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## SMALLPOX IN THE UNITED STATES.

### PREVALENCE DURING JULY, AUGUST, AND SEPTEMBER, 1912.

Information regarding the reported prevalence of smallpox during the third quarter of the calendar year 1912 is available for the District of Columbia and the 32 States enumerated in the tables on pages 455-460. Cases of smallpox were notified in all the States reporting to the Surgeon General, with the exception of Arizona, the District of Columbia, Florida, and Maryland.

A summary of cases and of deaths reported in each State will be found given by States and by months on page 455. A table giving cases and deaths by counties and by months will be found beginning on page 455.

During the third quarter of the year, 2,070 cases of smallpox, with 58 deaths, were reported in the 32 States reporting. In Pennsylvania 30 deaths and 197 cases were reported; in Texas 11 deaths and 76 cases; and in California 11 deaths and 138 cases. Kansas reported 2 deaths and 56 cases, while Utah reported 2 deaths and 234 cases. Illinois reported 1 death and 100 cases, Wisconsin 1 death and 108 cases.

Of the 197 cases reported in Pennsylvania 44 occurred at Carbon-dale between August 10 and September 7.

A virulent outbreak of smallpox occurred in the city of Pittsburgh, 29 of the 30 deaths reported in the State having been in that city. The 11 deaths reported in California occurred in Los Angeles County, where 62 cases were notified, giving a case mortality rate of 17.74 per cent.

Of the 11 deaths reported in Texas 9 occurred in Dallas County, where 46 cases were notified—giving a case mortality rate of 19.17 per cent; and 2 deaths were reported in Hood County, from 27 cases—giving a case mortality rate of 7.4 per cent.

With the exception of the outbreaks of virulent smallpox noted in California, Pennsylvania, and Texas, the disease as reported in the other States was of the mild type. In Illinois 100 cases were reported, with but 1 death; in Kansas 56 cases, with 2 deaths; in Utah 234 cases, with 2 deaths; in Wisconsin 108 cases, with 1 death. In 21 States a total of 1,164 cases were reported without a death.

The largest numbers of cases were reported in the following States: Utah 234 cases, Pennsylvania 197, Washington 185, Minnesota 164, North Carolina 147, California 138, Wisconsin 108, Ohio 106, Illinois 100, New York 100. The smallest numbers were reported as follows: Wyoming, 1 case; New Jersey, 2 cases; Connecticut, 10 cases; Massachusetts and Oklahoma, 15 each; Oregon and Vermont, 20 each; Colorado, 21 cases; North Carolina, 27 cases, and South Dakota, 28 cases.

Smallpox was also present in States not enumerated in the table, but information regarding the number of cases occurring in them has not been available.

During the first quarter of 1912 there were reported 8,850 cases of smallpox with 81 deaths; during the second quarter 5,734 cases, with 53 deaths.

The reports from Minnesota for the third quarter of 1912 gave the vaccination histories of the patients in detail as follows: Of 164 cases notified 2 of the patients had been vaccinated within 7 years preceding the attack, 6 had been last vaccinated more than 7 years preceding the attack, and 120 had never been successfully vaccinated. In 36 cases the vaccination history had not been obtained.

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## PLAGUE.

### A NOTE IN REGARD TO INFECTED HOUSES.

By VICTOR G. HEISER, Passed Assistant Surgeon, United States Public Health Service, chief quarantine officer and director of health for the Philippine Islands.

During the month of December, in connection with the plague suppression measures which were carried out in Manila by the bureau of health, a very interesting experiment was made. On December 17 a case of human plague occurred at No. 4 Calle Barraca. As soon as the case was removed, and before disinfection, 2 guinea pigs free from fleas were placed in a wire cage, and this cage was put at the place where the man had been sleeping. The cage was left there for a

period of three hours. It is perhaps of interest to note that it is customary for the Filipinos to sleep on a mat which is spread upon the floor. On December 21 one of the guinea pigs died of typical plague, the diagnosis being bacteriologically confirmed. A most careful search was made of the pigs for fleas after the cage was removed, but none could be found.

A similar experiment was carried on in a house on Calle Cabildo, and another in a house on Calle San Fernando, in both of which human cases of plague had occurred. Before the cages were placed, however, the routine disinfection measures of the bureau of health, which consist of spraying with kerosene and thorough washing down with a larvicide, were carried out. In neither of these instances did the guinea pigs contract plague. From the foregoing it would appear that the insecticidal and disinfecting measures as carried out in Manila are effective.

