

PUBLIC HEALTH REPORTS

VOL. 45

FEBRUARY 28, 1930

NO. 9

REPORT OF CASE OF TULARAEMIA CONTRACTED FROM A COYOTE (*Canis lestes*) IN NEW MEXICO

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The case of tularaemia here reported, contracted in Lincoln County, N. Mex., seems to be of sufficient general interest to warrant the publication of a note regarding it. It is certainly of sufficient local importance to be called to the attention of the physicians of New Mexico. It more conclusively establishes the coyote as a definite source of infection for this disease. Only one previous case of tularaemia contracted from the coyote has been reported in the literature. That case, occurring in Montana, resulted from the bite of a coyote pup. From the research instituted at that time it was demonstrated that the coyote readily contracts the disease after the ingestion of infected material.¹

That tularaemia is not a new disease in the State of New Mexico is apparent from the 21 cases previously reported, as follows: Tularosa, 2; Alamogordo, 2; Carlsbad and vicinity, 10; Hanover, 1; Dexter, 1; Albuquerque, 1; and locations not mentioned, 4. All of these cases, so far as the writer is aware, have been transmitted from infected rabbits. The series of cases reported by Surg. T. B. H. Anderson, of the United States Public Health Service, in 1924, in coincidence with a fatal epizootic among rabbits in Eddy County, near Carlsbad, was certainly the most interesting and extensive outbreak in the State.

The case reported herein is the first in New Mexico in which the infection has been definitely proved to have been contracted from a coyote. Since this animal is frequently encountered in this State, being continuously hunted and trapped, it must be considered a real source of danger in the transmission of tularaemia to mankind. The physicians and the health authorities should know the rôle that it may play in this connection.

As tularaemia has now been proved to be transmissible from rabbits, coyotes, and possibly quails, it seems probable that cases of this disease occur without being reported. This is especially true in a

¹ See Public Health Reports for July 9, 1926.

State like New Mexico where all three of these animals have their natural habitat, and where they are frequently hunted for food, or as an enemy to man. These facts should stimulate physicians to be constantly on the lookout for this disease.

CASE REPORT

E. A., age 36, male, white, laborer, of Mexican origin. Family and past history unimportant.

Present illness: On October 29, 1929, patient cut his left index finger slightly with an ax. He then disposed of the carcass of an adult coyote which he had killed and skinned the evening before. As he wore no gloves he undoubtedly contaminated the cut at that time. There were absolutely no other animal contacts before or afterwards in this case. On October 31, 1929, he complained of pain in the left axilla and felt feverish and had aching body pains. An examination showed that the axillary glands were enlarged and tender. Later the cut on his finger became red, swollen, and painful. In a few days an inflamed papule developed which discharged pus and formed an ulcerated area. The axillary glands suppurated and upon incision yielded purulent matter. The blood serum collected on November 19, 1929, and tested at the Hygienic Laboratory agglutinated the *Bacterium tularensis* in a dilution of 1:1,280, thus confirming the diagnosis of tularaemia. The Wassermann test was negative. The disease furthermore ran the typical febrile course of the ulcero-glandular type of two months' duration. For the greater part of this time the patient was confined to bed. At the time of this report (January 8, 1930) he has apparently made a good recovery, but states that he does not feel as strong or as well as before he became sick.

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THE WEIL-FELIX REACTION IN ENDEMIC TYPHUS FEVER AND IN ROCKY MOUNTAIN SPOTTED FEVER

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Some years ago Kelly (1) tested the sera of eight patients with Rocky Mountain spotted fever against a strain of *proteus* X₁₉ for the Weil-Felix reaction with negative results. Owing to the limited observations on which this conclusion was based, it was thought advisable to repeat the work with a larger series of cases and with sera taken late in the disease, using several different strains of *proteus*.

In 1928 a preliminary communication by Kerlee and Spencer (2) reported that the sera from some patients with Rocky Mountain spotted fever showed a power to agglutinate the *proteus* group of

organisms, particularly the so-called specific "X strains" of Weil and Felix, which was far in excess of that encountered in controls and seemed to be definitely associated with the course of the disease, resembling closely the phenomenon thought to be specific for typhus fever. They further showed that the same type of agglutinins appeared in the blood of rabbits inoculated with the virus of Rocky Mountain spotted fever while the results with guinea pigs were invariably negative. These findings again were in accord with experience with the same species of animals experimentally inoculated with typhus virus.

While this work was in progress two publications appeared in foreign literature bearing upon the Weil-Felix reaction in animals inoculated with Rocky Mountain spotted fever virus. Kuczynski (3) had noted that the sera of rabbits injected with blood or brain virus of Rocky Mountain spotted fever did not as a rule contain agglutinins for *proteus* X₁₉ strains. In one instance, however, a low titer was obtained against an X₂ strain. On the other hand, he made the statement that white rats regularly gave a high titer Weil-Felix reaction with the *proteus* X₁₉ after inoculation with Rocky Mountain spotted fever virus. Positive reactions were also obtained in dogs and in a monkey. These experiments are not recorded in detail in his paper.

Munter (4) found the Weil-Felix reaction with *proteus* X₁₉ to be positive in rabbits inoculated with Rocky Mountain spotted fever virus, the serum titer against X₁₉ O type (specific typhus agglutinins) being slightly higher than that for the X₁₉ H type (*proteus* group agglutinins). Munter treated rabbits first with the virus of Rocky Mountain spotted fever and subsequently treated the same animals with typhus fever virus. This procedure was also reversed. From observations upon the changes in the titer of the serum of animals so treated he concluded that the mechanism involved in the production of agglutinins was not precisely identical in the two diseases. Sera from human cases were, of course, not available to the European investigators.

Owing to the fact that the Weil-Felix reaction has been regarded as highly specific for typhus and that this has been used by some writers as an argument in favor of a possible etiological relationship of the *proteus* bacillus to the disease, further studies were undertaken. Sera from 40 human cases of Rocky Mountain spotted fever were set up against the H and O variants of three strains of *proteus* X₁₉ and against two strains of *proteus vulgaris* and comparison was made with sera from 16 cases of endemic typhus occurring in the south-eastern United States and from one case of typhus occurring in Adelaide, Australia,¹ with a view to elucidating any differences that might exist.

¹ We are deeply indebted to Dr. A. Felix for his kindness in sending us this serum.

MATERIALS AND TECHNIQUE

The X_{19} and the X_2 strains O and H were obtained from Dr. A. Felix, of the Lister Institute. We are indebted to Doctor Kingsbury, of the Institute of Medical Research, Kuala Lumpur, for the Kingsbury strain of X_{19} which Fletcher and Lesslar (5) found to give such interesting results with the typhuslike diseases encountered in the Federated Malay States. The two strains of *proteus vulgaris* came from the American Type Collection, No. 93 and No. 221.

The dissociated strains were checked by plating out on the surface of dry agar plates to ascertain the presence of discrete O type colonies and the spreading H type colonies from the same inoculum that was used to seed agar for the production of a large amount of antigen. In our experience the X_2 , O type, and the Kingsbury O type (KO), have remained constantly free from H individuals. On the other hand, upon several occasions we have noted that the X_{19} , O type tended to revert and to show H colonies. One must admit therefore that in any suspension of organisms that are produced for agglutination purposes some H antigen may be present, even though in small and perhaps insignificant quantities.

No preservative was added to the antigens. They were kept free from contamination stored in a refrigerator at a temperature of approximately 4° C. They were carefully checked every few days for loss of antigenic power against a known positive serum. In our experience, however, formalinized suspensions (6) can be used with equal facility and accuracy provided the concentration of the preservative be kept at a minimum. In order to accomplish this, it is our custom to add 0.1 to 0.2 per cent neutral formaldehyde (U. S. P. 37 per cent) to heavy saline emulsions of the organism. When needed this emulsion is diluted 1:10 to 1:20 in order to obtain the proper turbidity before use in the reaction.

Suspensions were standardized to a turbidity of 500 according to the silica method recommended in "Standard Methods of Water Analysis," 1925. The tests were carried out in tubes by the macroscopic method with a total volume of 1 c. c., incubated at 37° C. for two hours and read after standing overnight in the ice box. The titer of a serum with a given antigen is here recorded as the highest dilution of that serum showing a 50 per cent agglutination or more, read without the aid of a magnifying lens.

RESULTS

In Table 1 are shown the results of titrating sera from 40 cases of Rocky Mountain spotted fever, in various stages of the disease, with antigens prepared from the several strains of *proteus bacilli*. In the first group of 10 cases, in which the day of the disease on which the specimen was taken was not recorded, one (No. 6) showed definite

agglutination of *proteus* X₁₉ (H and O) up to a dilution of 1:1,280, and of X₂ H up to 1:320, with lower titers for X₂ O, the Kingsbury and *proteus vulgaris* strains. Another serum (No. 10) showed only a doubtful (1:80) reaction with X₁₉ and Kingsbury (KO and KH), but a strongly positive one with X₂ H (1:1,280), X₂ O (1:640) and *proteus vulgaris* No. 526 (1:640).

