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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES[1]

July 15–August 11, 1934

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the United States Public Health Service, is summarized in this report. The underlying statistical data are published weekly in the Public Health Reports, under the section entitled "Prevalence of Disease".

Poliomyelitis.—The number of cases of poliomyelitis in Los Angeles City declined from a maximum of 156 for the week ending June 9 to 28 cases for the week ending August 18. In the county outside of the city the number declined from 100 for the week ending June 16 to 31 cases for the week ending August 11, no report being available at this time for August 18. The decline has been fairly steady, although fewer cases occurred in the 2 preceding weeks than in the week ending August 11. From a maximum of 27 in San Francisco for the week ending June 23, the number of cases has declined to 7 for the week ending August 11. The remainder of the State reported a maximum of 109 in the same week as the San Francisco maximum, with a decline to 11 cases in the week ending August 4. However, 33 cases were reported for the week of August 11.

For the whole State of California a total of 466 cases were reported for the current 4-week period ending August 11, making a total of 2,446 cases for the 15 weeks from the beginning of the epidemic in the last of April to August 11. Of this total, 1,752 cases, or about 70 percent, occurred in the city and county of Los Angeles. Seventy-five more cases were reported in the State of California for the week ending August 18.

Table 1 shows the numbers of cases reported in each State for the 13 weeks ending August 18, 1934, with comparative data for the same period in 1933 and 1932. The table also shows for each State the

[1] From the Office of Statistical Investigations, U.S. Public Health Service. The numbers of States included for the various diseases are as follows: Typhoid fever, 48; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 47; diphtheria, 48; scarlet fever, 48; influenza, 43 States and New York City. The District of Columbia is counted as a State in these reports. These summaries include only the eight important communicable diseases for which the Public Health Service receives regular weekly reports from the State health officers.

weekly number of reported cases from June 3 to August 18, 1934. So few cases are ordinarily reported, even at the peak of the seasonal curve, that in all except the largest States the reporting of more than 1 or 2 cases a week is above the expectancy.

Nearly all of the Western States have reported scattered cases of poliomyelitis, and in some States the cases are running into epidemic proportions for this disease. During the 13 weeks ending August 18, there were 218 cases in Washington State, 73 in Montana, 61 in Idaho, 29 in Arizona, and 23 in Oregon, as compared with 1 to 7 cases for the same period a year ago. Texas and Kansas, in the central West, are above preceding years, and among the States east of the Mississippi a number have reported somewhat more than the usual expectancy of poliomyelitis cases.

TABLE 1.—*Poliomyelitis cases reported in each State for recent weeks of 1934*

Area and State	Cases reported for 13 weeks ended Aug. 18:			Cases reported in 1934 for week ended—										
	1932	1933	1934	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18
All States	863	1,239	3,590	294	320	376	338	316	279	229	257	250	299	335
PACIFIC														
California	42	37	2,452	273	273	349	297	236	207	154	120	85	107	75
Los Angeles city	11	5	1,071	156	99	122	126	95	91	63	51	43	36	28
Los Angeles County (outside of city)				64	100	82	83	49	52	35	20	29	31	24
San Francisco	3	2	115	9	20	27	15	15	4	3	3	2	7	8
Remainder of State				44	54	109	73	107	60	53	46	11	33	20
Oregon	1	7	23	1	0	1	4	2	2	1	1	1	3	4
Washington	29	6	218	0	2	2	1	2	8	12	34	11	45	70
MOUNTAIN														
Arizona	1	1	29	1	3	0	2	2	2	4	1	5	4	3
Idaho	1	1	61	0	2	0	2	4	2	1	13	17	5	14
Montana	9	1	73	0	1	1	1	3	1	3	2	10	17	34
Wyoming	1	3	1	0	0	0	0	0	0	0	1	0	0	0
Utah	1	2	4	0	0	0	0	1	0	0	1	1	0	1
Colorado	1	2	7	2	0	0	0	0	0	1	1	1	0	2
New Mexico	3	1	5	0	0	1	0	0	0	0	3	1	0	0
WEST SOUTH CENTRAL														
Texas	31	19	43	1	1	0	6	5	2	11	5	6	5	1
Oklahoma	11	1	5	0	0	1	0	0	0	0	0	0	1	0
Louisiana	4	8	7	0	0	1	0	0	1	0	0	2	1	0
Arkansas	1	5	0	0	0	0	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL														
Kansas	7	13	29	0	0	1	0	2	1	1	2	2	9	8
Nebraska	3	1	3	0	1	0	0	0	0	0	2	0	0	0
South Dakota	3	11	14	0	1	0	0	1	0	0	3	1	4	3
North Dakota	13	16	0	0	0	0	0	0	0	0	0	0	0	0
Minnesota	94	60	22	0	1	0	1	1	1	0	1	6	1	10
Iowa	15	9	7	0	1	0	0	0	1	0	1	0	1	2
Missouri	13	15	8	0	0	0	0	0	0	0	1	0	1	1
EAST NORTH CENTRAL														
Illinois	125	59	68	2	1	1	5	3	5	4	7	10	10	17
Ohio	35	51	62	0	9	1	1	1	2	4	7	3	19	11
Michigan	148	19	36	2	0	0	0	0	3	2	4	8	4	13
Wisconsin	84	7	14	0	1	1	1	1	1	0	1	2	3	2
Indiana	10	7	12	0	1	0	0	0	0	2	2	2	1	3

[1] Aug. 18, 1934; Aug. 19, 1933; Aug. 20, 1932.

TABLE 1.—*Poliomyelitis cases reported in each State for recent weeks of 1934*—Con.

Area and State	Cases reported for 13 weeks ended Aug. 18			Cases reported in 1934 for week ended—										
	1932	1933	1934	June 9	June 16	June 23	June 30	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18
EAST SOUTH CENTRAL														
Mississippi	9	2	10	2	2	0	2	0	2	1	0	0	0	1
Alabama	7	4	20	0	6	5	0	0	1	1	2	5	3	2
Tennessee	9	55	14	0	1	0	1	1	1	0	1	3	1	5
Kentucky	10	11	29	2	0	0	0	5	1	1	10	4	0	6
SOUTH ATLANTIC														
Delaware	1	4	0	0	0	0	0	0	0	0	0	0	0	0
Maryland	7	11	12	0	0	0	1	1	0	0	1	2	2	5
District of Columbia	7	1	4	0	0	0	0	0	0	2	0	1	0	1
Virginia	5	7	26	0	2	0	1	1	2	1	0	3	7	9
West Virginia	11	31	23	0	0	1	1	3	2	1	3	1	4	6
North Carolina	37	2	19	0	2	0	0	0	3	1	1	3	4	3
South Carolina	15	3	3	0	0	0	0	0	0	0	1	0	2	0
Georgia	7	0	8	4	1	0	0	0	1	0	1	1	0	0
Florida	1	3	9	0	0	6	1	0	1	0	0	0	1	0
MIDDLE ATLANTIC														
New York	2,503	413	82	3	8	8	3	7	9	11	9	6	9	6
New Jersey	270	39	34	0	2	2	3	2	4	2	2	1	7	7
Pennsylvania	39	82	37	0	3	1	0	2	2	3	2	7	10	5
NEW ENGLAND														
Massachusetts	317	178	37	1	1	2	1	0	5	5	8	5	6	1
Connecticut	337	14	4	0	0	0	1	0	1	0	0	1	1	0
Rhode Island	64	7	1	0	0	0	0	0	1	0	0	0	0	0
New Hampshire	11	0	5	0	0	1	0	1	1	0	1	0	0	1
Vermont	12	1	4	0	0	0	0	0	0	0	1	2	0	1
Maine	24	9	6	0	0	0	0	0	1	0	1	1	1	2

Typhoid fever.—During the current 4-week period 3,760 cases of typhoid fever were reported, as compared with 3,735 last year and 4,852 the year before. The current incidence represents a considerable increase over the preceding period (2,132 cases), but the incidence normally increases sharply at this season.

While it would be uncertain as to how much the drought has affected the typhoid rate of the United States as a whole, it is quite possible that it has increased the rate rather sharply in some areas. In the West North Central area, the one most affected by the drought, 408 cases were reported for the current period as against 165 last year and 275 in 1932. Of the total number of cases in this area (408), Missouri reported 252, Kansas 86, and Iowa 42. States in the West South Central area also reported significant excesses over last year. In the East North Central section a slight increase was noted, due mostly to a rather high incidence (208 cases) in Illinois. The Pacific group reported an increase over last year; the drought did not extend into that region. In the New England and Middle Atlantic, South Atlantic, and East South Central sections the disease was considerably less prevalent than it was at this time last year.

Measles.—A decrease in measles of approximately 24,000 cases occurred during the 4 weeks ended August 11 as compared with the preceding 4 weeks. However, the number of cases reported (9,966) was about 1.5 times that for the corresponding period last year and

about 1.4 times the average for the 4 preceding years. Each geographic area, except the Pacific, reported a very significant excess over last year. In that area the number of cases was only about 50 percent of last year's figure. The disease continued most prevalent in the East North Central States, the incidence in that region being more than four times that of last year.

Scarlet fever.—The number of cases of scarlet fever reported (3,992) for the current 4-week period was practically the same as that for the same period in each of the years 1933 and 1932. For this period in 1931 and 1930 the cases totaled 3,362 and 2,962, respectively. By geographic areas, the current incidence was slightly higher than last year in the Middle Atlantic, West North Central, West South Central, Mountain, and Pacific regions and lower in the New England, East North Central, South Atlantic, and East South Central areas.

Meningococcus meningitis.—The number of cases of meningococcus meningitis reported for the 4 weeks ended August 11 was 130, about 90 percent of last year's figure for the corresponding period and 80 percent of the number in 1932. For this period in 1931 and 1930 there were 260 and 345 cases, respectively. The favorable situation described for the country as a whole apparently existed in each geographic area.

Diphtheria.—The prevailing low incidence of diphtheria continued during the current 4-week period, 1,446 cases being reported, which was the lowest recorded for this period in the 6 years for which data are available. North Dakota, in the West North Central group of States, reported a rather high incidence (32 cases), making the figure for that area about 20 percent above last year's figure; but in all other regions the incidence closely approximated or was considerably lower than that of last year.

Smallpox.—For smallpox, the incidence continued very low. The number of cases (113) reported for the 4 weeks ended August 11 was only about 60 percent of that for the corresponding period last year and about 35 percent of the number in 1932. For this period in 1931 and 1930 there were 652 and 1,394 cases, respectively. The West North Central section showed a slight increase over last year, the East North Central the same incidence as last year, and all other areas a very significant decrease. While the number of cases in the East North Central section was the same as last year, the distribution was quite different, every State in the area reported cases for this period last year, but for the current period Wisconsin reported 35 of the 36 cases.

Influenza.—An increase in the number of cases of influenza in Maryland and West Virginia during the last half of the current 4-week period was responsible for a sudden upturn in the downward trend of this disease, which does not usually occur until September. Of the

total cases (1,354) for the 4 weeks ended August 11, Maryland reported 285 and West Virginia 204, with 867 in all other reporting States, a figure slightly below the incidence in the same States for this period in the 2 preceding years. A slight increase over the preceding period was also reported from the East North Central area but in all other sections the seasonal decline continued and the reports also compared favorably with last year's figures.

Mortality, all causes.—The average mortality rate for all causes in large cities for the 4 weeks ended August 11, as reported by the Bureau of the Census, was 10.5 per thousand inhabitants (annual basis). The rates for the separate weeks of the period were 10.2, 12.3, 9.9, and 9.7, the rate of 12.3 for the week ending July 28 being distinctly above the expectancy for this season of the year. An examination of the data for individual cities indicates that the hot, drought area of the Middle West is responsible for the increase, a number of cities in this area having death rates in this week that were twice the normal expectancy. A more detailed report on temperatures and mortality in these cities appears in the following article.

During the 3 preceding years the rate for corresponding 4-week periods was 9.8, 9.7, and 10.3, respectively, as compared with 10.5 for this period in 1934.

