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A STUDY OF THE RELATION OF FACTORS OF A SANITARY CHARACTER TO PELLAGRA INCIDENCE IN SEVEN COTTON-MILL VILLAGES OF SOUTH CAROLINA IN 1916.¹

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Introduction.

In the spring of 1916 a study was begun of the relation of various factors to pellagra incidence in some representative textile-mill communities in South Carolina. On a varying scale the study was continued through 1917 and 1918. The results of the first year's (1916) study with respect to diet² have already been reported as have also the data relating to the general incidence³ of the disease in the population of the selected mill villages. In the present paper we wish to record the results of the part of this study dealing with the relation of sanitation to the incidence of the disease.

Locality and Population.

Locality.—The study was made in seven representative cotton-mill villages in the northwestern part of South Carolina. Four (*At.*, *In.*, *Sn.*, and *Wy.*) are in Spartanburg County, two (*Sa.* and *Ny.*) in Oconee County and one (*Rc.*) in Chester County. All had previously been studied more or less intensively by the Thompson McFadden Commission.

Population.—The villages were of about average size; none had over 800 or less than 500 inhabitants. Each constituted a distinct, more or less isolated community in close proximity to a cotton-cloth manufacturing plant and was composed practically exclusively of the mill employees and their families.

But few Negroes are employed in or about a cotton mill; these with their families usually live in a quarter somewhat apart from that of the white families. Contact between the two races in the mill is very slight; it is more frequent at the stores, which are patronized in common, and in the houses of some of the white operatives in which colored women are at times employed as laundresses or

¹ From Field Investigations of Pellagra. Manuscript submitted for publication March 3, 1920.

² Goldberger, Wheeler, and Sydenstricker, 1918; also 1920 a.

³ Goldberger, Wheeler, and Sydenstricker, 1920 b.

cooks, or to nurse the very young children while both parents are at work in the mill.

The families¹¹¹ of only the white mill operatives were included in the study; those of the mill officials, store managers, and of Negro employees were not considered. There was, therefore, no significant difference in race or occupation (other than that of employment or nonemployment in the cotton mills) in the population studied. In evaluating the sanitary factors considered in determining the sanitary rating of a village, conditions in the Negro quarter were taken into account, but the pellagra rates represent the incidence in the white population as above defined.

The general data relating to population were secured by a census of the villages, made during May and June, 1916, in connection with the general study of which the present paper is a part.

Methods of Study.

Pellagra incidence.—The method of determining the incidence of the disease has been described at length in previous papers.¹ Briefly, in order to ascertain the incidence of the disease as completely as possible, the expedient of a systematic biweekly house-to-house search for cases was employed and almost exclusively depended on. A few cases, relatively negligible in number, came to our attention through the courtesy of the local physicians. In no instance, however, was a case recorded by us as pellagra until seen and the diagnosis confirmed by one of us (G. A. W. or J. G.).

Criteria of pellagra.—Only cases with a clearly defined, bilaterally symmetrical dermatitis were recorded as pellagra, and the date of the appearance of the eruption was assumed to mark the onset of the attack. It is recognized that in this assumption a certain error is involved. The fact, however, that in a very large proportion of our cases a history of symptoms antedating the eruption could either not be obtained or was so vague that a definite date of onset could not be fixed, made such assumption practically unavoidable; therefore, for the sake of uniformity and in order to eliminate any possible bias, this rule was adopted and applied in all cases.

Initial and recurrent attacks.—In recording our cases, inquiry was always made as to any previous attack, and the statement of the patient or responsible member of the family was recorded. The accuracy of the information thus secured is, however, open to doubt in many instances. It is highly probable, if not quite certain, that some of our recorded first attacks were really recurrences, and also that some of the cases recorded as recurrent were really initial. As there is no reason to believe that the trend of the error would vary materially in different villages, a comparison of villages on the basis of rates for initial attacks would seem permissible.

¹ Goldberger, Wheeler, and Sydenstricker, 1920 a. ² Goldberger, Wheeler, and Sydenstricker, 1920 b.

Comparison of Village Incidence of Pellagra.

In Table I is presented the gross rate for all definite cases, without distinction as to whether initial or recurrent, recorded in each of the villages studied during the year. Quite marked variations in rates are shown, the extremes being 1.3 and 67.6 per 1,000 of population. The household incidence rate of the respective villages, presented in Table III, likewise shows considerable variation, the extremes being 0.8 and 25.4 per cent.

TABLE I.—*Incidence of all definite attacks of pellagra recorded in specified mill villages of South Carolina in 1916.*

(Rate based on population ascertained by census made in May and June, 1916.)

Mill village.	Number of persons considered.	Number of definite cases.	Cases per 1,000.
All villages.....	4,399	115	26.2
<i>At</i>	579	14	24.2
<i>In</i>	681	46	67.6
<i>Ny</i>	750	1	1.3
<i>Rc</i>	603	19	31.5
<i>Sn</i>	642	8	12.5
<i>Ss</i>	504	15	29.7
<i>Wg</i>	640	12	18.7

* Includes one case the onset of whose attack occurred in 1915 and continued into 1916. Died, June, 1916.

For the purpose of comparing villages with respect to incidence it would appear that these gross rates might be subject to inaccuracies arising from two circumstances; namely, (1) the inclusion of imported cases and (2) the possible differences in the degree of shifting in the populations of the several villages during the period of observation, and therefore in the degree of their "exposure" so far as length of residence during the 1916 "pellagra season" is concerned.

It is manifestly desirable to exclude, as far as possible, those cases that might have originated in localities other than those in which they happened to be recorded. Thus it was found that several cases were unmistakably active before coming to the village in which they were first observed; and several others might properly be classed as imported, since they could reasonably be associated with conditions possibly existing at previous places of residence. On the assumption of an unknown etiology and unknown period of development or incubation, it was necessary, for our present purpose, to assume some period which might be used to differentiate between imported and local cases. Accordingly, it was decided to discard as possibly imported all cases the onset of whose 1916 attack occurred within less than 30 days after the individual came to the village to reside. The resulting village rates are shown in Table II. Comparing these rates with those in Table I, it is seen that while the individual

rates are slightly reduced, the relative standing of the villages is not affected. The corresponding comparison of household rates is presented in Table III, and shows much the same insignificant effect on the rates.

TABLE II.—*Incidence of definite attacks of pellagra with onset after residence of not less than 30 days in specified mill villages of South Carolina in 1916.*

[Rate based on population ascertained by census made in May and June, 1916.]

Mill village.	Number of persons considered.	Number of definite cases.	Cases per 1,000.
All villages.....	4,399	103	23.4
<i>At</i>	579	12	20.7
<i>In</i>	681	44	64.6
<i>Ny</i>	750	0	0.0
<i>Rc</i>	603	^a 15	24.9
<i>Sn</i>	642	7	10.9
<i>Sa</i>	504	13	25.8
<i>Wy</i>	640	12	18.7

^a Includes one case the onset of whose attack occurred in 1915 and continued into 1916. Died in June, 1916.

TABLE III.—*Household incidence of pellagra in specified mill villages of South Carolina in 1916: Comparison of rates for all definite cases regardless of period of residence before onset with those for definite cases with onset after a residence of not less than 30 days.*

[Households as enumerated in May and June, 1916.]

Mill village.	Number of households as of census in May-June, 1916.	Households with definite cases of pellagra.			
		All cases regardless of period of residence.		Cases with onset after residence of not less than 30 days.	
		Number.	Per cent.	Number.	Per cent.
All villages.....	798	76	9.5	70	8.8
<i>At</i>	114	9	7.9	8	7.0
<i>In</i>	118	30	25.4	29	24.6
<i>Ny</i>	133	1	0.8	0	0.00
<i>Rc</i>	100	13	13.0	11	11.0
<i>Sn</i>	131	6	4.6	4	3.1
<i>Sa</i>	85	7	8.2	7	8.2
<i>Wy</i>	117	11	9.4	11	9.4

In order to ascertain the comparability of the populations of the several villages with respect to exposure as affected by length of residence, records were kept of the moving in and out of families in each village subsequent to the May and June enumeration, and a census was taken of each family whose residence in the village began subsequent to this enumeration. On the basis of the data thus secured, Table IV was prepared. This presents statistics of the total population which resided in each village for periods of one month or longer between March 1 and October 31, 1916. The period from March 1 to October 31 was selected because practically all of the 1916 attacks of pellagra had their onsets between these-

dates, the large majority being between May 1 and August 1. Examination of this table reveals evidence of different degrees of shifting in villages, which, while not very great, is yet sufficient to be kept in mind as a possible source of error. It suggests that small differences in rates based on the census population are not to be closely regarded.

TABLE IV.—*Population resident during various periods between Mar. 1 and Oct. 31, 1916, in specified mill villages of South Carolina.*

[Population as ascertained by census of white mill workers' households at various times between May 1 and Oct. 31, 1916.]

NUMBER RESIDING THE SPECIFIED NUMBER OF MONTHS OR LONGER.¹

Mill village.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.	8 months.
<i>At</i>	691	672	621	591	578	559	516	450
<i>In</i>	827	779	735	717	682	667	620	595
<i>Ny</i>	986	916	852	811	731	680	646	593
<i>Rc</i>	730	730	694	647	613	508	465	447
<i>Sc</i>	836	806	745	693	647	560	525	499
<i>Sa</i>	608	578	536	461	448	442	420	392
<i>Wy</i>	786	739	711	672	649	615	559	523
Total.....	5,464	5,218	4,884	4,592	4,348	4,031	3,781	3,489

PER CENT RESIDING THE SPECIFIED NUMBER OF MONTHS OR LONGER.

<i>At</i>	100	97	90	85	84	81	75	65
<i>In</i>	100	94	89	87	83	81	75	72
<i>Ny</i>	100	93	86	82	74	69	66	60
<i>Rc</i>	100	100	95	89	84	70	64	61
<i>Sc</i>	100	96	89	83	77	67	63	59
<i>Sa</i>	100	95	88	76	74	73	69	64
<i>Wy</i>	100	93	89	85	83	78	75	67
Total.....	100	96	89	83	80	74	69	64

¹ Persons in households residing in the village less than one month have been omitted.

In order to determine the effect on the rates of eliminating the possible error arising from different degrees of shifting among the populations of the different villages, we have computed a rate on the basis of the population resident throughout the period March 1–October 31, considering only those cases occurring in that population during this period. The resulting rates are shown in Table V. A comparison of these rates with the gross, and what may be designated as the refined rate, based on the census populations, shown in Tables I and II, respectively, reveals on the whole remarkably little difference, a difference which in no way affects the relative standing of the villages, as very clearly appears by reference to Table VI. It would follow, therefore, that either of the rates based on the census population is satisfactory for comparative purposes. But it may be worth recalling that, for the reasons already mentioned, and also because of the fact that a single household with two or more cases of

¹ Since only one census was made of each household, a certain degree of inaccuracy in the statistics of population residing during any given period is probable. This arises from the fact that records were kept of the household units with respect to their moving; it was impracticable to record the coming and going of every individual member of the household units. The moving in and out of individuals separately from their households, however, was relatively slight in any village, and the error arising from this cause may be regarded as negligible. There was no reason to believe, moreover, that the shifting of individuals of a given sex or age was relatively greater in one village than in another.

pellagra may appreciably affect the rate of a village of the size of those under consideration, but little if any significance, as reflecting community conditions, can be attached to any but quite well-marked differences in rates. With these considerations in mind, our villages would seem to fall into three groups: (1) *In.*, with an extremely high rate; (2) *Ny.* and *Sn.*, with markedly low rates; and (3) *Wy.*, *At.*, *Rc.*, and *Sa.* with moderate rates.¹

TABLE V.—Incidence of all definite cases of pellagra with onset between Mar. 1 and Oct. 31, 1916, in persons of households all or part of the members of which resided continuously in the specified mill villages of South Carolina between those dates.

[Only those cases considered having onset after a residence of not less than 30 days in specified village.]

Mill village.	Number of persons considered.	Number of definite cases.	Cases per 1,000.
All villages.....	3,489	100	28.7
<i>At.</i>	450	10	22.2
<i>In.</i>	595	44	73.9
<i>Ny.</i>	593	0	0.0
<i>Rc.</i>	447	14	31.3
<i>Sn.</i>	489	7	14.3
<i>Sa.</i>	392	13	33.2
<i>Wy.</i>	523	12	22.9

TABLE VI.—Comparison of relative pellagra incidence of specified cotton-mill villages of South Carolina in 1916, according to different methods of computation.

[Base: Average rate per 1,000 in all villages.]

Mill village.	Ratios.		
	On the basis of population as censused in May and June, 1916.		On the basis of population residing continuously from Mar. 1 to Oct. 31, 1916.
	Total definite cases observed. ¹	Cases with onset after a residence of at least a month in the village specified. ²	Cases with onset between Mar. 1 and Oct. 31, after a residence of at least a month in the village specified. ³
All villages.....	100	100	100
<i>At.</i>	91	88	79
<i>In.</i>	255	273	261
<i>Ny.</i>	5	0	0
<i>Rc.</i>	119	105	111
<i>Sn.</i>	47	46	51
<i>Sa.</i>	112	109	117
<i>Wy.</i>	71	79	81

¹ See Table I.

² See Table II.

³ See Table V.

In the foregoing comparisons of pellagra incidence, no distinction was made between initial and recurrent cases. Reference has already been made, to the limitations attaching to such classification.

¹ The differences in the rates are so marked that it has not seemed worth while to compute them to a standard population.

Furthermore, in computing rates for these classes a serious source of possible error with respect to that for recurrent cases, if conventional practice is followed, should be noted. If, as some workers seem to believe, an essential etiological difference between an initial and a recurrent attack exists, it would necessarily follow that the rate for recurrent attacks should be based not as is that for first attacks, on the population as a whole,¹ but on the number of individuals in that population having a history of a previous attack of the disease.² For this purpose a record of all resident pellagrins would be necessary. Such we found it impracticable to secure, and so we are not in a position to make a comparison of the villages on the basis of rates for recurrent attacks determined in this way.

With the reservations suggested by the foregoing consideration in mind, we present Tables VII and VIII, in which are shown the incidence rates for initial and for recurrent attacks recorded in 1916. In the former table the incidence is computed for the population as censused in May and June; in the latter for the population residing continuously between March 1 and October 31. It will be observed in each of these tables that although the rate for initial attacks is in general decidedly lower than that for all cases, the relative position of the villages is not materially affected. Furthermore, a comparison of the rates for initial cases obtained by the methods of computation represented in these two tables shows but slight and unimportant differences, so that a comparison of villages on the basis of either of the rates for initial cases would seem to be permissible. It may be noted also that the relative incidence for recurrent cases differs distinctly from that for first attacks.

TABLE VII.—*Incidence of initial and of recurrent-attack cases of pellagra after a residence of not less than 30 days in specified mill villages of South Carolina in 1916.*

[Population ascertained by census made in May and June, 1916.]

Mill village.	Number of persons considered.	All cases.		Initial cases.		Recurrent cases.	
		Number.	Rate per 1,000.	Number.	Rate per 1,000.	Number.	Rate per 1,000.
All villages.....	4,399	103	23.4	63	14.3	40	9.1
<i>At</i>	579	12	20.7	4	6.9	8	13.8
<i>In</i>	681	44	64.6	29	42.6	15	22.0
<i>Ny</i>	750	0	0.0	0	0.0	0	0.0
<i>Rc</i>	603	³ 15	24.9	³ 6	10.0	9	14.9
<i>Sn</i>	642	7	10.9	4	6.2	3	4.7
<i>Sa</i>	504	13	25.8	12	23.8	1	2.0
<i>Wy</i>	640	12	18.7	8	12.5	4	6.2

¹ Strictly speaking the rate for initial attacks should be based on that portion of the population never previously affected. The possible error arising from using the entire population as a base may, even in these relatively small units, be regarded as negligible because of the relatively small number of that part previously affected.

² This would be unnecessary if the number of such present in the several villages formed a fairly uniform proportion of the population. There is reason to believe, however, that this ratio varies considerably.

³ Includes one case the onset of whose attack occurred in 1915 and continued until 1916. Died in June, 1916.

TABLE VIII.—Incidence of initial and of recurrent-attack cases of pellagra with onset between Mar. 1 and Oct. 31, 1916, in persons of households, all or part of the members of which resided continuously in the specified mill villages of South Carolina between those dates.

[Only those definite cases considered having the onset after a residence of not less than 30 days in specified village.]

Mill village.	Number of persons considered.	All cases.		Initial cases.		Recurrent cases.	
		Number.	Rate per 1,000.	Number.	Rate per 1,000.	Number.	Rate per 1,000.
All villages.....	3,489	100	28.7	54	15.5	46	13.2
At.....	450	10	22.2	3	6.7	7	15.5
In.....	595	44	73.9	26	43.7	18	30.3
Ny.....	593	0	0.0	0	0.0	0	0.0
Rc.....	447	14	31.3	5	11.2	9	20.1
Sn.....	489	7	14.3	4	8.2	3	6.1
Sa.....	392	13	33.2	8	20.4	5	12.8
Wy.....	523	12	22.9	8	15.3	4	7.6

Taking into account the small size of the population units, the small number of cases, and the previously mentioned sources of error affecting the rates, especially the rates for recurrent cases, it would seem that a comparison of villages on the basis of the rates for cases, without distinction as to whether initial or recurrent, would be the most significant; that on the basis of rates for initial cases next; and that on the basis of rates for recurrent cases least.

Sanitation.