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## PELLAGRA.

### A REPORT ON ITS EPIDEMIOLOGY.

By R. M. GRIMM, Passed Assistant Surgeon, United States Public Health Service.

The following article is a report upon pellagra field work undertaken during the summers of 1911 and 1912 under the orders of the Surgeon General of the United States Public Health Service. Some of the data collected in this work has been previously reported, but it was thought well to bring together into one article all of the data collected in my epidemiological work up to the present time. This report is intended to be mainly a presentation of facts as recorded during the study of the disease from the standpoint of its epidemiology.

The method followed in the work was to visit pellagrous communities and interview the health officers and local physicians. With their assistance data were collected by interviewing pellagrins, by taking reports of cases and deaths, and by getting reports of facts or conditions pertaining to the disease in the various communities. Whenever possible the pellagrins were visited at their homes in company with the family physician, and during these visits notes were taken upon the home environment of the pellagrins and upon any condition which seemed to have a probable bearing on the disease. For each case a 5 by 8 inch card was used. This was found to be fairly satisfactory for recording and filing the data. In all, 25 counties were visited—3 in Kentucky, 7 in South Carolina, and 15 in

Georgia. Some 200 or more physicians were interviewed and data obtained relating to a total of 1,426 cases. Two hundred and ninety-six pellagrous homes were personally visited and 323 pellagrins personally interviewed.<sup>1</sup>

The facts that apply to the total number of cases will be taken up first; next, the additional facts that pertain to the cases personally seen will be given; finally, there will be presented a brief description of the districts visited, with a more or less full account of the pellagra situation in communities found in three of these districts.

#### CONSIDERATION OF THE TOTAL NUMBER OF CASES.

*Distribution of cases.*—The total number of cases, including cases and deaths reported and cases personally seen, were distributed among the three States as follows:

States.	Cases seen.	Nonfatal cases reported.	Fatal cases reported.	Total cases.
Kentucky.....	38	64	18	120
South Carolina.....	161	441	262	864
Georgia.....	124	167	161	452
Total.....	323	672	431	1,426

These figures can not be considered as indicating comparative prevalence of the disease in the three States, as they are in proportion to the lengths of time spent in each State, and are not in proportion to the number of counties visited nor to the territory covered.

*Race and sex.*—The number of cases and deaths in the series is shown in the following table according to race and sex:

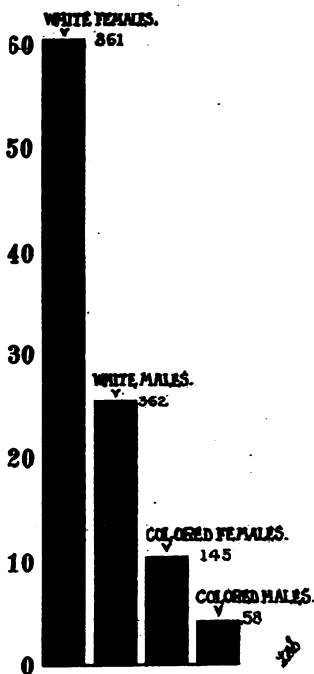
	Nonfatal cases seen and reported.	Fatal cases reported.	Total.	Percentage of aggregate.
White females.....	620	241	861	60.4
White males.....	268	94	362	25.3
Colored females.....	71	74	145	10.2
Colored males.....	36	22	58	4.1
Total.....	995	431	1,426	100.0

The accompanying chart (Chart 1), which is constructed from the column of percentages in the above table, shows in a graphic way the

<sup>1</sup> The cases which are considered in this report are made up of the cases of three series, designated for the sake of reference "WKB," "SCY," and "SCG." When reference is made to individual cases the name of the series and the number of the case in its series are both given.

difference in the numbers of cases in each race-sex group of the cases in this series.

### CHART 1



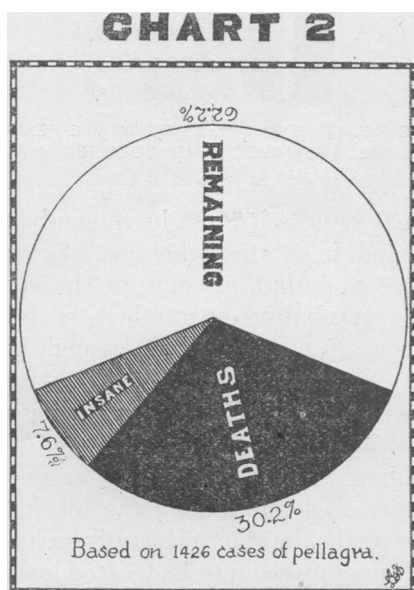
SHOWING THE RELATIVE NUMBERS OF WHITE FEMALES, WHITE MALES, COLORED FEMALES, AND COLORED MALES IN THE TOTAL NUMBER OF 1,426 CASES.