MAXIMUM TEMPERATURES AND INCREASED DEATH RATES IN THE DROUGHT AREA[1]

By SELWYN D. COLLINS, *Senior Statistician*, and MARY GOVER, *Associate Statistician, United States Public Health Service*

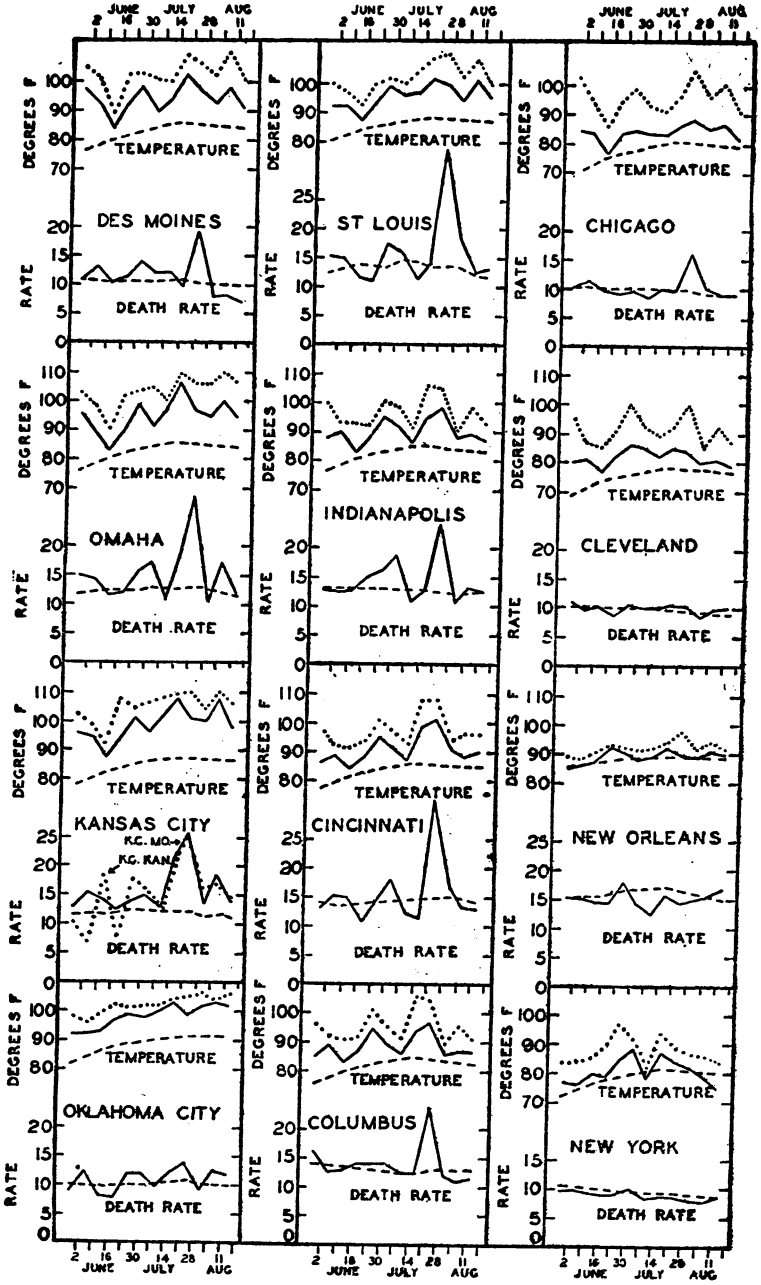
The death rate from all causes for the week ending July 28, 1934, in 86 large cities was 12.3 per 1,000 population[2] (annual basis) as compared with 10.2 for the preceding week, 9.9 for the following week, and an expected rate of 10.6 based on the corresponding season of the 4 years 1930–33. Although a death rate of 12.3 is not exceptional in the winter, it represented an excess of 16 percent above the normal mortality in the same 86 cities at this season of the year.

An examination of the rates for individual localities indicates that the rise was largely limited to the Middle West, particularly that part of this area where the drought has been severe and the temperatures have been abnormally high. In figure 1 there are plotted for the cities in the hottest part of the drought area and for a few cities where the weather has been more nearly normal, the weekly records from May 27 to August 18 for—

(*a*) Weekly death rates from all causes per 1,000 population (annual basis) for the 1934 period;

[1] From the Office of Statistical Investigations, U.S. Public Health Service.

[2] Data from the Weekly Health Index of the Bureau of the Census.



Temperature, F:
——— = Weekly means of daily maximum temperatures in 1934 period.
- - - - - - = Normal weekly means of daily maximum temperatures based on corresponding weeks of 40 to 60 years.
. . . . . = Actual weekly maximum temperatures in 1934 period.

Death rate from all causes per 1,000 population (annual basis):
——— = Weekly rate in 1934 period.
- - - - - - = Average weekly rate for corresponding weeks of 1930–33.

FIGURE 1.—Weekly death rates from all causes and weekly temperature records in the summer of 1934 for 9 cities in the drought area and 3 cities not affected by the heat wave

(*b*) Expected death rate, based on the mean of the rates for corresponding weeks of the 4 years 1930–33;

(*c*) The mean of the seven daily maximum temperatures for each week in the 1934 period;

(*d*) Normal weekly means of daily maximum temperatures for corresponding weeks of preceding years, based on weather records for 40 to 60 years; and

(*e*) Maximum temperature for each week of the 1934 period.

Examination of the chart shows definite mortality increases in the cities in the drought-heat area; the peak rate for the week ending July 28, 1934, was about twice the expected rate for this season of the year. Almost the only city near the center of the heat area that failed to show a definite excess was Oklahoma City, and this locality is not in the most severely affected region. A number of cities in Illinois, Indiana, Ohio, Kentucky, and Tennessee are not included; but with the possible exception of Peoria, Ill., and Dayton, Ohio, none exhibited any definite mortality increases.

An examination of the curves in figure 1 for the various cities suggests a slight similarity during this exceptionally hot summer in the week to week fluctuations in the mean maximum temperature and the death rate, if allowance is made for a possible lag of a week in the deaths. The dotted line of the weekly temperature maxima does not always follow the course of the weekly means of the maxima, since there may be a few very hot days in the week along with some cool days that bring down the average.

In the various cities, the average maximum temperature in the week preceding the peak death rate is usually the maximum that has been reached this summer. The height of the actual temperatures in the different cities, however, gives little indication of the size of the peak in the death rate. Kansas City, with a weekly average maximum temperature of 108°, did not have as high a rate as St. Louis, with a weekly average maximum of 102°, and Oklahoma City, with 103°, had only a small rise in the death rate. However, in Kansas City and Omaha, where the highest temperatures prevailed, there were high death rates for the week ending July 21 as well as for the week of July 28. These two cities also show a small secondary peak in the death rate for the week ending August 11, when the averages of the daily maxima in Kansas City again reached 108°, with 3 days in Kansas City and 2 days in Omaha having maximum temperatures of 110°.

Cleveland, New York City, and New Orleans are shown on the right side of figure 1. Cleveland and New York had temperatures this year that were above normal, but were not as high as in the other cities; the temperature in New Orleans was about normal. The death rates in these cities have not been exceptionally high.

If simple averages are made of the weekly rates in the eight cities with definite peaks (Chicago, Cincinnati, Columbus, Des Moines, Indianapolis, Kansas City, Mo., Omaha, and St. Louis), one finds a mean death rate of 25.5 per 1,000 population (annual basis) for the week ending July 28, as compared with an expected or normal rate for this season of the year of 12.4 per 1,000, an excess of 106 percent in the mortality for that week.

The weekly numbers of deaths under 1 year of age are too small to use as a basis for reliable rates except in very large cities. However, if the infant mortality rates (deaths under 1 year per 1,000 live births) are averaged for the eight cities, the means are fairly reliable. Averages similar to those made for mortality at all ages indicate an infant mortality rate of 110 per 1,000 live births for the week ending July 28, as compared with an expected rate of 49 per 1,000, based on the corresponding weeks of the 4 preceding years—an excess of 124 percent for the hot week. This excess is slightly greater than the excess of 106 percent in the general mortality rate for all ages.

In terms of actual numbers, the excess deaths under 1 year of age account for only a small fraction of the total excess deaths during the week ending July 28. In the 8 weeks preceding the hot week, the average weekly number of infant deaths in the seven cities (exclusive of Chicago [3]) amounted to 42 as compared with 92 in the hot week, an excess of 50 infant deaths. A similar computation for all deaths gives 740 as the average weekly number, with 1,538 deaths in the hot week, an excess of 798 deaths at all ages. The excess of 50 infant deaths for this week in the seven cities therefore accounts for only 6.3 percent of the total excess. Obviously the adult ages were also heavily affected, but no data are now available on the age at death except for infants. It is probable that, in addition to deaths attributed to heat stroke, there were many among old persons with chronic heart or other organic ailments whose death was hastened by the exceptional weather conditions. It is known also that diarrheal diseases are usually high among young children in hot weather.

Any final analysis of the relation of weather to these peaks in the death rate should take account of other conditions as well as temperature. The relative humidities in the drought-heat cities have been abnormally low; indeed with high humidities a temperature of 108° would be unbearable. The purpose of this note is merely to point out these exceptional rises in the death rate that appear to be associated with exceptionally high temperatures; no attempt is made to analyze the relative effect of the various weather conditions.

[3] Chicago is omitted because it is so much larger than the other cities that it would unduly affect the total. If Chicago is included, the infant deaths account for an even smaller percentage of the total excess. Averages of the *rates* previously discussed included Chicago, but since a simple average of the eight rates was made, Chicago had the same weight as any of the smaller cities.

EXPERIMENTAL LYMPHOCYTIC CHORIOMENINGITIS OF MONKEYS AND MICE PRODUCED BY A VIRUS ENCOUNTERED IN STUDIES OF THE 1933 ST. LOUIS ENCEPHALITIS EPIDEMIC

By CHARLES ARMSTRONG, *Surgeon, United States Public Health Service,* with Pathology by R. D. LILLIE, *Surgeon, United States Public Health Service*

In the transmission from monkey to monkey of infectious materials derived from a fatal case of the 1933 St. Louis epidemic of encephalitis, a virus has been encountered apparently quite distinct from the strains previously isolated in monkeys by Muckenfuss, Armstrong, and McCordock, and subsequently in white mice by Webster and Fite. This virus, which differs from any virus with which the author is familiar, will be designated in this paper, from the pathological picture produced by intracerebral inoculation of monkeys and mice, as the virus of experimental lymphocytic choriomeningitis.

ORIGIN OF THE VIRUS

The virus was encountered during monkey-to-monkey transfer of infection from a patient C.G., who died during the 1933 St. Louis epidemic of what was apparently encephalitis of the type prevailing there, as judged by the symptoms and central nervous system pathology.

HISTORY OF CASE

Case C.G., colored housewife, 42 years of age, resident of St. Louis County, had been in poor health for the preceding 12 years; suffered with chronic constipation and had had an abdominal operation; was said to suffer from diabetes. She had been in usual health during 3 weeks prior to present illness, which began on August 13, 1933, with general malaise—"just sick all over."

August 14.—A severe headache with intermittent vomiting was present, and she was "very hot." There was no delirium or loss of consciousness, but she was drowsy all day.

August 15.—Generally worse, delirious, removed to the County Hospital.

This brief history was obtained from the epidemiological record of the case as collected by Surg. M. V. Veldee, of the Public Health Service. The clinical and autopsy records could not be located at the hospital.

TRANSFERS DEVELOP UNUSUAL PATHOLOGY

The strain from C.G. was carried through 5 monkeys (*rhesus* no. 5, no. 18, no. 771, no. 787, and no. 800) and was considered to be similar to the six other strains of encephalitis isolated by Muckenfuss, Arm-

strong, and McCordock. Reinvestigation of the symptomatology and pathology of these early transfers tends to confirm this opinion.

On November 2, 1933, rhesus no. 37 was inoculated with brain material from monkey 800 (6th transfer). Monkey 37 had been inoculated twice previously (Sept. 28 and Oct. 2) with the Freeman strain of St. Louis encephalitis virus but had failed to react with recognizable symptoms. The eighth day following the inoculation from monkey 800, however, monkey 37 showed a fever of 40.5° C., was slightly tremulous and slow of movement, and refused food. The following day (Nov. 11) the temperature was 40.2° C. The spinal fluid was under increased pressure, clear, and showed 439 cells per cu. mm., almost entirely lymphocytes. The animal was etherized for passage. The brain was markedly congested and oedematous but in no way distinguishable grossly from the brains of monkeys infected with the usual St. Louis encephalitis strains.