TABLE 1.—Agglutination of *proteus* strains by sera from 40 cases of Rocky Mountain spotted fever

Group	Serum No.	Day of illness	X ₁₉ O	Agglutinin titer with proteus strains						
				X ₁₉ H	KO	KH	X ₂ O	X ₂ H	Vulgar- is No. 93	Vulgar- is No. 221
I.....	1	Not known.....	0	0	0	0	0	0	0	0
	2	do.....	0	0	20	20	0	0	0	0
	3	do.....	20	40	0	20	20	20	0	0
	4	do.....	20	40	20	0	0	0	0	0
	5	do.....	160	160	20	20	20	20	0	40
	6	do.....	1,280	1,280	80	80	160	320	0	160
	7	do.....	20	20	0	0	0	0	0	0
	8	do.....	0	0	0	0	0	0	0	0
	9	do.....	40	20	0	0	0	0	0	0
	10	do.....	80	80	80	80	640	1,280	0	640
II.....	11	Second day.....	0	0	0	0	0	0	0	0
	12	Third day.....	160	160	0	0	0	0	0	0
	13	do.....	0	0	0	0	0	0	0	0
	14	Fifth day.....	2,560	2,560	0	0	0	0	0	0
	15	Sixth day.....	0	0	20	20	0	0	0	0
	16	do.....	20	40	0	0	0	0	0	20
	17	do.....	20	20	0	0	0	0	0	0
III.....	18	Seventh day.....	0	0	0	0	0	0	0	0
	19	Eighth day.....	0	0	0	0	0	0	0	0
	20	Ninth day.....	40	40	0	20	40	40	20	0
	21	do.....	0	0	20	20	160	160	0	0
	22	Eleventh day.....	0	0	0	0	40	40	0	0
	23	Fourteenth day.....	40	40	160	160	0	0	0	0
	24	Fifteenth day.....	20	20	0	0	160	320	0	0
	25	do.....	0	0	0	0	0	0	0	0
IV.....	26	do.....	40	40	0	0	80	160	0	0
	27	Seventeenth day.....	320	320	40	0	80	80	0	0
	28	Twentieth day.....	640	640	0	0	0	0	0	80
	29	Twenty-first day.....	320	320	0	0	640	640	20	20
	30	Twenty-third day.....	2,560	1,280	0	40	320	640	0	40
	31	do.....	160	160	40	0	320	640	20	80
	32	do.....	1,280	1,280	0	0	0	0	0	0
	33	Twenty-eighth day.....	80	80	40	40	640	640	20	80
	34	Twenty-ninth day.....	0	0	0	160	320	0	0	0
	35	Thirty-first day.....	320	320	40	40	640	640	0	0
	36	Thirty-third day.....	80	0	0	0	0	0	0	0
	37	do.....	320	640	0	0	160	320	0	0
	38	Thirty-fifth day.....	40	40	40	40	0	0	0	20
	39	Sixty-sixth day.....	20	20	0	0	0	0	0	0
	40	Twenty-fourth year.....	0	0	0	0	0	0	0	0

In the group of eight cases where the serum was taken during the first week of the disease, one (No. 14) taken on the fifth day showed agglutination with *proteus* X₁₉ O and H up to 1:2,560, and one (No. 12) up to 1:160, with negligible titers against the other antigens.

In the eight cases where serum was taken during the second week, none showed a titer with X₁₉ which would be considered significant, but one (No. 23) agglutinated Kingsbury (O and H) up to 1:160, one (No. 21) agglutinated X₂ (O and H) up to 1:160, and one (No. 24) agglutinated X₂ O to 1:160 and X₂ H to 1:320, and No. 26 agglutinated X₂ O 1:80 and X₂ H 1:160.

Seven of the remaining 14 sera, taken during convalescence, showed a high titer agglutination with X_{19} , eight with X_2 , and one up to 1:160 with Kingsbury H. None had titers higher than 1:80 with the *proteus vulgaris* strains. It will be noted that the titer for X_2 sometimes exceeded that for X_{19} , although the latter strain is uniformly more sensitive to typhus sera, and in at least one instance (No. 34) the X_2 agglutination was positive when the test with X_{19} was entirely negative.

In Table 2 are shown the results of testing positive sera from cases of endemic typhus in the southeastern United States against the same *proteus* antigens used for the spotted fever sera. All of these typhus sera were selected originally on the basis of having agglutinated *proteus* X_{19} . They are not, therefore, a true random sample of sera taken in various stages of the disease as were the Rocky Mountain spotted fever sera. At the same time, it is clearly evident that in spite of high titers against *proteus* X_{19} , these sera show very little tendency to clump the other antigens. It is perhaps noteworthy, on the other hand, that the single serum from the endemic typhus of Australia did agglutinate the X_2 organisms, though in much lower titer than X_{19} .

TABLE 2.—Agglutination titer of 16 sera from human cases of endemic typhus fever against representative *proteus* strains

Serum No.	Agglutination titer with proteus strains							
	X_{19} O	X_{19} H	KO	KH	X_2 O	X_2 H	Vulgaris No. 93	Vulgaris No. 221
1.....	2,560	2,560	20	20	20	20	0	0
2.....	1,280	1,280	20	0	20	40	0	0
3.....	1,280	2,560	80	80	40	80	0	20
4.....	160	160	20	0	0	0	0	0
5.....	1,280	1,280	20	0	0	0	0	0
6.....	320	640	0	0	0	0	0	0
7.....	1,280	1,280	0	0	0	0	0	0
8.....	1,280	1,280	0	0	0	0	0	0
9.....	2,560	2,560	0	0	0	0	0	0
10.....	2,560	2,560	20	0	0	20	0	0
11.....	2,560	5,120	0	0	0	0	0	0
12.....	320	640	0	0	0	0	0	0
13.....	640	640	0	0	0	0	0	0
14.....	640	1,280	0	0	0	0	0	0
15.....	2,560	5,120	0	0	20	40	0	0
16.....	1,280	1,280	0	0	0	0	0	0
17 ¹	5,120	320	0	0	80	160	0	0

¹ Case of typhus from Adelaide, Australia.

DISCUSSION

Additional evidence is brought by this series of observations as to the frequency with which a positive Weil-Felix reaction is encountered in the sera of human cases of Rocky Mountain spotted fever. Possibly it is not so constant a phenomenon in Rocky Mountain spotted fever as it appears to be in typhus, but it undoubtedly

occurs in a majority of the cases examined late in the disease or during convalescence. In neither Rocky Mountain spotted fever nor in endemic typhus was the titer consistently higher with the O type antigen of X_{10} which, according to the work of Felix, is specific for typhus, than with the H type. The agglutinin absorption of the two types of antigens was not studied.

Granting the fact that a positive Weil-Felix reaction occurs in Rocky Mountain spotted fever, it is evident from the observations here recorded, as it was in Munter's experiments, that the mechanism involved is not exactly identical with that involved in typhus. Spotted fever virus produces agglutinins of broader affinities and of greater variability than those produced by typhus virus. The sera from cases of the former are apparently much more likely to react with the X_2 and Kingsbury strains and even with *proteus vulgaris* than are the sera from cases of endemic typhus. There is a qualitative difference in the character of the agglutinins. One can not say that the X_{10} is uniformly the more sensitive strain in Rocky Mountain spotted fever. It is evident that in routine work for the serological diagnosis of this latter disease the several strains of *proteus* bacilli should be used. On the contrary, our experience in this country with endemic typhus has led us to believe that only the X_{10} need be considered.

The fact that the Weil-Felix reaction may be positive in both diseases, even though qualitatively different, is extremely interesting. Although the two diseases are clinically similar in human beings, Rocky Mountain spotted fever and typhus are immunologically distinct. Neither virus affords any measurable degree of protection to recovered animals against a subsequent inoculation of the other. It must, therefore, be assumed that the etiologic agents are biologically distinct, even though closely related. This would, at the same time, suggest that typhus fever and Rocky Mountain spotted fever are more closely related than are typhus and that group of so-called typhuslike fevers which are characterized by a primary ulcer (*tâche noire*) at the point of entrance of the virus from a mite (or tick?) bite—the Tsutsugamushi disease (Japanese flood fever, kedani fever of Japan and the Federated Malay States (7), the pseudo-typhus of Deli (8, 9), the “fièvre exanthématique,” of the Mediterranean area (10). Studies of this group of fevers have indicated that the Weil-Felix is nearly always negative and animals experimentally inoculated show manifestations different from those of typhus.

CONCLUSION

The Weil-Felix reaction is positive in a large proportion of cases of Rocky Mountain spotted fever. The mechanism of this reaction although similar is not exactly identical with that occurring in typhus fever. There is a qualitative difference.

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COURT DECISION RELATING TO PUBLIC HEALTH

City license not required of person holding State license for manufacture and sale of soft drinks at wholesale.—(Wisconsin Supreme Court; *E. L. Husting Co. v. City of Milwaukee et al.*, 228 N. W. 502; decided Jan. 7, 1930.) The plaintiff was engaged in the manufacture, bottling, and sale of soda-water beverages at wholesale in the city of Milwaukee, holding a license issued by the State dairy and food commissioner pursuant to statute. The city of Milwaukee passed an ordinance which required, among other things, that a manufacturer of soda-water beverages procure a license from the city, and the plaintiff brought an action to restrain the enforcement of such ordinance.

Chapter 96 of the 1929 laws provided that no person, firm, or corporation that possessed a license from the dairy and food commissioner, such as held by plaintiff, should be required to procure a license from the municipality under the State prohibition act then in force. The prohibition act gave municipal corporations the power to license those

who manufactured and dealt in nonintoxicating liquor. Chapter 129 of the 1929 laws repealed the prohibition law but gave to municipalities exactly the same power to license manufacturers and vendors of nonintoxicating liquor that was conferred by the prohibition act. The supreme court decided that the passage of chapter 129 did not evidence a legislative intent to change the exemption contained in chapter 96 and affirmed orders of the lower court restraining the enforcement of the ordinance and overruling the defendants' demurrer to the complaint.