In considering these results it must be remembered that this series of cases was collected in States where a large proportion of the population is colored and that in some of the communities visited the negroes equal or probably outnumber the whites. The possibility that the negroes do not become ill enough from the disease to consult a physician does not seem sufficiently strong to explain this difference. In the districts which I visited pellagra seemed to spare the negro to a remarkable extent, and it was not unusual to find a physician who, although he had seen many cases of pellagra among the whites, had never seen one among the blacks. Once attacked, however, as will be seen below where insanity incidence and mortality rates are considered, negroes seem to be treated less kindly by pellagra than are the whites. The great preponderance in both races of affected females over males is another fact which so far is wanting a satisfactory explanation.

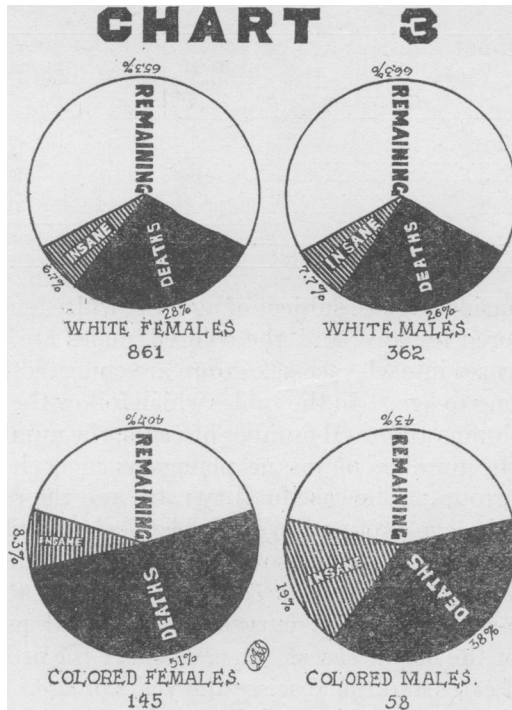
*Case mortality rate and insanity incidence.*—In the table given below there is grouped with reference to race and sex the total number of

cases, the number of deaths, and the number of insane cases in the whole series. Only the deaths and cases of insanity in pellagra which were reported to me by the physicians in the districts visited have been included here, since to have included the many cases seen at the State asylums of South Carolina and Georgia would have given erroneous results with reference to insanity incidence. The rates of case mortality and of insanity incidence for each race-sex group have been calculated and appear in the two columns so designated. The aggregates appear at the foot of each column.

The case mortality rate and the rate of insanity incidence for the whole series of 1,426 cases and for each race-sex group is expressed graphically by charts (Charts 2, 3, and 4). In Chart 2 the total of 1,426 cases is taken as 100 per cent, and in Chart 3 the total number of cases in each race-sex group is taken as 100 per cent. The portions indicating the deaths and insane cases have been measured off in accordance with the percentages in the columns of mortality rate and insanity incidence. Chart 4 shows the proportional parts formed by the death and insane cases in each race-sex group compared absolutely with the same proportional parts in the other race-sex groups.

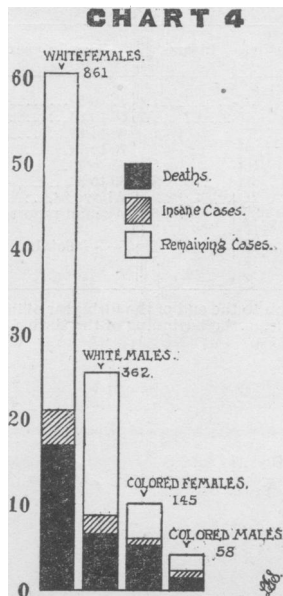


SHOWING THE PERCENTAGES OF THE TOTAL NUMBER OF CASES FORMED BY THE DEATHS AND INSANE CASES.



### INSANE CASES AND DEATHS BY RACE AND SEX.

SHOWING THE PERCENTAGES IN EACH RACE-SEX GROUP FORMED BY THE DEATHS AND INSANE CASES.



SHOWING THE ABSOLUTE COMPARISON OF THE NUMBER OF DEATHS AND INSANE CASES IN EACH RACE-SEX GROUP WITH THOSE IN THE OTHERS.

