	2	95	85	97	0	0	0	2	0	1
Indiana	7	2	1	13	18	20	0	0	0	3	2	1
Illinois	3	3	3	72	53	87	0	0	0	1	2	2
Michigan[3]	2	1	1	127	129	129	0	1	0	4	1	2
Wisconsin	4	0	0	35	53	86	0	0	0	1	0	0
WEST NORTH CENTRAL												
Minnesota	3	4	1	11	23	34	0	0	0	1	1	0
Iowa	4	1	1	11	18	18	0	0	0	0	2	0
Missouri	1	0	1	[5] 14	14	14	0	0	0	0	1	2
North Dakota	0	2	0	0	0	5	0	1	0	0	0	0
South Dakota	1	0	0	0	1	3	0	0	0	0	0	0
Nebraska	4	1	0	8	6	9	0	0	0	0	0	0
Kansas	3	0	1	8	22	21	0	1	0	1	0	0
SOUTH ATLANTIC												
Delaware	0	0	0	1	1	1	0	0	0	1	0	0
Maryland[3]	0	1	0	26	10	27	0	0	0	0	1	1
District of Columbia	0	0	0	2	1	7	0	0	0	0	0	0
Virginia	7	0	0	8	11	23	0	0	0	4	1	2
West Virginia	0	0	0	[5] 9	6	11	0	0	0	3	1	2
North Carolina	64	1	1	10	8	11	0	0	0	2	2	2
South Carolina	6	0	1	1	4	2	0	0	0	1	2	2
Georgia	6	2	2	8	0	7	0	0	0	3	4	5
Florida	2	0	1	2	4	2	0	0	0	1	2	2
EAST SOUTH CENTRAL												
Kentucky	3	1	1	6	7	15	0	0	0	4	6	3
Tennessee	2	1	1	6	4	9	0	0	0	6	3	3
Alabama	3	2	3	11	4	4	0	0	0	0	0	2
Mississippi[3]	3	0	1	1	2	3	0	0	0	2	1	3
WEST SOUTH CENTRAL												
Arkansas	4	1	1	5	1	1	0	0	0	3	4	3
Louisiana	3	1	2	0	6	6	0	0	0	1	1	6
Oklahoma	6	0	3	2	3	3	0	0	0	3	5	2
Texas	78	3	39	14	12	23	0	0	0	12	19	16
MOUNTAIN												
Montana	1	0	0	3	4	4	0	0	0	0	0	1
Idaho	1	0	0	[5] 11	1	4	0	0	0	0	1	1
Wyoming	2	1	0	0	0	4	0	0	0	0	0	0
Colorado	1	5	2	7	22	24	0	0	0	1	3	2
New Mexico	0	0	0	1	4	4	0	0	0	1	1	1
Arizona	1	2	0	9	4	12	0	0	0	0	0	0
Utah[3]	0	0	0	1	9	13	0	0	0	1	0	0
Nevada	0	0	0	0	0	0	0	0	0	0	0	0
PACIFIC												
Washington	3	6	0	23	18	23	0	0	0	3	2	2
Oregon	0	1	0	6	4	11	0	0	0	0	2	1
California	62	23	18	62	90	137	0	0	0	11	5	6
Total	309	74	125	1,066	1,018	1,509	0	3	5	89	88	99
25 weeks	2,007	1,123	1,115	52,180	58,021	91,042	45	139	250	1,372	1,334	1,606
Seasonal low week[4]	(11th) Mar. 15–21			(32d) Aug. 9–15			(35th) Aug. 30–Sept. 5			(11th) Mar. 15–21		
Total since low	1,659	511	592	74,719	84,707	129,363	66	193	326	899	849	982

[3] Period ended earlier than Saturday.
[4] Dates between which the approximate low week ends. The specific date will vary from year to year.
[5] Including cases reported as streptococcal infections and septic sore throat.
[6] Including paratyphoid fever and salmonella infections reported separately, as follows: Massachusetts (salmonella infection) 2; New York (salmonella infection) 3; Ohio 2; Indiana 1; Michigan 1; Kansas 1; West Virginia 1; Georgia 2; Tennessee 1; Texas 1; Washington (salmonella infection 1, paratyphoid 1); California 2.