DEATHS DURING WEEK ENDED FEBRUARY 15, 1930

Summary of information received by telegraph from industrial insurance companies for the week ended February 15, 1930, and corresponding week of 1929. (From the Weekly Health Index, February 19, 1930, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 15, 1930	Corresponding week, 1929
Policies in force.....	75, 472, 681	73, 242, 495
Number of death claims.....	13, 971	16, 424
Death claims per 1,000 policies in force, annual rate.....	9. 7	11. 7

Deaths from all causes in certain large cities of the United States during the week ended February 15, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index February 19, 1930, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 15, 1930		Annual death rate per 1,000, corre- sponding week, 1929	Deaths under 1 year		Infant mortality rate, week ended Feb. 15, 1930 ¹
	Total deaths	Death rate ¹		Week ended Feb. 15, 1930	Corre- sponding week, 1929	
Total (64 cities).....	8, 013	14. 1	15. 3	766	873	² 67
Akron.....	47			8	2	73
Albany.....	43	18. 6	19. 5	8	2	175
Atlanta.....	109	22. 3	20. 0	14	10	148
White.....	54			7	6	222
Colored.....	55	(³)	(³)	7	4	111
Baltimore.....	238	14. 9	17. 9	14	23	48
White.....	188			10	15	43
Colored.....	50	(³)	(³)	4	8	65
Birmingham.....	67	15. 7	19. 9	7	11	65
White.....	28			2	1	31
Colored.....	39	(³)	(³)	5	10	118
Boston.....	252	16. 4	19. 9	35	30	90
Bridgeport.....	42			5	7	85
Buffalo.....	142	13. 3	14. 7	20	15	89
Cambridge.....	37	15. 3	14. 1	6	1	111
Camden.....	29	11. 2	15. 0	7	1	127
Canton.....	22	9. 8	12. 9	4	2	90
Chicago.....	771	12. 7	13. 6	66	83	58
Cincinnati.....	127			4	15	24
Cleveland.....	216	11. 1	12. 6	17	29	51
Columbus.....	70	12. 2	17. 6	8	7	78
Dallas.....	65	15. 6	19. 4	9	10	
White.....	53			7	7	
Colored.....	12	(³)	(³)	2	3	
Dayton.....	43	12. 2	14. 1	2	7	30
Denver.....	77	13. 6	18. 4	7	11	73
Des Moines.....	31	10. 6	12. 4	0	3	0
Detroit.....	308	11. 6	13. 8	55	63	85
Duluth.....	20	8. 9	10. 7	3	1	81

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended February 15, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index, February 19, 1930, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Feb. 15, 1930		Annual death rate per 1,000, corresponding week, 1929	Deaths under 1 year		Infant mortality rate, week ended Feb. 15, 1930 ¹
	Total deaths	Death rate ¹		Week ended Feb. 15 1930	Corresponding week, 1929	
El Paso	48	21.2	29.2	13	21	—
Erie	28	—	—	3	4	64
Fall River	30	11.6	12.0	4	3	92
Flint	32	11.2	10.5	8	6	93
Fort Worth	37	11.3	11.3	4	1	—
White	33	—	—	4	1	—
Colored	4	(a)	(a)	0	0	—
Grand Rapids	44	14.0	6.7	4	3	61
Houston	72	—	—	6	5	—
White	44	—	—	3	4	—
Colored	28	(a)	(a)	3	1	—
Indianapolis	122	16.6	16.8	1	13	7
White	105	—	—	1	10	9
Colored	17	(a)	(a)	0	3	0
Jersey City	99	15.9	15.9	13	17	113
Kansas City, Kans.	27	11.9	18.1	3	3	71
White	17	—	—	3	3	80
Colored	10	(a)	(a)	0	0	0
Kansas City, Mo.	111	14.8	14.8	13	8	101
Knoxville	39	19.3	7.9	4	2	94
White	35	—	—	4	2	104
Colored	4	(a)	(a)	0	0	0
Los Angeles	265	—	—	19	19	58
Louisville	99	15.7	16.8	6	11	52
White	77	—	—	5	10	49
Colored	22	(a)	(a)	1	1	72
Lowell	29	—	—	3	1	71
Lynn	29	14.3	12.9	3	2	76
Memphis	101	27.7	22.8	5	12	60
White	50	—	—	2	7	37
Colored	51	(a)	(a)	3	5	101
Milwaukee	120	11.5	12.6	19	21	96
Minneapolis	91	10.4	12.8	9	8	58
Nashville	46	17.2	24.3	4	6	62
White	31	—	—	2	1	41
Colored	15	(a)	(a)	2	5	127
New Bedford	22	—	—	2	3	51
New Haven	39	10.8	14.7	2	4	39
New Orleans	181	22.0	20.6	20	11	116
White	103	—	—	5	5	44
Colored	78	(a)	(a)	15	6	252
New York	1,606	13.9	15.8	146	185	61
Bronx Borough	195	10.7	13.4	13	23	31
Brooklyn Borough	550	12.4	14.2	66	69	60
Manhattan Borough	631	18.8	21.2	69	69	97
Queens Borough	178	10.9	10.8	13	19	38
Richmond Borough	52	18.0	22.1	5	5	93
Newark, N. J.	140	15.4	11.9	12	6	63
Oakland	59	11.2	14.8	4	7	48
Oklahoma City	45	—	—	3	5	59
Omaha	59	13.8	15.0	1	4	11
Paterson	41	14.8	13.8	2	3	35
Philadelphia	553	14.0	14.1	61	38	90
Pittsburgh	217	16.8	14.0	22	24	81
Providence	73	13.3	17.8	4	8	37
Richmond	60	16.1	16.6	2	4	30
White	37	—	—	1	2	22
Colored	23	(a)	(a)	1	2	44
Rochester	85	13.5	14.0	4	7	35
St. Louis	265	16.3	16.4	11	18	26
St. Paul	56	—	—	3	4	30
Salt Lake City	38	14.4	15.5	3	8	47
San Antonio	79	18.9	20.8	7	20	—
San Diego	49	—	—	2	8	42
San Francisco	156	13.9	15.8	4	8	27
Schenectady	17	9.5	15.6	0	5	0
Seattle	70	9.5	12.1	4	5	40
Somerville	29	14.7	13.2	2	1	65
Spokane	35	16.7	16.7	2	1	52
Springfield, Mass.	44	15.3	12.2	4	5	63

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended February 15, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index, February 19, 1930, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Feb. 15, 1930		Annual death rate per 1,000, corresponding week, 1929	Deaths under 1 year		Infant mortality rate, week ended Feb. 15, 1930 ¹
	Total deaths	Death rate ¹		Week ended Feb. 15, 1930	Corresponding week, 1929	
Syracuse.....	51	13.3	14.7	5	6	62
Toledo.....	84	14.0	16.1	5	12	46
Trenton.....	54	20.3	15.8	9	2	168
Utica.....	21	10.5	21.5	4	2	114
Washington, D. C.....	149	14.1	17.5	11	15	64
White.....	91			5	7	43
Colored.....	58	(²)	(²)	6	8	103
Waterbury.....	23			3	5	77
Wilmington, Del.....	48	19.5	13.8	4	4	90
Worcester.....	75	19.8	18.7	10	9	130
Yonkers.....	30	12.9	6.4	3	2	72
Youngstown.....	40	12.0	9.3	3	3	47

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

³ Data for 71 cities.

⁴ Deaths for week ended Friday.

⁵ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

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 February 15, 1930, and February 16, 1929

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 15, 1930, and February 16, 1929

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929
New England States:								
Maine.....	2	2	12	188	46	353	0	0
New Hampshire.....	1	1	4	65	22	29	0	0
Vermont.....	3			19	7	18	0	0
Massachusetts.....	71	96	15	405	510	378	5	1
Rhode Island.....	15	6		33	3	74	0	0
Connecticut.....	25	30	6	373	20	328	0	2
Middle Atlantic States:								
New York.....	126	244	142	1243	557	817	18	45
New Jersey.....	117	118	22	71	362	226	4	5
Pennsylvania.....	158	158			783	2,012	8	8
East North Central States:								
Ohio.....	78	104	36	367	760	1,311	11	7
Indiana.....	34	25		119	65	358	14	0
Illinois.....	158	139	44	137	627	692	11	13
Michigan.....	66	101	7	25	440	413	32	26
Wisconsin.....	31	16	66	139	1,184	460	8	3
West North Central States:								
Minnesota.....	11	27	4	6	161	285	4	3
Iowa.....	11	8			496		2	5
Missouri.....	37	61	38	113	76	284	21	18
North Dakota.....	6	9		50	46	18	1	8
South Dakota.....	3	4		2	119	47	2	0
Nebraska.....	19	25	23	63	723	24	3	3
Kansas.....	19	15	5	34	342	65	6	3
South Atlantic States:								
Delaware.....				3	6	23	0	0
Maryland ¹	25	31	54	649	11	127	0	1
District of Columbia.....	18	10	1	25	9	3	0	0
Virginia.....							1	
West Virginia.....	12	15	12	211	99	130	4	1
North Carolina.....	36	28	37		15	98	0	0
South Carolina.....	16	11	1,061	922		2	8	0
Georgia.....	16	7	234	203	335	63	16	0
Florida.....	13	9	3	39	102	10	3	1

¹ New York City only.