An examination of the various factors, which, taken together, constituted the sanitary character of each of the several villages studied, showed rather marked differences in certain respects. Characterizing these factors singly or as a whole, broadly, as good, bad, or indifferent, while possibly satisfactory for some purposes, did not seem to lend itself very well to an intensive study of the relation of these factors to the incidence of pellagra, particularly as such general characterizations were open to the influence of personal bias. As Surg. W. H. Frost had developed a method for a survey of sanitary conditions with a definite system of weighted ratings for each of the several constituent factors in connection with his stream-pollution investigations, a request was made of Surg. Gen. Rupert Blue for the detail of a sanitary engineer, trained in Surg. Frost's procedure, to make an independent survey of the mill villages in which we were carrying on our study and to furnish us with a report of his findings, including a sanitary rating of each village.

In response to this request, Mr. R. E. Tarbett, Sanitary Engineer, United States Public Health Service, was detailed and made such a survey of the villages in November, 1916. From his detailed report are taken the ratings summarized in Table IX, and the basic data with respect to the extent to which various types of water supply and conservancy were used, are shown in Table X. The general sanitary rating being the sum of the individual ratings after weight-

ing, and as the weighting will naturally vary somewhat with the varying judgment of the importance to be attached to the individual factors, this general rating will be affected accordingly. The relative standing of the villages, however, will not be affected.

TABLE IX.—Summary of ratings of sanitary factors in specified mill villages of South Carolina in 1916.

[By R. E. Tarbett, Sanitary Engineer.]

Mill village.	Ratings.					
	Water supply.	Disposal of human excrement.	Sanitary control (flies, food-stuffs, and milk).	Control of communicable diseases.	Domestic environment and habits of population.	All factors. ¹
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
<i>At</i>	65.60	45.00	44.00	17.50	33.33	49.33
<i>In</i>	49.30	2.00	39.50	17.50	33.33	28.49
<i>Ny</i>	60.00	66.00	36.00	20.00	33.33	53.12
<i>Rc</i>	90.00	100.00	66.50	70.00	66.66	87.06
<i>Sn</i>	77.53	15.84	39.50	17.50	41.60	44.46
<i>Sa¹</i>	25.00	4.00	36.50	15.00	33.33	18.72
<i>Sa²</i>	60.00	75.00	36.50	15.00	33.33	55.43
<i>Wy</i>	47.51	0.00	36.50	15.00	33.33	26.43

¹ This represents the sum of the ratings of all factors after due weighting. The weights assigned being as follows: Water supply, 40; disposal of human excrement, 32; general sanitary control, 12.5; control of communicable diseases, 12.5; and domestic environment, etc., 3.

² For period January–July, 1916.

³ For period July–November, 1916. "Sanitary" privies replaced surface closets in July.

TABLE X.—Extent to which various types of water supply and methods of disposal of human excrement were used in specified mill villages of South Carolina in 1916.

[Based on report of sanitary survey by R. E. Tarbett, Sanitary Engineer.]

WATER SUPPLY.

Type.	Per cent of the population in each village affected by the conditions specified.							
	Mill village.							
	<i>At</i> .	<i>In</i> .	<i>Ny</i> .	<i>Rc</i> .	<i>Sn</i> .	<i>Sa</i> .		<i>Wy</i> .
Jan.–June, 1916.						July–Nov., 1916.		
All types.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public (mill).....	20.0	23.0	.....	100.0	27.5	.....	.....	20.0
Private:								
Dug wells.....	76.0	60.0	100.0	.....	12.0	100.0	100.0	59.0
Drilled wells.....	.....	17.0	.....	.....	54.5	.....	.....	8.4
Bored wells.....	.....	.....	.....	.....	.....	.....	.....	7.1
Springs.....	4.0	.....	.....	.....	6.0	.....	.....	6.5

METHOD OF DISPOSAL OF HUMAN EXCREMENT.

All types.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sewers:								
Inside closets.....	.....	.....	15.0	100.0	9.5	.....	.....	.....
Outside closets.....	.....	.....	85.0	.....	.....	.....	.....	.....
Privies:								
Sanitary.....	.....	.....	.....	.....	.....	.....	100.0	.....
Pail.....	100.0	.....	.....	.....	90.5	.....	.....	.....
Surface.....	.....	100.0	.....	.....	.....	100.0	.....	100.0

Typhoid incidence being justly regarded as a good index of sanitary conditions, we made a record of all cases of typhoid fever encountered in the course of the canvass for pellagra. It was impracticable for us to apply laboratory diagnostic tests to these cases, so that, with the exception of a few concerning which information was secured from the medical attendant, our diagnoses are based on the history and brief clinical observation of the case. It was likewise impracticable for us to attempt to trace the source of infection. We deemed it expedient, therefore, to credit the cases to the village in which recorded. As there seems no reason to believe that the trend of the errors involved in this would vary materially in the different villages, we are disposed to regard the relative incidence of these cases as not without value as an auxiliary, though, because of the small number of cases, necessarily a subordinate index of sanitary conditions. In all, 38 cases, representing a rate of 8.6 per 1,000 of the aggregate population, were recorded. Their distribution among the villages is shown in the following table:

Typhoid incidence recorded in specified villages in South Carolina in 1916.

Village.	Number of cases.	Rate per 1,000.
<i>At.</i>	2	3.5
<i>In.</i>	6	8.8
<i>Ny.</i>	1	1.3
<i>Rc.</i>	0	0.0
<i>Sn.</i>	8	12.5
<i>Sa.</i>	10	19.8
<i>Wy.</i>	11	17.2

Relation of Sanitary Factors to Pellagra Incidence.

Thus far we have considered the rates of incidence of pellagra in the several villages and have seen that these might properly be compared on the basis of certain of those rates. As a measure of the sanitary conditions in the villages, we have the ratings assigned by Sanitary Engineer Tarbett after an independent survey, and as an auxiliary but subordinate index, we have the typhoid incidence recorded in connection with the canvass for pellagra. We are in position, therefore, to proceed with a study of the relation of factors of a sanitary character to the incidence of the disease.

In order more readily to ascertain any existing correlation between sanitary conditions and pellagra incidence, we have prepared Tables XI, XII, and XIII, and Figure 1. It may here be observed that the pellagra incidence rates presented in these tables are based on the populations as censused by us in May and June, 1916, for cases with onset after a residence of not less than 30 days in the specified village. Of the rates examined and, as has been seen, found equally suitable

as a basis for the comparison of villages, we have chosen these because the method of computing them conforms most closely to conventional practice.

In Table XI and Fig. 1 (A) we present the pellagra incidence data in relation to the sanitary character of the water supply as rated by San. Engr. Tarbett. No significant correlation is perceptible; the two villages representing the extremes of pellagra incidence (*In.* and *Ny.*) have water supplies with a difference in rating of little or no significance. Likewise, no consistent correlation between the incidence of pellagra and that of typhoid is here discernible. In contrast, however, a suggestive tendency to inverse correlation between typhoid incidence and water-supply rating is perceptible.

TABLE XI.—*Relation of pellagra and typhoid incidence to sanitary character of water supply of specified mill villages of South Carolina in 1916.*

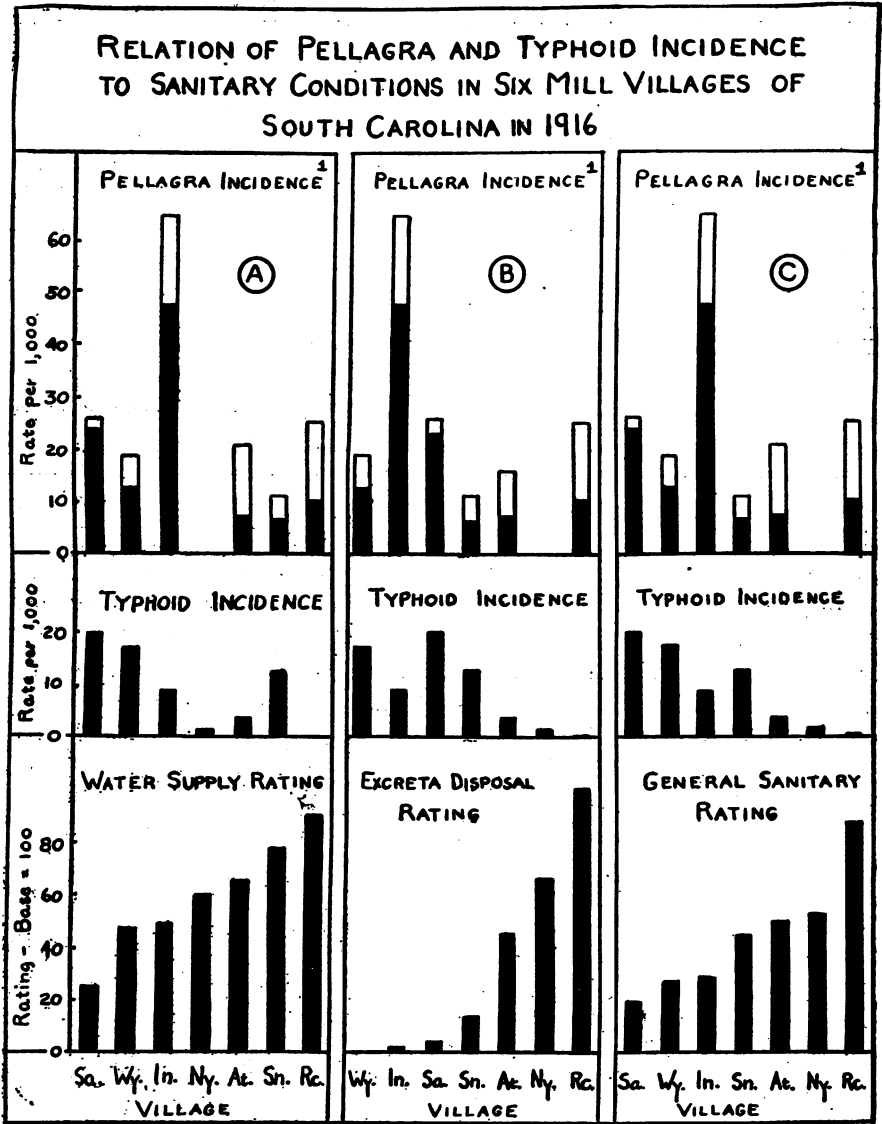
[Pellagra cases with onset after a residence of not less than 30 days in specified village; typhoid cases credited to village in which recorded. Rates based on population as censused in May and June. Villages in order of increasing water-supply rating. Water-supply ratings by San. Engr. R. E. Tarbett.]

Mill village.	Water-supply rating.	Typhoid.	Pellagra.	
		All cases, rate per 1,000.	All definite cases, rate per 1,000.	First attack, rate per 1,000.
	<i>Per cent.</i>			
<i>Sa.</i>	125.00	19.8	25.8	23.8
<i>Wy.</i>	47.51	17.2	18.7	12.5
<i>In.</i>	49.30	8.8	64.6	42.6
<i>Ny.</i>	60.00	1.3	0.0	0.0
<i>At.</i>	65.60	3.5	21.7	6.9
<i>Sn.</i>	77.53	12.5	10.9	6.2
<i>Rc.</i>	90.00	0.0	24.9	10.0

¹ The rating for this village is for the period anterior to and coincident with the pellagra season. In the other villages no changes occurred during the year.

In Table XII and Fig. 1 (B) are presented the pellagra incidence data in relation to the rating of the efficiency of disposal of human excreta in the several villages. Although the villages representing the extremes of pellagra incidence recorded by us are close to the respective extremes of excreta disposal rating, this suggestion of an inverse correlation is not borne out when the data are further examined: Of the two villages representing the extremes of efficiency of excreta disposal, the one (*Rc.*) with the highest rating (a water carriage system, see Table X) had a pellagra incidence rate that differed in but negligible degree from that of the village (*Wy.*) with the lowest rating (surface privies, see Table X), the incidence rate for "all definite cases" being slightly but not very significantly higher in the former and for "first attack cases" slightly but insignificantly higher

in the latter village. Similarly we fail to find any consistent correlation between pellagra incidence and the typhoid rate, although a



¹ Entire length of bar represents all definite cases; length of black portion, initial attacks. See tables 10, 11 and 12.

FIG. 1.

distinct tendency to inverse correlation between the latter and the ratings for excreta disposal is perceptible.

TABLE XII.—Relation of pellagra and typhoid incidence to efficiency of methods of disposal of human excrement in specified mill villages of South Carolina in 1916.

[Pellagra cases with onset after a residence of not less than 30 days in specified village; typhoid cases credited to village in which recorded. Rates based on population as censused in May and June. Villages in order of increasing excreta disposal rating. Excreta disposal ratings by San. Engr. R. E. Tarbet.]

Mill village.	Excreta disposal rating.	Typhoid.	Pellagra.	
		All cases, rate per 1,000.	All definite cases, rate per 1,000.	First attack, rate per 1,000.
	<i>Per cent.</i>			
<i>Wy</i>	0.00	17.2	18.7	12.5
<i>In</i>	2.00	8.8	64.6	32.6
<i>Sa</i>	14.00	19.8	25.8	23.8
<i>Sn</i>	15.84	12.5	10.9	6.2
<i>Af</i>	45.00	3.5	20.7	6.9
<i>Ny</i>	96.00	1.3	0.0	0.0
<i>Rc</i>	100.00	0.0	24.9	10.0

¹ The rating for this village is for the period anterior to and coincident with the pellagra season. In the other villages no change occurred during the year.

As may be seen by reference to Table IX, the variations among the villages in rating for efficiency of "sanitary control" (control of fly prevalence, protection of foodstuffs and of milk) are with one exception, very slight. This is likewise true of the ratings for efficiency of "control of communicable diseases" and of those for "domestic environment." In the case of the ratings for all three of these groups of factors, it is the same village (*Rc.*) that stands out conspicuously above the others. As this village is one of those having an intermediate pellagra incidence rate it is clear that no consistent correlation between any of these three groups of factors and the incidence of the disease is indicated.

Having thus examined the relation of each of the important sanitary factors or groups of factors in their relation to the incidence of pellagra, it will be of interest next to study the relation of the incidence of the disease to the general quality of the sanitation of the several villages as indicated by the rating representing the sum of the weighted ratings of the individual factors or groups of factors. For this purpose Table XIII and Fig. 1 (C) have been prepared. Study of these fails to reveal any consistent correlation between the quality of sanitary conditions and the incidence of the disease; nor, as we have previously seen, does there seem to be revealed any consistent correlation between pellagra and typhoid incidence. On the other hand, an inverse correlation between typhoid incidence and sanitary conditions is, as might have been expected, quite clearly suggested.

TABLE XIII.—*Relation of pellagra and typhoid incidence to general sanitary rating of specified mill villages of South Carolina in 1916.*

[Pellagra cases with onset after a residence of not less than 30 days in specified village; typhoid cases credited to village in which recorded. Rates based on population as censused in May and June. Villages in order of increasing sanitary rating. Sanitary ratings by San. Eng. R. E. Tarbett.]

Mill village.	General sanitary rating. ¹	Typhoid.	Pellagra.	
		All cases, rate per 1,000.	All definite cases, rate per 1,000.	First cases, rate per 1,000.
	<i>Per cent.</i>			
<i>Se.</i>	18.72	19.8	25.8	23.8
<i>Wy.</i>	23.43	17.2	18.7	12.5
<i>In.</i>	28.49	8.8	64.6	42.6
<i>Sn.</i>	44.46	12.5	10.9	6.2
<i>At.</i>	49.33	3.5	20.7	6.9
<i>Ny.</i>	53.12	1.3	0.0	0.0
<i>Rc.</i>	87.06	0.0	24.9	10.0

¹ Represents the sum of the ratings of all factors after due weighting.

² Rating for this village is for the period anterior to and coincident with the pellagra season. In the other villages no changes of sanitary significance were observed during the year.

Conclusions.

This study of the relation of factors of sanitary importance to the incidence of pellagra in seven representative mill villages has failed to reveal any consistent correlation between them. Although based on a rather small mass of data and, in itself, not warranting any conclusions, it may, nevertheless, be noted as not without significance that this result, at any rate, affords no support for the view until recently, at least, quite widely entertained in this country, that pellagra is "an intestinal infection transmitted in much the same way as typhoid fever"; nor does the evidence adduced in favor of this view by other workers, when rightly considered, afford it any real support.¹

It may be of interest to add that the results of the very much more extensive study of this subject carried on by us during 1917 and 1918, to be presented in a later communication, are in harmony with and confirm those here recorded.

References.

1920. Goldberger and Wheeler, The Experimental Production of Pellagra in Human Subjects by Means of Diet: Hygienic Laboratory Bulletin No. 120, Washington, D. C., February, 1920.
1918. Goldberger, Wheeler, and Sydenstricker, A Study of the Diet of Nonpellagrous and of Pellagrous Households, etc.: J. Am. Med. Ass'n, Sept. 21, 1918, vol. 71, pp. 944-949.
- 1920a. Goldberger, Wheeler, and Sydenstricker, A Study of The Relation of Diet to Pellagra Incidence, etc. Public Health Reports, Washington, D. C., March 19, 1920, vol. 35, No. 12, pp. 648-713.
- 1920b. Goldberger, Wheeler, and Sydenstricker, Pellagra Incidence in Relation to Sex, Age, Season, Occupation, etc., Public Health Reports, Washington, D. C., July 9, 1920, vol. 35, No. 28, pp. 1650-1664.

¹ See Goldberger and Wheeler, 1920, and Goldberger, Wheeler, and Sydenstricker 1920a, for a discussion of this evidence. The explanation of the very marked difference in incidence recorded for some of the villages will be considered in a forthcoming paper.

MATERNITY AND INFANT WELFARE CENTERS.

One of the conspicuous results of the State-wide investigation in child hygiene now being made by the Public Health Service in the State of Missouri¹ in cooperation with the State board of health is the establishment of some form of child-health supervision in a number of different communities throughout the State, which is maintained at local expense. In some communities this takes the form of the employment of one or more public health nurses trained in child-welfare work; in others the work is organized on an extensive scale, including the establishment of maternity and baby health centers, depending largely on the public-health education and the resources of the communities.