The microscopic pathology as reported by Surg. R. D. Lillie, however, presented peculiarities which reappeared with succeeding transfers. Likewise, transfers to white mice revealed features quite distinct from those observed with the other encephalitis strains, and a comparative study soon compelled the conclusion that we were dealing with a second distinct type of experimental infection.

STUDY OF THE VIRUS

The infectious agent a virus.—That experimental choriomeningitis is caused by a virus is indicated by the following considerations:

1. Transfer has repeatedly been secured with inoculum sterile to culture on ordinary media. Furthermore, when contaminating organisms were revealed, they were of no constant type. A number of these recovered cultures were inoculated intracerebrally into mice, but either failed to produce death or did so by the production of a pyogenic meningoencephalitis.

2. Filtrates, as well as spinal fluids, and sections of nervous tissue demonstrated to harbor the infectious agent contained no visible or stainable organisms.

3. The infectious agent suspended in either saline or broth readily passed a Berkefeld N filter demonstrated to withhold *B. prodigiosus* (room temp., pH 7.6, pressure 40 cm Hg).

4. Centrifugation at high speed for 15 minutes failed to remove the infectious agent from spinal fluid and brain suspensions, although there was evidence of diminution of the amount of virus.

5. Monkey and mouse strains have been found to retain their infectivity for at least 206 days when stored at 4°–10° C. in 50 percent neutral glycerine in 0.85 percent saline.

6. A temperature of 55° to 56° C. for 20 minutes destroyed the infectivity of brain suspensions for mice.

7. Cell inclusions have not been encountered, although no adequate search for them has as yet been undertaken.

Susceptible animals.—Rhesus and cebus monkeys, white mice, wild mice, and guinea pigs have been found susceptible to intracerebral inoculation, while white rats and a small series of rabbits have so far proved refractory.

Symptoms in monkeys.—Following intracerebral inoculation (1.5 cc 1: 20 suspension of infective brain), the animal usually develops a fever of 40° to 41° C. on the 4th to the 8th day (chart 1).

The temperature continues elevated for 3 to 10 days and then begins to fall, usually becoming subnormal when the animal may die, but recovery is the rule. Following the onset of fever, the animal refuses food, loses weight, and takes on a very drawn and dejected

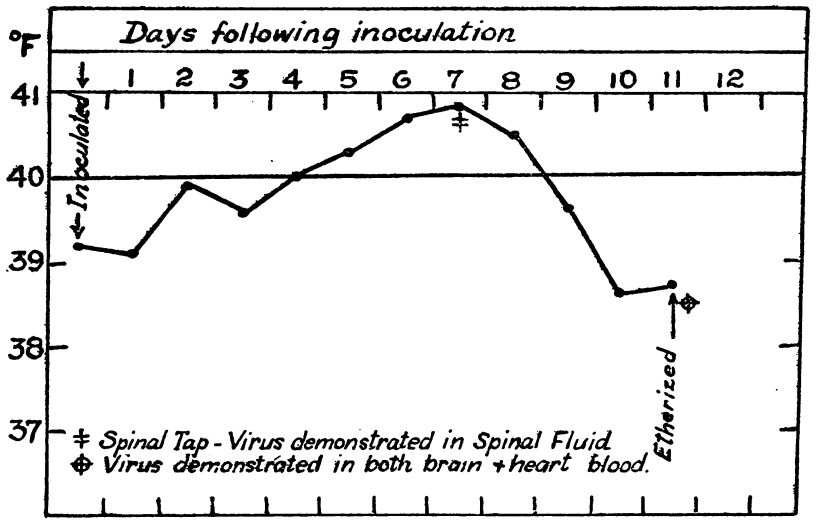


CHART 1.—Temperature curve in monkey (636) following intracerebral inoculation.

appearance. When undisturbed, he sits quietly with head bent forward and eyes closed, but is readily aroused, and when disturbed moves very slowly as though stiff. Slight intention tremors, especially of the hands, are noted in some but not all monkeys, but are distinctly less frequent and less pronounced than are noted with monkeys infected with other strains isolated from the St. Louis epidemic. Transient tetanus-like convulsions were noted in two instances, but appear to be exceptional in monkeys. Definite paralysis has not been observed. The spinal fluid is usually clear and under increased pressure. Cell counts on spinal fluid drawn during the acute attack from 18 different monkeys have ranged from 150 to 1,260 cells per cu. mm., almost entirely lymphocytes. White blood cell counts during the disease have ranged from 10,000 to 19,400 cells per cu. mm. The differential counts performed on monkeys showed no constant or characteristic changes.

Symptoms in mice.—The incubation period in white mice following intracerebral inoculation with brain emulsions in dilutions up to 1:50,000 is strikingly constant, symptoms appearing usually on the 6th or 7th day, although in an occasional mouse the symptoms may be deferred to as late as the 10th or 12th day. To casual inspection, ill mice may appear normal, or they may be noted to sit apart from the others, with the hair either smooth or but slightly ruffled. When one of these mice is lifted by the tail a series of rapid jerky motions with the front and hind legs results, which conveys a pronounced sensation of tremor to the hand, readily distinguishable from that observed with normal mice. These rapid motions often pass to a very striking spastic convulsion, lasting from some seconds to a minute or more, in which the hind legs and toes are strongly extended and rigid, as is also the tail. One or both front legs may be drawn strongly backward against the body, but more often they escape involvement, enabling the mouse during the seizure to drag itself about the table. The spine may be strongly ventrally flexed in the dorsal region, and in male mice an erection is often noted and ejaculation may occur. The seizure may end in death or may gradually relax, when the mouse may run about the cage apparently quite normal. Practically all the affected mice, however, ultimately die in convulsions, usually in from 1 to 3 days from onset of symptoms.

Distribution of the virus.—The virus has been demonstrated very regularly, by mouse transfer, in the brain, spinal fluid, and blood of monkeys during the febrile attack, and was demonstrated in a single attempt in urine collected at autopsy. In mice, the virus has been demonstrated in the brain and blood.

Experimental routes of infection.—Infection has usually been conveyed through intracerebral inoculations; however, preliminary studies of other routes have been begun. Monkey 843 was inoculated intrathecally with 2 cc of 1:50 suspension of sterile monkey brain virus. On the 5th day the animal showed a fever which lasted for 5 days. The animal refused food, was slow and stiff in his movements, and apparently quite ill. Spinal puncture performed on the 5th day of fever gave a clear fluid under increased pressure with 672 cells per cu. mm. Virus was demonstrated in the fluid by mouse inoculation.

Monkey 845 was inoculated with mouse virus by intravenous, intraperitoneal, and intratracheal routes to determine whether infection was possible when the inoculum was given other than into the central nervous system. Fever appeared on the 6th day after inoculation and continued for 4 days, then gradually fell. During the attack the animal appeared ill, hair ruffled, eyes watery, and face flushed. Recovery was complete. Two months after the inoculation, the monkey was reinoculated intracerebrally but failed to react.

Mice have uniformly apparently failed to react to inoculation by the intranasal route; neither has subcutaneous inoculation or exposure

to presumably infected cages given rise to central nervous symptoms. Tests for immunity following such exposures have not yet been carried out.

Microscopic pathology.—The microscopic lesions in mice as reported by Surg. R. D. Lillie consist briefly in a more or less marked cellular infiltration of the meninges, in which lymphocytes predominate and some macrophages and a few polymorphonuclears participate. This meningeal infiltration, in distinction from that of the St. Louis encephalitis in mice, is distinctly more marked on the base of the cerebrum and in the space between the hippocampus and the brain stem. There is often, though inconstantly, a lymphocytic infiltration of the chorioid plexi, particularly of the third and fourth ventricles. This is never as marked as in monkeys, often consisting only of a few cells, but, when present, is an important criterion for differential diagnosis from the St. Louis encephalitis virus infection in mice. In the latter condition, cellular infiltration of plexi is almost entirely absent. There is little tendency to infiltration of vessel sheaths, this consisting usually of lymphocytes only, and being restricted to the sheaths of perforating and subependymal vessels. In distinction from the St. Louis encephalitis, no cellular gliosis is seen surrounding or abutting on the vessel sheaths. Some animals show swelling and apparent proliferation of vascular endothelial and adventitia cells. This is neither characteristic nor of differential diagnostic value.

Occasional mice present, instead of the changes described, a mixed lymphoid and polymorphonuclear meningeal infiltration, often associated with empyema of the ventricles and, less often, purulent infiltration of the ventricular walls. In such cases bacteria are usually demonstrable in the exudate, and the process may be considered pyogenic in nature and easily distinguished from the condition under study.

Only brief preliminary studies of the other organs have been made in mice, and no significant lesions have been found associated with the condition. The foregoing account is based on the study of the brains of over 300 mice infected by intracerebral inoculation.

A series of 24 monkeys (3 *Cebus* and 21 *rhesus*) was also studied. Of these, 21 were infected with the virus of lymphoid choriomeningitis alone, in 2 infection with both this virus and that of the St. Louis encephalitis was present, and in 1 the virus type was uncertain. The last three animals were included because of the characteristic patho logic reactions.

Preliminary study of the thoracic and abdominal viscera in a few of these animals showed no significant findings beyond slight parenchymatous degeneration and a reticuloendothelial hyperplasia in the lymph glands and sometimes also the spleen and liver. In one animal, the femoral bone marrow showed a rather marked myeloblastic proliferative reaction.

The brain proper shows little beyond some lymphocyte infiltration of vessel sheaths and patchy cellular gliosis in the immediate vicinity of the usually hemorrhagic necrotic and granulating inoculation wound. Perhaps 3 or 4 nodes of small cell or star cell gliosis will be found in a series of 18 blocks of brain and cord, and a few scattered vessels will show swelling and proliferation of adventitial fibroblasts or infiltration of the sheath by lymphocytes. Altogether the intracerebral reaction is scanty.

In 20 of the 24 animals there was a more or less diffuse and irregular cellular infiltration of the meninges; in 2 this was localized in the neighborhood of the inoculation wound, and in 2 it was absent. Usually the exudate was composed chiefly of small lymphocytes; occasionally some monocytes were present; one animal showed basilar polymorphonuclear infiltration, accompanied by a serocellular and seropurulent intraventricular exudation, and in one animal the exudate was partly hemorrhagic.

In about two-thirds of the animals more or less pronounced swelling, oedema, and lymphocytic infiltration of the chorioid plexi were noted. Often the two layers of the plexal epithelium were separated by dense masses of lymphocytes of such magnitude as to enlarge the plexal villi four to six times. Inconstantly subependymal gliosis and diffuse and perivascular lymphocyte infiltration were present elsewhere than in the plexi. Serocellular intraventricular exudation was present in five animals. This cellular exudate was composed usually of lymphocytes, including macrophages in two; and macrophages, red corpuscles, and neutrophil leucocytes in one.

Well-marked reactions are readily distinguished from those of the St. Louis encephalitis; slight reactions without involvement of the chorioid plexi on one hand or noteworthy intracerebral lesions on the other may readily be confused.

Ultimate source of the virus.—It is not apparent whether this virus came from the case C.G. or from one of the monkeys used in the transfer of virus from this case. In either event the virus was apparently present in a latent state and was activated during successive transfers.

In view of the shorter incubation period of this virus in monkeys as compared to that of encephalitis strains it would seem logical to expect that in the transfer of a mixed infection the choriomeningitis might ultimately displace the encephalitis strain. This result has actually been observed during transfers from monkeys synchronously inoculated with the two strains. In mice, however, the opposite was observed, for the encephalitis, with its shorter incubation period, after a few transfers supplanted the choriomeningitis strain.

It is to be remembered, however, that monkey 37 was apparently immune to encephalitis (Freeman strain) but not to the choriomen-

ingitis virus, a condition calculated to suppress the encephalitis virus to the advantage of the latter should both have been present.

