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## SOME INTERESTING THOUGH UNSUCCESSFUL ATTEMPTS TO TRANSMIT INFLUENZA EXPERIMENTALLY.

How great are the difficulties surrounding the study of the nature of the virus of influenza is indicated by the following summary of two series of experiments recently carried out, one at Boston and one at San Francisco.

### BOSTON EXPERIMENTS.

These experiments were carried on jointly by Lieut. Commander M. J. Rosenau, Medical Corps, U. S. N. R. F., and Lieut. W. J. Keegan, Medical Corps, U. S. N. R. F. and by Surg. Joseph Goldberger and Asst. Surg. G. C. Lake, United States Public Health Service, at the United States Quarantine Station, Gallop's Island, Boston, Mass. The subjects of experiment were 68 volunteers from the United States Naval Detention Training Camp, Deer Island, Boston. These volunteers had been exposed in some degree to an epidemic of influenza at the training camp or at some station prior to coming to Deer Island; 47 of the men were without history of an attack of influenza during the recent epidemic and 39 of these were without history of an attack of such illness at any time during their lives.

The experiments consisted of inoculations with pure cultures of Pfeiffer's bacillus, with secretions from the upper respiratory passages, and with blood from typical cases of influenza. The study was begun on November 13 with an experiment in which a suspension of a freshly isolated culture of Pfeiffer's bacillus was instilled into the nose of each of 3 nonimmunes and into 3 controls who had a history of an attack in the present epidemic. None of these volunteers showed any reaction following this inoculation. Another experiment was made at a later date with a suspension of a number of different pure cultures of Pfeiffer's bacillus, of which 4 were recently isolated. Ten presumably nonimmune volunteers were inoculated, with the same negative results.

Three sets of experiments were made with secretions, both unfiltered and filtered, from the upper respiratory tract of typical cases of influenza in the active stage of the disease. In these experiments a total of 30 men were subjected to inoculation by means of spray,

swab, or both, of the nose and throat. The interval clapsing between securing secretions from the donors and inoculation of the volunteers was progressively reduced in these experiments so that in the third of the series the interval at most was 30 seconds. In no instance was an attack of influenza produced in any one of the subjects. An experiment was made in which the members of one of the groups of volunteers which had been subjected to inoculation with secretions were exposed to a group of cases of influenza in the active stage of the disease in a manner intended to simulate conditions which in nature are supposed to favor the transmission of the disease. Each of this group of 10 volunteers came into close association for a few minutes with each of 10 selected cases of influenza in the wards of the Chelsea Naval Hospital. At the time the volunteers were exposed to this infection the cases were from 10 to 84 hours from the onset of their illness and 4 of them were not over 24 hours after the onset. Each volunteer conversed a few minutes with each of the selected patients, who were requested to, and coughed into the face of each volunteer in turn, so that each volunteer was exposed in this manner to all 10 cases. The total exposure amounted to about three-quarters of an hour for each volunteer. None of these volunteers developed any symptoms of influenza following this experiment.

Advantage was taken of the opportunity for making this study to attempt to confirm the reported positive results of transmission of influenza by Nicolle. Secretions from 5 typical cases of influenza were secured, filtered, and some of the filtrate was inoculated subcutaneously into each of the group of 10 volunteers. At the same time blood was drawn from the same cases and pooled, and some of the mixed blood injected subcutaneously into each of another group of 10 volunteers. The time lost between drawing the blood and inoculating it in no case exceeded three-quarters of an hour. None of the men subjected to these inoculations developed any evidences of illness.

In the foregoing experiments the patients serving as donors belonged to groups from epidemic foci either on shipboard or at institutions. The great majority indeed belonged in a group from an epidemic on board the U. S. S. *Yacona*. Of the personnel of this vessel, 95 in number, 80, or 84 per cent, were stricken with the disease in an epidemic between November 17 and 29.

#### SAN FRANCISCO EXPERIMENTS.

The following observations were carried out practically simultaneously with those described above. The work was done at the Angel Island Quarantine Station, San Francisco, Cal., utilizing volunteers from the Yerba Buena Naval Training Station, San Francisco. The experiments were carried on jointly by Surg. G. W.

McCoy, of the United States Public Health Service, and Lieut. De Wayne Richey, United States Navy. The volunteers who were used in these experiments differed from those used at Boston in two respects—first, the personnel of the Yerba Buena Station had not been exposed to influenza in the present epidemic and were therefore presumed not to possess any special natural immunity; second, all of the men had been vaccinated with large doses of a bacterial vaccine containing Pfeiffer's bacilli, the three fixed types of pneumococci and hæmolytic streptococci. We are not prepared at present to state what influence this vaccination may have had in promoting resistance to influenza infection, but if we may judge by the results of controlled experiments elsewhere such vaccination may for the present purpose be ignored.

Brief details of the experiments are as follows:

#### Work with Cultures.

A group of 10 volunteers was divided into 2 equal squads. One group had instilled into the nostrils of each man a heavy suspension made by emulsifying cultures of 8 strains of Pfeiffer's bacillus without filtration. The other group had the same material used after passage through a Berkefeld N candle. The results were negative, though the men were held under observation for seven days.

#### Work With Secretions.

Four groups of volunteers, of 10 men each, were used for these experiments. Emulsions of secretions from the upper respiratory passages of active cases of influenza from 15 to 48 hours from the onset were instilled into the nose by means of a medicine dropper or with an atomizer. In each experiment approximately an equal number of volunteers were treated with the same emulsion after filtration through a Berkefeld N candle. In every case the results were negative, so far as the reproduction of influenza is concerned. The men were all observed for 7 days after inoculation. In 3 cases in which unfiltered material had been instilled sore throat developed which corresponded clinically with acute tonsillitis, and in two of these cases an almost pure culture of a hæmolytic streptococcus was secured from throat cultures.

A filtered emulsion of material from the upper air passages of an acute case of influenza was dropped into the conjunctivæ of 2 volunteers and the same material injected subcutaneously into 1 volunteer. In each case the result was negative.

One cubic centimeter of blood taken during the active stage of influenza was inoculated subcutaneously into 1 volunteer with negative results.

In all of these experiments the time between the collection of the material from the patient and its inoculation into the volunteers was in the neighborhood of 3 or 4 hours. The conditions under which it was necessary to conduct experiments did not permit of a shorter interval. The unfiltered suspensions which were used were submitted to cultural examination after inoculation and found to contain living organisms as follows: Pfeiffer's bacillus, pneumococci of group 4, and hæmolytic streptococci.

**EDITORIAL NOTE.**—The foregoing experiments, though extremely interesting, do not, of course, warrant final conclusions. It is hoped that it may be possible to carry the studies further and that results may be obtained that will definitely settle the nature and the mode of spread of the virus of epidemic influenza. For the present the sanitarian will do well to continue to apply the general principles of control that are based on the justifiable assumption that the disease is a droplet infection, giving, however, increased attention to a point that is suggested by these experiments—namely, an infective period at the very earliest stages of the attack.

It would seem to be wise to give renewed emphasis to the importance of going to bed at the slightest indications of illness.

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## EPIDEMIC INFLUENZA.

### PREVALENCE IN THE UNITED STATES.

The prevalence of influenza in the United States, as reported to the Public Health Service by State health officers, is shown under the heading "Current State Summaries," page 46, of this issue of the Public Health Reports. In general, the reports do not show decided changes in the number of cases of the disease as compared with the preceding week.

Slight increases in the number of cases are reported from Alabama, Arkansas, California, Connecticut, Kansas, Louisiana, Massachusetts, New Jersey, North Carolina, Oregon, Vermont, and Virginia. Slight decreases in the number of cases are reported from Illinois, Indiana, Iowa, Maine, and Michigan.

The cases reported in the zones around military camps are shown on page 50. Data from these zones for preceding weeks are given in the Public Health Reports, vol. 34, No. 1, January 3, 1919, pages 1 and 2.

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## RURAL SANITATION A PRESENT NECESSITY.

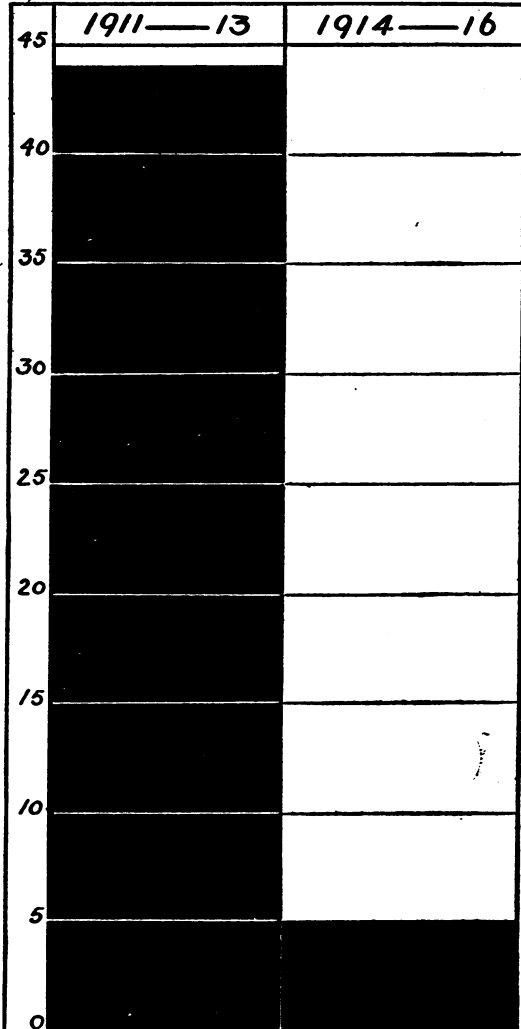
Time and again students of public health have called attention to the backward state of sanitary conditions in rural districts and to the influence of this on the health of city dwellers. There is considerable evidence, moreover, to show that whereas in cities health conditions,

as measured by the general death rate, are quite generally improving, conditions in the rural districts are almost stationary. When one considers the many natural advantages inherent in life in the country, it is probable that the insanitary conditions responsible for the almost stationary death rate are the results of ignorance and neglect and that they are susceptible to improvement and correction.

Several years ago, in order to ascertain more definitely what are the sanitary conditions in the rural districts of the United States, and to determine what are the most feasible methods of improving or correcting such conditions, the United States Public Health Service began a survey in 15 counties located in various parts of the United States. This study has already been so fruitful that the results obtained have been embodied in a progress report, "Rural Sanitation,"<sup>1</sup> by Surg. L. L. Lumsden, under whose direction the work was conducted.

While the sanitary problems encountered in various parts of the country vary considerably, several of them are common to all, namely, the proper disposal of human excreta, and education of the people in health matters. In the survey just mentioned over 51,000 country homes were visited and surveyed, and nearly 20,000 of these were subsequently revisited.

**CHART 5.**  
*DEATHS FROM TYPHOID FEVER IN BERKELEY COUNTY, W. VIRGINIA, IN THE 3 YEARS BEFORE AND IN THE 3 YEARS AFTER SANITARY SURVEY BY U. S. PUBLIC HEALTH SERVICE.*

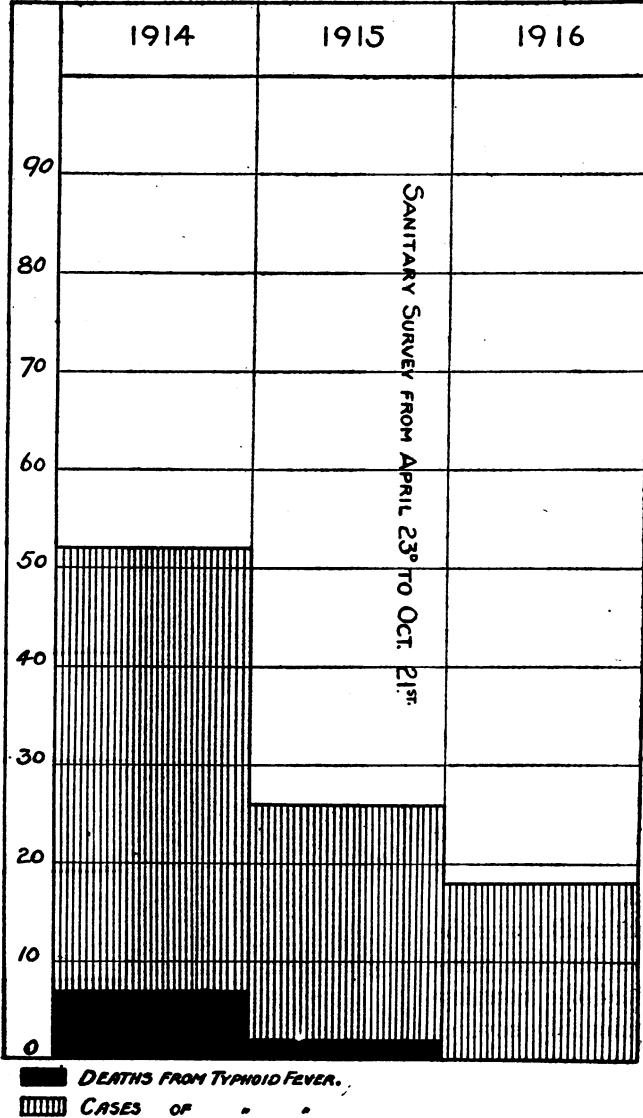


U. S. PUBLIC HEALTH SERVICE  
DEATHS FROM TYPHOID FEVER.

<sup>1</sup> Rural Sanitation, A report on special studies made in 15 counties in 1914, 1915, and 1913. Public Health Bulletin 94, October, 1913. Government Printing Office, Washington, D. C.