The following abstracts from a memorandum in regard to maternity and infant welfare centers, issued by the British Ministry of Health under date of November, 1919, may be useful as a guide to other communities desiring to engage in this type of child-health supervision. In abstracting this memorandum an attempt has been made, by additions and omissions, to modify British practice to conform to American conditions.

Infant Welfare Centers.

1. *Purpose:* Infant welfare center is primarily educational, providing advice and teaching mothers in the care and management, feeding and clothing, of infants and children of preschool age.

2. *Teaching:* The teaching should be done by a qualified member of the center and should be both individual and collective. Individual instruction may be imparted at the time of the consultation, while special classes may be held for groups of mothers.

3. *Area:* The size of the district that should be served by one center is determined largely by the density of the population. As a rule these districts should be as compact as possible and within easy reach of the mothers. The center can properly supervise an area in which occur about 400 births annually. If the attendance at the center becomes too large—that is, in excess of 30 or 40 a day—the center should be opened on an additional day of the week.

4. *Attendance:* The medical officer should at intervals see every child attending the center; children under 6 months of age, at least once a month, and older children at less frequent intervals.

5. *Group teaching:* This should consist of demonstrations and health talks. Special classes should be arranged for expectant mothers who are pregnant for the first time, teaching them the simple rules of mothercraft and the making of baby clothes. Sewing classes should be arranged for and other classes in home nursing, infant care, personal hygiene, cooking, first aid, and other subjects of interesting and helpful nature.

¹ See Public Health Reports, June 18, 1920, pp. 1453-1454.

6. *Follow-up work:* Home visiting should be made by the public-health nurse attached to the center, or, if simply to inquire into the reason for nonattendance, by volunteer untrained helpers.

7. *Medical nursing staff:* The medical staff should consist of one or more physicians skilled in the diagnosis of the diseases of children, either paid or volunteer. As a general rule the center should be in charge of a paid physician, because in the case of volunteer physicians it is difficult to maintain sustained interest in the work. The nursing staff should consist of one or more public-health nurses trained in child-health supervision, who should assist the physician, weigh and measure children, and assist mothers to prepare them for examination by the physicians, and who should also do home visiting.

8. *Accommodations:* The center should have facilities for a waiting room which may be used for classes, a weighing room, and a consultation room for the physician; also adequate sanitary arrangements.

9. *Treatment:* The center, as a rule, should not be used for treatment except in the case of minor ailments, such as sores, discharging ears (on the advice of a physician), and massage in suitable cases. Special arrangements should be made for the care and treatment of sick children, which should be carried out in connection with the children's hospital and out-patient clinic of the general hospital, or, in larger centers, the British plan of linking up several welfare centers with one center devoted solely to treatment may be followed.

10. *Weighing and measuring:* If practicable, infants under six months should be weighed weekly and those between six months and one year of age once every two weeks. Older children should be weighed every one to three months. Mothers will continue their interest in their attendance if they are provided with the weighing card for recording the weights and which they should bring with them each time they attend the center.

Other activities: Milk may be sold to mothers when this can be done under proper control and supervision. Milk should always be sold at a cost slightly under the retail price, and given free of charge to mothers who are unable to pay. Great care should be exercised in regard to this latter point. Where funds are ample and the attendance on the center sufficiently large to warrant it, a few beds may be provided for the care of premature infants and children suffering from malnutrition of such degree and kind as to demand scientific supervision and management.

Maternity Centers.

1. *Function:* The main function of a maternity or prenatal center is to advise expectant mothers in regard to conditions directly associated with pregnancy and as to general ailments which indirectly affect their physical welfare and that of the expected child.

2. *Attendance:* The majority of mothers do not realize the value of medical supervision during pregnancy in reducing or eliminating

avoidable discomforts and in rendering the confinement safer for both mother and child. For this reason mothers, while willing to bring their babies to be examined at infant welfare centers, are less willing to attend themselves before the babies are born. Attendance should be secured, therefore, through (a) making the center attractive as well as clinically useful; (b) enlisting the aid and cooperation of physicians and midwives, public-health nurses, and other agencies; and (c) by enlisting the aid of those attending the center, in the education of the public to the value of the work done by the center.

3. *Personnel*: The center should be under medical supervision of a physician experienced in obstetrics and gynecology, or, if this be not possible, arrangement should be perfected for referring certain cases to a specialist.

The medical supervision should be assisted by one or more obstetrical nurses or public-health nurses with obstetrical training.

Maternity or prenatal centers offer but little opportunity for voluntary help as compared with infant welfare centers.

4. *Premises*: The premises should comprise suitable rooms for waiting, dressing, and consultation, with special gynecological chair, couch, or table. There should be also adequate lavatory and toilet accommodations and facilities for the testing of urine and, in the more advanced centers, provision for examination of expectant mothers suspected of having tuberculosis.

5. *Scope of work*: (a) Consultation by the medical officer.—A careful history should be taken, together with an external examination and measurements, and by internal examination only when necessary in the interest of the patient.

(b) Home visiting.—This should be done in special cases by a qualified member of the center staff. Visiting should always be done with the knowledge and cooperation of the family physician.

(c) Educational classes in the hygiene of pregnancy, the making of garments for the baby, etc.

(d) Dinners or milk may be provided for expectant or nursing mothers in necessitous cases so frequently encountered in populous districts. "One of the most efficient and important means of securing healthy pregnancy is by insuring adequate nutrition."

(e) Dental treatment.—This should be included in the scope of the center whenever possible. There is no doubt that infected teeth exercise an injurious effect on health during pregnancy and lactation.

6. *Relation to other institutions or health work*: (a) Venereal disease, and (b) complications of pregnancy.

Arrangement should be made with the State and municipal laboratory for microscopic and serologic diagnosis in cases of suspected venereal disease. The center also should, wherever possible, be associated with a lying-in institution to which complicated cases requiring institutional treatment or examination could be referred.

DEATHS DURING WEEK ENDED JULY 3, 1920.

[From the "Weekly Health Index," July 6, 1920, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended July 3, 1920, infant mortality (per cent), annual death rates, and comparison with corresponding week of preceding years.

City.	Population Jan. 1, 1920, subject to revision.	Week ended July 3, 1920.		Average annual death rate per 1,000. ³	Per cent of deaths under 1 year.	
		Total deaths.	Death rate. ¹		Week ended July 3, 1920.	Previous year or years. ²
Akron, Ohio.....	208,435	29	7.3	7.3	24.1	16.7
Albany, N. Y.....	113,344	41	18.9	C 14.8	9.8	C 3.1
Atlanta, Ga.....	200,616	71	18.5	C 11.0	21.1	C 16.7
Baltimore, Md.....	733,826	188	13.4	A 14.1	18.6	A 22.1
Birmingham, Ala.....	178,270	70	20.5	A 23.6	20.0	A 14.9
Bridgeport, Conn.....	143,152	24	8.7	.....	.....	.....
Buffalo, N. Y.....	505,875	101	10.4	C 11.1	17.8	C 19.6
Cambridge, Mass.....	109,456	27	12.9	A 10.2	25.9	A 19.0
Chicago, Ill.....	2,701,212	554	10.3	A 12.6	15.5	A 17.6
Cincinnati, Ohio.....	401,158	119	15.5	C 12.3	7.6	C 8.5
Cleveland, Ohio.....	796,836	145	9.7	C 8.6	15.5	C 15.4
Columbus, Ohio.....	237,031	59	13.0	C 11.4	13.6	C 7.8
Dayton, Ohio.....	153,830	18	6.1	C 7.9	5.6	C 8.7
Denver, Colo.....	256,369	60	12.2	A 12.3	6.7	.....
Detroit, Mich.....	995,739	190	10.0	.....	21.6	.....
Fall River, Mass.....	120,485	25	10.8	C 12.1	20.0	C 21.4
Grand Rapids, Mich.....	137,634	37	14.0	C 9.2	21.6	C 4.2
Hartford, Conn.....	138,036	37	14.0	.....	8.1	.....
Indianapolis, Ind.....	290,389	80	14.4	.....	15.0	C 9.5
Jersey City, N. J.....	297,864	55	9.6	C 14.4	34.5	C 31.7
Kansas City, Kans.....	101,078	21	10.8	.....	19.0	.....
Los Angeles, Calif.....	575,490	156	14.1	A 12.2	7.1	A 10.3
Louisville, Ky.....	234,891	70	15.5	C 16.2	5.7	C 11.0
Lowell, Mass.....	112,479	28	13.0	A 14.7	14.3	A 25.6
Memphis, Tenn.....	162,351	54	17.3	C 16.9	16.7	C 26.9
Milwaukee, Wis.....	457,147	84	9.6	A 11.7	25.0	A 14.4
Minneapolis, Minn.....	380,498	75	10.3	C 8.6	16.0	C 9.7
Nashville, Tenn.....	118,342	51	22.5	C 14.1	7.8	C 18.8
Newark, N. J.....	415,609	88	11.0	C 12.3	18.2	C 16.5
New Haven, Conn.....	162,390	31	19.0	C 13.9	6.5	C 20.9
New Orleans, La.....	387,408	130	17.5	A 17.9	17.7	A 10.2
New York, N. Y.....	5,621,151	1,034	9.6	C 10.2	14.6	C 11.7
Oakland, Calif.....	216,361	38	9.2	A 9.3	13.2	A 8.4
Omaha, Nebr.....	191,601	36	9.8	C 5.8	11.1	C 14.3
Philadelphia, Pa.....	1,823,158	434	12.4	11.8	12.7	16.2
Pittsburgh, Pa.....	588,193	144	12.8	C 12.1	22.2	C 20.6
Portland, Oreg.....	258,288	60	12.1	C 11.2	15.0	C 9.1
Providence, R. I.....	265,613	56	11.1	C 10.5	10.7	C 22.6
Richmond, Va.....	160,719	56	18.2	C 17.8	21.4	C 29.1
Rochester, N. Y.....	295,850	48	8.5	C 8.9	6.3	C 6.0
St. Louis, Mo.....	772,897	171	11.5	C 10.5	13.5	C 8.4
St. Paul, Minn.....	234,595	41	9.1	C 9.8	12.2	C 11.4
San Francisco, Calif.....	508,410	120	12.3	C 13.4	8.3	C 5.4
Seattle, Wash.....	315,652	59	9.7	A 7.7	8.5	A 10.3
Springfield, Mass.....	129,338	29	11.7	.....	20.7	.....
Toledo, Ohio.....	243,109	49	10.5	A 13.5	8.2	A 11.6
Trenton, N. J.....	119,289	43	18.3	A 16.8	20.9	A 24.7
Washington, D. C.....	437,571	84	10.0	A 13.8	17.9	A 11.8
Worcester, Mass.....	179,741	22	6.4	C 17.3	13.6	C 11.9
Youngstown, Ohio.....	132,358	29	11.4	.....	20.7	.....

¹ Annual rates per 1,000 estimated population.

² "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1919.

³ Data are based on statistics of 1915, 1916, and 1917.

⁴ Population estimated as of July 1, 1918.

Summary of information received by telegraph from industrial insurance companies for week ended July 3, 1920.

Policies in force.....	44,307,593
Number of death claims.....	7,006
Death claims per 1,000 policies in force, annual rate.....	8.2

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 STATE SUMMARIES.

Telegraphic Reports for Week Ended July 10, 1920.

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

ALABAMA.	Cases.	FLORIDA—continued.	Cases.
Diphtheria.....	11	Pneumonia.....	2
Malaria.....	69	Scarlet fever.....	1
Measles.....	20	Typhoid fever.....	6
Pellagra.....	5		
Scarlet fever.....	19	GEORGIA.	
Smallpox.....	10	Cerebrospinal meningitis.....	2
Tuberculosis (pulmonary).....	21	Chicken pox.....	3
Typhoid fever.....	37	Conjunctivitis (acute infectious).....	3
Whooping cough.....	16	Diphtheria.....	5
		Dysentery (amebic).....	6
ARKANSAS.		Dysentery (bacillary).....	33
Chicken pox.....	17	Hookworm.....	20
Diphtheria.....	4	Influenza.....	3
Hookworm.....	2	Malaria.....	117
Influenza.....	2	Measles.....	12
Malaria.....	174	Mumps.....	1
Measles.....	19	Paratyphoid fever.....	2
Pellagra.....	11	Pneumonia.....	3
Scarlet fever.....	4	Poliomyelitis.....	1
Smallpox.....	3	Scarlet fever.....	2
Trachoma.....	2	Septic sore throat.....	2
Tuberculosis.....	51	Smallpox.....	17
Typhoid fever.....	24	Trachoma.....	1
Whooping cough.....	93	Tuberculosis (pulmonary).....	4
		Typhoid fever.....	27
CALIFORNIA.		Whooping cough.....	18
Cerebrospinal meningitis:			
Alameda County.....	1	ILLINOIS.	
Influenza.....	20	Cerebrospinal meningitis:	
Smallpox.....	28	Dolton.....	1
Typhoid fever.....	27	La Salle.....	1
		Diphtheria:	
DELAWARE.		Chicago.....	93
Cholera infantum.....	1	Scattering.....	23
Diphtheria.....	1	Influenza.....	2
Measles.....	14	Pneumonia:	
Mumps.....	3	Chicago.....	49
Pneumonia.....	1	Scattering.....	3
Scarlet fever.....	4	Scarlet fever:	
Tuberculosis.....	2	Chicago.....	26
Typhoid fever.....	1	Scattering.....	17
Whooping cough.....	2	Smallpox:	
		Carbondale.....	30
FLORIDA.		Freeport.....	7
Diphtheria.....	3	Scattering.....	35
Malaria.....	36	Typhoid fever.....	8
Plague (bubonic).....	1		

INDIANA.	
	Cases.
Cerebrospinal meningitis:	
Lawrence County.....	1
Diphtheria.....	21
Measles.....	81
Rabies in animal:	
Clark County.....	1
Scarlet fever.....	43
Smallpox.....	55
Typhoid fever.....	13
Typhoid fever epidemic:	
Winona, Kosciusko County.	
IOWA.	
Cerebrospinal meningitis:	
Mills County.....	1
Chicken pox.....	7
Diphtheria.....	9
Measles.....	15
Scarlet fever.....	16
Smallpox:	
Dubuque.....	17
Pella.....	7
Scattering.....	32
Whooping cough.....	2
KANSAS.	
Chicken pox.....	21
Diphtheria.....	7
Measles.....	63
Mumps.....	20
Pellagra.....	1
Pneumonia.....	4
Poliomyelitis.....	1
Scarlet fever.....	22
Smallpox.....	63
Tetanus.....	1
Tuberculosis.....	17
Typhoid fever.....	25
Whooping cough.....	103
LOUISIANA.	
Malaria.....	59
Measles.....	14
Pellagra.....	14
Pneumonia.....	7
Scarlet fever.....	5
Smallpox.....	22
Tuberculosis.....	41
Typhoid fever.....	25
Whooping cough.....	9
MAINE.	
Chicken pox.....	8
Diphtheria.....	10
Influenza.....	2
Measles:	
Lewiston.....	18
Portland.....	42
South Portland.....	7
Scattering.....	26
Mumps.....	7
Pneumonia.....	1
Scarlet fever:	
Greenville.....	9
Scattering.....	21
Septic sore throat.....	1
Smallpox.....	1
Tetanus.....	1

MAINE—continued.	
	Cases.
Tuberculosis.....	14
Typhoid fever.....	8
Whooping cough.....	32
MARYLAND. ¹	
Cerebrospinal meningitis.....	1
Chicken pox.....	8
Diphtheria.....	32
Dysentery.....	3
German measles.....	4
Influenza.....	1
Lethargic encephalitis.....	7
Measles.....	108
Mumps.....	14
Paratyphoid fever.....	2
Pneumonia (all forms).....	28
Scarlet fever.....	6
Tuberculosis.....	63
Typhoid fever.....	20
Whooping cough.....	49
MASSACHUSETTS.	
Cerebrospinal meningitis.....	1
Chicken pox.....	49
Conjunctivitis (suppurative).....	8
Diphtheria.....	112
Dysentery.....	1
German measles.....	6
Influenza.....	1
Malaria.....	8
Measles.....	559
Mumps.....	75
Ophthalmia neonatorum.....	17
Pneumonia (lobar).....	24
Poliomyelitis.....	1
Scarlet fever.....	78
Tetanus.....	1
Trachoma.....	1
Tuberculosis (all forms).....	191
Typhoid fever.....	21
Whooping cough.....	195
MINNESOTA.	
Smallpox.....	9
MISSISSIPPI.	
Diphtheria.....	3
Scarlet fever.....	6
Smallpox.....	10
Typhoid fever.....	42
NEBRASKA.	
Chicken pox.....	2
Diphtheria.....	1
Measles.....	24
Mumps.....	5
Scarlet fever.....	6
Smallpox:	
Arcadia.....	9
Wayne.....	9
Scattering.....	20
Typhoid fever.....	3
Whooping cough.....	3
NEW JERSEY.	
Influenza.....	1
Pneumonia.....	35

¹ Week ended Friday.