It has been found that monkeys recovering from the experimental disease are immune to subsequent inoculation of the virus such as has served to bring down 100 percent of fresh monkeys. This might be considered evidence that we were not dealing with a commonly occurring spontaneous ailment of monkeys, since we have encountered no naturally immune monkeys. On the other hand, the fact that the choriomeningitis virus is apparently not very "species specific" and is readily conveyed to monkeys is of itself presumptive evidence that the virus may ultimately be found to have some significance in human medicine. Neutralization tests with this virus and with human sera from St. Louis and other areas will be carried out in an effort to throw light upon this question.

The human ailment most nearly simulated by the experimental monkey disease which follows intracerebral inoculation is, perhaps, the so-called "lymphocytic or aseptic meningitis" described by Wallgren, Viets and Watts, Roch and Monedjikova, Dickens, Bloedorn, and others. It cannot, however, be definitely asserted at present that the virus is related to any naturally occurring central nervous system ailment of either man or animals. As far as available evidence is concerned, it might as readily be related to some systemic ailment caused by a virus possessed of "neurotropic" properties when introduced experimentally into the central nervous system, as is the case with vaccine or psittacosis virus.

Identity of the virus.—It is apparent that the virus is distinct from the 1933 St. Louis encephalitis strains for the following reasons:

1. *Cebus* monkeys and guinea pigs refractory to encephalitis strains succumb to the choriomeningitis strains.

2. The usual incubation period of 4 to 10 days in monkeys is shorter than is usual with encephalitis strains (8 to 14 days). In white mice the reverse is true: 6 to 9 as compared to 4 to 8 with the encephalitis virus (see table 1).

TABLE 1.—*Cross-protection tests with encephalitis and choriomeningitis viruses and antisera*

Serum	Virus	Virus dilution	Number of mice	Day of death	Number survived
Encephalitis—Recovered (Abernathy).	Encephalitis	10^{-3}	4	6, 7	2
	....do	10^{-4}	4		4
	....do	10^{-5}	4		4
	....do	10^{-6}	4	12, 13	2
Encephalitis—Recovered (Abernathy).	Chorio-meningitis	$10^{-3}\times2$	4	9, 10, 11, 13	0
	....do	$10^{-4}\times2$	4	9, 9, 10	1
	....do	$10^{-5}\times2$	4	9, 10, 11, 12	0
	....do	$10^{-6}\times2$	4	8, 10, 10, 10	0
Chorio - meningitis—Recovered (monkey 663).	Encephalitis	10^{-3}	4	5, 6, 7, 8	0
	....do	10^{-4}	4	2, 5, 6, 7	0
	....do	10^{-5}	4	4, 5	2
	....do	10^{-6}	4	6	3
Chorio - meningitis—Recovered (monkey 663).	Chorio-meningitis	$10^{-3}\times2$	4	9, 9, 11, 13	0
	....do	$10^{-4}\times2$	4	10, 11, 12	1
	....do	$10^{-5}\times2$	4	14	3
	....do	$10^{-6}\times2$	4	8	3

3. Infected monkeys are less tremulous, less excitable, less active, more prone to refuse food, and appear much more ill than do encephalitis-infected animals, while in white mice the more pronounced tremors which pass into a very striking tetanic, often fatal, convulsion, not observed in encephalitis mice, offer a striking contrast.

4. The virus is almost constantly found in the blood and spinal fluid of monkeys during the febrile stage, while the encephalitis virus has not been demonstrated in these fluids during this period.

5. The choriomeningitis virus fails to produce detectable symptoms in mice when introduced intranasally, while the encephalitis virus "takes" readily by this route, as demonstrated by Webster and Fite.

6. The pathology produced by the two viruses in mice and monkeys is usually readily distinguishable.

7. Cross neutralization tests (table 1) indicate that the viruses are immunologically distinct. Furthermore, the choriomeningitis virus does not correspond in its characteristics with those described by various Japanese investigators who have reported the isolation, usually in rabbits, of strains of virus from cases occurring during the outbreaks of encephalitis in Japan, which were epidemiologically and clinically quite similar to that of St. Louis.

8. Again, this virus does not possess the characteristics of a herpes virus; moreover, rabbits inoculated intracerebrally with the choriomeningitis virus without apparent results, readily succumbed to intracerebrally administered herpes virus given 34 days later. Neither does it correspond with any described virus of which we are aware; for which reason it is considered to be a hitherto undescribed infectious agent of which the significance in nature is at present unknown.

SUMMARY

1. A previously undescribed neurotrophic virus encountered during the experimental transmission of encephalitis virus from the 1933 St. Louis epidemic, from which it is readily differentiated, is described.

2. The symptoms of the experimental infection in monkeys and mice are considered.

3. The virus has been demonstrated in the central nervous system, spinal fluid, blood, and urine of monkeys and in the brain and blood of mice during the experimental disease.

4. The virus, possibly either of human or monkey origin, is of unknown significance as a cause of disease in nature.

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COURT DECISION ON PUBLIC HEALTH

Order of school authorities making vaccination prerequisite to school attendance upheld.—(Texas Court of Civil Appeals; *Booth et al.* v. *Board of Education of Fort Worth Independent School District*, 70 SW. (2d) 350; decided Jan. 27, 1934.) An injunction suit was brought against a local board of education "to enforce" the board "to allow the attendance upon the schools of Fort Worth Independent School District" of plaintiffs' children "without vaccination against smallpox." On a hearing of the plaintiffs' application for a temporary injunction, the lower court decided against the plaintiffs, who then appealed to the court of civil appeals. The holdings of the latter court, of interest from a public health standpoint, may be briefly stated as follows:

(*a*) The provisions, in the act creating the school district, with respect to authorizing the board to require vaccination when reasonably necessary or proper and authorizing it to make rules to safeguard the health of teachers and pupils, were within the caption of the act.

(*b*) The fact that a certain member of the board was a physician and that physicians usually performed vaccinations and generally charged a fee therefor was not such an interest of itself in the subject matter of the regulation sought to be enjoined as prohibited him from voting thereon, as his monetary interest was not direct and certain but was, at the most, contingent and may not in fact have existed at all.

(*c*) The regulation was not condemned by the constitutional rule that "where a general law can be made applicable, no local or special

law shall be enacted", as the provisions of the health code, as expressed in rule 28 of article 4477, Revised Statutes, did not attempt to cover the field occupied by the Fort Worth regulation and showed in their content that action by the school boards supplementary thereto was contemplated by the legislature.

(*d*) As the compulsory school attendance law made exemption of those children who had a doctor's certificate that school attendance was unwise for them in their condition, the plaintiffs could not say that the effect of such law was to place them under prosecution for failure to have their children vaccinated.

(*e*) The answer to plaintiffs' proposition that in Texas vaccination with cowpox could only be required by a board of education when there was an emergency was that it was not a question of emergency but was only a question of whether the board's action was arbitrary and without facts upon which minds could have decided rationally that such rules were reasonably necessary and that the remedy was, by common knowledge, proper medication.

(*f*) The action of the board was not arbitrary even though it was alleged that no epidemic of smallpox in the school district existed, was imminent, or was apprehended, and that conditions in the district with reference to smallpox did not constitute a menace to the public health.

(*g*) The fact that some of the plaintiffs alleged facts as to the condition of some of the children which made their vaccination subjectively dangerous was insufficient where it was not alleged that any such facts were made known to those in charge of the administration of the regulation and of the schools or that any effort had been made to procure the attendance on school of such children exempt from vaccination because of the condition of health of such children.

DEATHS DURING WEEK ENDED AUG. 11, 1934

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Aug. 11, 1934	Corresponding week, 1933
Data from 86 large cities of the United States:		
Total deaths	6,953	6,625
Deaths per 1,000 population, annual basis	9.7	9.2
Deaths under 1 year of age	542	506
Deaths under 1 year of age per 1,000 estimated live births	50	[1] 43
Deaths per 1,000 population, annual basis, first 32 weeks of year	11.8	11.2
Data from industrial insurance companies:		
Policies in force	67,575,403	67,688,177
Number of death claims	12,053	12,050
Death claims per 1,000 policies in force, annual rate	9.3	9.3
Death claims per 1,000 policies, first 32 weeks of year, annual rate	10.3	10.2

[1] Data for 81 cities.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Weeks Ended Aug. 18, 1934, and Aug. 19, 1933

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Aug. 18, 1934, and Aug. 19, 1933

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933
New England States:								
Maine					1	3	0	0
New Hampshire					5		0	0
Vermont		1			2	2	0	0
Massachusetts	16	11			25	43	0	2
Rhode Island	1	2			7		0	0
Connecticut	2	1	1	1	10	9	0	0
Middle Atlantic States:								
New York	12	17	[1] 7	[1] 1	79	64	1	7
New Jersey	5	11	2	2	34	28	0	1
Pennsylvania	22	20			131	47	1	2
East North Central States:								
Ohio	9	9	3	1	81	10	1	1
Indiana	11	11	5	15	4	7	0	4
Illinois	21	7	2	5	55	11	7	6
Michigan	9	12		2	23	15	0	0
Wisconsin	6	3	24	16	101	32	1	0
West North Central States:								
Minnesota	4	9		2	14	78	0	1
Iowa [2]	4	5			8		1	0
Missouri	12	15	3		13	7	0	1
North Dakota	2	6			9	5	0	1
South Dakota	4				100		2	0
Nebraska	8				6		0	0
Kansas	9	6			6	5	0	0
South Atlantic States:								
Delaware	1	1			1	1	0	0
Maryland [2 3 4]	4	7	129	2	7	8	0	1
District of Columbia	1	4				3	0	0
Virginia [3]	25	39			72	22	2	0
West Virginia	10	24	19	15	16	3	1	0
North Carolina [3]	21	18	1	2	32	19	1	0
South Carolina	4	13	52	81	11	26	0	0
Georgia [4]	25	35				15	0	0
Florida	12	6	2	1	13	14	0	1
East South Central States:								
Kentucky [3]	25	21			27		3	0
Tennessee	6	10	5	7	9	13	0	3
Alabama [4]	45	26	1	4	25	2	2	0
Mississippi [3]	7	24					1	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Aug. 18, 1934, and Aug. 19, 1933—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933
West South Central States:								
Arkansas	2	2	8	2	----	14	0	0
Louisiana	12	8	6	3	15	1	0	0
Oklahoma [3]	7	12	7	11	2	1	0	0
Texas [4]	48	51	28	28	25	21	1	3
Mountain States:								
Montana	----	1	----	----	9	----	0	0
Idaho	----	1	----	3	4	----	0	0
Wyoming [2]	----	----	----	----	2	3	0	0
Colorado	3	2	----	----	14	3	0	0
New Mexico	11	6	2	----	9	3	0	0
Arizona	1	----	3	----	49	6	0	0
Utah [3]	----	1	----	4	1	15	0	1
Pacific States:								
Washington	3	3	----	----	19	11	1	1
Oregon	----	----	2	6	2	19	0	0
California	15	29	7	13	45	48	0	2
Total	445	490	319	227	1,123	637	26	38

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933
New England States:								
Maine	2	4	8	1	0	0	6	7
New Hampshire	1	0	2	4	0	0	0	0
Vermont	1	0	5	3	0	0	1	2
Massachusetts	1	45	37	59	0	0	6	3
Rhode Island	0	3	1	3	0	0	1	0
Connecticut	0	4	3	12	0	0	1	2
Middle Atlantic States:								
New York	6	137	81	55	0	0	24	50
New Jersey	7	15	18	22	0	0	2	6
Pennsylvania	5	26	103	76	0	0	23	38
East North Central States:								
Ohio	11	12	66	51	0	0	43	41
Indiana	3	1	21	18	0	0	18	17
Illinois	17	16	64	78	1	0	52	33
Michigan	13	3	57	61	1	0	21	14
Wisconsin	2	1	35	15	5	7	17	2
West North Central States:								
Minnesota	10	17	21	8	0	0	2	3
Iowa [2]	2	2	13	7	0	0	10	5
Missouri	1	3	20	23	0	0	63	25
North Dakota	0	1	11	16	1	0	4	2
South Dakota	3	3	----	4	0	0	1	5
Nebraska	0	0	10	1	0	0	2	0
Kansas	8	2	11	38	0	0	19	15
South Atlantic States:								
Delaware	0	1	2	2	0	0	4	2
Maryland [2 3 4]	5	2	11	18	0	0	25	20
District of Columbia	1	0	8	6	0	0	1	1
Virginia [3]	9	1	22	29	0	0	50	50
West Virginia	6	6	17	20	0	2	27	41
North Carolina [2]	3	0	12	43	0	0	30	17
South Carolina	0	0	2	4	0	1	26	32
Georgia [4]	0	0	6	11	0	0	48	21
Florida	0	0	4	1	0	0	1	8
East South Central States:								
Kentucky [3]	6	0	31	27	0	0	87	70
Tennessee	5	8	8	17	0	0	56	75
Alabama [4]	2	0	7	14	0	1	34	36
Mississippi [3]	1	0	13	8	0	0	15	17