² Week ended Friday.

*Cases of certain communicable diseases reported by telegraph by State health officers
for weeks ended February 15, 1930, and February 16, 1929—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929
East South Central States:								
Kentucky.....		9		30	132	23	1	0
Tennessee.....	3	17	163	1,629	202	4	21	0
Alabama.....	43	24	176	956	108	160	3	4
Mississippi.....	21	9					26	2
West South Central States:								
Arkansas.....	5	23	206	1,175	5	88	4	0
Louisiana.....	16	24	27	78	90	42	5	10
Oklahoma.....	18	29	128	712	84	5	4	2
Texas.....	41	36	55	368	120	51	2	6
Mountain States:								
Montana.....	1	3		4	21	133	1	2
Idaho.....	2	1		4	81	13	2	9
Wyoming.....	1	4			33	30	0	0
Colorado.....	8	15		27	65	8	0	7
New Mexico.....	6	5		1	56	9	3	1
Arizona.....	7	7	12		5	27	5	19
Utah.....	2		1	4	232		3	16
Pacific States:								
Washington.....	8	5	4	42	209	96	7	2
Oregon.....	9	6	106	94	12	140	2	6
California.....	70	61	72	244	954	58	9	16

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929
New England States:								
Maine.....	0	0	45	35	0	4	9	2
New Hampshire.....	0	0	22	5	0	0	0	0
Vermont.....	0	0	7	7	4	1	0	0
Massachusetts.....	0	0	302	267	0	0	5	2
Rhode Island.....	0	0	31	35	0	0	0	0
Connecticut.....	1	0	127	65	0	0	1	0
Middle Atlantic States:								
New York.....	3	1	478	496	7	0	31	12
New Jersey.....	0	0	275	159	0	0	3	3
Pennsylvania.....	0	4	487	473	3	0	13	12
East North Central States:								
Ohio.....	0	1	379	432	170	48	7	8
Indiana.....	0	0	183	191	173	40	3	1
Illinois.....	1	0	607	511	137	149	8	3
Michigan.....	0	1	335	478	93	43	3	2
Wisconsin.....	1	0	140	136	9	9	4	3
West North Central States:								
Minnesota.....	0	0	126	173	6	5	2	2
Iowa.....	0	1	107	176	67	31	0	1
Missouri.....	0	0	117	91	95	36	5	2
North Dakota.....	1	0	41	39	27	2	0	1
South Dakota.....	0	0	32	24	129	47	1	0
Nebraska.....	0	0	59	140	74	55	1	1
Kansas.....	1	0	120	175	72	46	0	1
South Atlantic States:								
Delaware.....	0	0	16	5	0	0	0	0
Maryland.....	1	0	95	72	0	0	5	6
District of Columbia.....	1	0	22	28	0	0	0	0
Virginia.....	1							
West Virginia.....	0	0	57	19	56	15	7	2
North Carolina.....	2	0	62	53	14	13	7	2
South Carolina.....	0	4	6	3	2	3	1	8
Georgia.....	0	0	34	15	0	1	2	3
Florida.....	0	0	9	14	4	3	4	1

* Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 15, 1930, and February 16, 1929—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929	Week ended Feb. 15, 1930	Week ended Feb. 16, 1929
East South Central States:								
Kentucky.....	0	0	86	106	15	16	2	1
Tennessee.....	2	0	32	82	15	3	3	0
Alabama.....	2	0	25	0	0	10	10	1
Mississippi.....	1	0	16	7	1	0	1	4
West South Central States:								
Arkansas.....	1	0	32	30	27	6	5	6
Louisiana.....	0	0	14	36	9	4	11	6
Oklahoma ¹	1	0	61	42	102	50	13	4
Texas.....	0	1	57	59	43	89	1	2
Mountain States:								
Montana.....	0	0	43	32	18	8	0	0
Idaho.....	0	0	10	9	17	20	0	1
Wyoming.....	0	0	3	5	7	4	0	0
Colorado.....	0	0	23	23	34	55	0	1
New Mexico.....	2	0	19	8	1	2	2	3
Arizona.....	0	1	10	11	19	7	0	0
Utah ¹	0	0	8	14	2	4	0	0
Pacific States:								
Washington.....	1	0	73	48	59	35	4	3
Oregon.....	0	0	31	33	16	56	2	0
California.....	1	3	271	368	73	59	11	9

¹ Figures for 1930 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Menin- gococ- cus menin- gitis	Diph- theria	Influenza	Ma- laria	Meas- les	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>January, 1930</i>										
Arizona.....	57	44	140	1	13		0	71	146	7
Florida.....		51	23	24	116	3	2	81	4	12
Indiana.....	88	125	128		312		1	772	889	8
Iowa.....	11	55	9				0	378	551	5
Maine.....		13	25	1	8		0	221	0	5
Vermont.....		9			82		0	75	53	0
Wyoming.....	3	6	13		47		0	29	49	1

January, 1930

Chicken pox:	Cases	Lethargic encephalitis:	Cases
Arizona.....	167	Wyoming.....	1
Florida.....	207	Mumps:	
Indiana.....	484	Arizona.....	293
Maine.....	271	Florida.....	286
Vermont.....	272	Indiana.....	8
Wyoming.....	47	Maine.....	297
Conjunctivitis:		Vermont.....	27
Maine.....	3	Wyoming.....	42
Dysentery:		Ophthalmia neonatorum:	
Arizona.....	2	Indiana.....	1
Florida.....	1	Paratyphoid fever:	
Glandular fever:		Maine.....	6
Wyoming.....	2	Rabies in man:	
Impetigo contagiosa:		Florida.....	1
Wyoming.....	7	Septic sore throat:	
		Maine.....	1

Tetanus:	Cases	Vincent's angina:	Cases
Maine.....	1	Maine.....	4
Trachoma:		Wyoming.....	1
Arizona.....	279	Whooping cough:	
Tularaemia:		Arizona.....	51
Indiana.....	2	Florida.....	39
Typhus fever:		Indiana.....	169
Florida.....	4	Maine.....	153
Undulant fever:		Vermont.....	60
Arizona.....	1	Wyoming.....	8
Florida.....	2		
Indiana.....	1		
Iowa.....	13		

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 95 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,375,000. The estimated population of the 88 cities reporting deaths is more than 29,780,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended February 8, 1930, and February 9, 1929

	1930	1929	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,410	1,572	
95 cities.....	573	700	992
Measles:			
43 States.....	8,474	7,577	
95 cities.....	1,978	1,277	
Meningococcus meningitis:			
47 States.....	264	228	
95 cities.....	114	109	
Poliomyelitis; 46 States.....	18	14	
Scarlet fever:			
46 States.....	5,559	4,551	
95 cities.....	1,967	1,465	1,570
Smallpox:			
46 States.....	1,937	946	
95 cities.....	180	33	69
Typhoid fever:			
46 States.....	163	117	
95 cities.....	27	30	35
<i>Deaths reported</i>			
Influenza and pneumonia; 88 cities.....	1,087	1,613	
Smallpox; 88 cities.....	0	6	

City reports for week ended February 8, 1930

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

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1921 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Chicken pox, cases re- ported	Diphtheria		Influenza		Measles, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths reported
		Cases es- timated expect- ancy	Cases re- ported	Cases re- ported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland		1						
New Hampshire:								
Concord	0	0	0		0	0	0	1
Manchester	0	1	0		0	0	0	3
Nashua	0	0	1		0	0	0	0
Vermont:								
Barre	13	0	0		0	4	1	0
Burlington	5	1	0		0	0	1	0
Massachusetts:								
Boston	62	46	27	1	0	74	69	12
Fall River	8	4	6		0	0	1	6
Springfield	8	4	5		0	3	6	3
Worcester	13	4	1		0	48	0	2
Rhode Island:								
Pawtucket	8	1	1		0	0	1	1
Providence	3	10	6		0	0	1	9
Connecticut:								
Bridgeport	3	6	1	2	2	0	0	9
Hartford	11	8	1		0	0	0	13
New Haven	64	1	1		0	4	13	10
MIDDLE ATLANTIC								
New York:								
Buffalo	17	14	7		1	0	8	30
New York	219	226	104	53	13	123	146	221
Rochester	18	10	3		0	9	5	3
Syracuse	28	4	0		0	0	55	9
New Jersey:								
Camden	6	7	9		0	1	1	7
Newark	70	18	32	9	0	108	5	16
Trenton	4	3	0	1	0	21	0	3
Pennsylvania:								
Philadelphia	93	73	30	7	5	42	44	68
Pittsburgh	40	23	17		4	83	12	38
Reading	5	2	0		0	1	1	3
Scranton	3	5	2		0	1	0	0
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	7	9	5		3	0	1	16
Cleveland	94	36	16	5	5	4	17	21
Columbus	9	4	2	1	0	7	1	10
Toledo	36	7	4	2	2	219	14	8
Indiana:								
Fort Wayne	1	3	1		1	0	0	0
Indianapolis	21	8	4		0	5	5	13
South Bend	1	2	0		0	1	0	2
Terre Haute	8	1	0		0	0	0	3
Illinois:								
Chicago	116	101	97	14	2	16	33	86
Springfield	5	1	0	11	1	0	0	1