NEW JERSEY—continued.	Cases.
Smallpox cases:	
East Rutherford.	
Lyndhurst.	
Rutherford.	
NEW MEXICO.	
Chicken pox.....	1
Diphtheria:	
Mora County.....	16
Scattering.....	11
Measles.....	10
Mumps.....	1
Pneumonia.....	2
Scarlet fever.....	6
Tuberculosis.....	41
Typhoid fever.....	5
Whooping cough.....	8
NEW YORK.	
(Exclusive of New York City.)	
Anthrax—Ogden.....	1
Diphtheria.....	97
Influenza.....	4
Measles.....	1,184
Pneumonia.....	99
Poliomyelitis—Walworth.....	1
Scarlet fever.....	99
Smallpox.....	1
Tetanus.....	1
Typhoid fever.....	17
Whooping cough.....	301
NORTH CAROLINA.	
Chicken pox.....	22
Diphtheria.....	12
Measles.....	65
Poliomyelitis.....	1
Scarlet fever.....	9
Septic sore throat.....	7
Smallpox.....	24
Trachoma.....	1
Typhoid fever.....	88
Whooping cough.....	341
TEXAS.	
Chicken pox.....	3
Diphtheria.....	4
Dysentery.....	9
Influenza.....	5
Malaria:	
Dallas.....	13
Edgewood.....	30
Fayette County.....	15
Scattering.....	19
Measles:	
Fort Worth.....	12
Guadalupe County.....	15
Scattering.....	5
Mumps.....	2
Pellagra.....	1
Pneumonia.....	5
Scarlet fever.....	12
Smallpox:	
Comanche.....	27
Fort Worth.....	12
Scattering.....	18

TEXAS—continued.	Cases.
Trachoma.....	2
Tuberculosis.....	16
Typhoid fever:	
Dallas.....	7
Scattering.....	23
Whooping cough.....	43
VERMONT.	
Chicken pox.....	9
Diphtheria.....	4
Measles.....	153
Mumps.....	22
Scarlet fever.....	4
Typhoid fever.....	2
Whooping cough.....	36
VIRGINIA.	
Lethargic encephalitis—Rockingham County.....	1
Smallpox—Highland County.....	1
WASHINGTON.	
Chicken pox.....	12
Diphtheria.....	9
German measles.....	3
Measles.....	60
Mumps.....	1
Scarlet fever.....	20
Smallpox.....	47
Tuberculosis.....	5
Typhoid fever.....	5
Whooping cough.....	18
WEST VIRGINIA.	
Corebrospinal meningitis—Wellsburg.....	1
Diphtheria.....	4
Measles:	
Keyser.....	11
Wheeling.....	24
Scattering.....	22
Scarlet fever.....	9
Smallpox.....	7
Typhoid fever.....	9
WISCONSIN.	
Milwaukee:	
Cerebrospinal meningitis.....	2
Chicken pox.....	16
Diphtheria.....	26
Measles.....	98
Rubella.....	1
Scarlet fever.....	15
Smallpox.....	11
Tuberculosis.....	15
Whooping cough.....	40
Scattering:	
Chicken pox.....	21
Diphtheria.....	19
Influenza.....	3
Measles.....	257
Rubella.....	5
Scarlet fever.....	67
Smallpox.....	61
Tuberculosis.....	17
Typhoid fever.....	6
Whooping cough.....	50

Kentucky Report for Week Ended July 3, 1920.

Cerebrospinal meningitis:		Cases.			Cases.
Anderson County.....		1	Mumps.....		3
Chicken pox.....		2	Pneumonia.....		3
Diphtheria.....		19	Scarlet fever.....		19
Dysentery.....		1	Smallpox.....		16
Influenza.....		1	Trachoma.....		12
Malaria.....		1	Tuberculosis.....		11
Measles:			Typhoid fever.....		19
Ballard County.....		10	Whooping cough.....		22
Jefferson County.....		10			
Pike County.....		9			
Scattering.....		21			

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

Tables showing, by counties, the reported cases of cerebrospinal meningitis, influenza, malaria, pellagra, poliomyelitis, smallpox, and typhoid fever are published under the names of these diseases. (See names of these and other diseases in the table of contents.)
The following monthly State reports include only those which were received during the current week. These reports appear each week as received.

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1920.										
Alabama (June).....		22	9	80	74	13		38	106	69
Arizona (June).....	1	4	2		47		2	23	15	9
Florida (June).....	3	21	55	119	35	10		8	2	52
Massachusetts (June).....	7	586	24	9	5,287	2	6	716		64
Ohio (January).....	11	650	16,092	1	6,373		2	1,640	621	97
Ohio (February).....	9	436	52,040	2	6,553		2	1,900	490	51
Ohio (March).....	22	466	3,195		5,364			7,266	638	60
Ohio (April).....	12	411	202	1	8,248		3	1,993	780	136
Ohio (May).....	10	313	71	13	5,332		3	1,471	736	128
Virginia (May).....	10	68		275	1,572	18	3	71	339	78
West Virginia (June).....	2	41	18		568		2	71	138	55

ANTHRAX.

West Virginia—June, 1920.

During June, 1920, one case of anthrax was reported in West Virginia.

CEREBROSPINAL MENINGITIS.

Monthly State Reports—1920.

Place.	New cases reported.	Place.	New cases reported.
Arizona (June):		Massachusetts (June)—Continued.	
Gila County.....	1	Middlesex County—	
Florida (June):		Watertown (town).....	1
Duval County—		Suffolk County—	
Jacksonville.....	1	Boston.....	2
Sumter County.....	1	Worcester County—	
Volusia County.....	1	Leominster.....	1
Total.....	3	Webster (town).....	1
Massachusetts (June):		Total.....	7
Bristol County—		Ohio (January):	
Attleboro.....	1	Carroll County.....	1
Franklin County—		Cuyahoga County.....	1
Montague (town).....	1	Franklin County.....	1
		Harrison County.....	1

CEREBROSPINAL MENINGITIS—Continued.

Monthly State Reports—1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
Ohio (January)—Continued.		Ohio (April)—Continued.	
Henry County.....	1	Lake County.....	2
Holmes County.....	1	Mahoning County.....	2
Licking County.....	1	Summit County.....	1
Montgomery County.....	1	Trumbull County.....	1
Summit County.....	3	Total.....	12
Total.....	11	Ohio (May):	
Ohio (February):		Ashtabula County.....	1
Allen County.....	1	Butler County.....	1
Ashtabula County.....	1	Cuyahoga County.....	1
Cuyahoga County.....	1	Defiance County.....	1
Hamilton County.....	1	Lake County.....	1
Lucas County.....	1	Lucas County.....	1
Montgomery County.....	1	Pike County.....	1
Seneca County.....	1	Summit County.....	2
Summit County.....	1	Van Wert County.....	1
Trumbull County.....	1	Total.....	10
Total.....	9	Virginia (May):	
Ohio (March):		Accomac County.....	1
Ashtabula County.....	1	Alleghany County—	
Cuyahoga County.....	3	Clifton Forge.....	1
Erie County.....	1	Lowmoor.....	1
Hamilton County.....	2	Botetourt County—	
Henry County.....	1	Glen Wilton.....	1
Licking County.....	4	Lee County.....	1
Mahoning County.....	2	Dryden.....	1
Marion County.....	1	Norfolk County—	
Montgomery County.....	2	Norfolk.....	1
Seneca County.....	1	Roanoke County—	
Summit County.....	3	Roanoke.....	1
Trumbull County.....	1	Rockbridge County.....	1
Total.....	22	Shenandoah County.....	1
Ohio (April):		Total.....	10
Allen County.....	1	West Virginia (June):	
Belmont County.....	1	Kanawha County.....	1
Cuyahoga County.....	1	Logan County.....	1
Franklin County.....	1	Total.....	2
Guernsey County.....	2		

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga.....	1		Kansas City, Kans.....	1	
Baltimore, Md.....	1	1	Los Angeles, Calif.....	1	
Beaumont, Tex.....		1	Milwaukee, Wis.....	1	1
Berkeley, Calif.....	1	1	New York, N. Y.....	5	1
Boston, Mass.....		1	Providence, R. I.....		1
Buffalo, N. Y.....		1	San Francisco, Calif.....	2	2
Detroit, Mich.....	4		Sioux Falls, S. Dak.....	1	1
Durham, N. C.....	2	2	Stockton, Calif.....		1
Galveston, Tex.....		1	Terre Haute, Ind.....		1
Hartford, Conn.....	1		Wilmington, N. C.....		1
Indianapolis, Ind.....		1			

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 1719; Monthly summaries by States, p. 1722; and Weekly reports from cities, p. 1736.

INFLUENZA.

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....		1	New York, N. Y.....	4	4
Bayonne, N. J.....	2		Norwood, Ohio.....		1
Birmingham, Ala.....		1	Oakland, Calif.....		1
Boston, Mass.....	3		Providence, R. I.....		1
Chicago, Ill.....	2		Sacramento, Calif.....	1	
Columbus, Ohio.....		1	Somerville, Mass.....	1	
Grand Rapids, Mich.....	1		Trenton, N. J.....	1	
Louisville, Ky.....		1			

MALARIA.

Monthly State Reports—1920.

Place.	New cases reported.	Place.	New cases reported.
Alabama (June):		Ohio (April):	
Cherokee County.....	1	Allen County.....	1
Clarke County.....	1		
Colbert County.....	7	Ohio (May):	
Etowah County.....	4	Athens County.....	1
Geneva County.....	3	Cuyahoga County.....	1
Henry County.....	6	Harrison County.....	1
Houston County.....	3	Licking County.....	2
Jefferson County.....	4	Lorain County.....	4
Lauderdale County.....	9	Summit County.....	1
Madison County.....	2	Warren County.....	2
Marengo County.....	9		
Morgan County.....	1	Total.....	13
Pike County.....	6		
Shelby County.....	5	Virginia (May):	
Sumpter County.....	7	Accomac County.....	13
Talladega County.....	9	Tangier.....	1
Tuscaloosa County.....	3	Botetourt County.....	2
Total.....	80	Brunswick County.....	7
		Campbell County.....	3
Florida (June):		Brookneal.....	1
Alachua County.....	13	Caroline County.....	7
Bradford County.....	1	Charles City County.....	2
Calhoun County.....	1	Chesterfield County—	
Citrus County.....	10	Winterpock.....	2
Clay County.....	1	Cumberland County.....	2
Dade County—		Dinwiddie County.....	12
Miami.....	3	Franklin County.....	2
Duval County.....	7	Greensville County.....	10
Jacksonville.....	20	Emporia.....	5
Hamilton County.....	1	North Emporia.....	3
Hillsborough County—		Halifax County.....	11
Tampa.....	9	South Boston.....	10
Jefferson County.....	2	Henrico County.....	4
Leon County.....	5	Henry County.....	2
Levy County.....	12	Isle of Wight County.....	15
Madison County.....	1	James City County.....	10
Marion County.....	1	King and Queen County.....	2
Nassau County.....	1	Mecklenburg County.....	6
Okeechobee County.....	2	Chase City.....	10
Palm Beach County.....	1	Middlesex County.....	7
Pinellas County.....	1	Nansemond County.....	1
Polk County.....	6	Suffolk.....	4
St. Johns County.....	1	Nelson County.....	1
Sumpter County.....	1	New Kent County.....	5
Suwanee County.....	3	Northampton County.....	4
Taylor County.....	13	Cape Charles.....	3
Volusia County.....	1	Townsend.....	1
Walton County.....	2	Northumberland County.....	7
Total.....	119	Pittsylvania County.....	4
		Powhatan County.....	7
Massachusetts (June):		Princess Anne County.....	21
Middlesex County—		Prince George County.....	5
Everett.....	1	Rockingham County.....	1
Norfolk County—		Southampton County.....	14
Dedham (town).....	1	Franklin.....	7
East Walpole (town).....	1	Stafford County.....	1
Plymouth County—		Surry County.....	5
Middleboro (town).....	1	Sussex County.....	8
Whitman (town).....	1	Stony Creek.....	2
Suffolk County—		Tazewell County.....	5
Boston.....	4	Warren County.....	1
Total.....	9	Front Royal.....	1
		Warwick County.....	10
Ohio (January):		Washington County.....	1
Richland County.....	1	Wise County.....	1
Ohio (February):		York County.....	6
Defiance County.....	1		
Erie County.....	1	Total.....	276
Total.....	2		

MALARIA—Continued.

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alexandria, La.....	28	.....	Little Rock, Ark.....	2	.....
Dallas, Tex.....	15	.....	Rome, Ga.....	1	.....
Dedham, Mass.....	1	.....	Savannah, Ga.....	1	1
Greenwich, Conn.....	1	.....	Waco, Tex.....	1	.....

MALTA FEVER.

Arizona—June, 1920.

During June, 1920, one case of Malta fever was reported in Arizona.

MEASLES.

See Telegraphic weekly reports from States, p. 1719; Monthly summaries by States, p. 1722; and Weekly reports from cities, p. 1736.

PELLAGRA.

State Reports for May and June, 1920.

Place.	New cases reported.	Place.	New cases reported.
Alabama (June):		Virginia (May):	
Calhoun County.....	1	Chesterfield County—	
Hale County.....	3	Beach.....	2
Houston County.....	1	Culpeper County.....	1
Madison County.....	1	Hanover County.....	1
Marengo County.....	6	King and Queen County.....	1
Montgomery County.....	1	King William County.....	1
Total.....	13	Mecklenburg County.....	1
Florida (June):		Middlesex County.....	1
Alachua County.....	1	New Kent County.....	1
Duval County—		Orange County.....	1
Jacksonville.....	1	Pittsylvania County.....	1
Escambia County—		Princess Anne County.....	1
Pensacola.....	1	Pulaski County—	
Hillsborough County.....	1	Pulaski.....	1
Lake County.....	1	Roanoke County—	
Leon County.....	1	Vinton.....	1
Madison County.....	1	Washington County.....	3
Seminole County.....	1	Wise County.....	1
Walton County.....	2	Total.....	18
Total.....	10		
Massachusetts (June):			
Bristol County—			
Taunton.....	1		
Hampshire County—			
Northampton.....	1		
Total.....	2		

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alexandria, La.....	1	.....	Durham, N. C.....		1
Atlanta, Ga.....		1	New Orleans, La.....	3	2
Birmingham, Ala.....		2	Northampton, Mass.....	1	.....
Dallas, Tex.....	2	.....	Savannah, Ga.....		1
Danville, Va.....	1	.....	Waco, Tex.....		1

PLAGUE (HUMAN).

Beaumont, Tex.

One case of human plague was notified at Beaumont, Tex., July 8, 1920. This is the ninth case reported at that city.

Pensacola, Fla.

From July 8 to 13, inclusive, 3 cases of human plague were notified at Pensacola, Fla. Four cases have been previously reported from Pensacola.

Port Arthur, Tex.

A death from plague was reported July 7, 1920, at Port Arthur, Tex. The patient had been employed on the docks at Galveston, Tex.

PLAGUE (RODENT).

California.

During the week ended June 26, 1920, rodents found to be plague infected were reported as follows: San Mateo County, 1 squirrel; Santa Clara County, 2 squirrels; Santa Cruz County, 4 squirrels; and Stanislaus County, 1 squirrel.

Pensacola, Fla.

From June 23 to July 13, 1920, 12 rodents were confirmed as plague infected in Pensacola, Fla.

New Orleans, La.

During the week ended July 3, 1920, no rodent was confirmed as plague infected in New Orleans, La.

Beaumont, Tex.

From July 1 to 13, 1920, 98 rodents were confirmed as plague infected in Beaumont, Tex.

Galveston, Tex.

From June 21 to July 13, 1920, 24 rodents were confirmed as plague infected in Galveston, Tex.

PNEUMONIA (ALL FORMS).