Telegraphic morbidity reports from State health officers for the week ended June 26, 1948, and comparison with corresponding week of 1947 and 5-year median—Con.

Division and State	Whooping cough: Week ended— June 26, 1948	Whooping cough: Week ended— June 21, 1947	Whooping cough: Median 1943–47	Week ended June 26, 1948: Dysentery: Amebic	Dysentery: Bacillary	Dysentery: Unspecified	Encephalitis, infectious	Rocky Mt. spotted fever	Tularemia	Typhus fever, endemic	Undulant fever
NEW ENGLAND											
Maine	4	4	9								
New Hampshire	1										
Vermont	11	9	12								3
Massachusetts	11	140	96		6		1				
Rhode Island	2	14	19								
Connecticut	2	64	26	1							1
MIDDLE ATLANTIC											
New York	126	235	177	12	15		2				8
New Jersey	37	244	157	1				1			
Pennsylvania	32	121	121								
EAST NORTH CENTRAL											
Ohio	16	231	107		1						3
Indiana	1	47	38				1	2			
Illinois	36	82	82	6	1				1		18
Michigan [3]	25	252	130	18	1						3
Wisconsin	42	140	106								6
WEST NORTH CENTRAL											
Minnesota	3	32	25								9
Iowa	4		8				1				24
Missouri	2	46	20								6
North Dakota	3	1	3								
South Dakota	3	1	1								1
Nebraska	2		3								
Kansas	15	58	44								1
SOUTH ATLANTIC											
Delaware	4							1			
Maryland [3]	15	84	84			2		4			1
District of Columbia		19	9								
Virginia	49	132	111	1		74	1	6			2
West Virginia	168	17	17		1						
North Carolina	47	61	184				1	1	1		
South Carolina	63	77	53	1	11		2		1	2	2
Georgia	8	41	31		3				3	4	7
Florida	29	87	23	2					1	2	1
EAST SOUTH CENTRAL											
Kentucky	15	40	45						1		
Tennessee	18	40	36	10		5					1
Alabama	61	63	48							7	2
Mississippi [3]	4	24		2				1	1	2	2
WEST SOUTH CENTRAL											
Arkansas	39	97	16	1		3			4		
Louisiana	5	55	13	1						1	1
Oklahoma	22	49	29	1				3	7		2
Texas	216	643	248	8	364	144			2	17	12
MOUNTAIN											
Montana		17	12						1		1
Idaho	16	13	9								1
Wyoming		1	2								1
Colorado	8	43	35					2			6
New Mexico	9	11	13			2					
Arizona	14	28	23			33					
Utah [3]	13	27	37		1						5
Nevada											
PACIFIC											
Washington	17	17	17								
Oregon	32	28	13	2							
California	47	252	252	3	12						1
Total	1,297	3,687	2,364	70	416	263	9	21	23	35	131
Same week: 1947	3,687			121	372	213	3	29	19	31	143
Median, 1943–47	2,364			69	488	213	9	29	19	94	[7] 143
25 weeks: 1948	49,049			1,938	8,858	5,117	221	168	497	428	2,368
1947	74,168			1,296	7,574	5,175	164	153	751	903	2,690
Median, 1943–47	62,419			917	8,033	2,997	225	153	443	1,255	[7] 2,309

[3] Period ended earlier than Saturday.

[7] 3-year median 1945–47.

Leprosy: New York 1; Texas 1.

Alaska: Chickenpox 1, German measles 3, measles 6, mumps 2, pneumonia 1, tuberculosis 1, undulant fever 2.

Territory of Hawaii: Rabies 0, leprosy 1, measles 2, whooping cough 14.