	Total cases.	Deaths.	Insane cases.	Case mortality rate.	Case insanity rate.
				<i>Per cent.</i>	<i>Per cent.</i>
White females.....	861	241	58	28	6.7
White males.....	362	94	28	26	7.7
Colored females.....	145	74	12	51	8.8
Colored males.....	58	22	11	38	19.0
<b>Total.....</b>	<b>1,426</b>	<b>431</b>	<b>109</b>	<b>30.2</b>	<b>7.6</b>

*Age.*—In considering the subject of age, the white females, the white males, the colored females, and the colored males are taken up separately. The cases in each race-sex group are collected into 5-year age groups according to age. In the tables which follow there are shown in the various columns the total number of cases, the number of reported deaths, and the number of insane pellagrins in each age group for each race-sex group. The case fatality rates and the rates of insanity incidence for the age groups have not been calculated on account of the small number of cases in some of them. In the charts which accompany these tables (Charts 5, 6, 7, 8, and 9), there are shown for each race-sex group age, curves for the total number, for the deaths, and for the insane cases. In each curve the ordinate measures the number of cases and the abscissa the years of age. The charts are merely graphic representations of the results shown in the tables.

All of the white female cases in the series are grouped in the following table according to age:

*Age table of white female cases.*

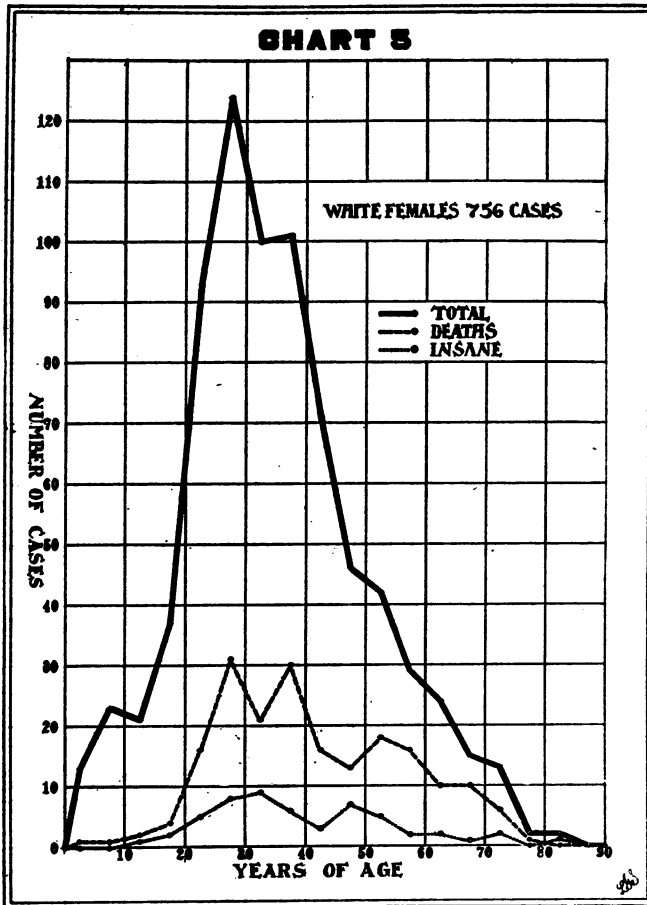
Ages in years.	Cases.	Deaths.	Insane.	Ages in years.	Cases.	Deaths.	Insane.
0 to 4.....	13	1	.....	55 to 59.....	29	16	2
5 to 9.....	23	1	.....	60 to 64.....	24	10	2
10 to 14.....	21	2	1	65 to 69.....	15	10	1
15 to 19.....	37	4	2	70 to 74.....	13	6	2
20 to 24.....	93	16	5	75 to 79.....	2	1	.....
25 to 29.....	124	31	8	80 to 84.....	2	.....	1
30 to 34.....	100	21	9	Above 84.....	.....	.....	.....
35 to 39.....	101	30	6	Age not reported...	105	45	4
40 to 44.....	71	16	3				
45 to 49.....	46	13	7				
50 to 54.....	42	18	5	<b>Total.....</b>	<b>861</b>	<b>241</b>	<b>58</b>

<sup>1</sup> This age group includes those up to the end of the fifth year of life.

<sup>2</sup> This age group includes those from the beginning of the sixth to the end of the tenth year of life



These figures are expressed graphically in the form of curves in Chart 5. Necessarily only the cases in which the age was determined have been used in constructing the curves.