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Places.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Milwaukee, Wis.....	.....	8
Albany, N. Y.....	4	.....	Minneapolis, Minn.....	.....	1
Ann Arbor, Mich.....	.....	1	Morgantown, W. Va.....	2	.....
Ashtabula, Ohio.....	1	.....	Mount Vernon, N. Y.....	1	.....
Atlanta, Ga.....	2	1	Newark, N. J.....	34	4
Atlantic City, N. J.....	1	.....	New Bedford, Mass.....	.....	4
Auburn, N. Y.....	2	.....	New Britain, Conn.....	1	2
Baltimore, Md.....	36	12	New Haven, Conn.....	.....	1
Bayonne, N. J.....	2	.....	New London, Conn.....	19	1
Bedford, Ind.....	.....	1	New Orleans, La.....	2	9
Binghamton, N. Y.....	1	2	New York, N. Y.....	81	61
Birmingham, Ala.....	1	1	Niagara Falls, N. Y.....	.....	2
Boston, Mass.....	12	14	North Adams, Mass.....	.....	1
Bridgeport, Conn.....	.....	7	North Tonawanda, N. Y.....	1	.....
Brookline, Mass.....	1	.....	Norwood, Ohio.....	1	2
Buffalo, N. Y.....	.....	5	Oakland, Calif.....	.....	6
Cambridge, Mass.....	2	1	Oklahoma City, Okla.....	.....	2
Charleston, S. C.....	.....	1	Omaha, Nebr.....	.....	3
Chelsea, Mass.....	.....	1	Orange, N. J.....	1	1
Chicago, Ill.....	75	24	Pasadena, Calif.....	.....	1
Cincinnati, Ohio.....	.....	1	Passaic, N. J.....	.....	2
Cleveland, Ohio.....	8	12	Paterson, N. J.....	3	.....
Clinton, Mass.....	1	.....	Pawtucket R. I.....	.....	2
Cohoes, N. Y.....	1	.....	Peoria, Ill.....	.....	2
Colorado Springs, Colo.....	.....	1	Petersburg, Va.....	.....	2
Columbus, Ohio.....	.....	3	Philadelphia, Pa.....	47	23
Concord, N. H.....	1	.....	Pittsfield, Mass.....	1	.....
Corpus Christi, Tex.....	1	1	Plainfield, N. J.....	1	.....
Dallas, Tex.....	2	.....	Port Chester, N. Y.....	.....	2
Dayton, Ohio.....	1	.....	Portland, Oreg.....	.....	7
Decatur, Ill.....	.....	25	Poughkeepsie, N. Y.....	1	.....
Denver, Colo.....	.....	2	Providence, R. I.....	.....	2
Detroit, Mich.....	25	9	Pueblo, Colo.....	.....	1
Elizabeth, N. J.....	1	1	Quincy, Mass.....	1	1
El Paso, Tex.....	.....	3	Richmond, Va.....	.....	3
Englewood, N. J.....	2	1	Rochester, N. Y.....	5	4
Everett, Mass.....	1	1	Rome, Ga.....	1	.....
Fall River, Mass.....	2	2	Rome, N. Y.....	1	.....
Flint, Mich.....	.....	1	Sacramento, Calif.....	2	1
Fremont, Nebr.....	.....	1	St. Joseph, Mo.....	.....	1
Fresno, Calif.....	2	.....	St. Paul, Minn.....	.....	4
Galesburg, Ill.....	.....	1	Salt Lake City, Utah.....	.....	2
Galveston, Tex.....	.....	1	San Bernardino, Calif.....	.....	1
Gardner, Mass.....	2	.....	San Diego, Calif.....	2	2
Grand Rapids, Mich.....	1	.....	Sandusky, Ohio.....	1	.....
Great Falls, Mont.....	2	.....	Sanford, Me.....	.....	1
Hammond, Ind.....	.....	1	San Francisco, Calif.....	6	2
Harrison, N. J.....	3	.....	Santa Barbara, Calif.....	1	.....
Hartford, Conn.....	2	1	Savannah, Ga.....	.....	2
Haverhill, Mass.....	1	.....	Schenectady, N. Y.....	2	1
Hoboken, N. J.....	.....	2	Sioux Falls, S. Dak.....	.....	1
Huntington, Ind.....	1	.....	Springfield, Ill.....	1	.....
Huntington, W. Va.....	.....	1	Springfield, Mass.....	3	.....
Hutchinson, Kans.....	1	.....	Springfield, Ohio.....	.....	1
Indianapolis, Ind.....	.....	4	Stockton, Calif.....	2	.....
Ithaca, N. Y.....	1	.....	Syracuse, N. Y.....	.....	2
Jacksonville, Ill.....	.....	1	Taunton, Mass.....	1	.....
Jamestown, N. Y.....	1	.....	Terre Haute, Ind.....	.....	2
Jefferson City, Mo.....	.....	1	Toledo, Ohio.....	.....	1
Jersey City, N. J.....	1	.....	Trenton, N. J.....	1	1
Kalamazoo, Mich.....	.....	1	Troy, N. Y.....	.....	1
Kansas City, Kans.....	2	.....	Washington, D. C.....	.....	9
Kansas City, Mo.....	8	8	Watertown, N. Y.....	2	.....
Kearny, N. J.....	3	.....	West New York, N. J.....	.....	1
Lackawanna, N. Y.....	3	1	West Orange, N. J.....	.....	1
Lawrence, Mass.....	1	.....	Wheeling, W. Va.....	.....	1
Lexington, Ky.....	.....	1	White Plains, N. Y.....	.....	1
Lima, Ohio.....	1	.....	Wichita, Kans.....	.....	3
Lincoln, Nebr.....	1	.....	Wilmington, N. C.....	.....	1
Long Beach, Calif.....	1	.....	Winona, Minn.....	.....	1
Los Angeles, Calif.....	15	9	Winston-Salem, N. C.....	.....	1
Louisville, Ky.....	1	.....	Worcester, Mass.....	2	3
Lowell, Mass.....	2	4	Yonkers, N. Y.....	1	1
Lynn, Mass.....	3	3	Youngstown, Ohio.....	.....	3
Methuen, Mass.....	1	2	.....	.....	.....

POLIOMYELITIS (INFANTILE PARALYSIS).

Monthly State Reports—1920.

Place.	New cases reported.	Place.	New cases reported.
Arizona (June):		Ohio (February):	
Maricopa County—		Ashtabula County.....	1
Phoenix.....	1	Summit County.....	1
Pinal County.....	1	Total.....	2
Total.....	2		
		Ohio (April):	
Florida (June):		Hamilton County.....	2
Hillsborough County—		Summit County.....	1
Tampa.....	1	Total.....	3
Massachusetts (June):		Ohio (May):	
Essex County—		Cuyahoga County.....	1
Lynn.....	1	Hamilton County.....	1
Manchester (town).....	1	Marion County.....	1
Middlesex County—		Total.....	3
Lowell.....	1		
Waltham.....	1	Virginia (May):	
Suffolk County—		Fairfax County.....	1
Boston.....	1	Lee County.....	1
Plymouth County—		Southampton County.....	1
Brockton.....	1	Total.....	3
Total.....	6		
		West Virginia (June):	
Ohio (January):		Harrison County.....	1
Ashtabula County.....	1	Marion County.....	1
Franklin County.....	1	Total.....	2
Noble County.....	1		
Total.....	3		

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1		Marinette, Wis.....	1	
Great Falls, Mont.....		1	New Haven, Conn.....	1	
Kalamazoo, Mich.....	2		New York, N. Y.....	1	
La Crosse, Wis.....	1		San Diego, Calif.....	1	

RABIES IN ANIMALS.

City Reports for Week Ended June 26, 1920.

During the week ended June 26, 1920, there were reported four cases of rabies in animals at Cincinnati, Ohio, one case at Council Bluffs, Iowa, one at Dallas, Tex., and one at Oakland, Calif.

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 1719; Monthly summaries by States, p. 1722; and Weekly reports from cities, p. 1736.

SMALLPOX.

Monthly State Reports—1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama (June):			Ohio (February):		
Bullock County.....	3		Allen County.....	1	1
Clarke County.....	1		Ashland County.....	2	
Cullman County.....	2		Athens County.....	7	
Dallas County.....	2		Auzlaize County.....	2	
Dekalb County.....	1		Butler County.....	14	
Etowah County.....	1		Carroll County.....	2	
Jefferson County.....	34		Champaign County.....	2	
Mobile County.....	23		Clark County.....	4	
Montgomery County.....	2		Clermont County.....	4	
Morgan County.....	1		Clinton County.....	4	
Shelby County.....	6		Columbiana County.....	1	
Talladega County.....	4		Coshocton County.....	1	
Tuscaloosa County.....	1		Crawford County.....	18	
Walker County.....	25		Cuyahoga County.....	17	
Total.....	106		Darke County.....	5	
Arizona (June):			Fayette County.....	4	
Cochise County.....	6		Franklin County.....	6	
Gila County.....	1		Hamilton County.....	6	
Maricopa County.....	3		Hardin County.....	38	
Pima County.....	4		Henry County.....	5	
Yavapai County.....	1		Huron County.....	5	
Total.....	15		Jackson County.....	1	
Florida (June):			Jefferson County.....	6	
Duval County—			Knox County.....	1	
Jacksonville.....	2		Lake County.....	1	
Ohio (January):			Lawrence County.....	3	
Allen County.....	5		Lucas County.....	2	
Ashland County.....	1		Mahoning County.....	46	
Athens County.....	15		Marion County.....	13	
Brown County.....	3		Mercer County.....	1	
Butler County.....	9		Miami County.....	16	
Champaign County.....	3		Monroe County.....	8	
Clark County.....	1		Montgomery County.....	15	
Coshocton County.....	22		Muskingum County.....	1	
Crawford County.....	21		Ottawa County.....	1	
Cuyahoga County.....	8		Pickaway County.....	26	
Darke County.....	8		Pike County.....	24	
Delaware County.....	3		Preble County.....	1	
Eric County.....	3		Richland County.....	12	
Fairfield County.....	3		Ross County.....	25	
Franklin County.....	9		Scioto County.....	26	
Guernsey County.....	3		Seneca County.....	1	
Hamilton County.....	24		Shelby County.....	2	
Hardin County.....	5		Stark County.....	21	
Henry County.....	1		Summit County.....	47	
Huron County.....	3		Trumbull County.....	1	
Jefferson County.....	16		Van Wert County.....	27	
Knox County.....	1		Warren County.....	12	
Lake County.....	2		Wyandotte County.....	2	
Lawrence County.....	4		Total.....	490	1
Licking County.....	1		Ohio (March):		
Logan County.....	11		Allen County.....	7	
Lucas County.....	8		Ashland County.....	2	
Mahoning County.....	43		Auzlaize County.....	5	
Marion County.....	18		Brown County.....	1	
Mercer County.....	1		Butler County.....	7	
Miami County.....	49		Carroll County.....	10	
Montgomery County.....	16		Champaign County.....	41	
Ottawa County.....	7		Clark County.....	12	
Perry County.....	3		Clinton County.....	2	
Pickaway County.....	109		Coshocton County.....	2	
Richland County.....	34		Crawford County.....	30	
Ross County.....	18		Cuyahoga County.....	12	
Sandusky County.....	5		Darke County.....	27	
Scioto County.....	18		Fayette County.....	5	
Shelby County.....	1		Franklin County.....	6	
Stark County.....	19		Hamilton County.....	24	
Summit County.....	22		Hancock County.....	5	
Tuscarawas County.....	1		Hardin County.....	29	
Union County.....	2		Harrison County.....	1	
Van Wert County.....	14		Huron County.....	4	
Warren County.....	47		Jackson County.....	1	
Wayne County.....	1		Jefferson County.....	11	
Total.....	621		Knox County.....	6	
			Lake County.....	1	
			Lawrence County.....	13	
			Logan County.....	3	
			Lorain County.....	1	
			Lucas County.....	1	

SMALLPOX—Continued.

Monthly State Reports—1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ohio (March)—Continued.....			Ohio (April)—Continued.....		
Mahoning County.....	61		Van Wert County.....	6	
Marion County.....	21		Warren County.....	6	
Medina County.....	4		Williams County.....	2	
Mercer County.....	2		Total.....	780	
Miami County.....	21		Ohio (May):		
Montgomery County.....	18		Allen County.....	40	
Morrow County.....	2		Ashland County.....	5	
Muskingum County.....	1		Ashtabula County.....	7	
Ottawa County.....	6		Athens County.....	3	
Paulding County.....	5		Auglaize County.....	1	
Pickaway County.....	58		Belmont County.....	1	
Pike County.....	1		Butler County.....	17	
Richland County.....	4		Champaign County.....	14	
Ross County.....	6		Clark County.....	2	
Scioto County.....	37		Clermont County.....	1	
Seneca County.....	3		Coshocton County.....	4	
Shelby County.....	1		Crawford County.....	63	
Stark County.....	36		Cuyahoga County.....	8	
Summit County.....	62		Darke County.....	24	
Trumbull County.....	3		DeLance County.....	5	
Union County.....	2		Delaware County.....	1	
Van Wert County.....	7		Erie County.....	22	
Warren County.....	5		Franklin County.....	18	
Washington County.....	1		Greene County.....	1	
Williams County.....	1		Hamilton County.....	31	
Wyandot County.....	1		Hardin County.....	10	
Total.....	638		Henry County.....	1	
Ohio (April):			Highland County.....	4	
Allen County.....	18		Huron County.....	6	
Ashland County.....	9		Jackson County.....	1	
Ashtabula County.....	1		Jefferson County.....	2	
Athens County.....	1		Knox County.....	2	
Auglaize County.....	5		Lake County.....	3	
Brown County.....	4		Lawrence County.....	12	
Butler County.....	11		Licking County.....	9	
Carroll County.....	6		Lorain County.....	2	
Champaign County.....	13		Lucas County.....	6	
Clark County.....	10		Mahoning County.....	97	
Clinton County.....	7		Marion County.....	45	
Coshocton County.....	15		Medina County.....	2	
Crawford County.....	83		Mercer County.....	3	
Cuyahoga County.....	13		Miami County.....	2	
Darke County.....	16		Montgomery County.....	10	
Erie County.....	13		Morrow County.....	14	
Franklin County.....	3		Muskingum County.....	9	
Greene County.....	15		Ottawa County.....	2	
Hamilton County.....	21		Pickaway County.....	15	
Hardin County.....	19		Pike County.....	6	
Henry County.....	4		Portage County.....	16	
Highland County.....	2		Putnam County.....	5	
Huron County.....	9		Richland County.....	13	
Jackson County.....	2		Ross County.....	5	
Jefferson County.....	1		Scioto County.....	9	
Knox County.....	3		Seneca County.....	1	
Lawrence County.....	1		Shelby County.....	1	
Licking County.....	1		Stark County.....	38	
Lorain County.....	9		Summit County.....	87	
Mahoning County.....	143		Trumbull County.....	9	
Marion County.....	35		Tuscarawas County.....	7	
Meigs County.....	1		Van Wert County.....	1	
Mercer County.....	2		Warren County.....	6	
Miami County.....	5		Williams County.....	1	
Montgomery County.....	20		Wood County.....	6	
Morrow County.....	3		Total.....	736	
Muskingum County.....	1		Virginia (May):		
Ottawa County.....	3		Alexandria County—		
Pickaway County.....	68		Alexandria.....	1	
Portage County.....	3		Alleghany County.....	5	
Richland County.....	8		Covington.....	2	
Ross County.....	13		Bedford County.....	3	
Scioto County.....	27		Botetourt County.....	6	
Seneca County.....	4		Troutville.....	12	
Shelby County.....	2		Campbell County.....	2	
Stark County.....	43		Lynchburg.....	2	
Summit County.....	62				
Trumbull County.....	6				
Tuscarawas County.....	2				

SMALLPOX—Continued.

Monthly State Reports—1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Virginia (May)—Continued.			Virginia (May)—Continued.		
Elizabeth City County—			Wise County.....	45	
Hampton.....	1		Appalachia.....	6	
Greensville County.....	5		Big Stone Gap.....	2	
Halifax County.....	1		Glamorgan.....	26	
Highland County.....	1		Inman.....	4	
Isle of Wight County.....	2		Norton.....	4	
Lee County.....	13		Roda.....	1	
Ben Hur.....	1		Stonewall.....	16	
Pennington Gap.....	13		Wise.....	8	
Montgomery County.....	5		Wythe County.....	3	
Ironto.....	10				
Norfolk County.....	8		Total.....	339	
Norfolk.....	10				
Page County.....	7		West Virginia (June):		
Patrick County.....	1		Boone County.....	6	
Princess Anne County.....	3		Brooke County.....	1	
Pulaski County.....	1		Cabell County.....	2	
Pulaski.....	3		Fayette County.....	14	
Roanoke County.....	8		Greenbrier County.....	10	
Roanoke.....	6		Harrison County.....	2	
Vinton.....	10		Jackson County.....	1	
Rockbridge County.....	1		Kanawha County.....	12	
Rockingham County.....	4		Lewis County.....	1	
Bridgewater.....	1		McDowell County.....	5	
Harrisonburg.....	3		Marion County.....	2	
Russell County.....	9		Mason County.....	1	
Clinchfield.....	3		Mercer County.....	33	
Scott County.....	7		Mineral County.....	4	
Smyth County.....	13		Mingo County.....	14	
Atkins.....	5		Monongalia County.....	5	
Saltville.....	3		Preston County.....	2	
Sussex County.....	7		Raleigh County.....	1	
Tazewell County.....	7		Randolph County.....	1	
Cedar Bluff.....	2		Taylor County.....	10	
North Tazewell.....	1		Tucker County.....	3	
Warwick County—			Wayne County.....	4	
Newport News.....	1		Webster County.....	1	
Washington County.....	11		Wyoming County.....	3	
Bristol.....	1				
Meadow View.....	5		Total.....	138	

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	13		Duluth, Minn.....	1	
Alexandria, La.....	1		East St. Louis, Ill.....	7	
Alton, Ill.....	1		Evanston, Ill.....	2	
Appleton, Wis.....	11		Everett, Wash.....	2	
Atlanta, Ga.....	8		Fargo, N. Dak.....	2	
Baltimore, Md.....	1		Fort Scott, Kans.....	3	
Battle Creek, Mich.....	2		Fort Smith, Ark.....	2	
Beatrice, Nebr.....	5		Fort Wayne, Ind.....	1	
Bedford, Ind.....	1		Great Falls, Mont.....	1	
Berkeley, Calif.....	1		Greeley, Colo.....	5	
Birmingham, Ala.....	2		Green Bay, Wis.....	5	
Boise, Idaho.....	1		Huntington, Ind.....	2	
Canton, Ohio.....	6		Hutchinson, Kans.....	2	
Cedar Rapids, Iowa.....	2		Indianapolis, Ind.....	2	
Centralia, Ill.....	1		Iowa City, Iowa.....	2	
Charleston, S. C.....	8		Jacksonville, Ill.....	8	
Charleston, W. Va.....	2		Janesville, Wis.....	1	
Chicago, Ill.....	1		Joplin, Mo.....	1	
Cincinnati, Ohio.....	3		Kansas City, Kans.....	3	
Cleveland, Ohio.....	3		Kansas City, Mo.....	6	
Clinton, Iowa.....	1		Kenosha, Wis.....	5	
Colorado Springs, Colo.....	2		Knoxville, Tenn.....	2	
Columbus, Ohio.....	1		Kokomo, Ind.....	5	
Council Bluffs, Iowa.....	1		La Crosse, Wis.....	1	
Dallas, Tex.....	1		Lancaster, Ohio.....	1	
Danville, Ill.....	2		Lawrence, Kans.....	2	
Davenport, Iowa.....	5		Leavenworth, Kans.....	2	
Denver, Colo.....	28		Lexington, Ky.....	1	
Des Moines, Iowa.....	8		Lima, Ohio.....	21	
Detroit, Mich.....	21		Lincoln, Nebr.....	2	

SMALLPOX—Continued,

City Reports for Week Ended June 26, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Logansport, Ind.	1		Riverside, Calif.	1	
Long Beach, Calif.	2		Roanoke, Va.	2	
Los Angeles, Calif.	7		Rock Island, Ill.	3	
Lynchburg, Va.	3		Sacramento, Calif.	1	
Manitowoc, Wis.	1		St. Joseph, Mo.	2	
Marinette, Wis.	2		St. Louis, Mo.	1	
Marion, Ohio	3		St. Paul, Minn.	2	
Marshalltown, Iowa	4		Salt Lake City, Utah	14	
Milwaukee, Wis.	6		San Francisco, Calif.	2	
Minneapolis, Minn.	22		Santa Barbara, Calif.	2	
Mishawaka, Ind.	1		Seattle, Wash.	10	
Missoula, Mont.	1		Sioux City, Iowa	5	
Mobile, Ala.	1		Sioux Falls, S. Dak.	1	
Nashville, Tenn.	2		South Bend, Ind.	4	
Newcastle, Ind.	1		Spokane, Wash.	13	
New Orleans, La.	7	1	Springfield, Ill.	2	
Oklahoma City, Okla.	3		Springfield, Ohio	1	
Omaha, Nebr.	10		Superior, Wis.	2	
Oshkosh, Wis.	1		Tacoma, Wash.	3	
Paducah, Ky.	1		Topeka, Kans.	5	
Parsons, Kans.	3		Vancouver, Wash.	3	
Peekin, Ill.	1		Waco, Tex.	8	
Portland, Oreg.	22		Wausau, Wis.	2	
Pueblo, Colo.	1		Wichita, Kans.	14	
Quincy, Ill.	4		Winona, Minn.	2	
Racine, Wis.	1		Winston-Salem, N. C.	6	
Red Wing, Minn.	9		Yakima, Wash.	1	
Reno, Nev.	3		Youngstown, Ohio	1	

TETANUS.