Of these 51,000 homes only 1.22 per cent were equipped for the sanitary disposal of human excreta; at 68 per cent the water supply used for drinking and ordinary purposes was obviously exposed to potentially dangerous contamination from privy contents or from

CHART. 10:— TYPHOID FEVER REDUCTION FOLLOWING SANITARY SURVEY IN WILSON COUNTY, KANSAS.



promiscuous deposits of human excreta. In the majority of homes the water was exposed also to unwholesome pollution from stable yards and pig sties. At only 32.88 per cent of the farm houses were the dwellings during the summer season effectively screened to prevent flies from carrying filth into kitchens and dining rooms.

The lack of knowledge concerning health matters paralleled the insanitary conditions disclosed by the survey, and very likely was largely responsible for these conditions. However, it is certainly encouraging to find that at only 91 of the 51,000 farm houses visited did the investigators fail to meet with a reasonably cordial reception. The people generally expressed their approval of the plan and purpose of the survey and appeared anxious to obtain suggestions about the measures needed for correction of insanitary conditions at their homes.

During the course of the work 865 public lectures were given to a total of over 105,000 persons.

So far as the results thus far obtained from this survey are concerned, it is interesting to observe the course of the typhoid fever rate, for this is generally accepted as perhaps the most reliable single index of this kind of health work. With few exceptions there was a remarkable decrease in the prevalence of typhoid fever in all the 15 counties where the work was carried on. The degree of the reduction is well shown by accompanying typical charts reproduced from the bulletin.

The work carried on in the 15 counties covered by this report shows not only that intensive public health work in rural communities is urgently needed, but that the results of well-planned work in the field are so excellent that expenditures for intensive rural health work constitute really wise economy.

# 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.

### EXTRA-CANTONMENT ZONES—CASES REPORTED WEEK ENDED JAN. 4.

CAMP BEAUREGARD ZONE, LA.		CAMP DIX ZONE, N. J.	
	Cases.		Cases.
Gonorrhoea:		Diphtheria:	
Alexandria .....	4	New Hanover Township .....	2
Influenza:		Influenza:	
Alexandria .....	108	Mansfield Township .....	1
Pineville .....	46	Pemberton Borough .....	24
Rural district .....	20		
Measles:		CAMP DODGE ZONE, IOWA.	
Alexandria .....	1	Bloomfield Township:	
		Mumps .....	1
CAMP BOWIE ZONE, TEX.		Des Moines:	
Fort Worth:		Diphtheria .....	4
Chicken pox .....	2	Influenza .....	9
Diphtheria .....	1	Scarlet fever .....	5
Gonorrhoea .....	5	Smallpox .....	1
Influenza .....	9	Grimes:	
Measles .....	1	Influenza .....	4
Pellagra .....	1		
Pneumonia .....	36	CAMP DONIPHAN ZONE, OKLA.	
Syphilis .....	1	Comanche County:	
Tuberculosis .....	3	Influenza .....	11
		Lawton:	
BREMERTON ZONE, WASH.		Gonorrhoea .....	4
Influenza .....	1	Influenza .....	1
Scarlet fever .....	2	Pneumonia .....	1
CHARLESTON SANITARY DISTRICT, S. C.		CAMP EBERTS ZONE, ARK.	
Charleston:		Diphtheria:	
Diphtheria .....	2	Carlisle .....	1
Influenza .....	103	Gonorrhoea:	
		England .....	1
CAMP DEVENS ZONE, MASS.		Influenza:	
Influenza:		Austin, R. F. D. ....	1
Ayer .....	3	Cabot .....	15
Harvard .....	5	Cabot, R. F. D. ....	6
Lancaster .....	22	Carlisle .....	1
Lunenburg .....	37	England .....	2
Shirley .....	4	England, R. F. D. ....	1
Mumps:		Lonoke .....	4
Harvard .....	3	Lonoke, R. F. D. ....	33
Pneumonia:		Ward .....	25
Lunenburg .....	1	Malaria:	
Shirley .....	2	England .....	1
Scarlet fever:		Pneumonia:	
Ayer .....	1	England .....	1
Whooping cough:		Septic sore throat:	
Lunenburg .....	1	Ward .....	2



## CAMP FUNSTON ZONE, KANS.

	Cases.
Chicken pox:	
Manhattan .....	1
Gonorrhoea:	
Junction City .....	1
Influenza:	
Flush .....	1
Manhattan .....	16
Ogden .....	2
Randolph .....	17
Measles:	
Manhattan .....	1
Meningitis carriers:	
Junction City .....	2
Mumps:	
Manhattan .....	4
Pneumonia:	
Manhattan .....	3
Scarlet fever:	
Manhattan .....	3

## GAS AND FLAME SCHOOL ZONE, GA. AND ALA.

Chicken pox:	
Columbus .....	1
Diphtheria:	
Phenix City .....	1
Influenza:	
Bibb City .....	1
Columbus .....	49
Girard .....	2
Muscogee County .....	25
Phenix City .....	12
Measles:	
Columbus .....	5
Pneumonia:	
Columbus .....	5
Girard .....	2
Smallpox:	
Columbus .....	4
Tuberculosis:	
Columbus .....	1

## GERSTNER FIELD ZONE, LA.

Influenza .....	82
Pneumonia .....	5
Smallpox .....	15

## CAMP GORDON ZONE, GA.

Atlanta:	
Chicken pox .....	1
Gonorrhoea .....	40
Influenza .....	52
Measles .....	1
Pneumonia .....	3
Scarlet fever .....	2
Smallpox .....	19
Syphilis .....	21
Tuberculosis .....	1

## CAMP GREENE ZONE, N. C.

Charlotte Township:	
Cerebrospinal meningitis .....	1
Chancroid .....	3
Gonorrhoea .....	7
Influenza .....	62
Mumps .....	2
Scarlet fever .....	1
Syphilis .....	8

## GULFPORT HEALTH DISTRICT, MISS.

	Cases.
Diphtheria:	
Biloxi .....	1
Gonorrhoea:	
Gulfport .....	2
Kiln .....	1
Pascagoula .....	3
Hookworm:	
Biloxi .....	6
Influenza:	
Bay St. Louis .....	8
Biloxi .....	177
Gulfport .....	235
Hallsboro .....	3
Long Beach .....	36
Lyman .....	19
Mississippi City .....	4
Moss Point .....	37
Ocean Springs .....	7
Pascagoula .....	16
Pass Christian .....	27
Saucier .....	3
Scattered .....	13
Malaria:	
Gulfport .....	1
Moss Point .....	3
Mumps:	
Gulfport .....	1
Pascagoula .....	1
Pneumonia:	
Biloxi .....	17
Gulfport .....	7
Long Beach .....	2
Lyman .....	1
Mississippi City .....	1
Moss Point .....	1
Pass Christian .....	1

## CAMP HANCOCK ZONE, GA.

Augusta:	
Cerebrospinal meningitis .....	2
Gonorrhoea .....	2
Influenza .....	188
Syphilis .....	19

## CAMP HUMPHREYS ZONE, VA.

Alexandria:	
Influenza .....	61
Pneumonia .....	1
Scarlet fever .....	1

## CAMP JACKSON ZONE, S. C.

Columbia:	
Influenza .....	45
Measles .....	1
Pneumonia .....	3
Typhoid fever .....	1
United States Government Clinic:	
Gonorrhoea .....	1
Syphilis .....	15

## CAMP JOSEPH E. JOHNSTON ZONE, FLA.

Jacksonville:	
Chancroid .....	3
Gonorrhoea .....	21
Influenza .....	15
Measles .....	43
Pneumonia .....	2

CAMP JOSEPH E. JOHNSTON ZONE, FLA.—contd.

Jacksonville—Continued.	Cases.
Scarlet fever.....	1
Syphilis.....	35
Tuberculosis.....	4

FORT LEAVENWORTH ZONE, KANS.

Diphtheria:	
Leavenworth.....	2
Gonorrhea:	
Leavenworth.....	1
Influenza:	
Leavenworth.....	3
Leavenworth County.....	24

CAMP LEE ZONE, VA.

Ettricks:	
Diphtheria.....	1
Influenza.....	4
Petersburg:	
Diphtheria.....	1
Influenza.....	456
Measles.....	4
Pneumonia.....	19
Tuberculosis.....	3
Prince George County:	
Influenza.....	5

CAMP LEWIS ZONE, WASH.

Influenza:	
American Lake.....	1
Lakeview.....	3
Loveland.....	13
Spanaway.....	1

CAMP LOGAN ZONE, TEX.

Houston:	
Chancroid.....	2
Gonorrhea.....	8
Influenza.....	5
Syphilis.....	32

CAMP MACARTHUR ZONE, TEX.

Waco:	
Gonorrhea.....	2
Influenza.....	2
Pneumonia.....	3
Syphilis.....	1
Tuberculosis.....	3

CAMP M'CLELLAN ZONE, ALA.

Anniston:	
Gonorrhea.....	2
Influenza.....	5
Muzaps.....	2
Pneumonia.....	1
Syphilis.....	3
Precinct 15:	
Influenza.....	1

CAMP MERRITT ZONE, N. J.

Cerebrospinal meningitis:	
Englewood.....	1
Chicken pox:	
Englewood.....	1
Tenafly.....	1
Diphtheria:	
Tenafly.....	1

CAMP MERRITT ZONE, N. J.—continued.

Erysipelas:	Cases.
Englewood.....	1
Gonorrhea:	
Englewood.....	2
Influenza:	
Closter.....	5
Dumont.....	3
Englewood.....	96
Haworth.....	1
Pneumonia:	
Dumont.....	1
Englewood.....	6
Haworth.....	2
Scarlet fever:	
Englewood.....	1

FORT OGLETHORPE ZONE, GA. AND TENN.

Diphtheria:	
Chattanooga.....	1
Influenza:	
Chattanooga.....	53
Eastlake.....	2
North Chattanooga.....	6
Measles:	
Chattanooga.....	1
North Chattanooga.....	1
Scarlet fever:	
Chattanooga.....	1

PENSACOLA SANITARY DISTRICT, FLA.

Influenza.....	46
Pneumonia.....	1
Tuberculosis.....	1

PICRIC ACID PLANT ZONE, GA.

Brunswick:	
Cerebrospinal meningitis.....	1
Influenza.....	10
Measles.....	10
Pneumonia.....	1

CAMP PIKE ZONE, ARK.

Chancroid:	
Little Rock.....	1
Chicken pox:	
Little Rock.....	2
Diphtheria:	
Little Rock.....	1
Gonorrhea:	
Little Rock.....	18
North Little Rock.....	1
Scott.....	1
Influenza:	
Cabot.....	1
Little Rock.....	113
North Little Rock.....	18
Laryngitis:	
Little Rock.....	1
Malaria:	
Little Rock.....	1
North Little Rock.....	1
Measles:	
Little Rock.....	6
North Little Rock.....	6
Meningitis:	
Little Rock.....	1

## CAMP PIKE ZONE, ARK.—continued.

Mumps:	Cases
Little Rock.....	2
<b>Pneumonia:</b>	
Little Rock.....	10
North Little Rock.....	1
<b>Scarlet fever:</b>	
Little Rock.....	1
<b>Syphilis:</b>	
Little Rock.....	14

## CAMP POLK ZONE, N. C.

<b>Chicken pox:</b>	
Durham.....	1
<b>Influenza:</b>	
Durham.....	90
Durham County.....	62
Raleigh.....	97
<b>Measles:</b>	
Wake County.....	1
<b>Pneumonia:</b>	
Wake County.....	1
<b>Scarlet fever:</b>	
Durham County.....	2
Wake County.....	2
<b>Smallpox:</b>	
Durham.....	2
<b>Tuberculosis, pulmonary:</b>	
Wake County.....	2
<b>Typhoid fever:</b>	
Wake County.....	1
<b>Whooping cough:</b>	
Durham.....	1
Wake County.....	2

## PORTSMOUTH AND NORFOLK COUNTY HEALTH DISTRICT, VA.

<b>Chancroid:</b>	
Norfolk.....	1
<b>Diphtheria:</b>	
Port Norfolk.....	1
Portsmouth.....	1
South Norfolk.....	1
<b>Gonorrhoea:</b>	
Norfolk.....	6
<b>Influenza:</b>	
Norfolk.....	2
Norfolk County.....	41
Portsmouth.....	112
<b>Measles:</b>	
Ocean View.....	2
<b>Pneumonia:</b>	
Portsmouth.....	3
<b>Syphilis:</b>	
Norfolk.....	3

## PORTSMOUTH-KITTERY SANITARY DISTRICT, N. H. AND ME.

<b>Chicken pox:</b>	
York.....	1
<b>Gonorrhoea:</b>	
Portsmouth.....	2
<b>Influenza:</b>	
Hampton Falls.....	8
Portsmouth.....	49
York.....	1

## CAMP SEVIER ZONE, S. C.

Chicken pox:	Cases.
Greenville (suburban).....	2
<b>Influenza:</b>	
Greenville and vicinity.....	141
<b>Mumps:</b>	
Greenville.....	1
<b>Pneumonia:</b>	
Greenville and vicinity.....	4
<b>Tuberculosis:</b>	
Greenville.....	1
<b>Whooping cough:</b>	
Greenville.....	3

## CAMP SHERIDAN ZONE, ALA.

<b>Montgomery:</b>	
Chicken pox.....	3
Gonorrhoea.....	5
Scarlet fever.....	1
Tuberculosis, pulmonary.....	1
<b>United States Government Clinic:</b>	
Gonorrhoea.....	4
Syphilis.....	5

## CAMP SHERMAN ZONE, OHIO.

<b>Chillicothe:</b>	
Diphtheria.....	1
Influenza.....	3
Scarlet fever.....	1
Typhoid fever.....	1
<b>Ross County:</b>	
Influenza.....	23
<b>United States Government Clinic:</b>	
Gonorrhoea.....	4
Syphilis.....	1