City reports for week ended February 8, 1930—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued								
Michigan:								
Detroit.....	88	53	34	7	4	175	64	46
Flint.....	22	4	1	—	0	1	0	6
Grand Rapids.....	4	3	0	—	2	1	0	1
Wisconsin:								
Kenosha.....	5	2	0	—	0	3	0	0
Madison.....	12	1	0	—	0	79	4	0
Milwaukee.....	161	20	4	2	2	3	34	15
Racine.....	9	3	1	—	0	0	0	0
Superior.....	0	1	0	—	0	59	0	2
WEST NORTH CENTRAL								
Minnesota:								
Duluth.....	3	1	0	—	2	38	0	3
Minneapolis.....	54	19	2	—	1	54	57	5
St. Paul.....	26	10	0	—	1	18	12	8
Iowa:								
Davenport.....	2	1	0	—	—	0	0	—
Des Moines.....	3	2	1	—	—	45	4	—
Sioux City.....	13	1	0	—	—	4	0	—
Waterloo.....	17	0	0	—	—	142	0	—
Missouri:								
Kansas City.....	—	7	—	—	—	—	—	—
St. Joseph.....	2	1	0	—	0	2	0	5
St. Louis.....	17	47	27	—	—	4	8	—
North Dakota:								
Fargo.....	5	0	1	—	0	0	14	0
Grand Forks.....	6	1	0	—	—	0	0	—
South Dakota:								
Aberdeen.....	11	0	0	—	—	1	3	—
Sioux Falls.....	0	1	0	—	—	11	0	—
Nebraska:								
Omaha.....	10	4	8	—	0	31	1	9
Kansas:								
Topeka.....	20	2	0	3	1	16	10	2
Wichita.....	19	4	4	—	0	3	0	6
SOUTH ATLANTIC								
Delaware:								
Wilmington.....	2	2	2	—	0	1	0	8
Maryland:								
Baltimore.....	81	30	9	31	2	3	5	34
Cumberland.....	0	1	0	2	0	0	0	0
Frederick.....	0	0	0	—	0	0	0	1
District of Columbia:								
Washington.....	29	22	12	1	0	6	0	14
Virginia:								
Lynchburg.....	7	1	1	—	0	103	18	1
Norfolk.....	14	1	4	—	0	1	6	5
Richmond.....	1	3	6	—	1	0	0	6
Roanoke.....	2	1	2	—	0	11	1	3
West Virginia:								
Charleston.....	26	1	0	1	0	1	0	1
Wheeling.....	2	1	0	—	0	0	0	2
North Carolina:								
Raleigh.....	23	1	1	—	0	0	0	0
Wilmington.....	1	0	0	—	0	0	0	1
Winston-Salem.....	9	1	2	3	1	0	3	7
South Carolina:								
Charleston.....	0	0	0	64	1	0	4	3
Columbia.....	6	0	2	—	0	0	2	6
Georgia:								
Atlanta.....	9	2	0	31	1	3	13	13
Brunswick.....	0	0	0	—	0	0	1	0
Savannah.....	0	1	0	6	0	0	0	6
Florida:								
Miami.....	1	2	4	—	0	2	1	1
St. Petersburg.....	—	0	—	—	0	—	—	0
Tampa.....	2	2	1	—	0	6	4	2

City reports for week ended February 8, 1930—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL								
Kentucky:								
Covington.....	0	1	1	-----	0	0	0	4
Tennessee:								
Memphis.....	8	4	3	-----	1	2	15	9
Nashville.....	2	1	2	-----	2	1	0	9
Alabama:								
Birmingham.....	9	3	4	-----	21	1	3	7
Mobile.....	1	0	2	-----	2	1	3	0
Montgomery.....	4	1	0	-----		3	2	-----
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith.....	1	1	0	-----		0	0	-----
Little Rock.....	3	1	0	-----	0	0	3	7
Louisiana:								
New Orleans.....	0	13	15	-----	15	9	66	0
Shreveport.....	3	0	2	-----	0	0	1	2
Oklahoma:								
Oklahoma City.....	1	2	1	-----	16	1	3	4
Tulsa.....	29	2	3	-----			96	0
Texas:								
Dallas.....	14	6	6	-----	2	0	119	2
Fort Worth.....	16	6	2	-----		3	0	0
Galveston.....	0	1	1	-----	0	0	0	3
Houston.....	1	6	16	-----		0	0	1
San Antonio.....	0	3	5	-----	1	5	0	11
MOUNTAIN								
Montana:								
Billings.....	0	0	0	-----	0	0	14	2
Great Falls.....	1	1	0	-----	1	3	21	3
Helena.....	0	0	1	-----	0	0	36	0
Missoula.....	0	0	0	-----	0	0	2	2
Idaho:								
Boise.....	1	0	0	-----	0	0	1	0
Colorado:								
Denver.....		13		-----				
Pueblo.....	9	2	0	-----	0	1	24	3
New Mexico:								
Albuquerque.....	2	0	1	-----	0	2	9	2
Arizona:								
Phoenix.....	5	0	3	-----	0	0	1	2
Utah:								
Salt Lake City.....	20	3	1	-----	0	24	7	5
Nevada:								
Reno.....	0	0	0	-----	0	0	0	1
PACIFIC								
Washington:								
Seattle.....	48	5	0	-----		13	46	-----
Spokane.....	9	3	0	-----		0	0	-----
Tacoma.....	20	2	1	-----	0	2	7	5
Oregon:								
Portland.....	13	9	6	-----	12	1	9	18
Salem.....	5	0	0	-----		0	4	0
California:								
Los Angeles.....	99	43	16	-----	34	3	48	31
Sacramento.....	4	3	0	-----		0	27	9
San Francisco.....	45	17	1	-----	5	0	445	73

City reports for week ended February 8, 1930—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, es- timated ex- pectancy	Cases re- ported	Cases, es- timated ex- pectancy	Cases re- ported	Deaths re- ported		Cases, es- timated ex- pectancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland	4		0				0				
New Hampshire:											
Concord	0	2	0	0	0	0	0	0	0	0	11
Manchester	3	0	0	0	0	2	0	0	0	0	20
Nashua	1	2	0	0	0	0	0	0	0	0	
Vermont:											
Barre	0	0	0	1	0	0	0	0	0	0	1
Burlington	1	0	0	0	0	0	0	0	0	1	5
Massachusetts:											
Boston	83	106	0	0	0	17	1	0	0	66	232
Fall River	4	2	0	0	0	3	0	0	0	15	32
Springfield	9	11	0	0	0	1	0	0	0	5	42
Worcester	10	9	0	0	0	2	0	0	0	5	47
Rhode Island:											
Pawtucket	2	1	0	0	0	0	0	0	0	3	15
Providence	13	24	0	0	0	4	0	0	0	20	75
Connecticut:											
Bridgeport	13	33	0	0	0	1	0	0	0	1	53
Hartford	6	9	0	0	0	0	1	0	2	6	55
New Haven	11	12	0	0	0	2	0	0	0	16	62
MIDDLE ATLANTIC											
New York:											
Buffalo	31	24	40	0	0	8	1	0	0	0	160
New York	331	258	0	0	0	92	7	4	0	52	1,655
Rochester	11	11	0	0	0	4	0	0	0	3	67
Syracuse	14	26	0	0	0	1	0	0	0	31	58
New Jersey:											
Camden	7	2	0	0	0	2	0	1	1	1	39
Newark	35	44	0	0	0	3	0	0	0	38	130
Trenton	7	24	0	0	0	2	0	1	0	8	38
Pennsylvania:											
Philadelphia	103	141	0	0	0	39	2	0	0	27	508
Pittsburgh	42	39	0	0	0	11	1	0	0	45	215
Reading	6	4	0	0	0	0	0	0	0	23	31
Scranton	4	4	0	0	0	0	0	0	0	0	
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	21	15	1	4	0	7	0	1	1	8	177
Cleveland	48	51	0	1	0	16	1	0	0	87	227
Columbus	11	15	1	3	0	4	0	0	0	0	84
Toledo	14	23	1	12	0	7	0	0	0	5	83
Indiana:											
Fort Wayne	5	8	0	15	0	0	0	4	0	1	27
Indianapolis	13	19	7	8	0	5	1	0	0	10	
South Bend	3	5	0	1	0	0	0	0	0	0	
Terre Haute	4	6	1	0	0	0	0	0	0	0	22
Illinois:											
Chicago	139	345	3	6	0	47	3	2	0	109	788
Springfield	4	0	0	1	0	0	0	0	0	2	14
Michigan:											
Detroit	110	140	3	3	0	27	1	1	0	61	351
Flint	13	25	1	11	0	2	0	0	0	5	31
Grand Rapids	13	19	1	0	0	0	0	0	0	4	27
Wisconsin:											
Kenosha	2	3	0	0	0	0	0	0	0	11	5
Madison	4	3	0	2	0	0	0	0	0	3	
Milwaukee	39	28	1	2	0	4	0	0	0	49	127
Racine	6	7	0	0	0	0	0	0	0	7	12
Superior	4	3	0	0	0	0	0	0	0	4	8
WEST NORTH CENTRAL											
Minnesota:											
Duluth	10	8	0	0	0	2	0	0	0	7	23
Minneapolis	61	16	4	0	0	2	0	0	0	14	102
St. Paul	36	20	1	0	0	3	1	0	0	17	64