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.	1	2	Savannah, Ga.		1
Dallas, Tex.	1	1	Schenectady, N. Y.	1	1
Mobile, Ala.	1	1	Springfield, Mass.		1
Salt Lake City, Utah	1		Waterbury, Conn.	1	

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 1719, and Weekly reports from cities, p. 1736.

TYPHOID FEVER.

Monthly State Reports—1920.

Place.	New cases reported.	Place.	New cases reported.
Alabama (June).		Alabama (June)—Continued.	
Autauga County	2	Mobile County	2
Baldwin County	1	Montgomery County	3
Barbour County	1	Morgan County	1
Butler County	3	Pike County	2
Calhoun County	3	Russell County	1
Chilton County	1	Shelby County	1
Dallas County	1	Talladega County	4
Geneva County	1	Tallapoosa County	1
Jefferson County	24	Tuscaloosa County	3
Lauderdale County	1	Walker County	1
Lee County	3	Winston County	1
Lowndes County	2		
Madison County	4	Total	69
Marengo County	2		

TYPHOID FEVER—Continued.
Monthly State Reports—1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
Arizona (June):		Ohio (January)—Continued.	
Cocconino County.....	2	Franklin County.....	2
Graham County.....	1	Guernsey County.....	2
Gila County.....	1	Hamilton County.....	4
Maricopa County.....	5	Highland County.....	1
Total.....	9	Jefferson County.....	2
Florida (June):		Lake County.....	4
Alachua County.....	1	Lawrence County.....	9
De Soto County.....	9	Licking County.....	2
Duval County.....	2	Lucas County.....	4
Jacksonville.....	8	Mahoning County.....	3
Escambia County.....	2	Meigs County.....	1
Pensacola.....	8	Muskingum County.....	1
Hillsborough County—		Preble County.....	2
Tampa.....	6	Ross County.....	2
Jefferson County.....	1	Stark County.....	6
Lee County.....	1	Summit County.....	3
Manatee County.....	4	Trumbull County.....	4
Okaloosa County.....	1	Tuscarawas County.....	3
Pasco County.....	3	Union County.....	1
Pinellas County.....	2	Wood County.....	3
Polk County.....	4	Total.....	97
Putnam County.....	1	Ohio (February):	
Waltón County.....	1	Belmont County.....	1
Total.....	52	Brown County.....	5
Massachusetts (June):		Clermont County.....	1
Bristol County—		Columbiana County.....	1
Fairhaven (town).....	2	Crawford County.....	1
Fau River.....	10	Cuyahoga County.....	1
Taunton.....	1	Franklin County.....	1
Essex County—		Green County.....	2
Gloucester.....	2	Guernsey County.....	2
Lawrence.....	10	Hamilton County.....	2
Lynn.....	1	Hardin County.....	1
Hampden County—		Henry County.....	1
Holyoke.....	1	Jackson County.....	1
Springfield.....	1	Jefferson County.....	1
W. Springfield (town).....	1	Lake County.....	1
Middlesex County—		Lawrence County.....	6
Cambridge.....	1	Lorain County.....	2
Everett.....	1	Monroe County.....	1
Lowell.....	3	Montgomery County.....	1
Newton.....	2	Scioto County.....	1
Waltham.....	2	Stark County.....	2
Norfolk County—		Tuscarawas County.....	2
Brookline (town).....	1	Wood County.....	14
E. Milton (town).....	1	Total.....	51
Foxboro (town).....	1	Ohio (March):	
Needham (town).....	2	Allen County.....	2
Quincy.....	3	Ashtabula County.....	1
Plymouth County—		Clark County.....	1
Brockton.....	1	Clermont County.....	2
Plymouth (town).....	1	Clinton County.....	2
Suffolk County—		Columbiana County.....	1
Boston.....	14	Cuyahoga.....	6
Worcester County—		Erie County.....	1
Grafton (town).....	1	Fairfield County.....	1
Worcester.....	1	Franklin County.....	1
Total.....	64	Guernsey County.....	2
Ohio (January):		Hamilton County.....	3
Adams County.....	4	Henry County.....	2
Allen County.....	4	Jefferson County.....	3
Athens County.....	4	Lake County.....	1
Belmont County.....	8	Lawrence County.....	5
Butler County.....	1	Lorain County.....	1
Clermont County.....	3	Lorain County.....	2
Columbiana County.....	3	Lucas County.....	2
Crawford County.....	2	Mahoning County.....	2
Cuyahoga County.....	4	Miami County.....	1
Darke County.....	2	Montgomery County.....	1
Defiance County.....	1	Moran County.....	1
Fairfield County.....	1	Muskingum County.....	1
		Portage County.....	1
		Putnam County.....	1

TYPHOID FEVER—Continued.

Monthly State Reports—1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
Ohio (March)—Continued.		Ohio (May)—Continued.	
Richland County.....	2	Miami County.....	2
Ross County.....	1	Montgomery County.....	2
Shelby County.....	1	Morgan County.....	3
Stark County.....	3	Ottawa County.....	1
Summit County.....	1	Preble County.....	1
Trumbull County.....	3	Putnam County.....	1
Tuscarawas County.....	2	Richland County.....	2
		Ross County.....	3
Total.....	60	Sandusky County.....	2
		Seneca County.....	1
Ohio (April):		Stark County.....	4
Allen County.....	1	Summit County.....	3
Ashland County.....	2	Trumbull County.....	9
Ashtabula County.....	1	Tuscarawas County.....	1
Belmont County.....	3	Wood County.....	3
Champaign County.....	1	Wyandot County.....	1
Clark County.....	1		
Clermont County.....	1	Total.....	126
Clinton County.....	4		
Columbiana County.....	2	Virginia (May):	
Cuyahoga County.....	11	Accomac County.....	1
Franklin County.....	1	Alexandria County—	
Greene County.....	4	Alexandria.....	14
Guernsey County.....	1	Alleghany County—	
Hamilton County.....	6	Clifton Forge.....	1
Highland County.....	2	Lowmoor.....	1
Jefferson County.....	17	Bath County—	
Lake County.....	2	Millboro.....	1
Lawrence County.....	8	Botetourt County.....	2
Lorain County.....	17	Buchanan County.....	2
Lucas County.....	3	Hurley.....	3
Madison County.....	4	Campbell County—	
Mahoning County.....	2	Lynchburg.....	1
Marion County.....	1	Culpeper County.....	2
Medina County.....	3	Elizabeth City County—	
Meigs County.....	1	Phoebus.....	1
Mercer County.....	1	Floyd County.....	1
Miami County.....	3	Halifax County.....	2
Montgomery County.....	2	Clover.....	1
Muskingum County.....	1	Hanover County.....	1
Portage County.....	3	Henrico County.....	3
Putnam County.....	2	James City County—	
Richland County.....	2	Williamsburg.....	1
Ross County.....	4	King and Queen County.....	1
Sandusky County.....	4	Loudoun County.....	3
Scioto County.....	2	Loudoun County.....	3
Stark County.....	3	Nelson County.....	2
Trumbull County.....	10	New Kent County.....	1
		Norfolk County.....	2
Total.....	136	Norfolk.....	3
		Nottoway County.....	1
Ohio (May):		Page County.....	1
Allen County.....	1	Princess Anne County.....	1
Ashtabula County.....	2	Rockbridge County.....	1
Athens County.....	1	Rockingham County.....	1
Butler County.....	2	Scott County.....	1
Carroll County.....	1	Shenandoah County.....	1
Champaign County.....	1	Smyth County—	
Clark County.....	4	Saltville.....	1
Columbiana County.....	7	Surry County.....	2
Cuyahoga County.....	10	Sussex County.....	2
De fiance County.....	1	Tazewell County—	
Delaware County.....	2	Graham.....	1
Erie County.....	2	North Tazewell.....	4
Franklin County.....	1	Pocahontas.....	1
Gallia County.....	1	Warwick County—	
Greene County.....	2	Newport News.....	4
Guernsey County.....	5	Washington County.....	1
Hamilton County.....	4	Meadow View.....	1
Hardin County.....	1	Wise County—	
Harrison County.....	2	Big Stone Gap.....	1
Highland County.....	6	Stonega.....	1
Huron County.....	2	Wythe County—	
Jefferson County.....	3	Max Meadows.....	1
Lawrence County.....	5	York County.....	1
Lorain County.....	14		
Lucas County.....	3	Total.....	78
Mahoning County.....	4		

TYPHOID FEVER—Continued.

Monthly State Reports—1920—Continued.

Place.	New cases reported.	Place.	New cases reported.
West Virginia (June):		West Virginia (June)—Continued.	
Berkeley County.....	2	Mineral County.....	3
Braxton County.....	8	Monroe County.....	5
Brooke County.....	1	Ohio County.....	6
Greenbrier County.....	3	Pendleton County.....	3
Hancock County.....	1	Preston County.....	1
Harrison County.....	1	Randolph County.....	1
Kanawha County.....	11	Summers County.....	3
McDowell County.....	1	Webster County.....	1
Marion County.....	3		
Marshall County.....	1	Total.....	55

City Reports for Week Ended June 26, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Albany, N. Y.....	2		Kansas City, Mo.....	2	
Alexandria, La.....	2		La Salle, Ill.....	1	
Alexandria, Va.....	1	1	Lawrence, Mass.....	2	
Atlanta, Ga.....	1		Logansport, Ind.....	1	1
Baltimore, Md.....	4	1	Long Beach, Calif.....	1	
Beaumont, Tex.....	2	2	Lorain, Ohio.....	3	
Billings, Mont.....	1		Los Angeles, Calif.....	5	
Birmingham, Ala.....	4		Louisville, Ky.....	3	
Boston, Mass.....	6		Mattoon, Ill.....	3	
Brockton, Mass.....	1		Minneapolis, Minn.....	2	
Burlington, Vt.....	1		Missoula, Mont.....	2	
Butler, Pa.....	1		Mobile, Ala.....	2	
Cadillac, Mich.....		1	Nashville, Tenn.....	3	
Chambersburg, Pa.....	1		New Orleans, La.....	3	
Charleston, S. C.....	2		New York, N. Y.....	15	
Charleston, W. Va.....	4		Norwich, Conn.....	1	
Chicago, Ill.....	6		Oakland, Calif.....	4	
Cincinnati, Ohio.....	2	1	Oil City, Pa.....	1	
Colorado Springs, Colo.....	2		Oklahoma City, Okla.....	2	
Columbus, Ohio.....	1		Petersburg, Va.....	1	
Covington, Ky.....	2		Philadelphia, Pa.....	5	2
Dallas, Tex.....	11	1	Pittsburgh, Pa.....	3	
Detroit, Mich.....	1	1	Portland, Me.....	4	
Durham, N. C.....	1		Providence, R. I.....	1	
East Chicago, Ind.....		1	Quincy, Mass.....	1	
East St. Louis, Ill.....	1		Roanoke, Va.....	3	1
El Paso, Tex.....		1	Rutland, Vt.....	1	
Eugene, Oreg.....	1		Sacramento, Calif.....	1	
Everett, Wash.....	1		St. Louis, Mo.....	2	1
Fairmont, W. Va.....	1		Sanford, Me.....	1	
Fall River, Mass.....	2		Sault Ste. Marie, Mich.....	1	
Freemont, Ohio.....	1		Savannah, Ga.....	1	1
Galesburg, Ill.....		1	Springfield, Mass.....	1	
Glens Falls, N. Y.....		1	Stockton, Calif.....	1	
Hammond, Ind.....		2	Toledo, Ohio.....	2	
Hoboken, N. J.....	1		Topeka, Kans.....	5	
Holyoke, Mass.....	1		Vancouver, Wash.....	1	
Huntington, Ind.....	1	1	Waco, Tex.....	2	
Hutchinson, Kans.....	2		Washington, D. C.....	2	
Jamestown, N. Y.....	1		Wheeling, W. Va.....	2	1
Jersey City, N. J.....	1		Wilmington, Del.....	1	1
Joplin, Mo.....	13		Wilmington, N. C.....		1
Kansas City, Kans.....	1				

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended June 26, 1920.

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.
Aberdeen, S. Dak.	15,926	3					1			
Adams, Mass.	14,406	2								
Akron, Ohio.	93,604	35	5		5		6		3	1
Alameda, Calif.	28,433	5							2	2
Albany, N. Y.	106,632		11		44		3		2	2
Alexandria, La.	16,232		2		3					
Alexandria, Va.	17,959	7								
Allentown, Pa.	65,103		5		11		1			
Alliance, Ohio.	19,581	3			1		1			1
Alton, Ill.	23,783	3			7					
Amesbury, Mass.	10,200	4	1		7		1			
Anaconda, Mont.	10,631	0			4					
Ann Arbor, Mich.	15,041	12			6					
Anniston, Ala.	14,326				1				1	
Ansonia, Conn.	16,954	3	1							
Appleton, Wis.	18,005				1					
Arlington, Mass.	13,073	2	1		4		4			
Asbury Park, N. J.	14,629	1			15				2	
Ashtabula, Ohio.	22,038	5								
Atlanta, Ga.	196,144	59			8		2		3	2
Atlantic City, N. J.	59,515	12	3		4					
Attleboro, Mass.	19,776	7			11		2		1	3
Auburn, Me.	16,607	5								
Auburn, N. Y.	37,823	12	5		49	1				1
Aurora, Ill.	34,795	5			13		1		4	
Baltimore, Md.	594,637	166	7	2	103	2	11		28	19
Bangor, Me.	26,953				4		1			
Barberton, Ohio.	14,187	6			3					
Barre, Vt.	12,401				1		1			
Baton Rouge, La.	17,544	9							2	2
Battle Creek, Mich.	30,159		2		17		5			
Bayonne, N. J.	72,204		2		4				5	
Beatrice, Nebr.	10,437	10								
Beaumont, Tex.	28,851	13								
Beavor Falls, Pa.	13,749				9					
Bedford, Ind.	10,613	3								
Belleville, N. J.	12,707		1				5			
Beloit, Wis.	15,547				30		1			
Benton Harbor, Mich.	11,069	1			2		1			
Berkeley, Calif.	60,427	11	2				2		1	1
Berlin, N. H.	13,932	3								
Bethlehem, Pa.	14,353		3		12					
Beverly, Mass.	22,128	1								
Billings, Mont.	15,123	8			2					
Binghamton, N. Y.	54,874	15			16		2			
Birmingham, Ala.	189,716	41	4		5		2		11	5
Bloomfield, N. J.	19,013	1			23					
Bloomington, Ill.	27,462	9					2		1	
Bloomington, Ind.	11,661	4								
Boise, Idaho.	35,951	2			7		1			
Boston, Mass.	767,813	162	28	3	102		44	1	43	20
Braddock, Pa.	22,060		2		2		1		1	
Bradford, Pa.	14,544				9					
Brazil, Ind.	10,472	1							2	
Bridgeport, Conn.	124,724	32	6		2		6		1	3
Bristol, Conn.	16,318	2	3		5		4		1	2
Brockton, Mass.	69,152	11	1		1		1		2	
Brookline, Mass.	33,523	8			23		2		1	
Brunswick, Ga.	10,981	1								
Buffalo, N. Y.	475,781	98		2				1		10
Burlington, Iowa.	25,144				4		1			1
Burlington, Vt.	21,802	5							1	
Butler, Pa.	28,677				5		1		2	
Butte, Mont.	44,057	10	4	1	18				2	1
Cadillac, Mich.	10,158	2								
Cairo, Ill.	15,995	5								5
Cambridge, Mass.	114,223	23	1		24		3		6	
Canton, Ill.	13,674	0								
Canton, Ohio.	62,536	16	1	1	6				4	1
Carbondale, Pa.	19,597		1		1					
Carlisle, Pa.	10,795				13		2			
Carnegie, Pa.	11,963				7					
Cedar Rapids, Iowa.	38,033		1							
Centralia, Ill.	11,838	5								

¹ Population Apr. 15, 1910.