## CAMP ZACHARY TAYLOR ZONE, KY. AND IND.

<b>Chancroid:</b>	
United States Government clinic.....	1
<b>Diphtheria:</b>	
Clark County.....	1
Jefferson County.....	1
Louisville.....	5
<b>Gonorrhoea:</b>	
Venereal clinic, county jail.....	13
United States Government clinic.....	17
<b>Influenza:</b>	
Clark County.....	32
Floyd County.....	11
Jefferson County.....	59
Jeffersonville.....	18
Louisville.....	77
New Albany.....	40
<b>Measles:</b>	
Jefferson County.....	1
Louisville.....	2
<b>Pneumonia:</b>	
Louisville.....	1
<b>Rabies in animal:</b>	
Louisville.....	1
<b>Scarlet fever:</b>	
Louisville.....	1
<b>Syphilis:</b>	
Venereal clinic, county jail.....	6
United States Government clinic.....	19
<b>Tuberculosis:</b>	
Louisville.....	7

TIDEWATER HEALTH DISTRICT, VA.		CAMP WADSWORTH ZONE, S. C.	
<b>Newport News:</b>	<b>Cases.</b>	<b>Influenza:</b>	<b>Cases.</b>
Chicken pox.....	1	Drayton.....	12
Gonorrhea.....	1	Spartanburg.....	26
Influenza.....	151	<b>Measles:</b>	
Measles.....	4	Spartanburg.....	1
Pneumonia.....	1	Pneumonia:	
Scarlet fever.....	1	Fairforest.....	1
Syphilis.....	1		
Tuberculosis.....	2		
<b>Phoebus:</b>		<b>CAMP WHEELER ZONE, GA.</b>	
Measles.....	1	<b>Macon:</b>	
<b>CAMP TRAVIS ZONE, TEX.</b>		Diphtheria.....	1
<b>San Antonio:</b>		Influenza.....	27
Chancroid.....	3	Measles.....	4
Gonorrhea.....	19	Meningitis.....	1
Influenza.....	106	Scarlet fever.....	1
Measles.....	1		
Pneumonia.....	8	<b>WILMINGTON SANITARY DISTRICT, N. C.</b>	
Syphilis.....	5	<b>Cape Fear Township:</b>	
Tuberculosis.....	7	Influenza.....	3
Typhoid fever.....	2	<b>Wilmington:</b>	
<b>CAMP UPTON ZONE, N. Y.</b>		Chicken pox.....	3
<b>Riverhead:</b>		Influenza.....	31
Mumps.....	1	Measles.....	1
Pneumonia.....	1	Mumps.....	1
<b>VANCOUVER ZONE, WASH.</b>		Pneumonia.....	2
Influenza.....	41	Scarlet fever.....	1
		Tuberculosis.....	2
		Typhoid fever.....	3

**DISEASE CONDITIONS AMONG TROOPS IN THE UNITED STATES.<sup>1</sup>**

The following data are taken from telegraphic reports received in the office of the Surgeon General of the United States Army for the week ended December 27, 1918:

<b>Annual admission rate per 1,000 (disease only):</b>	
All troops.....	787.55
Divisional camps.....	716.42
Cantonments.....	734.11
Departmental and other troops.....	890.01
<b>Noneffective rate per 1,000 on day of report:</b>	
All troops.....	42.03
Divisional camps.....	42.67
Cantonments.....	37.93
Departmental and other troops.....	46.91
<b>Annual death rate per 1,000 (disease only):</b>	
All troops.....	12.17
Divisional camps.....	6.67
Cantonments.....	11.37
Departmental and other troops.....	15.90

<sup>1</sup> Including Porto Rico.

## Cases of special diseases reported during the week ended Dec. 27, 1918.

Camp.	Pneumonia.	Dysentery.	Malaria.	Venereal diseases.		Influenza.	Measles.	Meningitis.	Scarlet fever.	Deaths.	Annual admission rate per 1,000 (disease only).	Non-effective per 1,000 on day of report.
				Total.	Non-infections.							
Beaugard.....	8	2	3	22			7	2		1	963.8	34.6
Bowie.....	8			196	6	1				1	1,761.34	31.41
Cody.....				6			3			2	666.6	87.8
Forrest.....				1		1	24			1	1,014.83	53.7
Fremont.....	2			1						2	547.3	52.04
Greene.....	5			39		7	2			1	473.9	30.2
Greenleaf.....	3			2		1	5	1		4	604.4	35.5
Hancock.....	12		1	44	4	2	13	1	1	3	520.9	43.4
Kearny.....	7			19		25	1			1	348.99	16.59
Logan.....	5			6	1	41	13	1		2	607.06	38.86
MacArthur.....	2						4	1		2	396.87	38.64
McClellan.....	32			5		30	8			3	820.51	50.12
Sevier.....	2			14	3	17	6	1		3	737.14	40.13
Shelby.....	7			23	12	25	4			1	1,329.2	70.9
Sheridan.....	5			21	3		1			1	996.4	46.02
Wadsworth.....	3			8	1		15			1	324.07	43.8
Wheeler.....	2			9			3				1,369.4	172.6
Custer.....	8			18	5				2	2	504.5	18.47
Devens.....	12			24	5	8	5			6	459.0	31.1
Dix.....	7			5		21	2			1	714.78	45.15
Dodge.....	2			22	11	51	17		3	1	1,256.8	49.2
Eustis.....	15			4		13	2			4	357.23	10.82
Funston.....	18			10		17	4	5		9	708.83	39.4
Gordon.....	9			18			1		17	5	775.7	50.4
Grant.....	9			3		35	5			4	428.21	28.24
Humphreys.....	13			6		38	2			8	602.85	25.43
Jackson.....	14			25	2		11	1		3	411.3	31.5
J. E. Johnston.....	4			8			7			5	643.5	31.9
Las Casas.....	5		1	25						3	562.4	22.15
Lee.....	4			17	4	63	19	4		4	673.7	48.3
Lewis.....	117			20	2	28	5		6	4	1,067.3	51.4
Meade.....	15	1		37	3	20	17	1		6	677.4	25.6
Pike.....	8			13		29	3		1	10	1,152.3	50.5
Sherman.....	1			10		4	5			6	500.3	44.5
Taylor.....	7			9	3	10	2	1		8	550.2	51.5
Travis.....	32			12	1	80	21			11	2,034.49	61.76
Upton.....	8			24		25				7	505.1	34.6
Northeastern department.....				8	5	16	2	1	2	3	792.25	37.45
Eastern department.....	6			11	2	53	1			6	416.7	19.34
Southeastern department.....	2			5	2	24	1			2	999.1	38.12
Southern department.....	15		2	77	9	91	8			10	880.3	30.2
Central department.....	19			1		21			1	1	1,094.61	39.14
Western department.....	1			7	3	42			1	5	772.97	27.09
Aviation camps.....	43			50		102	7		2	27	662.41	33.57
Port of embarkation:												
Hoboken.....	21		1	56	2	160	9	1		15	2,740.58	224.93
Newport News.....	2			81		11	10	1		4	2,840.74	99.91
Alcatraz, disciplinary barracks.....											936	12
Leavenworth, disciplinary barracks.....	1								3		1,314.82	41.89
Jefferson Barracks.....	4			4	4	11	2			2	1,530.34	79.09
Columbus Barracks.....				9	7						2,023.6	78.5
Fort Logan.....										1	662.03	45.13
Fort McDowell.....	1			3	3						321.78	35.89
Fort Sill.....	2			25	25	42				2	370.53	21.31
Fort Slocum.....				3							229.58	20.75
Fort Thomas.....	1			1	1					1	509.3	46.3
West Point.....											1,419.9	27.3
Arsenals.....	8			10	1	12	1			2	630.95	31.47
Miscellaneous small stations.....												
Students Army Training Corps.....	2			3	1		8				337.71	12.82
General hospitals.....										44		
Total.....	539	3	33	1,055	131	1,191	287	22	50	260	787.55	42.03

## Annual rate per 1,000 for special diseases.

Disease.	All troops in United States. <sup>1</sup>	Departmental and other troops. <sup>1</sup>	Divisional camps. <sup>1</sup>	Cantonments. <sup>1</sup>	Expeditionary forces. <sup>2</sup>
Pneumonia.....	26.44	17.54	26.71	33.37	30.68
Dysentery.....	.14		.55	.10	1.45
Malaria.....	1.64	.41	1.10	2.81	.18
Venereal.....	52.44	48.53	115.74	30.88	26.65
Paratyphoid.....					.40
Typhoid.....					1.66
Measles.....	14.26	6.85	30.32	13.87	6.69
Meningitis.....	1.09	.41	1.94	1.30	2.92
Scarlet fever.....	2.48	1.23	.83	4.11	1.07
Influenza.....	59.20	80.20	41.73	49.41	.....

<sup>1</sup> Week ended Dec. 27, 1918.<sup>2</sup> Week ended Dec. 19, 1918.

Annual death rate (disease only): All troops in United States and A. E. F., France, for the week ending Dec. 19, 1918, 9.86.

## CURRENT STATE SUMMARIES.

## Telegraphic Reports for Week Ended January 4, 1919.

*Alabama.*—Influenza in State, 1,212 cases.

*Arkansas.*—Influenza: Leola 150 cases, 4 deaths; Scott 80 cases, 3 deaths; Lee 77, Conway County 79, Hempstead 86, Bradley 49, Texarkana (vicinity) 39, Halley 27, Stamps 30, Warren 26, Guion 25, Fayetteville 20, Izard 18, Garland 16, Pope 13, Dalark 12; also 30 others reported. Typhoid fever 5, smallpox 1, malaria 8, pellagra 1, tuberculosis 8, scarlet fever 1, diphtheria 1.

*California.*—Influenza: Reported during week 6,500 cases, still prevalent in most communities (total cases reported to date 240,800). Smallpox outbreak in vicinity of Watsonville, total 46 cases, 12 still under quarantine. Three smallpox Long Beach, 1 Sisson, 1 Kern County.

*Connecticut.*—Cerebrospinal meningitis, New Haven 1; influenza for State, 1,619.

*Illinois.*—Influenza recrudescence: Fall Creek Township (Adams County) 31, Palestine 23, De Kalb 42, Farina 93, Roberts 30, Newton 22, Yellowhead Township (Kankakee County) 24, Staunton 104, Virden 64, Sandoval 42, Odin 37, Normal 31, Putnam 36, Cowden 39, Alto Pass precinct (Union County) 38, Alto Pass 22, Dongola 16, Chicago 868. Diphtheria 177, of which in Chicago 136; scarlet fever 39, of which in Chicago 27; smallpox 39, of which in Schram City 19, Elgin 12; influenza 3,004; poliomyelitis 1; meningitis 1 each Joliet and Chicago; gonorrhoea 1 each Quincy, Mattoon, Moline, Belleville, 7 Chicago; syphilis 76, of which in Chicago 39.

*Indiana.*—Influenza 572; syphilis 27; gonorrhoea 21; diphtheria Rush County 1, Marshall 2, Wabash 1, Randolph 1, Blackford 1, Tippecanoe 5, Vigo 1, Laporte 3, Posey 1.

*Iowa.*—Cerebrospinal meningitis, Greene 2; chancroid, Council Bluffs 1, Des Moines 3, Sioux City 1; diphtheria, Britt 1, Council Bluffs 1, Des Moines 5; gonorrhoea, Alton 1, Boone 2, Cambridge 1, Cedar Rapids 1, Council Bluffs 10, Des Moines 130, Dubuque 2, Granville 1, Lovilia 2, Mason City 3, Newton 3, Sioux City 21; scarlet fever, Des Moines 7, Eagle Grove 1; smallpox, Burlington 1, Cedar Rapids 4, Council Bluffs 9, Des Moines 1, Dubuque 3, Mason City 1, Ottumwa 1; syphilis, Des Moines 51, Dubuque 3, Greene 1, Remsen 1, Sioux City 2. In rural districts of following counties: Diphtheria, Mills 1; gonorrhoea, Monroe 2, Polk 1, Story 1; mumps, Polk 1; scarlet fever, Adair 1, Keokuk 1, Linn 1, Mills 1, Sioux 1, Union 2, Wayne 1; smallpox, Mills 2; influenza for State 1,653.

*Kansas.*—Meningitis by cities: Andover 1, Centralia 1, Junction City (carriers) 2. State totals: Typhoid fever 4, smallpox 11, diphtheria 25, scarlet fever 15, influenza 4,139. Influenza by cities: Atchison 5, Coffeyville 72, Hutchinson 27, Independence 162, Kansas City 31, Lawrence 95, Parsons 16, Pittsburg 47, Topeka 70, Wichita 108. Many delayed reports in this week's summary.

*Louisiana.*—Influenza 3,497, typhoid fever 4, diphtheria 4, smallpox 7, meningitis 2.

*Maine.*—Cerebrospinal meningitis, Lewiston 3 deaths; chicken pox, York 1; diphtheria, Portland 1, Bangor 2, Waterville 3; gonorrhoea, Bath 5, Lewiston 2, Greenville 2, East Millinocket 3, Phillips 1, Fairfield 1, Biddeford 1, Portland 1, Waterville 1; measles, Milo 1; scarlet fever, Bath 4, Waldoboro 4, Portland 24, Dexter 1, Waterville 2; smallpox, Wallgrass Plantation 2, Lewiston 2, Fort Kent 2, Van Buren 1; syphilis, Lewiston 2, Auburn 1, Augusta 1, Portland 9, Bangor 1, Freeport 1, Saco 1; tuberculosis, 8 cases; typhoid fever, Bath 2, Augusta 1; whooping cough, Gardiner 1; influenza, Greenwood 62, Waterville 707 (for December), Gray 33, Portland 170, Rockport 33, Franklin 62, Bath 118, Dover 32, Friendship 27, Waldoboro 67, Bangor 105, Bucksport 63, Dixfield 117, Emden 20, Lewiston 196 (for December), Prospect 26, Willimantic 40, Auburn 43, Bridgeton 28, Thomaston 17, Westbrook 60, Greenville 39, Skowhegan 16; scattered cases 27.

*Massachusetts.*—Unusual prevalence; 14,793 cases influenza.