City reports for week ended February 8, 1930—Continued

Division, State, and city	Scarlet fever		Cases, estimated expect- ancy	Smallpox		Tuber- culosis, deaths re- ported	Cases, estimated expect- ancy	Typhoid fever		Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported		Cases re- ported	Deaths re- ported			Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—continued.											
Iowa:											
Davenport.....	2	0	1	7	-----	-----	0	0	-----	0	-----
Des Moines.....	10	13	2	9	-----	-----	0	0	-----	0	48
Sioux City.....	2	9	0	2	-----	-----	0	0	-----	1	-----
Waterloo.....	3	2	0	18	-----	-----	0	0	-----	1	-----
Missouri:											
Kansas City.....	16	-----	3	-----	-----	-----	1	-----	-----	-----	-----
St. Joseph.....	3	4	0	2	0	2	0	0	0	0	36
St. Louis.....	48	40	2	8	0	12	1	1	0	9	247
North Dakota:											
Fargo.....	2	8	0	0	0	1	0	0	0	13	6
Grand Forks.....	1	6	1	5	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	2	0	0	0	-----	-----	0	1	-----	0	-----
Sioux Falls.....	3	1	0	10	-----	-----	0	0	-----	0	8
Nebraska:											
Omaha.....	6	14	2	1	0	2	0	0	0	1	48
Kansas:											
Topeka.....	2	6	0	0	0	0	0	0	0	5	19
Wichita.....	6	22	0	0	0	0	0	0	0	4	38
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	5	9	0	0	0	0	0	0	1	0	28
Maryland:											
Baltimore.....	36	50	0	0	0	15	1	1	1	20	259
Cumberland.....	1	0	0	0	0	0	0	0	0	0	6
Frederick.....	2	1	0	0	0	0	0	0	0	0	5
District of Col.:											
Washington.....	28	12	0	0	0	12	1	4	0	5	145
Virginia:											
Lynchburg.....	0	0	0	0	0	0	0	0	0	1	10
Norfolk.....	2	7	0	0	0	1	0	0	0	2	-----
Richmond.....	4	3	0	0	0	1	0	0	0	0	55
Roanoke.....	1	1	0	0	0	0	0	0	0	2	17
West Virginia:											
Charleston.....	2	2	1	2	0	1	0	1	0	20	16
Wheeling.....	2	0	0	0	0	0	1	0	0	12	17
North Carolina:											
Raleigh.....	1	1	0	0	0	0	0	0	0	1	12
Wilmington.....	0	2	1	0	0	3	0	0	0	2	14
Winston-Salem.....	2	3	1	0	0	1	0	0	0	3	19
South Carolina:											
Charleston.....	1	3	0	0	0	0	0	0	0	3	26
Columbia.....	0	0	0	0	0	0	0	0	0	10	28
Georgia:											
Atlanta.....	5	15	4	0	0	0	0	0	0	3	94
Brunswick.....	0	0	0	0	0	1	0	0	0	0	3
Savannah.....	0	4	0	0	0	6	0	0	0	0	35
Florida:											
Miami.....	1	4	0	0	0	2	0	0	0	2	40
St. Petersburg.....	0	-----	0	-----	0	1	0	0	0	0	14
Tampa.....	1	5	0	0	0	3	1	0	0	0	37
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	5	0	0	0	1	0	0	0	0	18
Tennessee:											
Memphis.....	7	11	1	0	0	14	1	1	0	5	93
Nashville.....	3	4	1	0	0	3	0	1	0	0	46
Alabama:											
Birmingham.....	3	4	3	0	0	7	0	1	0	0	85
Mobile.....	0	2	1	0	0	2	0	0	0	0	21
Montgomery.....	0	6	0	0	-----	-----	0	0	-----	2	-----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	2	0	0	-----	-----	0	0	-----	0	-----
Little Rock.....	2	0	0	1	0	1	1	0	0	0	-----
Louisiana:											
New Orleans.....	7	16	0	0	0	15	2	2	1	0	171
Shreveport.....	1	2	0	1	0	1	0	0	0	0	29

City reports for week ended February 8, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	0	0	0	0	0	0	0	1	0
Cleveland.....	1	0	0	0	0	0	0	0	0
Toledo.....	2	1	0	0	0	0	0	0	0
Indiana:									
Indianapolis.....	14	4	0	0	0	0	0	0	0
South Bend.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	8	5	2	1	0	0	0	0	0
Michigan:									
Detroit.....	23	14	2	2	0	0	0	0	0
Wisconsin:									
Milwaukee.....	2	1	0	0	0	0	1	1	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	1	0	0	0	0	0	0	0	0
Missouri:									
St. Louis.....	10	7	0	0	0	0	0	0	0
Nebraska:									
Omaha.....	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	2	1	0	0	0	0	0	0	0
Virginia:									
Norfolk.....	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	2	2	0	0	0
Columbia.....	3	0	0	0	0	0	0	0	0
Georgia:									
Atlanta.....	1	2	0	0	0	0	0	0	0
Savannah.....	0	0	0	0	1	0	0	0	0
Florida:									
Miami.....	0	0	0	0	0	1	0	0	0
Tampa.....	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	5	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	1	0	1	0	0	1	0	0	0
Montgomery.....	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Oklahoma:									
Tulsa.....	1	0	0	0	0	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
MOUNTAIN									
New Mexico:									
Albuquerque.....	1	0	0	0	0	0	0	0	0
Arizona:									
Phoenix.....	1	2	0	1	0	0	0	0	0
Utah:									
Salt Lake.....	3	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	3	2	0	0	0	0	0	0	0
California:									
Los Angeles.....	3	1	0	0	0	0	1	0	0
San Francisco.....	0	0	4	1	0	0	0	0	0

¹ Typhus fever; 1 case at Tampa, Fla.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended February 8, 1930, compared with those for a like period ended February 9, 1929. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have an estimated aggregate population of more than 32,000,000. The 91 cities reporting deaths have more than 30,500,000 estimated population.

Summary of weekly reports from cities, January 5 to February 8, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929¹

DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 11, 1930	Jan. 12, 1929	Jan. 18, 1930	Jan. 19, 1929	Jan. 25, 1930	Jan. 26, 1929	Feb. 1, 1930	Feb. 2, 1929	Feb. 8, 1930	Feb. 9, 1929
98 cities.....	118	139	110	² 132	³ 114	125	⁴ 115	109	⁵ 95	117
New England.....	156	183	122	177	146	200	⁶ 128	108	⁶ 112	117
Middle Atlantic.....	113	157	94	158	96	136	⁷ 103	133	97	141
East North Central.....	130	124	127	² 107	145	122	140	106	103	113
West North Central.....	123	158	108	146	82	115	⁸ 47	90	⁹ 94	146
South Atlantic.....	83	118	103	99	106	79	106	107	70	67
East South Central.....	79	190	67	171	74	137	94	68	81	82
West South Central.....	170	119	205	76	157	114	232	95	168	114
Mountain.....	69	87	51	61	³ 51	52	³ 34	70	³ 34	78
Pacific.....	85	67	94	104	92	92	¹⁰ 68	65	43	68

MEASLES CASE RATES

98 cities.....	176	235	208	² 218	² 227	261	⁴ 221	274	⁵ 329	252
New England.....	112	873	157	700	210	667	⁶ 323	514	⁶ 305	561
Middle Atlantic.....	116	94	124	70	117	86	⁷ 160	93	136	129
East North Central.....	153	315	152	² 303	137	381	168	418	172	66
West North Central.....	303	394	364	423	457	627	⁸ 604	770	⁹ 695	1,193
South Atlantic.....	118	66	167	84	157	84	287	103	245	133
East South Central.....	13	7	40	34	27	27	61	7	81	14
West South Central.....	325	43	400	11	624	34	314	34	695	34
Mountain.....	146	427	240	853	³ 377	871	³ 462	697	³ 479	1,341
Pacific.....	517	115	676	56	730	75	¹⁰ 124	99	1,200	135

SCARLET FEVER CASE RATES

98 cities.....	271	221	278	² 225	² 295	230	⁴ 305	232	⁵ 327	246
New England.....	397	317	363	294	419	317	⁶ 321	303	⁶ 479	305
Middle Atlantic.....	232	190	223	183	239	217	⁷ 252	190	274	186
East North Central.....	352	251	398	² 258	379	262	420	280	432	318
West North Central.....	216	283	260	248	307	296	⁸ 346	306	⁹ 332	312
South Atlantic.....	201	124	198	122	176	114	205	131	203	146
East South Central.....	106	156	101	232	169	232	162	157	216	246
West South Central.....	120	182	134	183	105	99	78	145	138	232
Mountain.....	481	157	335	183	³ 479	104	³ 616	61	³ 411	113
Pacific.....	281	282	276	377	402	258	¹⁰ 367	350	338	304

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1930, and 1929, respectively.

² South Bend, Ind., not included.

³ Denver, Colo., not included.

⁴ Portland, Me., Buffalo, N. Y., St. Louis, Mo., Denver, Colo., and San Francisco, Calif., not included.

⁵ Portland, Me., Kansas City, Mo., and Denver, Colo., not included.

⁶ Portland, Me., not included.

⁷ Buffalo, N. Y., not included.

⁸ St. Louis, Mo., not included.

⁹ Kansas City, Mo., not included.

¹⁰ San Francisco, Calif., not included.