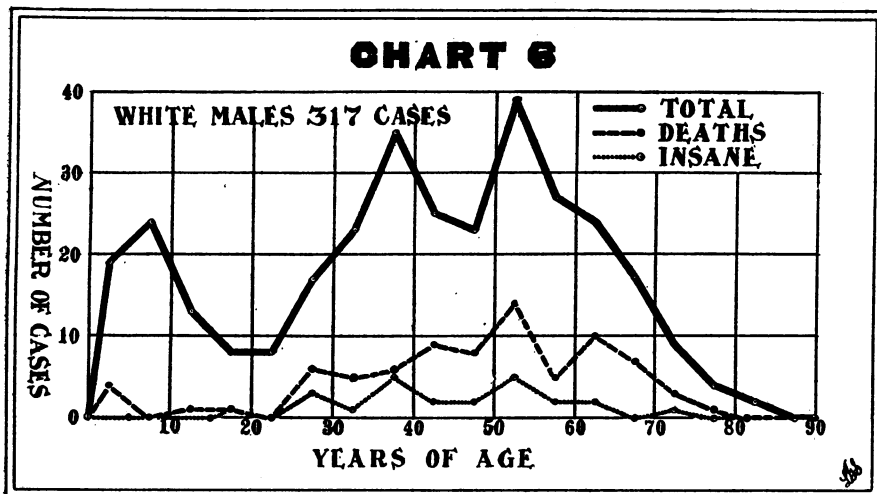


SHOWING FOR WHITE FEMALE PELLAGRINS THE AGGREGATE AGE CURVE OF ALL PATIENTS, OF THE DEAD, AND OF THE INSANE.

*Age table of white male cases.*

Ages in years.	Cases.	Deaths.	Insane.	Ages in years.	Cases.	Deaths.	Insane.
0 to 4.....	19	4		55 to 59.....	27	5	2
5 to 9.....	24			60 to 64.....	24	10	2
10 to 14.....	13	1		65 to 69.....	17	7	
15 to 19.....	8	1	1	70 to 74.....	9	3	1
20 to 24.....	8			75 to 79.....	4	1	
25 to 29.....	17	6	3	80 to 84.....	2		
30 to 34.....	23	5	1	Above 84.....			
35 to 39.....	35	6	5	Age not reported...	45	14	4
40 to 44.....	25	9	2				
45 to 49.....	23	8	2				
50 to 54.....	39	14	5				
				Total.....	362	94	28

These numbers are expressed in the form of curves in Chart 6.

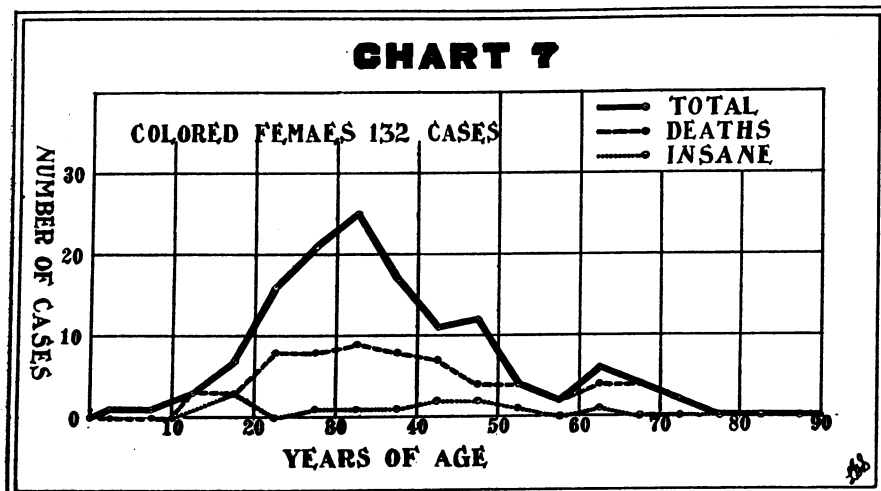


SHOWING FOR WHITE MALE PELLAGRINS THE AGGREGATE AGE CURVE OF ALL PATIENTS, OF THE DEAD, AND OF THE INSANE.