*Michigan.*—Influenza, Bay City 66 cases, 5 deaths; Battle Creek 70 cases, 7 deaths; Flint 34 cases; Lansing 335 cases; Jackson 61 cases; Kalamazoo 40 cases; Grand Rapids 404 cases, 13 deaths; Pontiac 60 cases; Saginaw 103 cases, 9 deaths; Detroit 743 cases, 143 deaths; total for State 7,431 cases, 280 deaths.

*Minnesota.*—Smallpox, new foci: Anoka County, Columbia Heights Village 1; Noble County, Adrian Village 1; Renville County, Fairfax Village 1. One cerebrospinal meningitis reported since December 13. Syphilis 40, gonorrhoea 66.

*New Jersey.*—Influenza, 3,605 cases; pneumonia, 355 cases. Reported from every county in the State. Diphtheria unusually prevalent in Salem City.

*New York.*—Outside of New York City: Diphtheria, 202, of which in Portland 16, Buffalo 55; measles, 102; scarlet fever, 116; smallpox, Buffalo 1; typhoid fever, 12, slight decrease; poliomyelitis, Saratoga Springs 1; pneumonia, 220; voluntary reports, syphilis 60, gonorrhoea 9.

*North Carolina.*—Influenza by counties: Burke 150, Carteret 76, Chatham 2, Clay 4, Cleveland 250, Davidson 224, Durham 62, Gaston 45, Johnston 87, Montgomery 117, New Hanover 4, Pitt 276, Rockingham 50, Swain 200; cities reporting: Charlotte 8, Durham 90, Raleigh 80, Wilmington 22. Whooping cough 60, measles 27, diphtheria 23, scarlet fever 16, septic sore throat 3, smallpox 13, chicken pox 20, typhoid fever 13, meningitis 4, bacillary dysentery 3, broncho pneumonia 39, lobar pneumonia 19.

*Ohio.*—Scarlet fever, Pleasant Township (Franklin County) 6 cases; typhoid fever, Taylor Township (Union County) 5 cases.

*Oregon.*—Influenza, Portland 993 cases, 44 deaths; Benton 11, Clackamas 74, Columbia 27, Coos, 1 death; Deschutes 4, Douglas 40, Gilliam 4, Grant 28, and (1 death); Hood River 37, Jackson 4, Lincoln 3, Linn 37, Marion 205, Multnomah 72, Polk 2, Wasco 111, Wash-ington 37.

*Vermont.*—Influenza, 1,245 cases from 9 towns.

*Virginia.*—One case smallpox Bedford County; 914 cases influenza.

*Washington.*—No unusual outbreak of disease; influenza situation improving very slowly.

**CEREBROSPINAL MENINGITIS.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

	Cases.		Cases.
Camp Greene zone, N. C.....	1	Camp Merritt zone, N. J.....	1
Camp Hancock zone, Ga.....	2	Picric Acid Plant zone, Ga.....	1

**State Reports for November, 1918.**

Place.	New cases reported.	Place.	New cases reported.
<b>Alabama:</b>		<b>Virginia—Continued.</b>	
Colbert County.....	2	Pittsylvania County.....	1
Talladega County.....	1	Prince George County.....	3
Total.....	3	Rockbridge County—	
		Buena Vista.....	1
<b>Indiana:</b>		Scott County.....	1
Grant County.....	1	Southampton County.....	1
		Wise County.....	1
<b>Virginia:</b>		Total.....	13
Albemarle County—		<b>West Virginia:</b>	
Charlottesville.....	1	Putnam County.....	3
Alleghany County—		Hancock County.....	1
Covington.....	1	Kanawha County.....	1
Buchanan County.....	1	Total.....	5
Campbell County.....	1		
Lee County.....	1		



## CEREBROSPINAL MENINGITIS—Continued.

## City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ashtabula, Ohio.....		2	Hudson, N. Y.....		1
Baltimore, Md.....	3	1	Kansas City, Mo.....	1	
Boston, Mass.....	1	1	Memphis, Tenn.....	1	
Cambridge, Mass.....	2	1	Milwaukee, Wis.....	2	2
Charleston, W. Va.....		1	Nashville, Tenn.....	1	1
Chester, Pa.....	1		New Haven, Conn.....	1	
Chicago, Ill.....	1	1	New Orleans, La.....	1	2
Cleveland, Ohio.....	1		New York, N. Y.....	5	1
Columbia, S. C.....	1		St. Louis, Mo.....		1
Columbus, Ohio.....	1		Salem, Mass.....		1
Fall River, Mass.....		1	San Antonio, Tex.....	1	1
Fond du Lac, Wis.....		1	Tuscaloosa, Ala.....		1
Haverhill, Mass.....	1	1	Wilmington, Del.....	3	2
Holland, Mich.....		1	Winthrop, Mass.....	1	

## CHANCROID.

## Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

Cases.	Cases.
Camp Greene zone, N. C.....	3
Camp Joseph E. Johnston zone, Fla.....	3
Camp Logan zone, Tex.....	2
Camp Pike zone, Ark.....	1
Portsmouth and Norfolk County health district, Va.....	1
Camp Zachary Taylor zone, Ky. and Ind.....	1
Camp Travis zone, Tex.....	3

## DIPHTHERIA.

## Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

Cases.	Cases.
Camp Bowie zone, Tex.....	1
Charleston sanitary district, S. C.....	2
Camp Dix zone, N. J.....	2
Camp Dodge zone, Iowa.....	4
Camp Eberts zone, Ark.....	1
Gas and Flame School zone, Ga. and Ala.....	1
Gulfport health district, Miss.....	1
Fort Leavenworth zone, Kans.....	2
Camp Lee zone, Va.....	2
Camp Merritt zone, N. J.....	1
Fort Oglethorpe zone, Ga. and Tenn.....	1
Camp Pike zone, Ark.....	1
Portsmouth and Norfolk County health district, Va.....	3
Camp Sherman zone, Ohio.....	1
Camp Zachary Taylor zone, Ky. and Ind.....	7
Camp Wheeler zone, Ga.....	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 59.

## ERYSIPELAS.

## City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.....	10	2	Newark, N. J.....	3	
Cincinnati, Ohio.....	2		New Haven, Conn.....	1	
Dallas, Tex.....		2	New Orleans, La.....		1
Denver, Colo.....	1		New York, N. Y.....		3
Detroit, Mich.....	5		Oswego, N. Y.....	1	
East Orange, N. J.....	1		Passaic, N. J.....	1	
Highland Park, Mich.....	2		Philadelphia, Pa.....	6	
Los Angeles, Cal.....	3	1	Providence, R. I.....		1
Melrose, Mass.....	1		St. Louis, Mo.....	3	
Milwaukee, Wis.....	1		Tuscaloosa, Ala.....	1	
Minneapolis, Minn.....	1		Wichita, Kans.....	1	

**GONORRHEA.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

	Cases.		Cases.
Camp Beauregard zone, La.....	4	Camp MacArthur zone, Tex.....	2
Camp Bowie zone, Tex.....	5	Camp McClellan zone, Ala.....	2
Camp Doniphan zone, Okla.....	4	Camp Merritt zone, N. J.....	2
Camp Eberts zone, Ark.....	1	Camp Pike zone, Ark.....	20
Camp Funston zone, Kans.....	1	Portsmouth and Norfolk County health district, Va.....	6
Camp Gordon zone, Ga.....	40	Portsmouth-Kittery sanitary district, N. H. and Me.....	2
Camp Greene zone, N. C.....	7	Camp Sheridan zone, Ala.....	9
Gulfport health district, Miss.....	6	Camp Sherman zone, Ohio.....	4
Camp Hancock zone, Ga.....	2	Camp Zachary Taylor zone, Ky. and Ind....	30
Camp Jackson zone, S. C.....	1	Tidewater health district, Va.....	1
Camp Joseph E. Johnston zone, Fla.....	21	Camp Travis zone, Tex.....	19
Fort Leavenworth zone, Kans.....	1		
Camp Logan zone, Tex.....	8		

**INFLUENZA.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

	Cases.		Cases.
Camp Beauregard zone, La.....	174	Camp Logan zone, Tex.....	5
Camp Bowie zone, Tex.....	9	Camp MacArthur zone, Tex.....	2
Bremerton zone, Wash.....	1	Camp McClellan zone, Ala.....	6
Charleston sanitary district, S. C.....	106	Camp Merritt zone, N. J.....	105
Camp Devens zone, Mass.....	71	Fort Oglethorpe zone, Ga. and Tenn.....	61
Camp Dix zone, N. J.....	25	Pensacola sanitary district, Fla.....	46
Camp Dodge zone, Iowa.....	13	Picric Acid Plant zone, Ga.....	10
Camp Doniphan zone, Okla.....	12	Camp Pike zone, Ark.....	132
Camp Eberts zone, Ark.....	88	Camp Polk zone, N. C.....	249
Camp Funston zone, Kans.....	36	Portsmouth and Norfolk County health district, Va.....	155
Gas and Flame School zone, Ga. and Ala....	89	Portsmouth-Kittery sanitary district, N. H. and Me.....	58
Gerstner Field zone, La.....	82	Camp Sevier zone, S. C.....	141
Camp Gordon zone, Ga.....	52	Camp Sherman zone, Ohio.....	26
Camp Greene zone, N. C.....	62	Camp Zachary Taylor zone, Ky. and Ind....	237
Gulfport health district, Miss.....	585	Tidewater health district, Va.....	151
Camp Hancock zone, Ga.....	183	Camp Travis zone, Tex.....	106
Camp Humphreys zone, Va.....	16	Vancouver zone, Wash.....	41
Camp Jackson zone, S. C.....	45	Camp Wadsworth zone, S. C.....	38
Camp Joseph E. Johnston zone, Fla.....	15	Camp Wheeler zone, Ga.....	27
Fort Leavenworth zone, Kans.....	27	Wilmington sanitary district, N. C.....	34
Camp Lee zone, Va.....	465		
Camp Lewis zone, Wash.....	18		

**LEPROSY.**

**City Reports for Week Ended Dec. 21, 1918.**

Two cases of leprosy were reported during the week ended December 21, 1918; one at Los Angeles, Cal., and one at New Orleans, La.

**MALARIA.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

	Cases.		Cases.
Camp Eberts zone, Ark.....	1	Camp Pike zone, Ark.....	2
Gulfport health district, Miss.....	4		

## MALARIA—Continued.

## State Reports for November, 1918.

Places.	New cases reported.	Places.	New cases reported.
<b>Alabama:</b>		<b>Virginia—Continued.</b>	
Bullock County.....	1	Hanover County.....	1
Choctaw County.....	1	Isle of Wight County.....	16
Colbert County.....	8	James City County—	
Greene County.....	2	Toano.....	6
Jefferson County.....	1	Middlesex County.....	11
Lamar County.....	2	New Kent County.....	4
Lowndes County.....	50	Northampton County.....	6
Mobile County.....	2	Northumberland County.....	5
Monroe County.....	1	Nottoway County.....	3
Shelby County.....	1	Prince Edward County.....	1
Tuscaloosa County.....	14	Pittsylvania County.....	5
<b>Total.....</b>	<b>83</b>	Powhatan County.....	7
		Princess Anne County.....	20
<b>Virginia:</b>		Prince George County.....	4
Accomac County.....	3	Prince William County—	
Brunswick County.....	9	Quantico.....	3
Lawrenceville.....	1	Richmond County.....	5
Caroline County.....	5	Rockingham County—	
Charles City County.....	1	Dayton.....	1
Chesterfield County.....	2	Southampton County.....	8
Cumberland County.....	1	Sussex County.....	7
Dinwiddie County.....	6	Stony Creek.....	4
Essex County.....	2	Warwick County.....	4
Fluvanna County.....	1	Westmoreland County.....	4
Greensville County.....	13	<b>Total.....</b>	<b>184</b>
Emporia.....	9		
Halifax County—			
South Boston.....	9		

## City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
McAlester, Okla.....	10	.....	Tuscaloosa, Ala.....	2	.....
Meridian, Miss.....	2	.....	Wilmington, Del.....	1	1
Newark, N. J.....	1	.....			

## MEASLES.

## Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

Cases.	Cases.		
Camp Beauregard zone, La.....	1	Camp Pike zone, Ark.....	12
Camp Bowie zone, Tex.....	1	Camp Polk zone, N. C.....	1
Camp Funston zone, Kans.....	1	Portsmouth and Norfolk County health district,	
Gas and Flame School zone, Ga. and Ala.....	5	Va.....	2
Camp Gordon zone, Ga.....	1	Camp Zachary Taylor zone, Ky. and Ind.....	3
Camp Jackson zone, S. C.....	1	Tidewater health district, Va.....	5
Camp Joseph E. Johnston zone, Fla.....	43	Camp Travis zone, Tex.....	1
Camp Lee zone, Va.....	4	Camp Wadsworth zone, S. C.....	1
Fort Oglethorpe zone, Ga. and Tenn.....	2	Camp Wheeler zone, Ga.....	4
Pieric Acid Plant zone, Ga.....	10	Wilmington sanitary district, N. C.....	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 59.