WEEKLY REPORTS FROM CITIES*

City reports for week ended June 19, 1948

This table lists the reports from 88 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland	0	0	------	0	------	0	1	0	4	0	0	1
New Hampshire:												
Concord	0	0	------	0	26	0	0	0	0	0	0	------
Vermont:												
Barre	0	0	------	0	------	0	0	0	0	0	0	------
Massachusetts:												
Boston	2	0	------	0	109	0	4	0	85	0	3	2
Fall River	0	0	------	0	84	0	0	0	0	0	0	2
Springfield	0	0	------	0	8	0	1	0	3	0	0	------
Worcester	0	0	------	0	56	0	4	0	11	0	0	1
Rhode Island:												
Providence	0	0	------	0	19	0	2	0	6	0	0	------
Connecticut:												
Bridgeport	0	0	------	0	------	0	0	1	0	0	0	------
Hartford	0	0	------	0	5	0	2	0	0	0	0	------
New Haven	0	0	------	0	17	0	0	0	1	0	0	------
MIDDLE ATLANTIC												
New York:												
Buffalo	0	0	------	0	89	0	3	0	13	0	0	------
New York	6	0	1	0	704	4	40	3	48	0	1	15
Rochester	0	0	------	0	10	0	3	0	4	0	1	------
Syracuse	0	0	------	0	23	0	1	0	4	0	0	5
New Jersey:												
Camden	1	0	------	1	4	0	0	2	3	0	0	1
Newark	0	0	------	0	430	0	5	0	7	0	0	5
Trenton	1	0	------	0	5	0	3	0	0	0	0	------
Pennsylvania:												
Philadelphia	6	0	1	1	603	2	11	0	29	0	2	9
Pittsburgh	0	0	------	0	22	0	7	0	34	0	0	4
Reading	0	0	------	0	2	0	1	0	1	0	0	------
EAST NORTH CENTRAL												
Ohio:												
Cincinnati	1	0	------	0	87	3	10	0	4	0	0	2
Cleveland	0	0	------	0	28	0	6	0	23	0	0	2
Columbus	0	0	------	0	2	0	1	0	3	0	0	------
Indiana:												
Fort Wayne	0	0	------	0	3	0	1	0	2	0	0	------
Indianapolis	0	0	------	0	72	0	7	0	6	0	0	------
South Bend	0	0	------	0	------	0	0	0	0	0	0	------
Terre Haute	0	0	------	0	------	0	3	0	0	0	0	------
Illinois:												
Chicago	1	0	3	1	149	2	16	0	27	0	0	16
Springfield	0	0	------	0	------	0	1	0	1	0	0	------
Michigan:												
Detroit	0	2	1	0	585	3	2	0	81	0	0	1
Flint	0	0	------	0	27	0	2	0	1	0	0	------
Grand Rapids	0	0	------	0	10	0	1	0	2	0	0	3
Wisconsin:												
Kenosha	0	0	------	0	14	0	0	0	0	0	0	------
Milwaukee	0	0	------	0	312	0	1	0	10	0	0	9
Racine	0	0	------	0	21	0	0	0	1	0	0	2
Superior	0	0	------	0	18	0	0	0	0	0	0	1
WEST NORTH CENTRAL												
Minnesota:												
Duluth	0	0	------	0	43	0	0	0	3	0	0	------
Minneapolis	0	0	------	0	3	0	2	0	7	0	0	1
St. Paul	0	0	------	0	18	2	0	0	1	0	0	1
Missouri:												
Kansas City	0	0	1	0	19	0	2	0	3	0	0	2
St. Joseph	0	0	------	0	------	1	0	0	0	0	0	------
St. Louis	1	1	------	0	56	0	4	0	3	0	0	2

*In some instances the figures include nonresident cases.