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Aug. 18, 1934, and Aug. 19, 1933—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933	Week ended Aug. 18, 1934	Week ended Aug. 19, 1933
West South Central States:								
Arkansas	0	1	5	2	0	0	26	12
Louisiana	0	1	4	6	0	0	14	31
Oklahoma [5]	0	0	10	4	1	0	24	34
Texas [4]	1	0	29	21	2	3	63	95
Mountain States:								
Montana	34	1	9	2	0	0	7	7
Idaho	14	0	2	4	0	1	0	3
Wyoming [2]	0	0	3	5	0	0	1	3
Colorado	2	0	15	8	0	0	14	2
New Mexico	0	1	4	1	0	1	12	7
Arizona	3	0	2	4	0	0	1	17
Utah [2]	1	1	1	6	0	0	3	0
Pacific States:								
Washington	70	2	12	6	10	1	5	3
Oregon	4	2	17	6	1	5	3	8
California	75	1	67	51	3	3	10	10
Total	335	323	910	881	25	25	901	892

[1] New York City only.
[2] Week ended earlier than Saturday.
[3] Rocky Mountain spotted fever, week ended Aug. 18, 1934, 8 cases, as follows: Maryland, 1; Virginia, 2; North Carolina, 3; Kentucky, 1; Wyoming, 1.
[4] Typhus fever, week ended Aug. 18, 1934, 48 cases, as follows: Maryland, 1; Georgia, 10; Alabama, 15; Texas, 22.
[5] Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
July 1934										
Florida	----	28	3	101	170	43	1	1	0	9
Illinois	21	113	39	69	1,824	----	20	523	3	167
Iowa	1	14	1	1	168	----	2	73	8	8
Maryland	1	15	3	2	291	1	1	59	0	43
Michigan	1	26	1	7	447	----	15	454	0	31
Minnesota	2	42	5	1	143	----	4	107	6	8
New York	11	110	----	11	1,390	----	40	634	0	52
North Carolina	1	39	7	----	438	116	6	47	0	124
Ohio	13	66	29	10	1,098	----	18	422	0	91
Rhode Island	----	2	----	----	48	----	1	13	0	2
Tennessee	1	18	19	454	128	15	3	38	1	228
Washington	2	8	18	----	157	----	88	69	22	25
West Virginia	1	35	169	7	196	----	7	81	0	90
Wisconsin	3	24	41	----	1,674	----	3	255	20	19
Wyoming	3	4	----	----	118	----	1	23	10	1

July 1934

	Cases
Actinomycosis:	
Iowa	1
Chicken pox:	
Florida	4
Illinois	306
Iowa	38
Maryland	38
Michigan	289
Minnesota	119
New York	918
North Carolina	28
Ohio	311
Rhode Island	28
Tennessee	14
Washington	89
West Virginia	20
Wisconsin	558
Wyoming	21
Dengue:	
Florida	[1] 199
Diarrhea and cholera infantum:	
Maryland	70
Diarrhea and enteritis:	
Ohio (under 2 years)	19
Dysentery:	
Florida	5
Illinois (amoebic)	32
Illinois (amoebic carriers)	209
Illinois (bacillary)	15
Iowa	2
Maryland	22
Michigan	6
Minnesota (amoebic)	1
Minnesota (bacillary)	2
New York (amoebic)	5
New York (bacillary)	7
Ohio	2
Rhode Island (amoebic)	1
Tennessee	70
Washington (amoebic)	7
Washington (bacillary)	4
West Virginia	12
Food poisoning:	
Ohio	28
German measles:	
Illinois	103
Iowa	16
Maryland	10
Michigan	56
New York	150
North Carolina	1
Ohio	48
Rhode Island	1
Tennessee	10
Washington	27
Wisconsin	161
Wyoming	5
Impetigo contagiosa:	
Illinois	1
Iowa	3
Maryland	24
Tennessee	5
Lead poisoning:	
Illinois	1
Ohio	10

July 1934—Continued

	Cases
Leprosy:	
North Carolina	1
Lethargic encephalitis:	
Illinois	7
Iowa	1
Minnesota	2
New York	5
Ohio	1
Tennessee	1
Washington	2
West Virginia	1
Mumps:	
Florida	30
Illinois	300
Iowa	41
Maryland	34
Michigan	114
Ohio	137
Rhode Island	3
Tennessee	49
Washington	227
West Virginia	2
Wisconsin	83
Wyoming	1
Ophthalmia neonatorum:	
Illinois	2
Maryland	1
Minnesota	1
New York	7
North Carolina	3
Ohio	93
Rhode Island	1
Tennessee	7
Wisconsin	1
Paratyphoid fever:	
Illinois	13
New York	4
North Carolina	5
Ohio	2
Tennessee	2
Puerperal septicemia:	
Illinois	1
Ohio	5
Rabies in animals:	
Illinois	24
Maryland	1
New York [2]	3
Washington	6
Rabies in man:	
Washington	1
Rocky Mountain spotted fever:	
Iowa	2
Maryland	7
North Carolina	12
Wyoming	7
Scabies:	
Tennessee	3
Septic sore throat:	
Illinois	15
Maryland	9
Michigan	16
New York	27
North Carolina	3
Ohio	148
Wyoming	3

July 1934—Continued

	Cases
Tetanus:	
Illinois	13
Maryland	2
Michigan	4
Minnesota	2
New York	7
Ohio	7
Washington	1
Trachoma:	
Illinois	3
Michigan	1
Minnesota	1
North Carolina	1
Ohio	3
Tennessee	16
Trichinosis:	
Illinois	1
New York	6
Ohio	1
Tularaemia:	
Illinois	1
Minnesota	6
Tennessee	1
Washington	2
Wyoming	1
Typhus fever:	
Florida	3
Illinois	1
Maryland	1
New York	3
North Carolina	1
Undulant fever:	
Florida	1
Illinois	15
Iowa	6
Maryland	2
Michigan	4
Minnesota	7
New York	29
North Carolina	3
Ohio	9
Tennessee	1
Washington	2
Wisconsin	6
Vincent's infection:	
Illinois	89
Maryland	7
Michigan	25
New York [2]	110
Tennessee	8
Washington	4
Wyoming	2
Whooping cough:	
Florida	60
Illinois	1,241
Iowa	98
Maryland	423
Michigan	1,107
Minnesota	225
New York	1,779
North Carolina	1,467
Ohio	1,324
Rhode Island	139
Tennessee	219
Washington	294
West Virginia	255
Wisconsin	1,114
Wyoming	6

[1] Many cases of dengue are not reported.

[2] Exclusive of New York City.

DENGUE IN FLORIDA

In a report dated August 20, 1934, the director of public health of Miami, Fla., estimated the number of cases of dengue in Miami from the beginning of the outbreak to that date at 6,000. Cases have been reported at West Palm Beach, Miami Beach, and Jacksonville. One case was reported at Tarpon Springs and one at Uleata, near Hollywood. Antimosquito measures are being carried out in many places.

WEEKLY REPORTS FROM CITIES

City reports for week ended Aug. 11, 1934

This table summarizes the reports received regularly from a selected list of 121 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference]

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	------	0	0	0	0	0	1	0	14	21
New Hampshire:											
Concord	0	------	0	0	2	0	0	1	0	0	14
Nashua	0	------	--------	0	-------	2	0	-------	0	0	--------
Vermont:											
Barre	0	------	0	0	0	0	0	0	0	0	2
Burlington	0	------	0	1	0	0	0	0	0	2	9
Massachusetts:											
Boston	4	------	0	7	10	10	0	10	2	45	174
Fall River	1	------	0	3	0	0	0	3	0	1	23
Springfield	0	------	0	1	2	0	0	0	0	5	21
Worcester	0	------	0	1	5	4	0	1	0	18	54
Rhode Island:											
Pawtucket	1	------	0	0	0	0	0	0	0	0	13
Providence	0	2	1	9	1	3	0	2	6	42	49
Connecticut:											
Bridgeport	0	------	0	0	0	0	0	0	0	1	24
Hartford	1	------	0	11	0	1	0	1	0	0	28
New Haven	0	------	0	1	1	0	0	1	1	0	26
New York:											
Buffalo	0	------	0	1	2	8	0	7	0	34	107
New York	8	4	4	23	52	19	0	78	25	185	1,123
Rochester	1	------	0	2	1	4	0	0	0	2	47
Syracuse	0	------	0	6	0	0	0	0	2	48	37
New Jersey:											
Camden	3	------	0	1	1	2	0	1	1	13	19
Newark	0	------	0	5	4	3	0	6	0	52	68
Trenton	0	------	0	0	1	5	0	3	0	1	33
Pennsylvania:											
Philadelphia	3	------	0	2	16	10	0	19	10	164	366
Pittsburgh	5	------	0	15	8	4	0	8	0	23	141
Reading	0	------	0	0	0	0	0	1	0	16	14
Scranton	0	------	0	1	0	1	0	0	0	3	--------
Ohio:											
Cincinnati	1	------	0	0	1	4	0	11	0	4	118
Cleveland	2	11	1	23	5	4	0	10	4	51	171
Columbus	2	------	0	0	0	5	0	2	0	22	64
Toledo	0	1	1	4	5	8	1	3	1	29	52
Indiana:											
Fort Wayne	1	------	0	0	1	0	0	0	1	0	18
Indianapolis	0	------	0	1	4	1	0	3	2	18	--------
South Bend	0	1	0	0	0	1	0	0	2	0	7
Terre Haute	0	------	0	0	3	0	0	0	2	0	28
Illinois:											
Chicago	2	1	1	34	28	42	0	22	5	95	614
Springfield	0	------	0	0	1	0	0	1	5	1	25
Michigan:											
Detroit	5	------	0	11	5	11	0	16	2	103	229
Flint	1	------	0	0	1	1	1	0	0	1	26
Grand Rapids	0	------	0	0	1	2	0	0	2	7	23
Wisconsin:											
Kenosha	0	------	0	3	0	0	0	0	0	4	13
Milwaukee	0	------	0	40	0	20	0	3	1	64	81
Racine	0	------	0	0	0	1	0	1	0	18	9
Superior	0	------	0	0	0	0	0	0	0	0	9
Minnesota:											
Duluth	0	------	0	3	1	2	0	0	0	2	24
Minneapolis	1	------	0	1	0	6	0	0	1	1	84
St. Paul	0	------	0	1	1	0	0	0	0	26	44
Iowa:											
Davenport	0	------	--------	0	-------	0	0	-------	0	0	--------
Des Moines	0	------	0	0	0	9	0	0	0	0	23
Sioux City	0	------	--------	0	-------	0	0	-------	0	2	--------
Waterloo	0	------	0	0	0	0	0	0	4	4	--------
Missouri:											
Kansas City	1	------	0	1	3	3	0	8	1	3	152
St. Joseph	2	------	0	0	0	1	0	0	0	1	25
St. Louis	0	------	0	0	0	2	0	0	4	22	199