**PELLAGRA.**

**State Reports for November, 1918.**

Place.	New cases reported.	Place.	New cases reported.
<b>Alabama:</b>		<b>Kansas:</b>	
Bibb County.....	1	Cowley County--	
Butler County.....	1	Atlanta.....	1
Chambers County.....	1	Montgomery County--	
Choctaw County.....	2	Independence.....	1
Clarke County.....	1	<b>Total.....</b>	<b>2</b>
Clay County.....	2		
Colbert County.....	1	<b>Virginia:</b>	
Dallas County.....	1	Albemarle County.....	1
Hale County.....	2	Dinwiddie County.....	1
Jackson County.....	3	Powhatan County.....	1
Jefferson County.....	12	Washington County.....	3
Lawrence County.....	1	<b>Total.....</b>	<b>6</b>
Limestone County.....	1		
Macon County.....	1	<b>West Virginia:</b>	
Mobile County.....	10	Kanawha County.....	1
Montgomery County.....	2		
Pike County.....	1		
Shelby County.....	1		
Talladega County.....	3		
Tallapoosa County.....	1		
Tuscaloosa County.....	18		
<b>Total.....</b>	<b>66</b>		

**City Reports for Week Ended Dec. 21, 1918.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....		3	Fort Dodge, Iowa.....		2
Austin, Tex.....	1	1	Long Beach, Cal.....	1	1
Charleston, S. C.....		1	Wilmington, N. C.....		1
Darville, Va.....	2				

**PNEUMONIA.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

	Cases.		Cases.
Camp Bowie zone, Tex.....	36	Camp Merritt zone, N. J.....	9
Camp Devens zone, Mass.....	3	Pensacola sanitary district, Fla.....	1
Camp Doniphan zone, Okla.....	1	Picric Acid Plant zone, Ga.....	1
Camp Eberts zone, Ark.....	1	Camp Pike zone, Ark.....	11
Camp Funston zone, Kans.....	3	Camp Polk zone, N. C.....	1
Gas and Flame School zone, Ga. and Ala.....	7	Portsmouth and Norfolk County health district, Va.....	3
Gerstner Field zone, La.....	5	Camp Sevier zone, S. C.....	4
Camp Gordon zone, Ga.....	3	Camp Zachary Taylor zone, Ky. and Ind.....	1
Gulport health district, Miss.....	30	Tidewater health district, Va.....	1
Camp Humphreys zone, Va.....	1	Camp Travis zone, Tex.....	8
Camp Jackson zone, S. C.....	3	Camp Upton zone, N. Y.....	1
Camp Joseph E. Johnston zone, Fla.....	2	Camp Wadsworth zone, S. C.....	1
Camp Lee zone, Va.....	19	Wilmington sanitary district, N. C.....	2
Camp MacArthur zone, Tex.....	3		
Camp McClellan zone, Ala.....	1		

## PNEUMONIA—Continued.

## City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Abilene, Tex.	4	.....	Lynn, Mass.	10	6
Adrian, Mich.	1	.....	McAlester, Okla.	8	2
Annisston, Ala.	8	.....	Malden, Mass.	7	1
Arlington, Mass.	1	1	Manchester, N. H.	1	1
Atlantic City, N. J.	2	7	Manistee, Mich.	2	1
Attleboro, Mass.	2	1	Mansfield, Ohio	2	.....
Auburn, N. Y.	6	1	Marion, Ohio	4	.....
Baltimore, Md.	25	35	Medford, Mass.	1	1
Battle Creek, Mich.	6	.....	Melrose, Mass.	2	1
Beacon, N. Y.	2	.....	Meridian, Miss.	1	.....
Belleville, N. J.	2	.....	Middletown, N. Y.	1	3
Berkeley, Cal.	1	.....	Montclair, N. J.	2	5
Beverly, Mass.	1	1	Montgomery, Ala.	3	7
Binghamton, N. Y.	6	.....	Morgantown, W. Va.	2	.....
Bloomfield, N. J.	2	1	Mount Vernon, N. Y.	7	.....
Boston, Mass.	78	33	Muncie, Ind.	3	2
Brunswick, Ga.	7	4	Natick, Mass.	13	10
Cambridge, Mass.	4	6	Newark, N. J.	126	31
Centralia, Ill.	25	5	New Bedford, Mass.	9	2
Chelsea, Mass.	2	4	New Britain, Conn.	1	7
Chicago, Ill.	916	159	Newcastle, Ind.	4	1
Chillicothe, Ohio	1	.....	New London, Conn.	2	.....
Cleveland, Ohio	89	73	Newton, Mass.	1	1
Coffeyville, Kans.	1	1	New York, N. Y.	485	318
Columbia, S. C.	1	.....	North Adams, Mass.	1	1
Columbus, Ga.	10	4	Northampton, Mass.	2	2
Concord, N. H.	2	.....	North Tonawanda, N. Y.	4	.....
Corning, N. Y.	2	.....	Norwich, Conn.	1	1
Cranston, R. I.	2	2	Norwood, Ohio	3	4
Dayton, Ohio	11	10	Ossining, N. Y.	2	.....
Detroit, Mich.	73	95	Palestine, Tex.	16	3
Duluth, Minn.	5	3	Parkersburg, W. Va.	1	1
East Orange, N. J.	7	10	Passaic, N. J.	10	3
Elmira, N. Y.	5	8	Philadelphia, Pa.	24	90
Escanaba, Mich.	20	8	Piqua, Ohio	4	2
Everett, Wash.	8	.....	Pontiac, Mich.	5	1
Fall River, Mass.	5	2	Port Chester, N. Y.	3	2
Findlay, Ohio	1	1	Portsmouth, N. H.	2	.....
Flint, Mich.	7	18	Quincy, Ill.	8	7
Fort Worth, Tex.	70	24	Richmond, Va.	5	17
Freeport, Ill.	3	.....	Riverside, Cal.	2	6
Gardner, Mass.	7	2	Roanoke, Va.	2	.....
Grand Rapids, Mich.	63	14	Rochester, N. Y.	37	11
Green Bay, Wis.	1	.....	Rome, N. Y.	6	.....
Greenwich, Conn.	1	5	Saginaw, Mich.	1	27
Hackensack, N. J.	6	4	Salem, Mass.	7	1
Harrison, N. J.	1	.....	San Antonio, Tex.	30	21
Haverhill, Mass.	15	6	San Diego, Cal.	1	6
Helena, Ark.	4	4	Sandusky, Ohio	21	12
Highland Park, Mich.	21	3	Sault Ste. Marie, Mich.	1	.....
Hoquiam, Wash.	9	.....	Schenectady, N. Y.	6	1
Independence, Mo.	5	3	Sioux Falls, S. Dak.	3	1
Ithaca, N. Y.	2	.....	Somerville, Mass.	3	3
Jackson, Mich.	9	6	Springfield, Mass.	35	21
Jamestown, N. Y.	4	5	Toledo, Ohio	3	15
Jersey City, N. J.	9	.....	Trenton, N. J.	2	3
Kalamazoo, Mich.	28	14	Waco, Tex.	3	3
Kansas City, Kans.	11	.....	Watertown, Mass.	2	.....
Kansas City, Mo.	38	43	Westfield, Mass.	3	3
Kearny, N. J.	9	2	West Orange, N. J.	3	2
Lackawanna, N. Y.	9	5	Wichita, Kans.	1	.....
Lawrence, Mass.	2	2	Wilmington, Del.	5	5
Leavenworth, Kans.	1	8	Wilmington, N. C.	2	2
Lincoln, Nebr.	3	3	Worcester, Mass.	25	.....
Little Rock, Ark.	16	5	Yonkers, N. Y.	4	1
Los Angeles, Cal.	13	11	Youngstown, Ohio	1	1
Louisville, Ky.	4	38			
Lowell, Mass.	2	2			

**POLIOMYELITIS (INFANTILE PARALYSIS).**

**State Reports for November, 1918.**

Place.	New cases reported.	Place.	New cases reported.
Alabama:		Virginia—Continued.	
Limestone County.....	2	Princess Anne County.....	1
Indiana:		Shenandoah County.....	1
Marion County.....	1	Tazewell County.....	1
Kansas:		Total.....	5
Geary County—		West Virginia:	
Junction City.....	1	Jackson County.....	1
Virginia:		Kanawha County.....	1
James City County.....	1	Total.....	2
Lee County.....	1		

**City Reports for Week Ended Dec. 21, 1918.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Nashville, Tenn.....		1	Newton, Mass.....	1	
New Orleans, La.....	1		Philadelphia, Pa.....		1

**RABIES IN ANIMALS.**

**City Reports for Week Ended Dec. 21, 1918.**

During the week ended December 21, 1918, 2 cases of rabies in animals were reported at Memphis, Tenn., and 3 cases at San Antonio, Tex.

**RABIES IN MAN.**

**City Report for Week Ended Dec. 21, 1918.**

During the week ended December 21, 1918, 1 case and 1 death from rabies were reported at San Antonio, Tex.

**SCARLET FEVER.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

Cases.	Cases.		
Bremerton zone, Wash.....	2	Fort Oglethorpe zone, Ga. and Tenn.....	1
Camp Devens zone, Mass.....	1	Camp Pike zone, Ark.....	1
Camp Dodge zone, Iowa.....	5	Camp Polk zone, N. C.....	4
Camp Funston zone, Kans.....	3	Camp Sheridan zone, Ala.....	1
Camp Gordon zone, Ga.....	2	Camp Sherman zone, Ohio.....	1
Camp Greene zone, N. C.....	1	Camp Zachary Taylor zone, Ky. and Ind.....	1
Camp Humphreys zone, Va.....	1	Tidewater health district, Va.....	1
Camp Joseph E. Johnston zone, Fla.....	1	Camp Wheeler zone, Ga.....	1
Camp Merritt zone, N. J.....	1	Wilmington sanitary district, N. C.....	1

See also Diphtheria, measles, scarlet fever, and tuberculosis, p. 59.

**SMALLPOX.**

**Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.**

Cases.	Cases.		
Camp Dodge zone, Iowa.....	1	Camp Gordon zone, Ga.....	19
Gas and Flame School zone, Ga. and Ala.....	4	Camp Polk zone, N. C.....	2
Gerstner Field zone, La.....	15		

## SMALLPOX—Continued.

## Kansas Report for November, 1918—Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
<b>Kansas:</b>						
Anderson County—						
Welda (R. D.).....	1				1	
Comanche County—						
Wilmore (R. D.).....	6				6	
Cowley County—						
Winfield.....	2				2	
Crawford County—						
Pittsburg.....	4				4	
Douglas County—						
Lawrence.....	2				2	
Franklin County—						
Richmond.....	2				2	
Jewell County—						
Esbon (R. D.).....	1				1	
Sedgwick County—						
Wichita.....	12				12	
Seward County—						
Liberal.....	2				2	
Sherman County—						
Goodland.....	1				1	
Stanton County—						
Johnson (R. D.).....	2				2	
Sumner County—						
South Haven (R. D.).....	10				10	
Woodson County—						
Neosho Falls.....	1				1	
Wyandotte County—						
Kansas City.....	2				2	
Total.....	48				48	

## State Reports for November, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Alabama:</b>			<b>Virginia:</b>		
Bibb County.....	3		Alleghany County.....	11	
Colbert County.....	4		Covington.....	10	
Jefferson County.....	4		Bedford County.....	1	
Lauderdale County.....	4		Campbell County.....	13	
Lee County.....	1		Carroll County.....	12	
Limestone County.....	1	1	Craig County.....	1	
Mobile County.....	1		Grayson County.....	6	
Washington County.....	4		Halifax County.....	1	
Total.....	22	1	Isle of Wight County.....	1	
<b>Indiana:</b>			King William County.....	3	
Allen County.....	5		Norfolk County.....	2	
Cass County.....	2		Pittsylvania County.....	10	
Clark County.....	8		Prince George County.....	2	
Clinton County.....	1		Rockingham County.....	2	
Dearborn County.....	9		Harrisonburg.....	1	
Delaware County.....	11		Tazewell County—		
Fountain County.....	9		Pocahontas.....	1	
Kosciusko County.....	1		Total.....	76	
La Porte County.....	24		<b>West Virginia:</b>		
Marion County.....	2		Berkeley County.....	1	
Marshall County.....	9		Kanawha County.....	1	
Miami County.....	2		McDowell County.....	7	
Parke County.....	4		Putnam County.....	1	
Porter County.....	39		Raleigh County.....	2	
Rush County.....	41		Randolph County.....	5	
Shelby County.....	1		Roane County.....	2	
St. Joseph County.....	6		Wyoming County.....	12	
Sullivan County.....	1		Total.....	31	
Tippecanoe County.....	2				
Vigo County.....	7				
Wayne County.....	1				
Wells County.....	6				
Total.....	191				

SMALLPOX—Continued.

City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Adrian, Mich.	17		Memphis, Tenn.	1	
Anderson, Ind.	1		Milwaukee, Wis.	8	
Atlanta, Ga.	13		Minneapolis, Minn.	6	
Austin, Tex.	1		Muncie, Ind.	4	
Beaumont, Tex.	2	1	Muscatine, Iowa.	1	
Cincinnati, Ohio.	1		Nashville, Tenn.	1	
Cleveland, Ohio.	7		Newcastle, Ind.	1	
Columbus, Ga.	4		North Yakima, Wash.	6	
Corpus Christi, Tex.	3		Ogden, Utah.	7	
Council Bluffs, Iowa.	4		Oklahoma City, Okla.	1	
Danville, Va.	3		Omaha, Nebr.	2	
Denver, Colo.	20		Oswego, N. Y.	1	
Des Moines, Iowa.	1		Pekin, Ill.	2	
Detroit, Mich.	3		Peoria, Ill.	2	
Elgin, Ill.	18		Portland, Oreg.	1	
Escanaba, Mich.	1		Raleigh, N. C.	1	
Grand Rapids, Mich.	2		St. Joseph, Mo.	4	
Greenville, S. C.	3		St. Louis, Mo.	2	
Jackson, Mich.	1		St. Paul, Minn.	25	
Kansas City, Kans.	2		Salt Lake City, Utah.	3	
Kansas City, Mo.	3		Sioux Falls, S. Dak.	1	
Knoxville, Tenn.	1		South Bend, Ind.	1	
Lincoln, Nebr.	1		Tacoma, Wash.	7	
Lorain, Ohio.	4		Toledo, Ohio.	7	
Los Angeles, Cal.	3		Winston-Salem, N. C.	2	
Marinette, Wis.	5		Zanesville, Ohio.	4	
Marshalltown, Iowa.	4				

SYPHILIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

Cases.	Cases.
Camp Bowie zone, Tex.	1
Camp Gordon zone, Ga.	21
Camp Greene zone, N. C.	8
Camp Hancock zone, Ga.	19
Camp Jackson zone, S. C.	15
Camp Joseph E. Johnston zone, Fla.	35
Camp Logan zone, Tex.	32
Camp MacArthur zone, Tex.	1
Camp McClellan zone, Ala.	3
Camp Pike zone, Ark.	14
Portsmouth and Norfolk County health district, Va.	3
Camp Sheridan zone, Ala.	5
Camp Sherman zone, Ohio.	1
Camp Zachary Taylor zone, Ky. and Ind.	25
Tidewater health district, Va.	1
Camp Travis zone, Tex.	5

TETANUS.