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

City Reports for Week Ended June 26, 1920—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.
Chambersburg, Pa.	12,475		2		4					
Charleston, S. C.	61,041	25								3
Charleston, W. Va.	31,060				3		1		2	
Chelsea, Mass.	48,405	9	2		5		2		10	
Chester, Pa.	41,857		1		7					
Chicago Heights, Ill.	22,863	2								
Chicago, Ill.	2,547,201	482	81	10	264	1	76	3	228	45
Chicopee, Mass.	29,950	3								
Cincinnati, Ohio.	414,248	86	9		33	1	11	1	11	11
Clarksburg, W. Va.	12,960						1			
Cleveland, Ohio.	692,250	145	14	1	32		18	1	38	23
Clinton, Iowa	27,678						1			
Clinton, Mass.	113,075	2			1				1	
Coatesville, Pa.	14,998				10					
Coffeyville, Kans.	18,331	7			3				1	1
Cohoes, N. Y.	25,292	5					1		3	1
Colorado Springs, Colo.	33,965	14			6				4	8
Columbia, S. C.	35,165								1	
Columbus, Ohio.	220,135	60	2		12	1	3	1	5	3
Concord, N. H.	22,858	10			30				2	
Connellsville, Pa.	15,876				3				1	
Corpus Christi, Tex.	10,789	5								1
Cortland, N. Y.	13,321	4					1			
Council Bluffs, Iowa.	31,638	7	1							2
Covington, Ky.	59,623	9					2		2	3
Cranston, R. I.	26,773	6	1		4					
Cumberland, Md.	26,686	6					1			1
Dallas, Tex.	129,738	51	1		13		2		10	5
Danvers, Mass.	10,637						3		1	
Danville, Ill.	32,909	11								
Danville, Va.	20,183				4					
Davenport, Iowa.	49,618		1		1					
Dayton, Ohio.	128,639	34			2		3		1	
Decatur, Ill.	41,483	6								2
Dedham, Mass.	10,618	6					3			
Denver, Colo.	268,439	63	6		89		2			14
Des Moines, Iowa.	104,652		1							
Detroit, Mich.	619,648	183	79	9	39	2	45	2	49	17
Dover, N. H.	13,276	5								1
Dubois, Pa.	14,994									
Duluth, Minn.	97,677	12	1				7		4	1
Durham, N. C.	26,160	12					1			2
East Chicago, Ind.	33,286	5								1
Easthampton, Mass.	10,656				1					
Easton, Pa.	30,854		1		17		1			
East Orange, N. J.	43,761	10			28		1		1	1
East St. Louis, Ill.	77,312	14	1				1		1	3
Eau Claire, Wis.	18,887				9		1			
Elgin, Ill.	28,562	4			27					1
Elizabeth, N. J.	88,830		3	1	4		6		9	4
Elkhart, Ind.	22,273	4					6		1	1
El Paso, Tex.	69,149	49	2	1		1				10
Elwood, Ind.	11,028	6								
Englewood, N. J.	12,603	3	1		3					
Erie, Pa.	76,592		2		43		5		5	
Eugene, Oreg.	14,257	0								
Eureka, Calif.	15,142	4								1
Evanston, Ill.	29,304	8					1			
Everett, Mass.	40,160	10							1	
Everett, Wash.	37,205				37					
Fairmount, W. Va.	16,111						1			
Fall River, Mass.	129,828	27	1		23		4		4	
Fargo, N. Dak.	17,872	9	1		16		4			
Findlay, Ohio.	14,858	6			5				1	
Flint, Mich.	57,386	14	2		2		7	1		
Fond du Lac, Wis.	21,486		1		6					
Fort Scott, Kans.	10,564	2								
Fort Smith, Ark.	29,390				1		1			
Fort Wayne, Ind.	78,014	20	1		42		2			3
Fostoria, Ohio.	10,959	5			1		3			
Frammingham, Mass.	14,149	8								
Freeport, Ill.	19,844	3			12				1	

¹ Population Apr. 15, 1910.

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

City Reports for Week Ended June 26, 1920—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.
Fremont, Nebr.	10,080	4								
Fremont, Ohio	11,634	1					2			
Fresno, Calif.	36,314	9								
Galesburg, Ill.	24,629	6			1					
Galveston, Tex.	42,650	12								1
Gardner, Mass.	17,534	1			25				1	1
Glens Falls, N. Y.	17,160	3								
Gloucester City, N. J.	11,375				1					
Grand Rapids, Mich.	152,861	36	3	2	32		3		1	
Great Falls, Mont.	113,948	11			3		8		2	1
Greely, Colo.	11,942	3								
Green Bay, Wis.	30,017				2		3			
Greenfield, Mass.	12,251	5	1		36		2			
Greensboro, N. C.	20,171	7								1
Greensburg, Pa.	15,881		1		1		4			
Greenwich, Conn.	19,594	3			2					
Hackensack, N. J.	17,412	10	1		24				1	
Hammond, Ind.	27,016	12	3				1			
Harrisburg, Pa.	73,276				8		2			
Harrison, N. J.	17,345				7				1	
Hartford, Conn.	112,831	32	2		17		6		2	4
Haverhill, Mass.	49,180	14	3		27		1	1	3	1
Hazleton, Pa.	28,981		2		2		1			
Hibbing, Minn.	17,550		11		1					
Hoboken, N. J.	78,324	12	1	1					4	1
Holyoke, Mass.	66,503	13			17		2		5	2
Huntington, Ind.	10,982	6	1							
Huntington, W. Va.	47,686	14								2
Hutchinson, Kans.	21,461		1		8		1		2	
Indianapolis, Ind.	283,622	74	4	2	92		8		4	8
Iowa City, Iowa	11,626				4					
Ironton, Ohio	14,079	1			3					
Ironwood, Mich.	15,095	4			7					1
Irvington, N. J.	16,710		1		11		4		1	
Ishpeming, Mich.	112,448	1					1		1	
Ithaca, N. Y.	16,017	6							2	
Jacksonville, Ill.	15,506	9			1					
Jamestown, N. Y.	37,431	12			17		2		1	1
Janesville, Wis.	14,411				7					
Jefferson City, Mo.	13,712	4								
Jersey City, N. J.	312,557		21		13		9		13	
Johnstown, Pa.	70,437				2		1		4	
Kalamazoo, Mich.	50,408	17			15	1	4		1	
Kankakee, Ill.	14,270	3			7		1			1
Kansas City, Kans.	102,096		3		11					
Kansas City, Mo.	305,816	78	5		12		2		6	3
Kearny, N. J.	21,325	10			9		1		2	1
Keene, N. H.	10,725	1			4		2		4	
Kenosha, Wis.	32,833		1		11		4			
Knoxville, Tenn.	59,112				3		2		1	1
Kokomo, Ind.	21,929	6			2					
Lackawanna, N. Y.	16,219	5			7					1
La Crosse, Wis.	31,833				4					
La Fayette, Ind.	21,481	7								
Lancaster, Ohio	16,086	2	2						1	1
Lancaster, Pa.	51,437		9		10					
La Salle, Ill.	12,332	3			8					1
Lawrence, Kans.	13,477	3			2					
Lawrence, Mass.	102,923	19	1		64		2	1	1	3
Leavenworth, Kans.	19,363	4								
Lexington, Ky.	41,997	15			5				1	3
Lima, Ohio	37,145	15	1		7				1	3
Lincoln, Nebr.	46,957	15	3		3				4	1
Little Rock, Ark.	58,716				3				1	
Lockport, N. Y.	20,028	2			1					
Logansport, Ind.	21,338	3								
Long Beach, Calif.	29,183	10	2		3		1		1	
Long Branch, N. J.	15,733	1			1					
Lorain, Ohio	38,266				4		1		2	
Los Angeles, Calif.	535,485	156	53		112		3		75	18
Louisville, Ky.	240,808	58		1	15	1	1		11	5
Lowell, Mass.	114,386	26	3		35	1	2		10	8

¹ Population Apr. 15, 1910.

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

City Reports for Week Ended June 26, 1920—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.
Ludington, Mich.	10,566	2								1
Lynchburg, Va.	33,497	4			23					1
Lynn, Mass.	101,534	17	7		9		6		4	2
McKeesport, Pa.	48,299				2				1	
McKees Rocks, Pa.	20,795				1					
Madison, Wis.	31,315				1					
Mahanoy City, Pa.	17,709		1							
Malden, Mass.	52,243	9	8		15	1	1		1	
Manchester, Conn.	15,859	2			5		1			
Manchester, N. H.	79,607	17	3		18	1	4		3	1
Manitowoc, Wis.	13,931						6			
Mankato, Minn.	10,365	2			2				1	
Marinette, Wis.	14,610				1					
Marion, Ind.	19,923	6								1
Marion, Ohio.	21,129		1						1	
Marquette, Mich.	12,555	2			18					
Marshalltown, Iowa.	14,519	5	1		2					
Martinsburg, W. Va.	12,984						1			
Medford, Mass.	26,681	3	2		33				3	
Melrose, Mass.	17,721	3			4		1			
Meriden, Conn.	29,431		1				2			1
Methuen, Mass.	14,320	4	1		7		1			
Middletown, N. Y.	15,890				1		1		2	
Middletown, Ohio.	16,384	3					2		1	
Milwaukee, Wis.	445,008	95	6	3	187		19	1	20	13
Minneapolis, Minn.	373,448	84	6		89	1	7		14	10
Mishawaka, Ind.	17,083	4								
Missoula, Mont.	19,075	3			4					
Mobile, Ala.	59,241	20	1				1			1
Monessen, Pa.	23,070						2			
Monmouth, Ill.	10,346	3					2			
Montclair, N. J.	27,687	2			13				3	
Montgomery, Ala.	44,039	22					4		3	2
Morgantown, W. Va.	14,444	5			4					
Morristown, N. J.	13,410	9								1
Moundsville, W. Va.	11,515	2								
Mount Carmel, Pa.	20,709								1	
Mount Vernon, N. Y.	37,991	2	2		1					
Muncie, Ind.	25,653	5					2			
Muscataine, Iowa.	17,713	6								1
Nashua, N. H.	27,541	9			21				8	2
Nashville, Tenn.	118,136	40			9		1		6	6
Newark, N. J.	418,789	82	21		102	2	14		37	6
New Bedford, Mass.	121,622	25			1		5		8	5
New Britain, Conn.	55,385	10			3		6	2		1
New Brunswick, N. J.	25,855								2	
Newburyport, Mass.	15,291	7			11					
New Castle, Ind.	14,144	5					1			
New Haven, Conn.	152,275	26	5		16		6		17	2
New London, Conn.	21,199				2				1	1
New Orleans, La.	377,010	120	1		16		3		29	10
Newport, R. I.	30,585	6					3			1
Newton, Mass.	44,313	12			32		1		2	2
New York, N. Y.	5,737,492	1,026	279	20	253	6	75	1	335	103
Niagara Falls, N. Y.	38,466	10	1		1		7		1	1
Norristown, Pa.	31,969				6		1			
North Adams, Mass.	122,019	7	1		13					
Northampton, Mass.	20,008	9	5	1	9					
North Attleboro, Mass.	11,248	1								
North Braddock, Pa.	15,684		2		2		1			
North Tonawanda, N. Y.	14,060	1	2							
Norwalk, Conn.	27,332	5	1						1	
Norwich, Conn.	21,623	3	2							
Norwood, Ohio.	23,269	8	1		1		1			
Oakland, Calif.	206,405	56	5		1		5			2
Oak Park, Ill.	27,816	6		1	11					
Oil City, Pa.	20,162		1		2					
Oklahoma City, Okla.	87,588	20								
Olean, N. Y.	15,627	4							2	2
Omaha, Nebr.	177,777	25			14		7			1
Orange, N. J.	33,636	7	1		6				3	2
Oshkosh, Wis.	36,549				5		1			

1 Population Apr. 15, 1910.

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

City Reports for Week Ended June 26, 1920—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.
Paducah, Ky.	25,178				1		1			
Parkersburg, W. Va.	21,057	4	1							
Parsons, Kans.	15,152						2			
Pasadena, Calif.	49,620	13			9				2	1
Passaic, N. J.	74,478	18	2	1	13		1		2	1
Paterson, N. J.	140,512		4		52		1		4	
Pawtucket, R. I.	60,666	14								1
Peekskill, N. Y.	19,034	5		1						
Pekin, Ill.	10,073				1					
Peoria, Ill.	72,184	14	1		28		7			
Perth Amboy, N. J.	42,646	5	3		9		2			5
Petersburg, Va.	25,817	11	2		19		1	1	1	
Philadelphia, Pa.	1,735,514	380	47	5	137	10	49	2	74	42
Phillipsburg, N. J.	15,879	5							1	1
Phoenixville, Pa.	11,871				1					
Piqua, Ohio	14,275	2								
Pittsburgh, Pa.	586,196		14		233		14		25	
Pittsfield, Mass.	39,678	4			9				3	
Plainfield, N. J.	24,330	1			2					
Plattsburg, N. Y.	13,111	3								2
Plymouth, Mass.	14,001	2								
Plymouth, Pa.	18,433								1	
Pontiac, Mich.	18,006	8					1			
Port Chester, N. Y.	16,727	10			4					
Port Huron, Mich.	118,863	6	1						1	1
Portland, Me.	64,720	13			18		2			1
Portland, Oreg.	308,369	58	2		61		5		4	6
Portsmouth, N. H.	11,730				16					
Pottstown, Pa.	16,987		1		3					
Pottsville, Pa.	22,717						1			
Poughkeepsie, N. Y.	30,786	9			4					
Providence, R. I.	259,895	61	13		33		14			5
Pueblo, Colo.	55,084	2			26		1			2
Quincy, Ill.	36,832	7	1		1		1			
Quincy, Mass.	39,022	8			14		3		1	
Racine, Wis.	47,465		1		17		7			
Rahway, N. J.	10,361	1								
Reading, Pa.	111,607		2							
Redlands, Calif.	14,573	6	1							2
Reno, Nev.	15,514	5			1				1	
Richmond, Ind.	25,080	8	3							2
Richmond, Va.	158,702	46	2		64		2		7	4
Riverside, Calif.	20,493	9	3						1	1
Roanoke, Va.	46,282	6	3						1	5
Rochester, N. Y.	264,714	63	21	1	16		6	1	16	3
Rockford, Ill.	53,739	10	1	1	2		3	1		
Rock Island, Ill.	23,452	5			4				3	
Rocky Mount, N. C.	12,673	7								
Rome, Ga.	15,607								1	
Rome, N. Y.	24,259				7		2			
Rutland, Vt.	15,038				30					
Sacramento, Calif.	68,084	6			1		1		5	2
St. Cloud, Minn.	12,013		1							
St. Joseph, Mo.	86,498	31	1	1						2
St. Louis, Mo.	768,630	143	47	1	59		12		40	8
St. Paul, Minn.	252,465	53	6	1	23	1	9		12	3
Salem, Mass.	49,346	10	14	1	9				2	
Salem, Oreg.	21,274	4								1
Salt Lake City, Utah	121,023	20	2	1	33		2		1	
San Bernardino, Calif.	17,616	3							1	1
San Diego, Calif.	56,412	25	1		2		1		3	2
Sandusky, Ohio	20,226	4			2					
Sanford, Me.	11,217	2			1					1
San Francisco, Calif.	471,023	108	7	3	8		8		36	8
Santa Barbara, Calif.	15,360	5								
Santa Cruz, Calif.	15,150	5	1		14					
Saratoga Springs, N. Y.	13,839	3			1				1	
Sault Ste. Marie, Mich.	14,130	1					2			
Savannah, Ga.	69,250	30	1						1	4
Schenectady, N. Y.	103,774	12	3		113				3	1
Scranton, Pa.	149,541				12		2			
Seattle, Wash.	366,445		9		28		8			
Shamokin, Pa.	21,274		1				1			

¹ Population Apr. 15, 1910.

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

City Reports for Week Ended June 26, 1920—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.
Sharon, Pa.	19,156		1		12					
Sheboygan, Wis.	28,907				17		3			
Shenandoah, Pa.	29,753		1		1					
Sioux City, Iowa.	58,568						2			
Sioux Falls, S. Dak.	16,887	7							1	
Somerville, Mass.	88,618	20	6	1	11		3		6	
South Bend, Ind.	70,967	10			1				2	2
Southbridge, Mass.	14,465	1			7					
Spokane, Wash.	157,656		2		8		1			
Springfield, Ill.	62,623	11			15					1
Springfield, Mass.	108,668	22	4	1	32		7		3	1
Springfield, Mo.	41,169	17								4
Springfield, Ohio.	52,236	10			25		4		2	2
Stamford, Conn.	31,810		1		2		1			
Staunton, Va.	11,823	5								
Steelton, Pa.	15,759		2				2			
Steubenville, Ohio.	28,259	9			3					
Stockton, Calif.	36,209	12					1			1
Sunbury, Pa.	16,661		3		4		3			
Superior, Wis.	47,187	11					1		2	
Syracuse, N. Y.	158,550	53	9	1	154				4	3
Tacoma, Wash.	117,446		1		35					
Taunton, Mass.	36,610	12			2		1		1	
Terre Haute, Ind.	67,361	16								1
Tiffin, Ohio.	12,962	6								
Toledo, Ohio.	202,010	49	2	1	18		20	1	7	3
Topeka, Kans.	49,528	10			23				1	
Trenton, N. J.	113,974	28	3		1		5		4	1
Troy, N. Y.	78,094	20			2		5		2	
Tucson, Ariz.	17,324	14						1		
Uniontown, Pa.	21,600				2					
Vallejo, Calif.	13,833	3			1					
Vancouver, Wash.	13,835		2				6			
Virginia, Minn.	15,594		4		4					
Waco, Tex.	34,615	8								1
Waltham, Mass.	31,011	7	2	1	8		5			
Warren, Pa.	15,081				4		1			
Washington, D. C.	266,282	87	11	2	9		14		25	6
Washington, Pa.	22,076				5				5	
Waterbury, Conn.	83,201		1		2		7	1	4	
Watertown, Mass.	15,188	2			8		1		1	
Watertown, N. Y.	30,404		1		1					
Wausau, Wis.	19,666	3			1		3		1	
West Chester, Pa.	13,403				8					
Westfield, Mass.	18,769	3			1				2	
West Hoboken, N. J.	44,586	4	1	1					2	
West New York, N. J.	19,613	3								
West Orange, N. J.	13,964	3			5				2	1
Wheeling, W. Va.	43,657	16			24		3			1
White Plains, N. Y.	23,331	4			2		1	1	1	
Wichita, Kans.	73,597	37			15		2		2	1
Wilkes-Barre, Pa.	78,334		1				3		3	
Wilkinsburg, Pa.	23,899				1		3			
Williamsport, Pa.	34,123				1					
Wilmington, Del.	95,369	23			11		4			1
Wilmington, N. C.	30,400	19							2	3
Winchester, Mass.	10,812	4			2					
Winona, Minn.	18,583	7			1					
Winston-Salem, N. C.	33,136	18			9				2	3
Winthrop, Mass.	13,105	3					3			1
Woburn, Mass.	16,076	5								
Worcester, Mass.	166,106	43	4		7		10		6	4
Yakima, Wash.	22,058				16		2			
Yonkers, N. Y.	103,066	17	2		17				10	3
York, Pa.	52,770		4				2		1	
Youngstown, Ohio.	112,282	16	2		11		1	1		2
Zanesville, Ohio.	31,320	8				1				1

¹ Population Apr. 15, 1910.