City reports for week ended June 19, 1948—Continued

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
WEST NORTH CENTRAL—continued												
Nebraska:												
Omaha	0	0	------	0	4	0	0	1	1	0	0	------
Kansas:												
Topeka	0	0	------	0	4	0	0	0	0	0	0	1
Wichita	0	0	------	0	1	1	1	0	0	0	0	------
SOUTH ATLANTIC												
Delaware:												
Wilmington	0	0	------	0	7	0	0	0	1	0	0	1
Maryland:												
Baltimore	2	0	------	0	796	1	3	0	3	0	0	7
Cumberland	0	0	------	0	------	0	0	0	1	0	0	------
Frederick	0	0	------	0	------	0	0	0	0	0	0	------
District of Columbia:												
Washington	0	0	------	0	58	0	1	0	5	0	0	9
Virginia:												
Lynchburg	0	0	------	0	1	0	0	0	0	0	0	------
Richmond	0	0	------	0	9	0	2	0	1	0	0	1
Roanoke	0	0	------	0	------	0	0	0	1	0	0	------
West Virginia:												
Charleston	0	0	------	0	------	0	1	0	0	0	0	------
Wheeling	0	0	------	0	------	0	1	0	0	0	0	------
North Carolina:												
Raleigh	0	0	------	0	11	0	0	0	0	0	0	1
Wilmington	1	0	------	0	------	0	2	0	3	0	0	8
Winston-Salem	0	0	------	0	------	0	0	0	1	0	0	------
South Carolina:												
Charleston	0	0	------	0	------	0	0	1	0	0	0	3
Georgia:												
Atlanta	0	0	------	0	1	0	2	0	1	0	0	------
Brunswick	0	0	------	0	------	0	0	0	0	0	0	------
Savannah	0	0	------	0	1	0	0	0	2	0	0	4
Florida:												
Tampa	0	0	------	0	2	0	1	0	1	0	0	1
EAST SOUTH CENTRAL												
Tennessee:												
Memphis	0	0	------	1	11	0	8	0	4	0	0	10
Nashville	0	0	------	0	2	0	2	0	0	0	0	1
Alabama:												
Birmingham	0	0	1	0	1	0	1	1	0	0	0	------
Mobile	0	0	------	0	------	0	3	0	3	0	0	------
WEST SOUTH CENTRAL												
Arkansas:												
Little Rock	0	0	------	0	1	0	0	1	0	0	0	1
Louisiana:												
New Orleans	0	0	------	0	1	0	3	3	2	0	0	------
Shreveport	0	0	------	0	------	0	0	0	0	0	0	------
Oklahoma:												
Oklahoma City	0	0	------	0	3	0	2	0	0	0	0	1
Texas:												
Dallas	0	0	------	0	8	1	3	3	1	0	0	1
Galveston	0	0	------	0	------	0	0	4	0	0	0	------
Houston	0	0	------	0	------	0	4	0	0	0	0	------
MOUNTAIN												
Montana:												
Great Falls	0	0	------	0	------	0	1	0	1	0	0	------
Helena	0	0	------	0	------	0	0	0	0	0	0	------
Missoula	0	0	------	0	------	0	0	0	0	0	0	------
Idaho:												
Boise	0	0	------		6	0	0	0	0	0	0	------
Colorado:												
Denver	2	0	1	0	28	0	1	0	5	0	0	2
Pueblo	0	0	------	0	234	0	0	0	1	0	0	------
Utah:												
Salt Lake City	0	0	------	0	145		0	0	1	0	1	------

City reports for week ended June 19, 1948—Continued

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza Cases	Influenza Deaths	Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
PACIFIC												
Washington:												
Seattle	0	0	-----	0	139	0	1	0	5	0	0	2
Spokane	0	0	-----	0	25	0	1	2	0	0	0	-----
Tacoma	0	0	-----	0	7	0	0	0	1	0	0	-----
California:												
Los Angeles	5	0	2	0	330	0	3	5	11	0	0	8
Sacramento	0	0	-----	0	27	1	0	0	1	0	0	3
San Francisco	0	0	1	0	112	0	4	2	4	0	0	10
Total	29	3	12	4	5,658	21	198	29	492	0	8	162
Corresponding week, 1947[1]	39	-----	13	9	2,014	-----	223	-----	416	0	8	920
Average 1943-47[1]	52	-----	27	[2] 10	[3] 2,403	-----	[2] 243	-----	706	0	14	739

[1] Exclusive of Oklahoma City. [2] 3-year average, 1945-47. [3] 5-year median, 1943-47.