City Reports for Week Ended Dec. 21, 1918.

During the week ended December 21, 1918, 1 death from tetanus was reported at Malden, Mass., and 1 case was reported at Ossining, N. Y.

TUBERCULOSIS.

Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

Cases.	Cases.
Camp Bowie zone, Tex.	3
Gas and Flame School zone, Ga. and Ala.	1
Camp Gordon zone, Ga.	1
Camp Joseph E. Johnston zone, Fla.	4
Camp Lee zone, Va.	3
Camp MacArthur zone, Tex.	3
Pensacola sanitary district, Fla.	1
Camp Polk zone, N. C.	2
Camp Sevier zone, S. C.	1
Camp Sheridan zone, Ala.	1
Camp Zachary Taylor zone, Ky. and Ind.	7
Tidewater health district, Va.	2
Camp Travis zone, Tex.	7
Wilmington sanitary district, N. C.	2

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 59.



## TYPHOID FEVER.

## Cases Reported in Extra-Cantonment Zones, Week Ended Jan. 4, 1919.

	Cases.		Cases.
Camp Jackson zone, S. C.....	1	Camp Travis zone, Tex.....	2
Camp Polk zone, N. C.....	1	Wilmington sanitary district, N. C.....	3
Camp Sherman zone, Ohio.....	1		

## State Reports for November, 1918.

Place.	New cases reported.	Place.	New cases reported.
<b>Alabama:</b>		<b>Kansas—Continued.</b>	
Barbour County.....	4	Chautauqua County—	
Bibb County.....	1	Sedan.....	1
Bullock County.....	2	Cherokee County—	
Colbert County.....	2	Baxter Springs.....	1
Hale County.....	1	Columbus (R. D.).....	2
Henry County.....	1	Coffey County—	
Houston County.....	3	Lebo.....	1
Jefferson County.....	4	Comanche County—	
Lamar County.....	3	Coldwater (R. D.).....	1
Lauderdale County.....	1	Crawford County—	
Limestone County.....	1	Pittsburg.....	1
Marshall County.....	1	Dickinson County—	
Monroe County.....	1	Herrington.....	2
Montgomery County.....	5	Elk County—	
Pickens County.....	1	Moline (B. D.).....	1
Pike County.....	1	Finney County—	
Randolph County.....	2	Garden City.....	1
Shelby County.....	7	Franklin County—	
St. Clair County.....	1	Ottawa (R. D.).....	1
Talladega County.....	3	Gove County—	
Tuscaloosa County.....	1	Quinter.....	1
Wilcox County.....	1	Harper County—	
Winston County.....	3	Attica.....	1
<b>Total.....</b>	<b>50</b>	Harvey County—	
<b>Arizona:</b>		Newton.....	5
Maricopa County—		Labette County—	
Phoenix.....	1	Chetopa (R. D. 1).....	2
<b>Indiana:</b>		Mound Valley.....	1
Allen County.....	8	Parsons.....	1
Bartholomew County.....	1	Leavenworth County—	
Cass County.....	4	Bonner Springs (R. D.).....	1
Clark County.....	13	Linn County—	
Clay County.....	4	La Cygne (R. D.).....	3
Dearborn County.....	1	Marshall County—	
DeKalb County.....	1	Irving.....	1
Floyd County.....	1	McPherson County—	
Fountain County.....	1	Galva (R. D.).....	1
Grant County.....	2	Meade County—	
Greene County.....	1	Fowler.....	1
Howard County.....	2	Miami County—	
Huntington County.....	3	Osawatimie (R. D.).....	2
Jay County.....	1	Montgomery County—	
Jennings County.....	1	Caney.....	2
Johnson County.....	4	Coffeyville (R. D. 1).....	4
Kosciusko County.....	2	Independence (R. D. 1).....	12
Lawrence County.....	1	Tyro.....	1
Marion County.....	1	Nemaha County—	
Putnam County.....	1	Kelley.....	1
St. Joseph County.....	1	Pawnee County—	
Switzerland County.....	3	Larned.....	1
Wabash County.....	5	Reno County—	
Washington County.....	2	Hutchinson.....	1
White County.....	1	Republic County—	
<b>Total.....</b>	<b>65</b>	Belleville.....	1
<b>Kansas:</b>		Saline County—	
Anderson County—		Culver.....	1
Garnett.....	1	Salina.....	1
Barton County—		Sedgwick County—	
Hosington.....	1	Valley Center.....	1
Bourbon County—		Wichita.....	3
Mapleton (R. D.).....	3	Shawnee County—	
Xenia.....	1	Topeka (R. D.).....	4
Butler County.....	7	Smith County—	
Eldorado (R. D. 1).....	2	Lebanon.....	1
Oil Hill.....	2	Thomas County—	
		Levant (R. D.).....	1
		Wichita County—	
		Marienthal (R. D.).....	1

TYPHOID FEVER—Continued.

State Reports for November, 1918—Continued.

Place.	New cases reported.	Place.	New cases reported.
<b>Kansas—Continued.</b>		<b>Virginia—Continued.</b>	
Wilson County—		Mecklenburg County.....	1
Buffalo.....	1	Middlesex County.....	1
Fredonia (R. D.).....	1	Montgomery County—	
New Albany.....	1	Radford.....	1
Wyandotte County—		Nansemond County—	
Kansas City.....	2	Suffolk.....	1
Total.....	88	Norfolk County.....	1
<b>Nevada:</b>		Northumberland County.....	7
Clark County.....	1	Powhatan County.....	1
Humboldt County.....	1	Princess Anne County.....	1
Nye County.....	4	Prince Edward County.....	3
Washoe County.....	2	Prince George County.....	3
White Pine County.....	2	Pulaski County.....	1
Total.....	10	Richmond County.....	1
<b>Virginia:</b>		Rockbridge County—	
Accomac County.....	2	Buena Vista.....	1
Albemarle County—		Rockingham County.....	1
Charlottesville.....	2	Russell County.....	1
Alleghany County.....	1	Castlewood.....	1
Clifton Forge.....	4	Shenandoah County.....	2
Amherst County.....	1	Southampton County.....	2
Appomattox County.....	3	Surry County.....	1
Augusta County.....	2	Tazewell County.....	1
Bedford County.....	1	Warwick County.....	5
Bedford.....	3	Washington County.....	3
Campbell County—		Meadow View.....	1
Lynchburg.....	2	Westmoreland County.....	1
Carrroll County.....	2	Wise County.....	4
Clarke County.....	1	Wythe County.....	4
Dickenson County.....	2	York County.....	1
Elizabeth City County—		Total.....	96
Phoebus.....	1	<b>West Virginia:</b>	
Floyd County.....	1	Berkeley County.....	1
Giles County.....	1	Jackson County.....	3
Grayson County.....	4	Kanawha County.....	17
Hanover County.....	1	Monongalia County.....	2
Henrico County.....	3	Ohio County.....	1
Richmond.....	2	Pendleton County.....	4
Henry County.....	2	Putnam County.....	4
Lee County—		Raleigh County.....	2
Dryden.....	1	Randolph County.....	40
Louisa County.....	1	Wood County.....	2
Mathews County.....	1	Total.....	76

City Reports for Week Ended Dec. 21, 1918.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Abilene, Tex.....	1		Minneapolis, Minn.....	1	
Altoona, Pa.....	1		Moline, Ill.....	13	2
Baltimore, Md.....	8	1	Natick, Mass.....	1	
Boston, Mass.....	2	1	Newark, N. J.....	1	1
Buffalo, N. Y.....	2		New Haven, Conn.....	3	
Charleston, W. Va.....		1	Newton, Mass.....	1	
Chester, Pa.....	1		New York, N. Y.....	8	4
Chicago, Ill.....	4	1	Orange, N. J.....	1	
Chillicothe, Ohio.....	1		Philadelphia, Pa.....	2	1
Cleveland, Ohio.....	4	3	Pittsburgh, Pa.....	1	
Columbia, S. C.....	1		Portland, Ore.....	1	
Dallas, Tex.....		1	Rahway, N. J.....	1	
Denver, Colo.....		2	Reading, Pa.....	2	
Detroit, Mich.....		1	Rochester, N. Y.....		1
Elgin, Ill.....		1	Sacramento, Cal.....		1
Elmira, N. Y.....		1	St. Louis, Mo.....	6	
Englewood, N. J.....	3		Shamokin, Pa.....	1	
Erie, Pa.....	1		Superior, Wis.....		1
Fall River, Mass.....	1	1	Syracuse, N. Y.....		1
Fort Worth, Tex.....	1		Toledo, Ohio.....	1	
Houston, Tex.....	3		Trenton, N. J.....	1	
Jersev Citv, N. J.....	2		Waco, Tex.....	3	1
Los Angeles, Cal.....	1		Wichita, Kans.....	2	
McAlester, Okla.....	3		Wilkinsburg, Pa.....	1	
Manistee, Mich.....		1	Wilmington, N. C.....	4	
Memphis, Tenn.....	1	1	Winston-Salem, N. C.....	1	
Meridian, Miss.....	1				

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

## State Reports for November, 1918.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Alabama.....	56	51	25	Nevada.....	1		
Arizona.....	2		3	Virginia.....	199	46	49
Indiana.....		44	163	West Virginia.....	41	9	24
Kansas.....	118	46	90				

## City Reports for Week Ended Dec. 21, 1918.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Ahilene, Tex.....	14,954	4	2		1		2		1	
Adams, Mass.....	14,406	1								
Akron, Ohio.....	93,604	42	2		1		2		5	
Alameda, Cal.....	28,433	12	1							
Allentown, Pa.....	65,109		8				1		2	
Altoona, Pa.....	59,712		12				2			
Anderson, Ind.....	24,230	13								1
Ann Arbor, Mich.....	15,041	10								
Appleton, Wis.....	18,005	4								
Arlington, Mass.....	13,073	10								1
Asbury Park, N. J.....	14,629	4							1	
Ashtabula, Ohio.....	22,008	10								1
Atlanta, Ga.....	196,144	80	3				8	1	2	
Atlantic City, N. J.....	59,515	24					1		3	1
Attleboro, Mass.....	19,776	8								
Auburn, N. Y.....	37,823	13								1
Austin, Tex.....	35,612	25							4	4
Baltimore, Md.....	594,637	230	20	1	7		16		27	15
Barre, Vt.....	12,400	2								
Battle Creek, Mich.....	30,159	4	6							
Bayonne, N. J.....	72,204		5						2	
Beacon, N. Y.....	11,674	3								
Beaumont, Tex.....	28,851	15	1						1	3
Bedford, Ind.....	10,613	5								
Beloit, Wis.....	18,547	11			2				2	1
Benton Harbor, Mich.....	11,099	5	2							
Berkeley, Cal.....	60,427	15	2						1	
Beverly, Mass.....	22,128	7	3				1			
Biddeford, Me.....	17,760	2								1
Billings, Mont.....	15,123				1					
Binghamton, N. Y.....	54,864	21	1				1		1	1
Bloomfield, N. J.....	19,013	2	3				1		1	1
Boise, Idaho.....	35,951	11								
Boston, Mass.....	767,813	334	49	7	10		31		59	27
Brazil, Ind.....	10,472	4	1							
Bridgeport, Conn.....	124,724	45	3		1		1		3	4
Bristol, Conn.....	16,318	5					1			
Brookline, Mass.....	33,526	8	1				1			2
Brunswick, Ga.....	10,984	8			10				3	1
Buffalo, N. Y.....	475,781	175	53	5	14		11		5	11
Burlington, Iowa.....	25,144	17							1	
Burlington, Vt.....	21,802	15								
Butte, Mont.....	44,057				1		2			1
Cairo, Ill.....	15,995	10	1							1
Cambridge, Mass.....	114,293	54	3		3		2		1	6
Carbondale, Pa.....	19,597		1						3	
Carnegie, Pa.....	11,963				1					
Champaign, Ill.....	15,052	7								
Charleston, S. C.....	61,041	30	3						2	2
Charleston, W. Va.....	31,060	16	1				1		1	2
Charlotte, N. C.....	40,759	31			1					1
Chelsea, Mass.....	48,405						1		1	1
Chester, Pa.....	41,857		2		1				1	
Chicago, Ill.....	2,547,201	1,110	149	9	55		29		245	65
Chicopee, Mass.....	29,950	7	5	1						1