FOREIGN AND INSULAR.

COLOMBIA.

Yellow Fever—Buenaventura.

The occurrence of a fatal case of yellow fever was reported at the port of Buenaventura, Republic of Colombia, June 3, 1920.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Diseases.	June 11-20, 1920.		Remain- ing under treat- ment June 20, 1920.
	New cases.	Deaths.	
Cerebrospinal meningitis.....			12
Chicken pox.....	3		
Leprosy.....			10
Malaria.....	17	1	20
Measles.....	18	2	55
Scarlet fever.....	3	2	9
Typhoid fever.....	35	4	75

¹ From abroad 2.

² From the interior 11.

³ From the interior 33.

Precautions Against Importation of Plague.

The following regulations relative to precautions against the importation of plague have been ordered by the department of health at Habana to be observed by handlers of merchandise at the docks:

1. To swab the floors of the houses daily, leaving them damp, with a disinfecting solution which has for its base "crezol" or a similar substance.
2. To immediately stop up rat holes or any crevices in floors or wall that might serve as a shelter for these rodents.
3. To deposit refuse exclusively in zinc receptacles that have covers which close hermetically.
4. To keep the floors free from all particles of food that might serve as food for mice, as well as to see that sacks, barrels, cases, and crates are unbroken and without apertures through which their contents might be spilled around.
5. The merchandise shall be placed apart from the wall, in order to admit a man to pass.

GIBRALTAR.

Influenza Made Notifiable—Reported Prevalence.

Influenza was made notifiable at Gibraltar in November, 1919. During the months of November and December 22 cases were notified. During the year 1919 three fatalities from influenza were reported.

The type of the disease is stated to have been milder than during the outbreak of 1918 and the duration of the disease shorter. The total number of deaths due to the influenza epidemic among the civil population in the year 1918 was stated to be 100.

GREECE.

Further Relative to Plague—Piræus.

Under date of July 9, 1920, 3 new cases of plague were reported at Piræus, Greece.

ITALY.

Plague—Catania.

Plague was reported present at Catania, Island of Sicily, Italy, June 24, 1920, with 2 fatalities. Two new cases were reported July 3, 1920.

MEXICO.

Summary of Plague—Vera Cruz.

Plague was officially announced to be present at Vera Cruz, Mexico, May 29, 1920, the date of the first case being determined approximately as April 21. The total number of cases notified from the beginning of the outbreak to July 11 was 47. During the week ended July 11, 4 human cases were notified and 26 rodent cases were confirmed.

NEW ZEALAND.

Influenza—Dunedin.

During the two weeks ended May 17, 1920, 321 cases of influenza were notified at Dunedin, New Zealand. (Population, census of October, 1916, 68,716.)

RHODESIA.

Brushes—Importations from Japan Prohibited.

According to information dated May 27, 1920, in consequence of the discovery of anthrax germs in a consignment of shaving and tooth brushes imported from Japan the importation into Southern Rhodesia of such brushes manufactured in Japan has been prohibited.

SALVADOR.

Status of Yellow Fever.¹

Under date of June 24, 1920, the status of yellow fever in the infected region of Salvador (Sonsonate) was reported as follows: Actual cases, 49; fatalities, 17. Yellow fever was reported present at Sonsonate May 26, with 1 fatal case; and from May 22 to June 9, 5 cases with 2 fatalities.

¹ Public Health Reports, June 4, 1920, p. 1369, and July 2, 1920, p. 1643.

SWITZERLAND.

Influenza—1918-19.

Statistics of the Federal Sanitary Service of Switzerland for the years 1918 and 1919, show in 1918 a total of 664,463 cases of influenza, and in 1919, 86,058 cases.

SYRIA.

Plague—Beirut.

Plague was reported present at Beirut, Syria, June 30, 1920.

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

Reports Received During Week Ended July 16, 1920.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	May 16-22.....	60	59	
Philippine Islands:				
Provinces.....				
Cagayan.....	May 23-29.....	4	4	May 23-29, 1920: Cases, 4; deaths, 4.

PLAGUE.

Greece:				
Piræus.....	July 9.....	3		
India:				May 9-15, 1920: Cases, 1,386; deaths, 1,169.
Calcutta.....	May 16-22.....	1	1	
Karachi.....	May 23-29.....	6	7	
Madras Presidency.....	do.....	7	10	
Italy:				
Catania.....	June 24.....		2	
Do.....	July 3.....	2		
Mexico:				
Vera Cruz.....	May 29-July 11...	47	29	
Straits Settlements:				
Singapore.....	May 9-15.....	3	1	
Syria:				
Beirut.....	June 30.....			Present.

SMALLPOX.

Algeria:				
Department—				
Algiers.....	June 1-11.....	7		
Constantine.....	do.....	1		
Oran.....	do.....	10		
Brazil:				
Pernambuco.....	Apr. 12-May 2.....	34		
Santos.....	Mar. 24-28.....		1	
Canada:				
Ontario—				
Cornwall.....	June 25-30.....	2		
Saskatchewan—				
Moosejaw.....	June 26-30.....	1		
Colombia:				
Santa Marta.....	June 13-19.....			Present.
Greece:				
Saloniki.....	Apr. 28-May 30.....	11		
India:				
Karachi.....	May 23-29.....	4	3	
Madras.....	do.....	7	5	
Italy:				
Messina.....	May 31-June 6.....	1		Province, cases, 21; deaths, 3.
Naples.....	June 6-12.....	2	1	
Palermo.....	June 12-18.....	1		
Japan:				
Kobe.....	May 31-June 6.....	2		
Portugal:				
Lisbon.....	June 6-12.....		2	
Spain:				
Valencia.....	June 6-12.....	3	1	
Tunis:				
Tunis.....	June 7-13.....	6	1	

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

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

Reports Received During Week Ended July 16, 1920—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Departments—				
Algiers.....	June 1-11.....	6		
Oran.....	do.....	48		
Great Britain:				
Dublin.....	June 6-12.....		1	
Japan:				
Nagasaki.....	May 25-30.....	1		
Portugal:				
Oporto.....	Apr. 4-May 29.....	10	4	
Tunis:				
Tunis.....	June 7-13.....	19	4	

YELLOW FEVER.

Colombia:				
Buena Ventura.....	June 3.....	1	1	
Salvador:				
Sonsonate.....	Reported June 21..	49	17	

Reports Received from June 26 to July 9, 1920.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Chungking.....	May 16-22.....		551	
India:				
Calcutta.....	May 2-15.....	137	132	
Rangoon.....	May 2-8.....	3	2	Apr. 11-24, 1920: Deaths, 2,964.
Indo-China:				
Saigon.....	Apr. 23-May 16....	56	41	Report for May 9 not received.
Java:				
West Java.....				
Batavia.....	Apr. 29-May 5.....	4	2	Apr. 29-May 5, 1920: Cases, 4; deaths, 2.
Siam:				
Banekok.....	Apr. 25-May 8.....	303	165	
Philippine Islands:				
Manila.....	May 9-15.....	1	1	
Province:				
Albay.....	May 9-15.....	2	1	May 9-15, 1920: Cases, 3; deaths, 2.
Cagayan.....	do.....	1	1	
Turkey:				
Amassia.....	Dec. 21.....	1		Asiatic Turkey.
Kaiseri.....	Dec. 22.....	1		Do.
Karassi.....	Jan. 3.....	1		Do.
Mamuret-ul-Aziz.....	Dec. 31.....	1	1	Do.
Panderma.....	Dec.-Jan.....	16	6	
Rodosto.....	Dec. 29.....	1		European Turkey.
Smyrna.....	Dec. 22.....	3	2	Asiatic Turkey.

PLAGUE.

Brazil:				
Bahia.....	Apr. 25-May 22....	8	2	
Ceylon:				
Colombo.....	May 2-8.....	1	1	
Chile:				
Antofagasta.....	May 17-June 13....	4		

¹ From medical officers of the Public Health Service, American consuls, and other sources. For reports received from Dec. 27, 1919, to June 25, 1920, see Public Health Reports for June 25, 1920. The tables of epidemic diseases are terminated semiannually and new tables begun.

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

Reports Received from June 26 to July 9, 1920—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt.....				Jan. 1—May 20, 1920: Cases, 241; deaths, 138.
Cities—				Three cases pneumonic.
Suoz.....	May 13-18.....	10	5	
Provinces—				
Assiout.....	May 15-18.....	5	3	
Kenoh.....	May 18.....	1		
Minieh.....	May 15.....	2	1	Septicmic.
Great Britain:				
Liverpool.....	June 26.....	1		
Greece:				
Pirvus.....	do.....	1		
India.....				Apr. 18—May 8, 1920: Cases, 6,522; deaths, 5,254.
Bombay.....	Apr. 18—May 15.....	52	44	Report for May 8 not received.
Calcutta.....	May 2-15.....	19	13	
Karachi.....	May 9-22.....	34	28	
Madras Presidency.....	do.....	45	34	
Rangoon.....	Apr. 25—May 8.....	35	30	
Indo-China:				
Saigon.....	May 10-16.....	1	1	
Java:				
East Java.....				Apr. 15-21, 1920: Cases, 4; deaths, 3. Surabaya Residency.
Mexico:				
Vera Cruz.....	June 14-20.....	11	1	
Peru.....				Mar. 1-31, 1920: Cases, 46; deaths, 29. Apr. 1-30, 1920: Cases, 36; deaths, 13. In coastal departments.
Callao.....	Mar. 1-31.....	6	3	
Do.....	Apr. 1-30.....	9	4	
Lima (city).....	Mar. 1-31.....	5	3	
Do.....	Apr. 1-30.....	4	4	
Lima (country).....	Mar. 1-31.....	1	1	
Do.....	Apr. 1-30.....	1		
Mollendo.....	Mar. 1-31.....	13	9	
Paíta.....	do.....	5	2	
Do.....	Apr. 1-30.....	2		
Salaverry.....	Mar. 1-31.....	4	3	
Do.....	Apr. 1-30.....	1		
San Pedro.....	do.....	6	1	
Trujillo.....	Mar. 1-31.....	5	2	
Do.....	Apr. 1-30.....	5	1	
Siam:				
Bangkok.....	Apr. 25—May 1.....	3	3	
Straits Settlements:				
Singapore.....	do.....	4	4	

SMALLPOX.

Algeria:				
Departments—				
Algiers.....	May 11-31.....	16		Data for departments of Constantine and South Territories not available. City of Algiers, Apr. 1-30, 1920: One case.
Oran.....	do.....	30		
Brazil:				
Bahia.....	Apr. 25—May 22.....	3	3	
Pernambuco.....	Mar. 29—Apr. 11.....	23		
Rio de Janeiro.....	May 9-22.....	3		
Canada:				
Alberta—				
Calgary.....	June 3-9.....	1		
Manitoba—				
Winnipeg.....	May 29—June 5.....	3		
New Brunswick—				
Gloucester.....	May 31—June 5.....	1		
Nova Scotia—				
Sydney.....	do.....	2		
Ontario—				
Kingston.....	June 6-19.....	3		
Hamilton.....	June 13-19.....	2		
Ottawa.....	June 6-23.....	32		
North Bay.....	June 23-29.....	1		
Peterborough.....	Apr. 18—June 19.....	26		
Toronto.....	June 6-19.....	13		
Quebec—				
Montreal.....	June 13-19.....	1		

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

Reports Received from June 26 to July 9, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Saskatchewan—				
Regina.....	June 13-19.....	1		
Ceylon:				
Colombo.....	May 9-15.....	1		
Chile:				
Antofagasta.....	May 17-23.....			One case in interior.
China:				
Amoy.....	May 2-20.....		6	
Antung.....	May 9-30.....	2	2	
Chun'king.....	May 2-22.....			Present.
Foochow.....	May 9-22.....			Do.
Nankin.....	do.....			Do.
Tsinanfu.....	May 9-15.....	1		
Chosen:				
Chemulpo.....	Mar. 1-31.....	22	10	
Do.....	Apr. 1-30.....	18	11	
Fusan.....	Mar. 1-31.....	7	2	
Do.....	Apr. 1-30.....	6	3	
Seoul.....	Mar. 1-31.....	120	45	
Do.....	Apr. 1-30.....	109	18	
Colombia:				
Barranquilla.....	May 16-29.....			Do.
Santa Marta.....	May 31-June 5.....			Do.
Egypt:				
Alexandria.....	May 14-27.....	26	10	
Cairo.....	Apr. 2-8.....	4	2	
Port Said.....	do.....	6	1	
France:				
Brest.....	May 15-21.....	1		
Great Britain:				
Glasgow.....	May 25-June 12.....	84	16	
Greece:				
Saloniki.....	Apr. 12-18.....	1		May 10-23: Deaths, 4.
India:				
Bombay.....	Apr. 26-May 1.....	32	12	Apr. 11-24, 1920: Deaths, 2,775.
Calcutta.....	May 2-15.....	82	74	May 9-15, 1920: Cases, 26; deaths, 11.
Karachi.....	May 9-22.....	6	5	
Madras.....	do.....	11	5	
Rangoon.....	Apr. 25-May 8.....	13	4	
Indo-China:				
Saigon.....	May 10-16.....	7	2	
Italy:				
Genoa.....	May 17-23.....	12		In Province.
Messina.....	May 9-23.....	57	6	Province, May 17-23, 1920: Cases, 44; deaths, 6.
Milan.....	Mar. 1-31.....	24	5	
Naples.....	May 23-29.....	4	1	
Palermo.....	May 11-June 1.....	7		
Japan:				
Kobe.....	May 9-23.....	5	2	
Taiwan.....	May 1-20.....	10	5	
Tokyo.....	Apr. 21-May 10.....	5	4	
Java:				
West Java.....				Apr. 16-May 5, 1920: Cases, 53; deaths, 10.
Batavia.....	Apr. 16-May 5.....	5	1	
Manchuria:				
Mukden.....	May 2-8.....			Present.
Mexico:				
Guadalajara.....	May 1-31.....	1		
Mazatlan.....	May 19-25.....		1	
San Luis Potosi.....	May 31-June 6.....		1	
Newfound Island:				
St. Johns.....	June 5-11.....	3		Reported at two other localities.
Portugal:				
Lisbon.....	May 16-June 5.....		3	
Russia:				
Vladivostok.....	Jan. 1-Apr. 30.....	248	77	
Spain:				
Barcelona.....	May 19-June 12.....		4	
Valencia.....	May 23-June 5.....	7		
Vigo.....	May 31-June 6.....		1	
Switzerland:				
Geneva.....	May 9-15.....	7		
Tunis:				
Tunis.....	May 25-June 6.....	3	4	
Turkey:				
Constantinople.....	May 16-22.....	1		

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

Reports Received from June 26 to July 9, 1920—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Departments—				
Algiers.....	May 11-30.....	16	.....
Constantine.....	May 21-30.....	5	.....
Oran.....	May 11-30.....	108	.....
Chile:				
Caleta Coloso.....	May 10-16.....	.....	2	
Valparaiso.....	May 2-22.....	.....	9	
Chosen:				
Seoul.....	Mar. 1-Apr. 30.....	4	1	
Egypt:				
Alexandria.....	Apr. 14-27.....	102	30	
Cairo.....	May 2-8.....	123	44	
Port Said.....	do.....	.....	1	
Great Britain:				
Dublin.....	May 23-June 5.....	2	.....
Glasgow.....	May 30-June 5.....	.....	1	
Greece:				
Saloniki.....	Apr. 12-18.....	126	7	
Mexico:				
Chihuahua.....	May 31-June 6.....	.....	1	
San Luis Potosi.....	June 8-14.....	.....	.....	Present.
Russia:				
Vladivostok.....	.....	.....	.....	Jan. 1-Apr. 30, 1920: Cases, 1,264; deaths, 144.
Tunis:				
Tunis.....	May 24-June 6.....	14	2	
Turkey:				
Constantinople.....	May 16-22.....	14	.....

YELLOW FEVER.

Brazil:				
Bahia.....	Apr. 25-May 22.....	3	.....
Mexico:				
Vera Cruz.....	June 22.....	.....	2	
Peru.....				
Callao.....	Apr. 1-30.....	1	.....	Mar. 1-31, 1920: Cases, 128. Apr. 1-30, 1920: Cases, 64. At quarantine station. From s. s. Huallaga.
Catacaos.....	Mar. 1-31.....	14	.....
Do.....	Apr. 1-30.....	2	.....
La Huaca.....	Mar. 1-31.....	9	.....
Morropon.....	Apr. 1-30.....	37	.....
Munneila.....	Mar. 1-31.....	12	.....
Do.....	Apr. 1-30.....	5	.....
Paita.....	Mar. 1-31.....	81	.....
Do.....	Apr. 1-30.....	14	.....
Piura.....	Mar. 1-31.....	1	.....
Do.....	Apr. 1-30.....	4	.....
Salitral.....	Mar. 1-31.....	2	.....
Sullana.....	do.....	9	.....
Do.....	Apr. 1-30.....	1	.....
Salvador:				
Sonsonste.....	May 22-June 9.....	5	2	