City reports for week ended Aug. 11, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
North Dakota:											
Fargo	0		0	0	1	0	0	0	0	17	7
Grand Forks	0			1		1	0		0	1	
South Dakota:											
Aberdeen	0			1		0	0		0	4	
Sioux Falls	0			0		0	0		0	0	8
Nebraska:											
Omaha	6		0	1	7	3	0	2	0	1	73
Kansas:											
Topeka	0		0	0	0	1	0	0	0	4	22
Wichita	0		0	0	1	1	0	2	1	0	36
Delaware:											
Wilmington	0		0	0	1	0	0	1	0	3	20
Maryland:											
Baltimore	0		0	2	5	3	0	11	0	83	186
Cumberland	0		0	0	0	0	0	0	0	0	8
Frederick	0		0	0	0	3	0	0	0	0	3
District of Columbia:											
Washington	4		0	0	6	1	0	12	1	14	145
Virginia:											
Lynchburg	0		0	5	0	0	0	0	0	10	8
Norfolk	0		0	1	2	0	0	0	0	6	25
Richmond	1		0	1	2	0	0	2	5	2	35
Roanoke	1		0	0	1	0	0	0	1	1	13
West Virginia:											
Charleston	0		0	0	0	0	0	0	2	1	22
Huntington	2			0		0	0		0	0	
Wheeling	0		0	0	0	1	0	0	0	0	14
North Carolina:											
Raleigh	0		0	0	0	0	0	1	0	10	13
Wilmington	1		0	0	1	0	0	0	0	1	9
Winston-Salem	0		0	0	0	1	0	1	0	22	10
South Carolina:											
Charleston	0	5	0	2	0	1	0	1	1	0	17
Columbia	0		0	0	1	0	0	0	0	0	7
Greenville	1		1	0	2	0	0	0	0	9	13
Georgia:											
Atlanta	1	5	1	1	1	0	0	2	2	3	76
Brunswick	0		0	0	0	0	0	0	0	0	2
Savannah	0	2	0	0	1	0	0	2	0	0	24
Florida:											
Miami	1		1	5	2	0	0	2	1	1	34
Tampa	1		0	10	1	1	0	3	0	0	28
Kentucky:											
Ashland	0			0		1	0		0	0	
Lexington	0		0	0	1	1	0	0	3	0	17
Louisville	2	1	0	7	5	4	0	2	2	15	62
Tennessee:											
Memphis	0		0	0	6	0	0	3	1	8	87
Nashville	0		0	0	3	0	0	3	0	0	47
Alabama:											
Birmingham	0	1	0	2	5	2	0	2	3	5	84
Mobile	2		0	0	1	0	0	0	0	2	20
Montgomery	0			0		0	0		0	0	
Arkansas:											
Fort Smith	1			0		0	0		0	2	
Little Rock	0		0	0	2	1	0	3	0	0	7
Louisiana:											
New Orleans	7		0	2	8	3	0	8	13	1	144
Shreveport	0		0	0	3	0	0	2	0	0	57
Oklahoma:											
Oklahoma City	1	2	0	0	3	1	0	3	0	0	52
Tulsa	0			0		0	0		3	7	
Texas:											
Dallas	2		0	0	1	2	0	2	1	0	58
Fort Worth	1		0	0	1	3	0	2	1	0	33
Galveston	1		0	0	1	0	0	2	0	0	13
Houston	5		0	0	7	1	1	1	2	0	63
San Antonio	0		1	0	2	0	0	4	2	0	58
Montana:											
Billings	0		0	0	0	0	0	0	1	3	4
Great Falls	0		0	2	0	0	0	0	0	0	5
Helena	0		0	0	1	0	0	0	0	3	6
Missoula	0		0	0	2	0	0	0	0	0	4

City reports for week ended Aug. 11, 1934—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis cases	Typhoid fever cases	Whooping cough cases	Deaths all causes
		Cases	Deaths								
Idaho:											
Boise	0	-----	0	0	1	0	0	0	0	1	5
Colorado:											
Denver	0	17	0	13	4	10	0	5	1	8	57
Pueblo	1	-----	0	0	1	1	0	0	0	2	7
New Mexico:											
Albuquerque	0	-----	0	1	0	0	0	2	0	0	11
Utah:											
Salt Lake City	0	-----	0	1	0	0	0	0	1	49	33
Nevada:											
Reno	0	-----	0	0	0	0	0	0	0	0	1
Washington:											
Seattle	0	-----	0	3	0	2	4	5	0	12	67
Spokane	0	-----	0	2	0	0	0	1	0	10	28
Tacoma	0	-----	0	1	4	0	0	0	0	2	20
Oregon:											
Portland	0	-----	0	0	2	7	0	1	0	7	56
Salem	0	1	0	0	0	0	0	0	0	1	-----
California:											
Los Angeles	9	3	0	9	8	13	0	19	0	19	286
Sacramento	0	-----	0	1	3	4	0	0	0	3	23
San Francisco	0	1	0	11	5	7	0	7	0	4	122

State and city	Meningococcus meningitis		Poliomyelitis cases	State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				West Virginia:			
Boston	0	0	4	Huntington	0	0	1
Connecticut:				Wheeling	0	0	1
New Haven	1	0	0	Kentucky:			
New York:				Louisville	0	1	0
New York	1	0	4	Tennessee:			
Rochester	0	0	1	Memphis	0	1	1
New Jersey:				Nashville	0	0	1
Camden	0	0	1	Alabama:			
Newark	0	0	1	Birmingham	0	0	1
Pennsylvania:				Louisiana:			
Philadelphia	0	0	2	New Orleans	0	0	1
Ohio:				Montana:			
Cincinnati	0	0	1	Great Falls	0	0	1
Cleveland	0	1	8	Helena	0	0	5
Indiana:				Missoula	0	0	2
Indianapolis	0	0	1	Colorado:			
Illinois:				Denver	0	1	0
Chicago	7	3	5	Washington:			
Michigan:				Seattle	0	0	1
Detroit	0	0	5	Spokane	0	0	15
Wisconsin:				Tacoma	0	0	1
Milwaukee	0	0	2	Oregon:			
Minnesota:				Portland	0	0	1
Minneapolis	0	0	1	California:			
Missouri:				Los Angeles	0	0	36
Kansas City	1	0	0	Sacramento	0	0	1
				San Francisco	0	0	7

Dengue.—See page 1032.

Lethargic encephalitis.—Cases: Cleveland, 1; Chicago, 1; Davenport, Iowa, 1.

Pellagra.—Cases: Charleston, S.C., 1; Brunswick, Ga., 1; Savannah, 2; Miami, 1; Birmingham, 1; Oklahoma City, 1; Los Angeles, 2.

Typhus fever.—Cases: Huntington, W.Va., 1; Dallas, 1.

FOREIGN AND INSULAR

ARGENTINA

Rosario—Poliomyelitis.—According to information received dated July 21, 1934, about 400 cases of poliomyelitis had been reported in Rosario, Santa Fe Province, Argentina.

CANADA

Quebec Province—Communicable diseases—2 weeks ended August 11, 1934.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the 2 weeks ended August 11, 1934, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	2	Poliomyelitis	9
Chicken pox	37	Puerperal septicemia	4
Diphtheria	27	Scarlet fever	70
Dysentery	2	Tuberculosis	96
Erysipelas	4	Typhoid fever	29
Lethargic encephalitis	1	Undulant fever	4
Measles	193	Whooping cough	357

MEXICO

Mexico, D.F.—Dysentery.—According to information dated August 15, 1934, there was a rather widespread epidemic of dysentery in Mexico City. The cases were mostly bacillary in type, and no deaths had been reported among adults. Some deaths had been reported, however, among infants and children, mostly of the poorer classes, but figures were not available. It was thought that the epidemic might be due to extensive repairs being made to the water-supply system or to new sources of water which had been utilized.

PUERTO RICO

Influenza.—According to information recently received, 13,523 cases of influenza were reported in Puerto Rico from August 1 to 17, 1934. The disease was said to be of mild form, with few deaths, only about one-third of the patients being confined to bed, and only a small number of cases being complicated by pneumonia. Health units in affected districts were devoting full time to control work, and medicine and nursing supervision were being supplied. The opening of the public schools had been deferred for 2 weeks.

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

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

CHOLERA

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended— May 1934				June 1934					July 1934				Aug. 4, 1934
						5	12	19	26	2	9	16	23	30	7	14	21	28	
Ceylon: Colombo	C											1							
China:																			
Amoy	C														[1] 1				
Canton	C										1								
Fort Bayard	C									1									
Hankow	C														2				
Shanghai	C																	2	1
Tientsin	C									1									
India	C	4,458	4,462	9,335	7,719	3,715	3,017	3,186	3,090	3,171	4,113	5,155	3,634						
	D	2,439	2,069	4,353	3,813	1,506	1,517	1,546	1,577	1,689	2,041	2,799	1,878						
Bombay Presidency	C	434	263	107	425	260	265	244	198	153	150	71	212	239	179				
	D	231	128	53	221	126	139	133	88	87	57	45	81	123	50				
Bombay	C	1			7	2			[2] 5	1	2							1	
Calcutta	C	78	126	381	574	141		158	166	105	75	85	111	100	86	78	64	66	49
Chittagong	C	2		4	7	2	5	6	3		2	3		1	1	4	4		
Madras Presidency	C	1,344	749	649	507	148	159	136		116		394	427	267					
	D	552	290	286	272	95	91	66		63		200	206	169					
Madras	C	16	15	4					1		8	12	3	2	1	3		1	
	D	6	6	2							4	3	6	2		3			17
Rangoon	C			1	1			1	1										
India (French):																			
Chandernagor	D		2		11	2	2			1	1				2				
Karikal	C	5																	
Mahe	C								11										
Pondichery	C				2										1				
India (Portuguese)	C	1		1															

[1] Suspected.
[2] Includes 4 imported cases.

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

CHOLERA—Continued

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended— May 1934 5	12	19	26	June 1934 2	9	16	23	30	July 1934 7	14	21	28	Aug. 4, 1934
Indo-China (see also table below):																			
Baclieu	D											2							
Pnom-Penh	C						1												2
	D							2									1		
Poulo Condor Island	C											3							
Rachgia	C			1															
Philippine Islands:																			
Bohol Province	C	292	220	139	2														
	D	200	142	84	2														
Cebu Province	C	34	1	1															
	D	30	1	1															
Cebu	C	1	1																
	D	1	1																
Naga	C	2																	
	D	1																	
Iloilo Province	C	1																	
	D	1																	
Occidental Misamis Province	C		1																
Occidental Negros Province	C	27	13	48	3														
	D	23	11	31	3														
Oriental Negros Province	C	96	47	33															
	D	52	34	24															
Rizal Province—Manila	C													1					
Samar Province	C			18															
	D			18															
Siam	C		1			1	1	1	1	1					1				
Bangkok	C		1																
On vessels:																			
S.S. *Chyebassa* at Calcutta	C			1															
S.S. *Narbada* at Singapore from Calcutta	D				1														
S.S. *Viking II* at Calcutta from Aden	C							1											
S.S. *Cape Ortegal* at Calcutta from Bombay	C										1								
S.S. *Jaladurga* at Calcutta from Rangoon	C											1	1						

Place		February 1934			March 1934			April 1934			May 1934			June 1934		
		1-10	11-20	21-28	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30
Indo-China (French) (see also table above):																
Cambodia [3]		1	1				1	2	4	4	11	8		1		2
	C	1	1				1	2	2	3	1	4		1		2
Cochin-China [3]		1	1	4	1	5	10	3	2		6	4	4		10	9
	C	1	1	3	1	5	8	2	2		6	4	4		8	3

[3] Reports incomplete.

PLAGUE [1]

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended—													Aug. 4, 1934
						May 1934				June 1934					July 1934				
						5	12	19	26	2	9	16	23	30	7	14	21	28	
Angola. [2]																			
Argentina (see also table below):																			
Buenos Aires Province	C		1																
	D		1																
Santiago de Estero Province. [3]																			
Azores: Ponta Delgada (see also table below)	C	4																	
	D	1																	
Belgian Congo	C				1								6		6			2	
Bolivia. (See table below.)																			
British East Africa (see also table below):																			
Kenya	C	19	7	4				2			3	4		2	1				
Tanganyika	D			4															
Uganda	C	44	27	17	15	8	11	29	19	25	47	55	32	56	26	40			
	D	42	27	16	14	6	11	28	19	25	44	53	33	53	23	38			
Ceylon: Colombo	C	1	2	6	12	3	2	2	2										
	D	1	2	6	10	4	1	2	2										
Plague-infected rats		3	4	1	2		1												
China:																			
Fort Bayard. [4]																			
Manchuria	D															22			8
Tanghai Island	C									7									

[1] Including plague in the United States and its possessions.
[2] During December 1933 and January 1934, 32 cases of plague with 17 deaths were reported in Angola.
[3] A report dated May 17, 1934, states that 15 deaths from plague occurred up to that date in Santiago de Estero Province, Argentina.
[4] During the week ended June 2, 1934, suspected cases of plague were reported in Fort Bayard, Kwangchowan Territory, China.