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

City Reports for Week Ended Dec. 21, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Chillicothe, Ohio.....	15,625	1	2	1	7	1	1	1	1	11
Cincinnati, Ohio.....	414,248	269	19	1	3	3	10	1	12	20
Cleveland, Ohio.....	692,259	425	23	2	3	1	1	28	1	1
Clinton, Iowa.....	27,678	1	1	1	3	1	1	1	1	1
Clinton, Mass.....	13,075	6	1	1	1	1	1	1	1	1
Coffeyville, Kans.....	18,331	1	1	1	1	1	1	1	1	2
Cohoes, N. Y.....	25,292	8	1	1	1	1	1	1	1	1
Colorado Springs, Colo.....	38,965	28	1	1	1	1	1	1	1	4
Columbia, S. C.....	35,165	1	1	3	1	1	1	1	1	1
Columbus, Ga.....	26,306	9	1	5	1	1	1	1	1	1
Columbus, Ohio.....	220,135	114	1	1	1	4	1	6	1	9
Concord, N. H.....	22,858	13	1	1	1	1	1	1	1	1
Connellsville, Pa.....	15,876	1	1	1	1	1	1	1	1	1
Corpus Christi, Tex.....	10,789	3	1	1	1	1	1	1	1	1
Cortland, N. Y.....	13,321	6	1	1	1	1	1	1	1	1
Council Bluffs, Iowa.....	31,838	24	1	1	1	1	1	1	1	1
Covington, Ky.....	59,623	35	2	1	1	1	1	1	1	2
Cranston, R. I.....	26,773	5	1	1	1	1	1	1	1	1
Dallas, Tex.....	129,738	82	1	1	1	1	1	1	1	7
Danville, Ill.....	32,969	15	1	1	1	1	1	1	1	1
Danville, Va.....	20,183	6	1	1	1	1	1	1	1	1
Dayton, Ohio.....	128,939	76	1	1	1	1	1	1	1	1
Denver, Colo.....	268,439	233	1	1	1	6	1	1	1	28
Des Moines, Iowa.....	104,052	1	3	1	1	2	1	1	1	1
Detroit, Mich.....	619,648	401	90	15	3	45	1	19	1	24
Dover, N. H.....	13,276	3	1	1	1	1	1	1	1	1
Du Bois, Pa.....	14,994	2	1	1	1	1	1	1	1	1
Duluth, Minn.....	97,077	32	15	1	1	1	1	1	1	2
Durham, N. C.....	26,160	5	1	1	1	1	1	1	1	1
East Chicago, Ind.....	30,286	12	1	1	1	1	1	1	1	1
Easthampton, Mass.....	10,656	1	1	1	1	1	1	1	1	1
East Orange, N. J.....	43,761	12	3	1	1	1	1	1	1	1
East Providence, R. I.....	18,486	2	1	1	1	1	1	1	1	1
Eau Claire, Wis.....	18,887	1	1	1	1	2	1	1	1	1
Elgin, Ill.....	28,562	9	1	1	1	1	1	1	1	1
Elmira, N. Y.....	38,272	19	1	1	1	1	1	1	1	2
El Paso, Tex.....	69,149	49	4	1	10	1	1	1	1	7
Elyria, Ohio.....	19,503	14	1	1	1	1	1	1	1	1
Englewood, N. J.....	12,603	3	1	1	1	1	1	1	1	1
Eric, Pa.....	76,592	2	1	1	1	1	1	1	1	1
Escanaba, Mich.....	15,854	12	1	1	1	1	1	1	1	1
Evanston, Ill.....	29,304	19	1	1	2	1	1	1	1	1
Everett, Mass.....	40,160	7	1	1	1	1	1	1	1	1
Everett, Wash.....	37,205	1	1	1	1	1	1	1	1	1
Fairmont, W. Va.....	16,111	1	1	1	1	1	1	1	1	1
Fall River, Mass.....	129,828	48	5	1	7	1	1	1	1	5
Fargo, N. Dak.....	17,872	8	1	1	1	1	1	1	1	1
Farrell, Pa.....	10,190	1	1	1	1	1	1	1	1	1
Findlay, Ohio.....	14,858	9	1	1	1	1	1	1	1	1
Flint, Mich.....	57,386	33	2	1	1	1	1	1	1	1
Fond du Lac, Wis.....	21,486	11	1	1	1	1	1	1	1	1
Fort Dodge, Iowa.....	21,039	1	1	1	1	2	1	1	1	1
Fort Scott, Kans.....	10,564	6	1	1	1	1	1	1	1	1
Fort Worth, Tex.....	109,597	53	1	1	1	1	1	1	1	2
Fostoria, Ohio.....	10,959	6	1	1	1	1	1	1	1	1
Frederick, Md.....	11,225	11	1	1	1	1	1	1	1	1
Freeport, Ill.....	19,844	5	1	1	1	1	1	1	1	1
Fremont, Nebr.....	10,080	11	1	1	1	1	1	1	1	2
Galesburg, Ill.....	24,629	14	1	1	1	1	1	1	1	1
Gardner, Mass.....	17,534	2	1	1	1	1	1	1	1	1
Geneva, N. Y.....	13,915	1	1	1	1	1	1	1	1	1
Grand Rapids, Mich.....	382,861	63	3	1	2	1	1	1	1	1
Green Bay, Wis.....	30,017	11	1	1	1	1	1	1	1	1
Greenfield, Mass.....	12,251	9	1	1	1	1	1	1	1	1
Greenville, S. C.....	18,574	5	1	1	1	1	1	1	1	1
Greenwich, Conn.....	19,594	1	1	1	1	1	1	1	1	1
Hackensack, N. J.....	17,412	14	1	1	1	1	1	1	1	1
Hammond, Ind.....	27,016	14	1	1	1	1	1	1	1	1
Harrisburg, Pa.....	73,276	1	1	1	1	1	1	1	1	1
Hartford, Conn.....	112,831	48	8	1	18	1	1	1	1	4
Haverhill, Mass.....	49,180	13	2	1	1	1	1	1	1	1
Hazleton, Pa.....	28,981	2	1	1	1	1	1	1	1	1

<sup>1</sup> Population Apr. 15, 1910.

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

City Reports for Week Ended Dec. 21, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Helena, Ark.....	11,122	4								
Henderson, Ky.....	12,312	7								3
Highland Park, Mich.....	33,859		2							
Hoboken, N. J.....	78,324	15	1						1	
Holland, Mich.....	12,453	3								
Holyoke, Mass.....	66,503	34					1			3
Houston, Tex.....	116,878	52	5	1			1		3	7
Hudson, N. Y.....	12,898	8								1
Independence, Mo.....	11,964	8								
Indianapolis, Ind.....	283,622	93	11		10		7		1	5
Ithaca, N. Y.....	16,017	6					4		2	1
Jackson, Mich.....	35,996	19	2				5			1
Jamestown, N. Y.....	37,431	16	3						2	
Janesville, Wis.....	14,411	8								
Jersey City, N. J.....	312,557		19		1		6		16	
Johnstown, N. Y.....	10,678	2							1	
Johnstown, Pa.....	70,473		7				1		3	
Kalamazoo, Mich.....	50,408	23	2				1		1	4
Kankakee, Ill.....	14,270		1							
Kansas City, Kans.....	102,096		3						1	
Kansas City, Mo.....	305,816	241	7		2		2			8
Kearny, N. J.....	24,325				1		4		2	1
Kenosha, Wis.....	32,833	7	1		1		2			1
Knoxville, Tenn.....	59,112		2	1			1		3	3
Kokomo, Ind.....	21,929	6					1			
Lackawanna, N. Y.....	16,219	16	6	1	14		2		2	1
La Crosse, Wis.....	31,835	21								1
La Fayette, Ind.....	21,481	16	3	1						1
Lancaster, Pa.....	51,437		5		3					
Lawrence, Kans.....	13,477	18								
Lawrence, Mass.....	102,923	35	1						3	1
Leavenworth, Kans.....	19,363	14	3				1			
Lincoln, Nebr.....	46,957	29	1	1			1			1
Little Rock, Ark.....	58,716	13	4				5		2	2
Logansport, Ind.....	21,338	14								
Long Beach, Cal.....	29,163	17	6				1		1	1
Long Branch, N. J.....	15,733	6							1	
Lorain, Ohio.....	38,266	12	1				5			
Los Angeles, Cal.....	535,485	286	18	3	1		9		30	21
Louisville, Ky.....	240,808	116	5		2		1		7	4
Lowell, Mass.....	114,356	46	8	1	3		6		3	6
Lynchburg, Va.....	33,497	9							1	1
Lynn, Mass.....	104,534	67	6	1			1	1	4	4
McAlester, Okla.....	19,398	7	1							
Mahanoy City, Pa.....	17,709		1							
Malden, Mass.....	52,243		4				1			2
Manchester, Conn.....	15,859	3					3			
Manchester, N. H.....	79,607	24	4	2			1		6	1
Manistee, Mich.....	12,381	3								
Manitowoc, Wis.....	13,931	8	1							
Mansfield, Ohio.....	25,051								1	
Marinette, Wis.....	14,610	12	1				1			
Marshalltown, Iowa.....	14,519		1				1			
Martins Ferry, Ohio.....	10,135	2								1
Mason City, Iowa.....	14,938	9								
Massillon, Ohio.....	15,509	6								
Medford, Mass.....	26,681	11	3							
Melrose, Mass.....	17,724	9					1			
Memphis, Tenn.....	151,877	75	8		2		3		9	8
Meridian, Miss.....	21,824	8							2	
Middletown, Ohio.....	16,584	5								1
Milford, Mass.....	14,280	6								
Milwaukee, Wis.....	445,008	278	6	1	2	1	18	1	23	12
Minneapolis, Minn.....	373,448	180	19	2	1		2			4
Missoula, Mont.....	19,075	12								1
Mobile, Ala.....	59,201	29	1				1			3
Moline, Ill.....	27,976	18	1				1			
Monessen, Pa.....	23,070		5							
Montclair, N. J.....	27,067	5	1							1
Montgomery, Ala.....	44,039	23					2			
Morgantown, W. Va.....	14,444	7	3							

1 Population Apr. 15, 1910.

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

City Reports for Week Ended Dec. 21, 1918—Continued.

City.	Popula- tion as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Moundsville, W. Va.	11,513	19					1			
Mount Carmel, Pa.	20,709							2		
Mount Vernon, N. Y.	37,991	8	2					1	1	
Muncie, Ind.	25,653	10						4	1	
Nanticoke, Pa.	23,811		2		1		1			
Nashua, N. H.	27,541	7					1			2
Nashville, Tenn.	118,136	53	3		1	1	1	1	1	1
Natick, Mass.	10,140	22								1
Newark, N. J.	418,789	196	31	2			8		16	22
New Bedford, Mass.	121,622	32	3	1	1		2		11	1
New Britain, Conn.	55,385	23	1	2	3		2			
Newburgh, N. Y.	29,893	14					1		1	
Newburyport, Mass.	15,291	5					1			1
New Castle, Ind.	14,144	4								
New Haven, Conn.	152,275	89	13	1	5			5		3
New London, Conn.	21,199	13	5				1			
New Orleans, La.	377,010	190	1						40	29
Newport, Ky.	32,133	11								
Newport, R. I.	30,585	11					2			
Newton, Mass.	44,345	15	3	1			1		3	1
New York, N. Y.	5,737,492	1,707	259	23	18		98		211	155
Niagara Falls, N. Y.	38,466		1						1	
North Adams, Mass.	122,019	4						2		
Northampton, Mass.	20,006	18	1				2			2
North Attleboro, Mass.	11,248	4								1
North Tonawanda, N. Y.	14,060	6	1							
Norwich, Conn.	21,923	2								1
Norwood, Ohio.	23,269	5								
Oakland, Cal.	208,405	81	2		1		2		3	3
Ogden, Utah.	32,343	17								
Oil City, Pa.	20,162		2							
Oklahoma City, Okla.	97,588	30							2	3
Olean, N. Y.	16,927	7								
Omaha, Neb.	177,777	114	10	2	4		2	1		11
Orange, N. J.	33,636	21	3							
Oshkosh, Wis.	33,549	9			1					
Ossining, N. Y.	14,064	8	1				1		1	
Oswego, N. Y.	24,219	1	1				2		1	
Palestine, Tex.	12,075	5								
Parkersburg, W. Va.	21,059	6	3						1	1
Pasadena, Cal.	49,620	15					1			
Passaic, N. J.	74,478	16	5						1	1
Pawtucket, R. I.	60,666	29	3				1			3
Peekskill, N. Y.	19,034	6								
Pekin, Ill.	10,973		6							
Peoria, Ill.	72,184	37	1				1			2
Perth Amboy, N. J.	42,646	7							1	1
Philadelphia, Pa.	1,735,514	548	70	2	13		26		66	52
Piqua, Ohio.	14,275	14								
Pittsburgh, Pa.	586,196		18		1		10		11	
Pittsfield, Mass.	39,678	18								1
Plainfield, N. J.	24,330	7	3							1
Plymouth, Mass.	14,001	18								1
Plymouth, Pa.	19,439		3		1					
Pomona, Cal.	13,624	6								1
Pontiac, Mich.	18,008	7	4				2			
Port Chester, N. Y.	16,727	5							2	2
Portland, Me.	64,720	67								2
Portland, Oreg.	308,399	112	4	1	1		4		8	4
Portsmouth, N. H.	11,730								1	
Pottsville, Pa.	22,717		2							
Providence, R. I.	259,895	113	19	3			6			9
Quincy, Ill.	36,832	17					1			
Rahway, N. J.	10,361	8								
Raleigh, N. C.	20,274	18							1	1
Reading, Pa.	111,607		7		22		1			
Redlands, Cal.	14,573						1		1	
Richmond, Va.	158,702	114	6	1	1				1	11
Riverside, Cal.	20,486	15					1		1	3
Roanoke, Va.	48,282	27	2		3					
Rochester, N. Y.	264,714	148	6	1	1		14		5	5
Rockford, Ill.	66,739	18					1			1

<sup>1</sup> Population Apr. 15, 1910.