Rates (annual basis) per 100,000 population, by geographic groups, for the 88 cities in the preceding table (latest available estimated population, 34,308,200)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza Case rates	Influenza Death rates	Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Poliomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
New England	5.2	0.0	0.0	0.0	847	0.0	36.6	2.6	288	0.0	7.8	16
Middle Atlantic	6.5	0.0	0.9	0.9	876	2.8	34.3	2.3	66	0.0	1.9	18
East North Central	1.2	1.2	2.4	0.6	808	4.9	31.0	0.0	98	0.0	0.0	22
West North Central	2.0	2.0	2.0	0.0	298	8.0	18.1	2.0	36	0.0	0.0	14
South Atlantic	4.9	0.0	0.0	0.0	1,448	1.6	21.2	1.6	33	0.0	0.0	57
East South Central	0.0	0.0	5.9	5.9	83	0.0	82.6	5.9	41	0.0	0.0	65
West South Central	0.0	0.0	0.0	0.0	38	2.9	35.1	32.2	9	0.0	0.0	9
Mountain	16.4	0.0	8.2	0.0	3,390	0.0	16.4	0.0	66	0.0	8.2	16
Pacific	7.9	0.0	4.7	0.0	1,012	1.6	14.2	14.2	35	0.0	0.0	36
Total	4.4	0.5	1.8	0.6	862	3.2	30.2	4.4	75	0.0	1.2	25

Dysentery, amebic.—Cases: New York 10; Chicago 1; Detroit 12; Washington, D. C. 1; Tampa 1; New Orleans 3; Los Angeles 5.

Dysentery, bacillary.—Cases: Worcester 3; Chicago 1; Memphis 1; New Orleans 2; Los Angeles 1.

PLAGUE INFECTION IN SAN LUIS OBISPO COUNTY, CALIF.

Under date of June 22, plague infection was reported proved in pools of fleas from ground squirrels, *Citellus beecheyi*, taken in San Luis Obispo County, Calif. as follows: Proved June 18, a pool of 172 fleas from 31 ground squirrels shot at Salinas Dam area (United States Reservation), 4 miles east and 2½ miles south of Santa Margarita; proved June 21, a pool of 58 fleas from 11 ground squirrels shot 3 miles west of Pozo on State Highway No. 178, and a pool of 207 fleas from 19 ground squirrels shot on a ranch on Pozo Road 2 miles east and 1 mile south of Santa Margarita.

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended June 5, 1948.—During the week ended June 5, 1948, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Bruns-wick	Que-bec	Ontar-io	Mani-toba	Sas-katch-ewan	Al-berta	British Colum-bia	Total
Chickenpox		82		198	430	85	16	34	147	992
Diptheria				20	2			1		23
Dysentery, bacillary					1					1
Encephalitis				1						1
German measles				69	21	2		3		95
Influenza		5			4	1			4	14
Measles			3	571	967	32	11	132	322	2,038
Meningitis, meningococcus		1	1	1			1			4
Mumps		16	3	206	272	96	66	47	13	719
Poliomyelitis					3			1		4
Scarlet fever		2	4	103	80	4		2	12	207
Tuberculosis (all forms)		3	29	98	35	22	13	7	24	231
Typhoid and paratyphoid fever				5		2	2			9
Undulant fever		1				1		2	4	8
Venereal diseases:										
Gonorrhea		7	8	86	83	29	4	41	42	300
Syphilis		5	2	75	37	17	10	9	18	173
Other forms									1	1
Whooping cough		7		56	27	1	10	21	5	127

CUBA

Habana—Communicable diseases—4 weeks ended May 29, 1948.—During the 4 weeks ended May 29, 1948, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chickenpox	4	0	Measles	8	0
Diphtheria	22	0	Tuberculosis	3	0
Malaria	1	0	Typhoid fever	10	2

Provinces—Notifiable diseases—4 weeks ended May 29, 1948.—During the 4 weeks ended May 29, 1948, cases of certain notifiable diseases were reported in the provinces of Cuba, as follows:

Disease	Pinar del Rio	Habana[1]	Matan-zas	Santa Clara	Cama-guey	Oriente	Total
Cancer	6	7	4	16	2	19	54
Chickenpox	0	4	0	0	1	8	13
Diphtheria	0	27	2	0	1	0	30
Hookworm disease	0	28	0	0	0	0	28
Leprosy	1	6	0	1	0	1	9
Malaria	2	0	0	0	5	7	14
Measles	1	10	0	5	1	1	18
Poliomyelitis	0	0	0	0	0	1	1
Rickettsiosis	0	0	1	0	0	0	1
Tuberculosis	4	18	10	32	13	20	97
Typhoid fever	6	13	6	22	1	16	64
Whooping cough	0	1	1	0	0	0	2

[1] Including Habana City.