Summary of weekly reports from cities, January 5 to February 8, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

SMALLPOX CASE RATES

	Week ended—									
	Jan. 11, 1930	Jan. 12, 1929	Jan. 18, 1930	Jan. 19, 1929	Jan. 25, 1930	Jan. 26, 1929	Feb. 1, 1930	Feb. 2, 1929	Feb. 8, 1930	Feb. 9, 1929
98 cities.....	29	5	33	27	26	8	33	7	30	5
New England.....	0	2	0	0	4	0	0	0	2	0
Middle Atlantic.....	0	0	0	0	1	0	0	0	0	0
East North Central.....	27	3	36	26	19	8	39	10	24	8
West North Central.....	89	6	121	13	70	2	53	8	69	2
South Atlantic.....	0	2	5	6	2	7	5	11	4	0
East South Central.....	7	41	0	7	0	14	13	7	0	0
West South Central.....	43	16	41	46	37	46	78	27	101	50
Mountain.....	43	78	51	17	24	61	86	78	34	26
Pacific.....	170	7	144	17	177	19	244	7	146	7

TYPHOID FEVER CASE RATES

	3	4	6	24	24	4	45	4	24	5
98 cities.....	0	2	4	4	0	2	0	2	0	2
New England.....	3	4	3	4	5	2	7	4	3	4
Middle Atlantic.....	2	1	3	3	3	4	3	1	5	3
East North Central.....	2	0	11	2	2	4	6	6	2	2
West North Central.....	9	4	5	6	7	2	7	7	11	6
South Atlantic.....	7	7	13	21	20	7	7	0	20	7
East South Central.....	4	28	7	8	4	23	4	8	7	27
West South Central.....	0	0	60	0	17	0	17	0	0	9
Mountain.....	5	0	5	2	2	10	20	7	2	7
Pacific.....										

INFLUENZA DEATH RATES

	19	241	19	183	22	131	118	84	14	58
91 cities.....	0	100	9	141	9	204	2	141	5	90
New England.....	14	161	15	152	14	134	16	83	11	58
Middle Atlantic.....	12	236	17	148	17	70	13	48	13	28
East North Central.....	30	165	27	123	18	69	18	45	19	51
West North Central.....	31	395	22	288	31	182	11	114	11	92
South Atlantic.....	65	1,592	44	948	59	619	59	298	37	127
East South Central.....	64	467	65	320	111	199	88	168	54	102
West South Central.....	43	165	26	157	0	70	17	35	17	78
Mountain.....	15	79	15	75	18	44	5	41	9	41
Pacific.....										

PNEUMONIA DEATH RATES

	167	408	155	366	142	327	171	273	176	230
91 cities.....	170	323	115	442	126	465	181	507	151	384
New England.....	192	443	167	446	135	454	165	360	190	298
Middle Atlantic.....	122	414	109	280	111	184	129	170	129	133
East North Central.....	192	285	207	241	148	189	160	189	146	186
West North Central.....	177	485	170	474	198	388	218	268	198	240
South Atlantic.....	136	659	162	455	221	358	272	209	236	194
East South Central.....	210	528	237	283	310	297	314	191	291	191
West South Central.....	223	200	249	200	171	157	205	148	274	235
Mountain.....	147	134	169	119	95	123	167	113	160	129
Pacific.....										

¹ South Bend, Ind., not included.

² Denver, Colo., not included.

³ Portland, Me., Buffalo, N. Y., St. Louis, Mo., Denver, Colo., and San Francisco, Calif., not included.

⁴ Portland, Me., Kansas City, Mo., and Denver, Colo., not included.

⁵ Portland, Me., not included.

⁶ Buffalo, N. Y., not included.

⁷ St. Louis, Mo., not included.

⁸ Kansas City, Mo., not included.

⁹ San Francisco, Calif., not included.

FOREIGN AND INSULAR

CANADA

Quebec Province—Communicable diseases—Week ended February 8, 1930.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended February 8, 1930, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Ophthalmia neonatorum.....	1
Chicken pox.....	76	Polio myelitis.....	2
Diphtheria.....	45	Puerperal fever.....	2
German measles.....	7	Scarlet fever.....	119
Influenza.....	16	Tuberculosis.....	26
Measles.....	136	Typhoid fever.....	5
Mumps.....	139	Whooping cough.....	111

Ontario Province—Communicable diseases (comparative)—Four weeks ended January 25, 1930.—The following table shows the number of cases of certain communicable diseases, with deaths therefrom, reported in the Province of Ontario, Canada, for the four weeks ended January 25, 1930, as compared with the corresponding period of 1929.

Disease	1929		1930	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	15	4	7	4
Chancroid.....	7	0	2	0
Chicken pox.....	773	1	1,183	0
Conjunctivitis.....	1	0	0	0
Diphtheria.....	300	23	269	13
Erysipelas.....	0	0	2	0
German measles.....	19	0	177	0
Goiter.....	1	0	0	0
Gonorrhea.....	99	0	159	0
Influenza.....	7,495	323	20	5
Lethargic encephalitis.....	0	2	0	0
Measles.....	2,418	12	627	0
Mumps.....	369	0	223	0
Puerperal septicemia.....	1	0	0	0
Pneumonia.....		490		187
Polio myelitis.....	2	0	2	1
Scarlet fever.....	391	0	739	3
Smallpox ¹	38	0	51	0
Syphilis.....	90	0	110	0
Tuberculosis.....	96	46	85	55
Typhoid fever.....	21	1	21	2
Whooping cough.....	274	0	311	0

¹ The cases of smallpox in 1930 were reported from the following municipalities: Gainsboro, 1; Ottawa, 9; Bonfield, 13; Blandford, 1; Nepean, 3; Woodstock, 4; Welland, 3; Cochrane, 2; Sudbury, 7; Toronto, 2; Himsworth, 1; Port Arthur, 2; North Bay, 3.

Ontario Province—Communicable diseases—Years 1928 and 1929.—The following tabulation shows the number of cases and deaths from certain communicable diseases in the Province of Ontario, Canada, for the years 1928 and 1929.

Disease	1928		1929	
	Cases	Deaths	Cases	Deaths
Bronchitis	0	0	0	1
Cerebrospinal meningitis	42	31	101	31
Chancroid	22	0	18	2
Chicken pox	8,618	2	9,819	2
Conjunctivitis	21	0	15	2
Diphtheria	2,918	148	3,261	185
Dysentery	5	15	18	18
Erysipelas	0	0	5	0
German measles	242	0	308	0
Goiter	13	7	10	3
Gonorrhea	2,062	0	2,327	0
Influenza	4,730	255	8,382	514
Lethargic encephalitis	24	18	18	10
Malaria	0	0	1	0
Measles	16,188	14	20,799	39
Mumps	19,802	3	4,003	0
Oedema, malignant	2	2	0	0
Paratyphoid fever	0	0	12	1
Pneumonia		1,716		2,133
Poliomyelitis	85	7	477	26
Puerperal septicaemia		8		13
Rabies	1	1	0	0
Scarlet fever	4,508	35	4,857	31
Septic sore throat	109	4	73	2
Smallpox	864	1	708	0
Syphilis	1,477	6	2,030	6
Tetanus	2	3	3	4
Trachoma	1	0	0	0
Trichinosis	0	0	1	1
Tuberculosis	1,551	708	1,407	563
Typhoid fever	715	44	738	33
Undulant fever	14	0	2	0
Whooping cough	4,150	48	4,897	31

DENMARK

Communicable diseases—November, 1929.—During the month of November, 1929, cases of certain communicable diseases were reported in Denmark, as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia	1,606	Paratyphoid fever	9
Cerebrospinal meningitis	2	Pneumonia	280
Chicken pox	50	Poliomyelitis	18
Diphtheria and croup	604	Puerperal fever	20
Erysipelas	296	Scabies	1,048
German measles	2	Scarlet fever	292
Influenza	4,375	Tuberculosis	202
Jaundice	131	Typhoid fever	14
Lethargic encephalitis	10	Undulant fever	40
Measles	458	Whooping cough	780
Mumps	1,289		

¹ Reported from the State Serum Institute.

JAMAICA

Communicable diseases—Four weeks ended February 1, 1930.—During the four weeks ended February 1, 1930, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the Island of Jamaica outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis.....	1	-----	Puerperal fever.....	-----	1
Chicken pox.....	9	8	Tuberculosis.....	28	60
Dysentery.....	2	6	Typhoid fever.....	12	60
Leprosy.....	-----	1			

MEXICO

Tampico—Communicable diseases—January, 1930.—During the month of January, 1930, cases of certain communicable diseases, with deaths, were reported at Tampico, Mexico, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chicken pox.....	8	-----	Smallpox.....	1	-----
Enteritis (various).....	-----	29	Tuberculosis.....	79	31
Influenza.....	47	-----	Typhoid fever.....	5	-----
Malaria.....	95	27	Whooping cough.....	20	4

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

PLAGUE

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

W

Place	July 28- Aug. 24, 1929	Aug. 25- Sept. 21, 1929	Sept. 22- Oct. 19, 1929	Oct. 20- Nov. 14, 1929	Nov. 17- Dec. 14, 1929	Week ended—						
						December, 1929		January, 1930			February, 1930	
						21	28	4	11	18	25	1 8
Algeria:												
Algiers.....	C	2										
Philippeville.....	C	3										
Argentina:												
Rosario.....	C			2								P
Plague-infected rats.....				3								
Santa Fé.....	C			1								6
Tucuman.....	C			1								
Azores: Ponta Delgada.....	C						P					
Belgian Congo: Djugu.....	C	1	2									
Brasí: Seo Paulo. ¹	D	1	2		2							
British East Africa (see also table below): Uganda.....	C	840	528	336	281		42	33	33			
Ceylon:	D	730	556	343	262		40	26	32			
Colombo.....	C		1	3	5		1	1	1	3		
Plague-infected rats.....	D		1	1	4							
Galle.....	C	1	7	1	1							
Kandy.....	D		6									
Chile: Antofagasta.....	D	1	1									
China:										1		
Amoy.....	C	P	P									
Foochow.....	C	P	P									
Hong Kong.....	D	1	1									
Plague-infected rats.....	D	3	2									
Manchuria—Tungliiao District.....	C	16										
Dutch East Indies:												
Batavia and West Java.....	C	122	180	131	266		65					
Plague-infected rats.....	D	121	178	128	335		61					
					1					2		

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1 Incomplete reports.