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

PLAGUE—Continued

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended— May 1934 5	12	19	26	June 1934 2	9	16	23	30	July 1934 7	14	21	28	Aug. 4, 1934
Dutch East Indies: West Java	C	1,960	2,106	2,150	1,882	425	424	414	346	376									
	D	1,955	2,104	2,147	1,881	425	424	414	346	376									
Ecuador. (See table below.)																			
Egypt:																			
Alexandria	C	1																	
	D	1																	
Plague-infected rats		P		1		P		P		P		P		P		P			
Asyut	C	1	4	3	26	16	2	3	1	1	3		2						
Faiyum	C	1		1	1	1													
Gharbiya	C	1					1							6	15	2	4	1	
	D	1												2	1	2		3	
Girga	C		3																
Minufiya	C													1					
Minya	C											1	6	1					
Hawaii Territory: Hawaii Island—Hamakua district—																			
Kukaiau—Plague-infected rats														1					
Paauilo	C									1									
Plague-infected rats		1																	
India	C	16,894	17,597	22,842	11,196	1,885	1,417	911	692	403	145	93	49						
	D	10,915	11,534	16,093	8,673	1,420	1,107	731	567	354	128	91	34						
Bassein	C	5	3	10	7		1	2			3	1	1	2		1	2	2	3
Plague-infected rats			1	3	2								1				1		2
Bombay Presidency	C	4,906	4,871	2,645	617	134	107	89	109	66	48	30	20	54	63				
	D	3,235	3,111	1,807	425	87	79	57	78	49	30	20	12	32	38				
Bombay	C	1	17	9	4		2	1			1							1	
Plague-infected rats			9	18	2		1	1	1	1	1								
Delhi	C				1														
Madras Presidency	C	881	499	394	39	14	4	7	9	11		4	3	12					
	D	497	290	221	28	4	2	2	3	4		2	4	2					
Rangoon	C		7	3	3		2		1	1	1	3			1				1
Plague-infected rats		1	4	4	2	2		1			1		1	1					
India (Portuguese)	C		2	6															
Indo-China (see also table below):																			
Longxuyen	C													1					
Pnom-Penh	D	1	1	2				2		1		2	1		1				
Sadec	C													1					

Saigon and Cholon	C	1		1			2		1			1	1	2					
Vinhlong	C													1					
Iraq: Baghdad	C	1	2	1					1	1		2			1				
Libya	C	2										1	4						
	D	1											1						
Madagascar. (See table below.)																			
Peru: (see also table below): Salaverry—Plague-infected rats												1							
Portuguese West Africa	C		P																
Senegal. (See table below.)																			
Siam	C		3	2	6	1						1	1						
Tunisia: Tunis—Plague-infected rats														4					
Union of South Africa:																			
Orange Free State	C	13		1	5														
Transvaal	C	13																	
United States:																			
California:																			
Human plague—Tulare County	C											1							
Plague-infected ground squirrels:																			
Kern County				17	64	2	5	19											
Modoc County											[1]7		6	23	1	1			
Tulare County				10	43	5	7	18	3		6								
Oregon: Lake County	C							1											
	D								1										
On vessel: At Tuticorin from Colombo	C		1																

[1] 1 plague-infected wood-rat was also reported for the week ended June 9, 1934.

Place		January 1934	February 1934	March 1934	April 1934	May 1934	June 1934
Argentina (see also table above)	C			1			2
Azores (see also table above)	C		5	1	2	3	
Bolivia	C				P	P	
British East Africa (see also table above):							
Kenya	C	19	8	4		5	
Uganda	C	49	24	14	16	90	
China: Kwangchowan	C						21
Ecuador	C						7
Indo-China (see also table above):							
Cambodia	D	2	4	17	6	5	4
Cochin-China	C	1	1	1		3	9
Madagascar (central region)	C	563	445	363	250	87	71
	D	530	405	341	242	83	71

Place		January 1934	February 1934	March 1934	April 1934	May 1934	June 1934
Peru (see also table above)	C	7	6	10	6		
Senegal:							
Dakar [6]	C	1	2	6	19	9	33
	D	1	2	6	16	8	27
Louga [6]	C						2
	D						2
Rufisque [6]	C						18
Sebikotane [6]	C					9	
Thies [6]	C			2	10	26	64
Tivaouane [6]	C				13	35	32

[6] Reports incomplete.

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

SMALLPOX

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended— May 1934 5	May 1934 12	May 1934 19	May 1934 26	June 1934 2	June 1934 9	June 1934 16	June 1934 23	June 1934 30	July 1934 7	July 1934 14	July 1934 21	July 1934 28
Algeria:																		
Algiers Department	C	2	1	2	2	1					1						1	
Constantine Department	C	1			1							1	1					
Oran Department	C										2			1				
Arabia: Oman Sultanate—Muscat	C			5														
Belgian Congo (see also table below)	C	4																1
Bolivia. (See table below.)																		
Brazil:																		
Porto Alegre (alastrim)	C	1						1										
Santos	C	2																
British East Africa:																		
Kenya	C	67	742	554	46		6				1	5		7	8	54		
Tanganyika	C	39	50	56	66		2	1	1	12		12		16	2			
British Somaliland	C	18	13	19	11		[1] 2	2	6									
British South Africa:																		
Northern Rhodesia	C	1									28							
Southern Rhodesia	C	1	1		12		6		8									
Bulgaria	C						6											
Cameroun (French). (See table below.)																		
Canada:																		
British Columbia	C		[1] 4	1	[2] 3													
Manitoba	C			[1] 1														
Ontario	C	[1] 1																
Quebec	C	1																
Saskatchewan	C		[1] 1															
China:																		
Amoy	C	2		4	15	5	8	4	5	6	5	6	4	1	1			
Canton	C	14	7	39	9			1				1						
Dairen	C	68	170	123	104	11	31	17	15	18	12	6	4					
Foochow	C				P									P		P		
Hangchow	C	2	4	9	2	3			2									
Hankow	C			1	1		1				1							
Hong Kong	C	3	17	60	33	7	10	[2] 2	3	2	1	2	5					
Kwantung Leased Territory	C	38	90	51	73			18				11	8	5				
Macao	D		4	13	7		1		2	1								

Manchuria—Mukden.[4]																		
Nanking	C		4	4	1													
Shanghai	C	108	113	188	119	22	12	8	14	6	7	6	3	3	5	1	1	1
South Manchuria Railway Zone	C	58	99	27	57			23				9	4	5				
Swatow	C	1	1	2	1	1		3	2	2	2	2	1					
Tientsin	C		1	3	3					1					1			
Chosen. (See table below.)																		
Dahomey. (See table below.)																		
Dominican Republic: Santo Domingo	C					1					1							
Ecuador. (See table below.)																		
Egypt:																		
Alexandria	C	5	3															
Aswan	C	34	24	12	18		1		2	3						3	1	
Asyut	C	7	1	4	4	4	2			1				1				
Cairo	C		1	5	11		1		1	1	1			1			1	
Dakahliya	C	12		2					1									
Damietta	C												1					
Faiyum	C					9	1		7	27	16	5	2	5	2			
Gharbiya	C			8	4	5	5				1	2		1				
Girga	C	17	8	32			11		2	2	1	4			1		3	
Minya	C	172	105	73	11		9			1			4	3	8	7		
Port Said	C					1												
Qena	C	6	5	9	1		1						3	1				
Provinces	C	369	265	163	76	24	31	5	14	35	19	13	10	12	12	10	7	
Eritrea	C			[3] 1				1										
Gibraltar	C				4													
Gold Coast. (See table below.)																		
Great Britain:																		
England and Wales	C	32	67	35	21	2	3	4	2	2	2	3	2	1	1	2		
Blackburn	C		20	4														
	D	1	4															
London	C	31	55	31	20	2	3	3	2	2	2	1	2	1				
London and Great Towns	C	32	66	35	21	2	3	3	2	2	2	1	2	1				
Greece (see also table below): Salonika	C		9	3				2	2	2	2	2	2	1	1			
Honduras:																		
Belize	D										1							
Tegucigalpa	C				2		P	P				P		P				
India	C	12,154	21,153	36,781	34,292	9,173	8,899	9,946	8,577	6,708	5,976	6,886	4,345					
	D	2,937	4,710	8,431	7,164	1,994	1,955	2,318	1,918	1,675	1,404	1,634	1,054					
Bassein	C	62	70	32	7				1		1			4			1	
	D	26	21	19	5				1		1						1	
Bombay Presidency	C	1,591	2,565	3,454	2,760	1,011	662	794	714	667	611	558	435	532	471			
	D	336	470	603	516	176	118	123	160	119	119	115	106	96	104			
Bombay	C	31	56	56	42	9	4	5	8	3	4	2	3	1	3	1		1
	D	11	24	28	28	5	2	1	3	2	3	1	3		1			1
Calcutta	C	181	366	391	254	48	50	31	28	17	15	19	10	12	7	7	4	5
	D	115	245	278	205	35	26	28	23	16	15	14	6	9	7	6	2	3
Cochin	C	12	11	20	17	2	2	3	1	1								
Karachi	C	15	21	31	14	5	3	5	1	3	1	2		1	4	2	5	2

[1] For 2 weeks.
[3] Includes 1 imported case.
[3] Imported.
[4] From Jan. 1, 1934, to Feb. 9, 1934, 140 cases of smallpox with 17 deaths, were reported in Mukden, Manchuria, China.

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

SMALLPOX—Continued

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28; 1934	Week ended— May 1934 5	12	19	26	June 1934 2	9	16	23	30	July 1934 7	14	21	28
India—Continued.																		
Madras Presidency	C	3,862	4,461	9,324	8,538	2,727	2,309	1,604	1,292	1,405		1,395	1,115	1,010				
	D	711	770	1,582	1,360	295	373	314	265	277		257	222	214				
Madras	C	113	95	119	72	32	17	6	9	8	3	10	9	5	8	5	9	12
Negapatam	C	4		2	7	3	1		1	4	1	2	1		1	2	1	3
Rangoon	C	14	28	48	79	16	3	5	13	1	4	3	1	1	3		2	1
Tuticorin	C	4	6	1											6			
Vizagapatam	C	4	13	27	22	13	11	4	5	3				1	3			
India (French):																		
Chandernagor	D	4	2	1	4		2			1		1						
Karikal	C	2	2	7	1		1											
	D	2		5														
Pondichery	C	76	122	179	165	23	37	25	11	25	21	27	34	27	26			
	D	43	59	99	96	19	10	16	9	17	15	18	12	10	14			
Indo-China (see also table below):																		
Haiphong	C	114	111	66	26	4	6	3	4	3	1	2	1					
Pnom-Penh	C				1													
Saigon and Cholon	C			2														
Tourane	C				6	4	1			3	1	1	18	1	6	6	2	3
Iraq	C	17	17	8	31	12	15			88						13		
Amara Liwa	C	19						2										
Baghdad	C	2	3	3	1					1								
Basra	C				4		2	2	1									
Ivory Coast. (See table below.)																		
Japan	C		29	17				4	8	7								
Kobe	C				1										1			
Moji	C			3														
Nagasaki	C								1									
Osaka	C		1	3	3	1			1		1	1						
Tokyo	C	1		3	1													
Yokohama	C		2															
Liberia.[5]																		
Mexico:																		
Chihuahua	D		1															
Guadalajara	D		1						1									
Mexico, D.F.	C	2	12	3	22	3	5	4	2	1		1	4	6	2			
Monterrey	D		1															

Piedras Negras	C					1													
Rosita	C								11										
San Luis Potosi	D	1	1		2	1	1								1				
Tampico	C	2																	
Torreon	D				2			1				1							
Vera Cruz	C			[3] 1															
Morocco. (See table below.)																			
Nigeria	C	39	937	808	717		169	1,108			101		35						
Lagos	C	7	15	19	12	2	4	8	1	5	3	1							
Nyasaland. (See table below.)																			
Palestine	C			17		2					7								
Persia	C																2		
Teheran	C	8	10				1								3		4		
Peru. (See table below.)	D	5	6	1	3									1					
Poland	C			1		1											1		
Portugal (see also table below):																			
Lisbon	C	5	4	4	2	3	2	1	2	2	1		2	1	1	3			
Oporto	C		2		3														
Portuguese East Africa. (See table below.)																			
Salvador	C				[1] 42	26	4	30		15		[1] 7		13		[1] 21			
Siam	C	1		4	24	5				41	45			10	4	2			
Sierra Leone	C	143	189	429	40		[1] 40		[1] 37		[1] 147		[1] 79		[1] 14				
Spain	C	23	9	51	28	19		21	24	21	20	16	29	45	13	22	7		
Straits Settlements: Singapore	C				1	1													
Sudan (Anglo-Egyptian)	C	34	66	90	19					1	5		1			3			
Syria:																			
Beirut	C	61	45	8		2													
Provinces	C	101	38	29	55	15	4	12		2	13	3	6	7	15	13	13	9	
Trans-Jordan	C											[2] 2					1		
Turkey. (See table below.)																			
Union of South Africa: Cape Province	[4] C				P														

[1] 2 weeks.
[2] Imported.
[4] A report dated June 27, 1934, states that an epidemic of smallpox has occurred in Sanoyea, near Monrovia, Liberia. All sanitary measures are taken.