JAPAN

Notifiable diseases—4 weeks ended May 29, 1948, and accumulated totals for the year to date.—For the 4 weeks ended May 29, 1948, and for the year to date, certain notifiable diseases have been reported in Japan as follows:

Disease	4 weeks ended May 29, 1948		Total reported for the year to date	
	Cases	Deaths	Cases	Deaths
Diphtheria	1,197	83	8,159	795
Dysentery, unspecified	510	112	1,466	326
Encephalitis, Japanese "B"			1	
Gonorrhea	20,905		108,835	
Influenza	290		2,089	
Malaria	329	4	1,415	11
Measles	8,220		29,611	
Meningitis, epidemic	172	40	1,053	257
Paratyphoid fever	266	14	890	45
Pneumonia	8,664		78,773	
Scarlet fever	303	5	1,230	17
Smallpox	5	0	20	0
Syphilis	20,045		100,735	
Tuberculosis	34,072		144,783	
Typhoid fever	798	87	2,668	327
Typhus fever	33	1	371	30
Whooping cough	3,516		17,149	

NOTE.—The above figures have been adjusted to include delayed and corrected reports.

MADAGASCAR

Notifiable diseases—April 1948.—Notifiable contagious diseases were reported in Madagascar and Comoro Islands during April 1948 as follows:

Disease	April			
	Aliens		Natives	
	Cases	Deaths	Cases	Deaths
Beri-beri	0	0	2	0
Bilharziasis	1	0	131	0
Cerebrospinal meningitis	0	0	6	1
Diphtheria	0	0	3	1
Dysentery:				
Amebic	7	0	222	2
Bacillary	1	0	8	1
Erysipelas	0	0	18	1
Influenza	28	0	2,764	15
Leprosy	0	0	36	0
Malaria	616	2	48,897	370
Measles	4	0	38	0
Mumps	0	0	119	0
Paratyphoid fever	0	0	1	0
Plague	0	0	21	20
Pneumonia, broncho	4	0	263	39
Pneumonia, pneumococcic	4	1	341	53
Puerperal infection	0	0	9	2
Tuberculosis, pulmonary	4	3	142	19
Typhoid fever	3	0	32	4
Whooping cough	3	0	152	2

FINLAND

Notifiable diseases—April 1948.—During the month of April 1948, cases of certain notifiable diseases were reported in Finland as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	9	Poliomyelitis	6
Diphtheria	219	Scarlet fever	353
Gonorrhea	950	Syphilis	300
Malaria	4	Typhoid fever	29
Paratyphoid fever	116		

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—Except in cases of unusual incidence, only those places are included which had not previously reported any of the above-mentioned diseases, except yellow fever, during recent months. All reports of yellow fever are published currently.

A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

Cholera

India—Calcutta.—During the week ended June 12, 1948, 176 cases of cholera were reported in Calcutta, India.

Pakistan—Lahore.—For the week ended May 15, 1948, 665 cases of cholera with 253 deaths were reported in Lahore City and District, Pakistan.

Plague

Argentina—Buenos Aires Province—El Tigre.—During the month of March 1948, 4 cases of plague with 2 deaths were reported in El Tigre, Buenos Aires Province, Argentina.

India—Calcutta.—For the week ended June 5, 1948, 6 cases of plague were reported in Calcutta, India.

Madgascar.—During the month of March 1948, 189 cases of plague with 85 deaths were reported in Madagascar.

Smallpox

Ecuador.—For the period January 1–March 31, 1948, 1,458 cases of smallpox (including alastrim) with 63 deaths were reported in Ecuador, including 42 cases in Quito and 38 cases (alastrim) in Guayaquil during the month of March.

Indochina (French)—Laos State.—For the week ended June 5, 1948, 149 cases of smallpox with 80 deaths were reported in Luangprabang Province, Laos State, French Indochina.

Mexico.—During the month of February 1948, 214 cases of smallpox were reported in Mexico. Outbreaks were noted in Mexico, Veracruz, Guanajuato, and Hidalgo States.

Venezuela.—For the period January 1–February 29, 1948, 1,335 cases of smallpox with 33 deaths were reported in Venezuela, including 67 cases in Maracaibo and 55 cases in Puerto La Cruz, during the month of February.

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