Fondiocherry Province.....	C	12	8	5	19	7	2	7	6	5	---	---
India (Portuguese).....	D	7	8	3	16	7	1	7	6	5	---	---
Indo-China (see also table below):	D	---	1	1	---	1	2	3	1	3	---	---
Frompenh.....	D	3	1	1	2	---	---	---	---	---	---	---
Saigon and Cholon.....	D	3	1	---	---	---	---	---	---	---	---	---
Iraq:	D	---	---	---	---	---	---	---	---	---	---	---
Baghdad.....	D	---	---	---	9	20	4	6	5	---	3	1
Basra.....	D	---	---	---	3	10	1	1	3	---	1	1
Diyalah Liwa.....	D	---	---	---	---	---	---	---	---	---	---	---
Kirkuk Liwa.....	D	13	4	---	63	46	---	---	---	---	---	---
Mosoul.....	D	12	---	---	18	7	---	---	---	---	---	---
Mossoul.....	D	21	16	---	90	70	---	---	---	---	---	---
Mossoul.....	D	1	26	19	26	19	---	---	---	---	---	---
Mossoul.....	D	81	68	24	152	48	63	27	---	26	---	---
Mossoul.....	D	13	17	6	99	17	3	---	---	7	---	---
Ivory Coast (see table below).	D	---	---	---	---	---	---	---	---	---	---	---
Mexico (see also table below).	D	---	---	---	---	---	---	---	---	---	---	---
Acapulco.....	C	4	1	---	---	---	---	---	---	---	---	---
Aguascalientes.....	D	4	1	---	---	---	---	---	---	---	---	---
Coahuila.....	D	7	6	8	1	---	---	---	---	---	---	---
Jalisco (State): Guadalajara.....	D	5	8	4	1	6	1	5	1	2	2	3
Juarez.....	D	3	P	10	6	11	---	---	---	3	---	4
Mexico City and surrounding territory.....	D	---	---	---	1	2	2	---	---	---	---	---
Morelos State. ¹	D	21	7	8	9	19	2	15	5	3	---	---
Morocco (see table below).....	D	6	1	8	4	9	---	---	1	3	---	---
Netherlands: Rotterdam.....	C	---	---	---	---	---	---	---	---	---	---	---
Nigeria: Lagos.....	C	141	110	39	18	5	---	---	1	---	---	---
Panama.....	D	1	7	5	1	1	---	---	---	---	---	---
Peru (see table below).....	C	---	---	---	---	---	---	---	---	---	---	---
Philippine Islands: Sarangani and Balut Islands. ¹	C	6	95	154	11	---	---	---	---	---	---	---
Poland.....	D	---	---	---	---	---	---	---	---	---	---	---
Portugal:	D	---	---	---	---	---	---	---	---	---	---	---
Lisbon.....	C	2	---	1	2	4	---	---	40	2	18	3
Oporto.....	C	1	17	---	2	3	3	---	---	2	---	---
Rumania.....	C	---	---	---	---	---	---	---	---	---	---	---
Stam.....	D	---	---	---	---	---	---	---	---	---	---	---
Somaland, British: Boales.....	D	32	23	33	7	3	6	---	27	9	---	---
Somaland, French: Jibuti.....	D	7	5	2	2	1	1	2	2	7	1	---
Somaland, French: Jibuti.....	D	4	4	3	25	24	1	2	2	7	14	---
Somaland, French: Jibuti.....	D	2	2	4	16	9	4	3	1	1	1	---
Somaland, French: Jibuti.....	D	31	10	---	---	---	---	---	---	---	---	---
Somaland, French: Jibuti.....	D	21	11	---	---	---	---	---	---	---	---	---

¹ Newspaper reports of Feb. 4, 1930, show an epidemic of smallpox in Isoncatapae, Morelos State, and vicinity, giving 600 deaths in last two weeks.

² On Feb. 1, 1930, 317 cases of smallpox with 102 deaths were reported to date in the Sarangani and Balut Islands.

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

SMALLPOX—Continued

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

Place	Week ended—												
	December, 1929					January, 1930					February, 1930		
	21	28	4	11	18	25	1	8					

Place	Aug. 1929	Sep- tem- ber, 1929	Octo- ber, 1929	No- vem- ber, 1929	De- cem- ber, 1929	Jan- uary, 1930	Place	Aug. 1929	Sep- tem- ber, 1929	Octo- ber, 1929	No- vem- ber, 1929	De- cem- ber, 1929	Jan- uary, 1930
Bolivia: La Paz.....	C		120	22			Morocco.....	C	10	3	12	41	84
British East Africa (see also table above):	C	66		278			Persia.....	C		62	57		P
Kenya.....	C	1		2			Turkey.....	D	1	41	100	136	
Chosen.....	C	1						D		9	29	12	
Mexico: Durango (see also table above).....	D	2	2	2	4	12							

TYPHUS FEVER

Place	Week ended—											
	November, 1929			December, 1929					January, 1930			Feb. 1, 1930
	23	30	7	14	21	28	4	11	18	25		
Algeria:												
Algiers.....	4	4	10	2								2
Constantine Department.....	2			1			1					
Oran.....	2	3										
Bolivia:												
La Paz.....												
Potosi Province—Calacoto Canton.....	13	14										
Brazil: Sao Paulo. ¹	19											
Bulgaria.....	5											
Sofia.....		14										
Chile: Valparaiso.....												
China: Tientsin.....												
Chosen (see table below).....	1											
Czechoslovakia (see table below).....	1											

¹ Press reports show that 10 deaths from typhus fever have occurred in Sao Paulo, Brazil, from Nov. 3 to 30, 1929.

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

TYPHUS FEVER—Continued

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

Place	Week ended—																	
	July		Aug.		Sept.		Oct.		December, 1929					January, 1930			Feb.	
	23- Aug. 24, 1929	28- Sept. 31, 1929	4- Sept. 19, 1929	11- Oct. 16, 1929	18- Oct. 23, 1929	25- Nov. 30, 1929	1- Nov. 6, 1929	8- Nov. 13, 1929	15- Nov. 20, 1929	22- Nov. 27, 1929	29- Dec. 4, 1929	5- Dec. 10, 1929	12- Dec. 17, 1929	19- Dec. 24, 1929	26- Dec. 31, 1929	2- Jan. 7, 1930	9- Jan. 14, 1930	16- Jan. 21, 1930
Egypt:																		
Alexandria.....	O		1	2														
Asuan.....	O																	
Bahaira Province.....	D	31	6	16	2													
Cairo.....	D	4	2	4	1													
Dakkeh.....	D		3															
Dakkeh.....	D		1															
Port Said.....	D																	
Suez.....	O	3																
Greece (see table below).	O	2		1														
Iraq: Baghdad Liwa.....	O																	
Ireland (Irish Free State): Donegal County—Dunfeneaghy.....	O																	
Lithuania (see table below).	O																	
Lithuania (see table below).	O																	
Mexico:																		
Agua Calientes.....	D	1																
Mexico City, including municipalities in Federal District.....	D	11	14	9	3													
Morocco.....	D	6	6		1													
Palestine.....	O	6	5	3	4													
Persia.....	O	23	1	5	3	2												
Peru:	D	8																
Arequipa (see table below).	D																	
Poland.....	O	48	26	31	62													
Portugal: Oporto.....	D	7	4	3														
Rumania.....	O	1		3	2													
Tunkia.....	D	9	39	25	19	8												
Turkey (see table below).	D	1	4	5	2													
Turkey (see table below).	D	4		1	1													

Cape Province.....	---	P	P				
Natal.....	---	P	P				
Orange Free State.....	---	P	P				
Transvaal.....	---	P	P				
Yugoslavia (see table below).	---						

Place	July, 1929	August, 1929	September, 1929	October, 1929	November, 1929	December, 1929
Chosen: Seoul	—	—	1	—	—	—
Czechoslovakia	—	—	1	—	—	—
France	—	—	1	—	—	—
Greece: Athens	—	6	3	7	—	—
Latvia	—	1	—	—	—	—
Lithuania	10	7	3	6	4	1
	1	1	—	1	1	—
Peru: Arequipa	—	—	—	—	—	—
Turkey	—	—	—	—	—	—
Yugoslavia	—	—	—	—	—	—
	3	7	3	1	—	—
	1	2	1	—	—	—

x

Since August 1, 1929, the following cases of yellow fever have been reported: Nichteroy, Brazil, 1 case; Rio de Janeiro, Brazil, 2 cases; Monrovia, Liberia, 1 case. All occurred during the month of September, 1929.