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

City Reports for Week Ended Dec. 21, 1918—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Rock Island, Ill.	29,452	19					1			
Rocky Mount, N. C.	12,673	3	1							
Rome, N. Y.	24,259								1	
Rutland, Vt.	15,038	7								
Sacramento, Cal.	68,964	55	1				1		3	
Saginaw, Mich.	56,469	40	3		1		1			
St. Joseph, Mo.	86,498	37	8	1			6		2	
St. Louis, Mo.	768,630	463	42	3	2		12		25	18
St. Paul, Minn.	252,465	130	9	3	1		9		5	8
Salem, Mass.	49,346		4				2			
Salt Lake City, Utah.	121,623	48	5	1	1		5	1		
San Angelo, Tex.	10,321	5								1
San Antonio, Tex.	128,215	29							6	6
San Diego, Cal.	56,412	95	2						3	1
Sandusky, Ohio	20,226	20							1	
Sanford, Me.	11,217	2								
Santa Barbara, Cal.	15,360	6	1							
Santa Cruz, Cal.	15,150	2					1			
Saratoga Springs, N. Y.	13,639	6								
Sault Ste. Marie, Mich.	14,130	2								
Schenectady, N. Y.	103,774	25	4		2				2	
Shamokin, Pa.	21,274		5	2						
Shenandoah, Pa.	29,753		1	3					6	
Sioux City, Iowa.	58,568		1							
Sioux Falls, S. Dak.	16,887	4								
Somerville, Mass.	88,618	28	4				2		4	
South Bend, Ind.	70,967	21								1
Southbridge, Mass.	14,465	5								
Springfield, Ill.	62,623	51	2							1
Springfield, Mass.	106,668	85	6	1			1		4	4
Springfield, Ohio.	52,296	20			38					
Stockton, Cal.	36,209	46								
Superior, Wis.	47,167	15	1							
Syracuse, N. Y.	158,559	47	7				13		4	3
Tacoma, Wash.	117,446		3		1		3			
Taunton, Mass.	36,610	13			16		1		1	1
Terre Haute, Ind.	67,361	26								2
Toledo, Ohio.	202,010	134	8	1	1		5	2	1	5
Trenton, N. J.	113,974	32	6		1				4	3
Tuscaloosa, Ala.	10,824	7	1						2	
Vallejo, Cal.	13,803	2								
Waco, Tex.	34,015	6	1		3				1	1
Waltham, Mass.	31,011	8					2			1
Warren, Pa.	15,083		2							
Washington, D. C.	369,282	231	18	5	2		5		13	9
Washington, Pa.	22,076		1							
Waterloo, Iowa.	36,987	25					1			
Watertown, Mass.	15,188	2	2							
Wausau, Wis.	19,666	5								1
West Chester, Pa.	13,403								1	
Westfield, Mass.	18,769	18	5	1			3		1	1
West Hoboken, N. J.	44,386	10	1						1	
West New York, N. J.	19,613	2	1				2		1	
West Orange, N. J.	13,964	5	3		1		1			
Wheeling, W. Va.	43,657	31								2
Wichita, Kans.	73,597								2	1
Wilkes-Barre, Pa.	78,334		1							
Wilkinsburg, Pa.	23,899		1							
Wilmington, Del.	95,369	34	3	1			1		3	3
Wilmington, N. C.	30,400	16							1	2
Winchester, Mass.	10,812	4								
Winona, Minn.	18,583	6								1
Winston-Salem, N. C.	33,136	33					1		2	2
Winthrop, Mass.	13,105		1							
Woburn, Mass.	16,076	12								
Worcester, Mass.	166,106	83	4		9		5		7	4
Yonkers, N. Y.	103,066	25	1				1			2
Youngstown, Ohio.	112,282	46	1		3		4		2	1
Zanesville, Ohio.	31,320	24					1			2

<sup>1</sup> Population Apr. 15, 1910.

## FOREIGN.

### INFLUENZA ON VESSELS.

Steamship "Aikoku Maru"—Ponta Delgada, Azores.

Influenza affecting nearly the entire crew was reported December 28, 1918, on the steamship *Aikoku Maru* at Ponta Delgada, Azores.

Steamship "Demerara"—Rio de Janeiro, Brazil.

An epidemic outbreak of influenza was reported at Rio de Janeiro, Brazil, occurring in connection with the arrival at that port of the steamship *Demerara* from Europe.

### BRAZIL.

Influenza—Para.

During the period from October 20 to November 23, 1918, 21,000 cases of influenza, with 541 fatalities, were reported at Para, Brazil.

Further Relative to Influenza—Rio de Janeiro.<sup>1</sup>

According to information dated October 30, 1918, epidemic influenza had occurred at Rio de Janeiro, Brazil. It was stated that the infection spread rapidly and that within a few days there were between 200,000 and 300,000 cases of the disease. It was estimated that about 700,000 inhabitants of the city, the population of which was approximately 1,000,000, were attacked. The number of fatalities was estimated at about 15,000, occurring during a prevalence of less than six weeks. On October 30, 1918, the disease was reported to be still present but with an inconsiderable number of cases.

### CHILE.

Typhus Fever—Santiago—Valparaiso.

Typhus fever was reported present at Santiago, Chile, December 30, 1918, with about 30 cases, and at Valparaiso with about 300 cases.

### ECUADOR.

Antimosquito Campaign—Guayaquil.

According to information dated November 27, 1918, a campaign for the destruction of the yellow fever mosquito has been initiated at Guayaquil, Ecuador. Insanitary localities are stated to be in process of correction, both as regards the destruction of larvæ and the prevention of egg laying.

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<sup>1</sup> Public Health Reports, Oct. 25, 1918, p. 1847.



## PORTUGUESE EAST AFRICA.

## Influenza—Lourenço Marques.

During the two weeks ended November 3, 1918, 239 cases of influenza were reported at Lourenço Marques, Portuguese East Africa.

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

Reports Received During Week Ended Jan. 10, 1919.<sup>1</sup>

## CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bombay.....	Aug. 18-Oct. 5....	15	11	
<b>Indo-China:</b>				
Cochin-China—				
Saigon.....	Oct. 7-Nov. 3....	15	9	
<b>Mesopotamia:</b>				
Bagdad.....	Oct. 11-18.....	1		
<b>Philippine Islands:</b>				
Manila.....	Oct. 27-Nov. 2....	20	12	
<b>Provinces</b>				Oct. 27-Nov. 2, 1918: Cases, 247; deaths, 206.
Batangas.....	Oct. 27-Nov. 2....	111	97	
Bohol.....	do.....	2	2	
Bulacan.....	do.....	5	6	
Cavite.....	do.....	20	16	
Iloilo.....	do.....	3	3	
Laguna.....	do.....	2	2	
Misamis.....	do.....	6	5	
Oriental Negros.....	do.....	4	3	
Pangasinan.....	do.....	87	69	
Rizal.....	do.....	3	1	
Union.....	do.....	4	2	
<b>Russia:</b>				
Petrograd.....	To July 16.....	3,388	1,054	
Do.....	July 17-Aug. 21..	2,943	1,455	In civil hospita's. In military hospita's, July 5-Aug. 21, 1918: Cases, 884; deaths, 783.

## PLAGUE.

<b>Ecuador:</b>				
Guayaquil.....	Nov. 1-15.....	3	3	
<b>India:</b>				Sept. 23-Oct. 19, 1918: Cases, 9,965; deaths, 7,756.
Bombay.....	Aug. 18-Oct. 19..	32	21	
Karachi.....	Sept. 22-Oct. 19..	15	15	
Madras Presidency.....	Oct. 13-26.....	206	135	
<b>Indo-China:</b>				
Cochin-China—				
Saigon.....	Oct. 7-Nov. 3....	3	1	

## SMALLPOX.

<b>Algeria:</b>				
Algiers.....	Oct. 1-31.....	1		
<b>Canada:</b>				
New Brunswick—				
St. John.....	Nov. 8-14.....	3		
Quebec.....				
Montreal.....	Nov. 24-30.....	1		
Quebec.....	Dec. 15-21.....	1		Reported as varioloid.
<b>India:</b>				
Bombay.....	Aug. 18-Oct. 19..	11	3	
Karachi.....	Sept. 29-Oct. 5....	1	1	
<b>Indo-China:</b>				
Cochin-China—				
Saigon.....	Oct. 7-20.....	13	3	
<b>Japan:</b>				
Kobe.....	Nov. 17-30.....	48	8	
<b>Mesopotamia:</b>				
Bagdad.....	Oct. 11-18.....	11		
<b>Mexico:</b>				
Ciudad Juarez.....	Nov. 24-30.....	1		

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

**CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.****Reports Received During Week Ended Jan. 10, 1919—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Newfoundland:</b>				
St. Johns.....	Dec. 14-20.....	1		
Out ports—				
Baine Harbor.....	do.....	2		
Bryants Cove.....	Dec. 7-13.....	3		
Burin.....	do.....	4		
Coleys Point.....	Dec. 14-20.....	1		
Musgrave Harbor.....	Dec. 7-13.....	4		
Paradise.....	do.....	60		Placentia Bay.
<b>Spain:</b>				
Cadiz.....	Oct. 1-31.....		3	
Madrid.....	Sept. 1-Oct. 31.....		155	
<b>Straits Settlements:</b>				
Penang.....	Oct. 6-12.....	1		
<b>Union of South Africa:</b>				
Cape of Good Hope State—				
Cape Town.....	Aug. 1-30.....	1		

**TYPHUS FEVER.**

<b>Colombia:</b>				
Barranquilla.....	Nov. 8-Dec. 7.....		2	
<b>Egypt:</b>				
Alexandria.....	Oct. 1-7.....	16	6	
<b>Greece:</b>				
Saloniki.....	Sept. 29-Oct. 19.....		19	

**YELLOW FEVER.**

<b>Ecuador:</b>				
Duran.....	Nov. 1-15.....	1	1	
Guayaquil.....	do.....	38	21	
Milagro.....	do.....	1		

**Reports Received from Dec. 28, 1918, to Jan. 3, 1919.<sup>1</sup>****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Madras.....	Oct. 5-26.....	36	18	
Rangoon.....	Oct. 5-12.....	1	1	
<b>Indo-China:</b>				
Anam.....	Aug. 1-31.....	5	5	
Cambodia.....	do.....	98	71	
Cochin-China.....	do.....	110	89	
Tonkin.....	do.....	1		
<b>Java:</b>				
East Java.....				
Surabaya.....	Oct. 7-21.....	7	6	Oct. 7-21, 1918: Cases, 109; deaths, 94.
Mid-Java.....				Sept. 25-Oct. 16, 1918: Cases, 1,389; deaths, 857.
Samarang.....	Sept. 25-Oct. 16.....	120	111	
West Java.....				Oct. 2-23, 1918: Cases, 190; deaths, 112.
Batavia.....	Oct. 2-23.....	140	84	
<b>Philippine Islands:</b>				
Manila.....	Nov. 3-9.....	8	4	
Provinces.....				
Batangas.....	Nov. 3-9.....	45	44	Nov. 2-9, 1918: Cases, 264; deaths, 211.
Bohol.....	do.....	17	15	
Cavite.....	do.....	18	12	
Iloilo.....	do.....	6	3	
Oriental Negros.....	do.....	16	5	
Pangasinan.....	do.....	148	123	
Tayabas.....	do.....	7	4	
Union.....	do.....	7	5	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 29, 1918, to Dec. 27, 1918, see Public Health Reports for Dec. 27, 1918. The tables of epidemic diseases are terminated semiannually and new tables begun.

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

Reports Received from Dec. 28, 1918, to Jan. 3, 1919—Continued.

### PLAGUE.

Placc.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....				Present.
Hongkong.....	Oct. 26-Nov. 2....	1	1	
Do.....	Nov. 9-16.....	1	1	
Nanking.....	Nov. 2-9.....			Always prevalent.
India:				
Karachi.....	Oct. 19-26.....	1	1	
Rangoon.....	Oct. 5-12.....	22	22	
Indo-China:				
Anam.....	Aug. 1-31.....	15	10	
Cambodia.....	do.....		23	
Cochin-China.....	do.....	14	11	
Java:				
East Java.....				Oct. 7-21, 1918: Cases, 17; deaths, 17.
Surabaya.....	Oct. 7-21.....	3	3	
Mid-Java.....				Sept. 25-Oct. 16, 1918: Cases, 14, deaths, 14.
Samarang.....	Sept. 25-Oct. 16....	6	6	
Siam:				
Bangkok.....	Sept. 21-29.....	4	3	
Do.....	Oct. 5-12.....	2	2	

### SMALLPOX.

Canada:				
Halifax.....	Dec. 7-14.....	4		
Montreal.....	Dec. 14-21.....	1		
China:				
Amoy.....	Oct. 13-20.....			Present.
Do.....	Oct. 28-Nov. 4.....			Do.
Foochow.....				Always prevalent.
Denmark:				
Copenhagen.....	Nov. 9-23.....	5		
India:				
Madras.....	Oct. 5-26.....	12	8	
Indo-China:				
Anam.....	Aug. 1-31.....	29	8	
Cambodia.....	do.....	78	40	
Cochin-China.....	do.....	97	27	
Tonkin.....	do.....	5		
Japan:				
Kobe.....	Oct. 26-Nov. 9....	7	4	
Java:				
East Java.....				Oct. 7-21, 1918: Cases, 6.
Surabaya.....	Oct. 7-21.....	3		
Mid-Java.....				Sept. 25-Oct. 16, 1918: Cases, 55.
West Java.....				Oct. 2-23, 1918: Cases, 313; deaths, 101.
Batavia.....	Oct. 2-23.....	73	58	
Newfoundland:				
St. Johns.....	Dec. 6-13.....	3		
Philippine Islands:				
Manila.....	Nov. 2-9.....	2	2	
Portugal:				
Lisbon.....	Nov. 16-23.....	255		

### TYPHUS FEVER.

Brazil:				
Ceara.....	Sept. 14-21.....	1		
Egypt:				
Alexandria.....	Oct. 14-Nov. 25....	63	39	
Japan:				
Nagasaki.....	Nov. 10-24.....	2	1	
Java:				
East Java.....				Oct. 7-21, 1918: Cases, 5.
Surabaya.....	Oct. 7-21.....	4		
Mid-Java.....				Sept. 25-Oct. 16, 1918: Cases, 8.
West Java.....				Oct. 2-23: Cases, 31; deaths, 6.
Batavia.....	Oct. 2-23.....	15	4	
Union of South Africa:				
Port Elizabeth.....	Sept. 14-28.....			Present among natives in several interior towns.