On vessels:

S.S. *Jufuku Maru* at Chefoo from Dairen	Present	Jan. 7, 1934
S.S. *Haiching* at Amoy	Present	Jan. 19, 1934
S.S. *Elysia* at Suez from Bombay	1 case	Jan. 31, 1934
S.S. *Red Sea* at Colombo from Singapore	2 cases	Jan. 31, 1934
S.S. *Talamba* at Rangoon from Calcutta	1 case	Feb. 9, 1934
S.S. *Jaladurga* at Rangoon from Gopalpur	1 case	Feb. 14, 1934
S.S. *Neuralia* at Shanghai	1 case	Feb. 14, 1934
S.S. *Varsova* at Karachi from Bombay	1 case	Feb. 17, 1934
S.S. *King City* at Victoria	2 cases	Feb. 19, 1934
S.S. *Alice Moller* at Shanghai	1 case	Feb. 20, 1934
S.S. *Ranpura* at Bombay from Shanghai	1 case	Feb. 26, 1934
S.S. *Minnie Moller* at Shanghai	1 case	Feb. 27, 1934
S.S. *Shantung* at Hong Kong	Present	Mar. 2, 1934
S.S. *Pronto* at Hong Kong	Present	Mar. 12, 1934

On vessels—Continued.

S.S. *Ekma* at Rangoon from Calcutta	1 case	Mar. 17, 1934
S.S. *Norviken* at Hong Kong	Present	Mar. 17, 1934
S.S. *Sandriken* at Hong Kong	Present	Mar. 22, 1934
S.S. *Moldavia* at Port Said from Bombay	1 case	Mar. 26, 1934
S.S. *Hydrangea* at Hong Kong from Swatow	1 case	Mar. 28, 1934
S.S. *Yuen Sang* at Hong Kong from Swatow	1 case	Apr. 3, 1934
S.S. *Ramsay* at Singapore from Vladivostok	1 case	Apr. 27, 1934
S.S. *Talma* at Moji	1 case	Apr. 27, 1934
S.S. *Kut Sang* at Hong Kong from Amoy	Present	May 9, 1934
S.S. *Tjinegara* at Hong Kong	Present	May 16, 1934
S.S. *Britannia* at Port Said from Liverpool	1 case	May 31, 1934
S.S. *Rhona* at Penang from Madras	1 case	June 14, 1934
S.S. *Rajula* at Penang	1 case	June 28, 1934

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

SMALLPOX—Continued

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

Place		January 1934	February 1934	March 1934	April 1934	May 1934	June 1934
Belgian Congo (see also table above)	C	126	178	148	104		
Bolivia	C			42	20		
Cameroun (French)	C	53	139	31			
Chosen	C	25	74	102		7	
Dahomey	C					5	
Ecuador	C	14	16	[1] 3			
Gold Coast	C			36	11		
Greece (see also table above)	C		3	5			
Indo-China	C	315	489	697	703	592	215
	D	55	85	64	69	76	39
Ivory Coast	C				36	11	
Morocco	C	1	1	2	19	3	2
Nyasaland	C	263	83	115	149	41	
Peru	D	19	20	33	18	16	
Portugal (see also table above)	C	111	90	78	68	110	
	D	19	15	15	3	1	
Portuguese East Africa	C				1	34	5
Turkey	C	23	16		3	5	2

[1] Imported.

TYPHUS FEVER

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Week ended— April 1934				May 1934				June 1934					July 1934		
					7	14	21	28	5	12	19	26	2	9	16	23	30	7	14	21
Algeria:																				
Algiers Department	C		4	12		6		7					11		1	5	1			1
Constantine Department	C	11	22	51	5	4	5	6	2	14	12	13	34	15	10	25	7	12	10	3
Bone	C	2				1														
Philippeville	C		1																	
Oran Department	C			6		1			1		3	1			3		2	1		1
Australia: Sydney	C			1																
Azores. (See table below.)																				
Basutoland. (See table below.)																				
Belgian Congo [1]	C													33	40	47	88	53	2	49
Bolivia. (See table below)																				
British East Africa: Uganda	C	2	2	44		2	11	4		2			5		1					
Bulgaria	C	25	54	42	15	12	4	7	9	15	9	12	11	2	2					

Chile	C			[2] 693					[3] 865											
Santiago	C	532	237	201	45	14	21	28	37	29	52	49	74	46	72	61	68	63		
Valparaiso	C	15	16	9	3		4	3	2	1	3	5	1	3	1	6	11	11	10	3
China:																				
Hangchow	C																1			
Hankow	C												1							
Harbin	C		1									P								
Nanking	C			2	1		1		2	1			3							
Shanghai	C		1				1									1	2			
South Manchuria Railway Zone	C	3	3	3		1					1				2	1				
Tientsin	C							1	1	2	2		2							
Chosen. (See table below.)																				
Czechoslovakia. (See table below.)																				
Egypt:																				
Alexandria	C	4	2	14		3	2	5	1		1	2	3	1	3	1	1	1		1
Asyut	C										7			1	2	1		1		
Beheira	C	150	279	608		165			117	112	118		79	58	53	30	43	16	14	15
Cairo	C		1	7	4	2	2	1	3	1	2	1		1				1	1	
Dakahliya	C	85	53	126		27			49	43	47		30	9	23	5		7	5	1
Damietta	C			20	5	2	1	4	2			3	1				1		1	
Faiyum	C													2						
Gharbiya	C	227	169	526		62			152	74	102		65	55	26	27	20	39	7	13
Girga	C	4	3	13							1						1			
Minufiya	C	60	202	275		102			47	42	38		34	20	8	19	6	6	8	10
Port Said	C			2		1							2	1		1				
Qena	C													6	2	2	3	1		
Sharkiya	C														14		8		7	[4] 1
Provinces	C	644	1,000	1,977	394	405	370	472	388	313	386	273	219	166	130	95	85	83	44	49
Finland. (See table below.)																				
Greece. (See table below.)																				
Guatemala. (See table below.)																				
Hungary	C		13	12																
Iraq	C					47						27	19	5		41				
Baghdad	C					17	3	3			6		3			[4] 1				
Kirkuk liwa	C					30	19	19	14			27	16			40	3			
Irish Free State:																				
Cork County—Castletown	C																		5	
Killarney	C		2																	
Waterford County—Lismore	C			2																
Wicklow County—Altidore	C																			7
Japan: Aomori Prefecture	C	13	2																	
Latvia. (See table below.)																				
Lithuania (see also table below)	C	44	58	47	12	32	12	6	5	5	2		4				8			6
Mexico (see also table below):																				
Mexico, D.F.	C	83	78	100	30	27	12	10	14	21	10	19	15	8	36	26	23	13		
San Luis Potosi	D	1		3										1						1
Torreon	C																		1	

[1] From Apr. 18 to May 27, 1934, 256 cases of typhus fever with 7 deaths were reported in Belgian Congo.
[2] For 4 weeks ended Mar. 17, 1934.
[3] For 6 weeks.
[4] Imported.

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

TYPHUS FEVER—Continued

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Week ended— April 1934 7	14	21	28	May 1934 5	12	19	26	June 1934 2	9	16	23	30	July 1934 7	14	21
Morocco	C	4	22	61	17	17	19	16	10	8	8	8	28	9	7		1	3	4	3
Palestine	C												2		1	1			4	1
Persia	C	12	65	146	19		38	19	41	58	66	65	52	64	23	58	20	33	39	26
Teheran	C	12	13	18	1		2	5	6	5	18	7	5	3	7	7		3	4	4
Peru. (See table below.)																				
Poland	C	515	638	948	160	172	173	174	134	125	96	71	80	70	52	47	35	33	40	30
	D	34	38	60	12	6	9	10	8	10	8	2	9	5	3	5	1	2	5	2
Portugal (see also table below): Oporto	C																	1		
Rumania. (See table below.)																				
Scotland	C		1						2	1										
Spain: Catalonia	C														27					•
Trans-Jordan	C		8	13	1		7	3	6				3	4	7	1	1		4	
Tunisia:																				
Tunis	C	2		1			1	11	1	1			15		3	4		1		
Provinces	C		99	88	41	31	35	39	20		25	36	38	7	13	17	24	12	9	13
Turkey. (See table below.)																				
Union of South Africa. (See table below.)																				
Yugoslavia. (See table below.)																				

Place		January 1934	February 1934	March 1934	April 1934	May 1934	June 1934
Azores	C			5	9		
Basutoland	C	362	253		81		
Bolivia	C			79	38		
Chosen	C	3	1	3	7		6
Czechoslovakia	C	7	17	123	78	66	20
Finland	C					4	
Greece	C	2	2	14	2	3	
Guatemala	C	29	16	17	26	42	18
Latvia	C			1		3	
Mexico (see also table above)	C	94					

Place		January 1934	February 1934	March 1934	April 1934	May 1934	June 1934
Peru	C	15	27	26	59	24	
Portugal	C			5	9	28	
Rumania	C	399	489	492	349	176	
Turkey	C	32	24	14	41	39	15
Union of South Africa:							
Cape Province	C	109	220	238	132	119	
Natal	C	3	19	16	8	7	
Orange Free State	C	297	352	339	454	343	
Transvaal	C	11	3	5		8	
Yugoslavia	C	298	357	361	445	398	118

YELLOW FEVER

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

Place		Dec. 31, 1933–Jan. 27, 1934	Jan. 28–Feb. 24, 1934	Feb. 25–Mar. 31, 1934	Apr. 1–28, 1934	Week ended— May 1934 5	12	19	26	June 1934 2	9	16	23	30	July 1934 7	14	21	28	August 1934 4	11
Brazil:																				
Bahia State—Victoria Bank	C									1										
Ceara State—																				
Carius	C				1			1		1										
Iguatu	C				1															
St. Mathew	C			1																
Mato Grosso State—Coronel Ponco	C					1														
Para State—St. Sebastian	C								1											
French West Africa: Guinea	C	2																		
Gold Coast:																				
Dunkwa	C	1																		
Keta	C	1																		
N'Kaw Kaw	C															1				
Ivory Coast:																				
Abidjan	C									2				1						
	D									1				1				1		
Rubino	C								2											
Niger Territory: Zinder	C																	1		1
	D																	1	2	
Senegal:																				
Kaffrine	C	1																		
Kaolak	C	[1] 1																		
Matam	C								1											
Podor	C	[1] 1																		
Sudan (Anglo-Egyptian): Wau	C																1			

[1] Imported.

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