*Age table of colored female cases.*

Ages in years.	Total cases.	Deaths.	Insane.	Ages in years.	Total cases.	Deaths.	Insane.
0 to 4.....	1			55 to 59.....	2	2	
5 to 9.....	1			60 to 64.....	6	4	1
10 to 14.....	3	3		65 to 69.....	4	4	
15 to 19.....	7	3	3	70 to 74.....	2	2	
20 to 24.....	16	8		75 to 79.....			
25 to 29.....	21	8	1	80 to 84.....			
30 to 34.....	25	9	1	Above 84.....			
35 to 39.....	17	8	1	Age not reported...	13	8	
40 to 44.....	11	7	2				
45 to 49.....	12	4	2				
50 to 54.....	4	4	1				
				Total.....	145	74	12

These numbers have also been expressed in the form of curves in Chart 7.

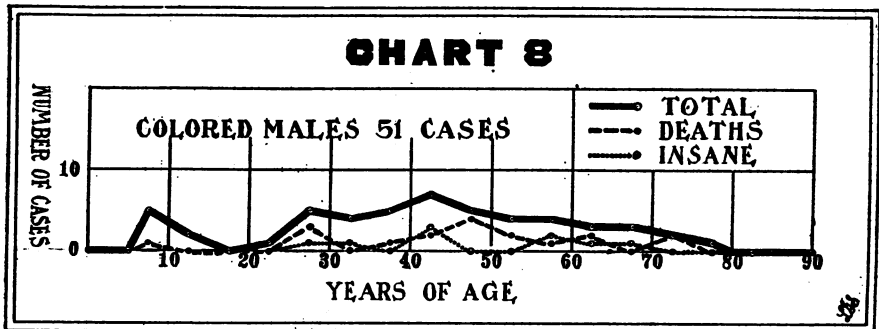


SHOWING FOR COLORED FEMALE PELLAGRINS THE AGGREGATE AGE CURVE OF ALL PATIENTS, OF THE DEAD, AND OF THE INSANE.

*Age table of colored male cases.*

Ages in years.	Total cases.	Deaths.	Insane.	Ages in years.	Total cases.	Deaths.	Insane.
0 to 4.....				55 to 59.....	4	1	2
5 to 9.....	5	1		60 to 64.....	3	2	1
10 to 14.....	2			65 to 69.....	3		1
15 to 19.....				70 to 74.....	2	2	
20 to 24.....	1			75 to 79.....	1		
25 to 29.....	5	3	1	80 to 84.....			
30 to 34.....	4		1	Above 84.....			
35 to 39.....	5	1		Age not reported...	7	4	2
40 to 44.....	7	2	3				
45 to 49.....	5	4		Total.....	58	22	11
50 to 54.....	4	2					

Curves which express these results are also shown in Chart 8.

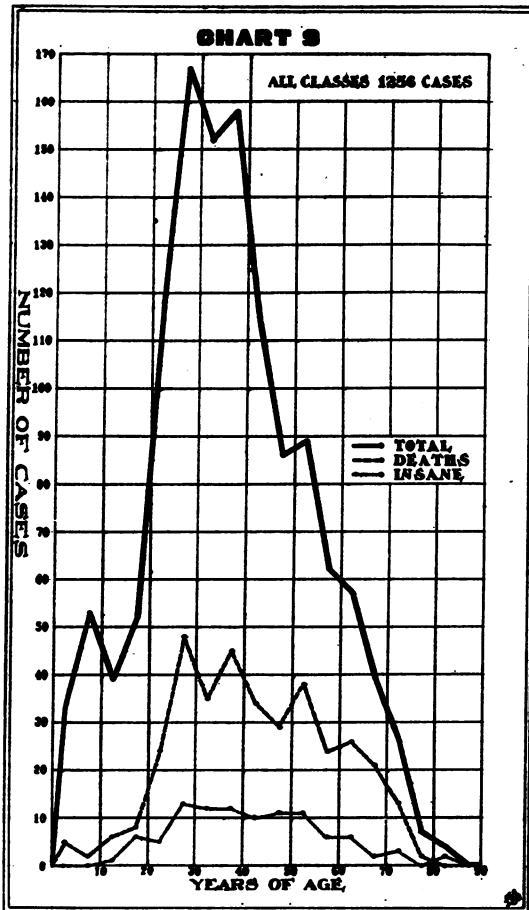


SHOWING FOR COLORED MALE PELLAGRINS THE AGGREGATE AGE CURVE OF ALL PATIENTS, OF THE DEAD, AND OF THE INSANE.

In like manner the total number of cases, the total number of deaths, and the total number of insane cases for the whole series have been grouped into age groups and are shown in the following table. This table is, of course, merely the combination of the above four tables of the race-sex groups. The numbers in this table have also been expressed graphically by curves in Chart 9.

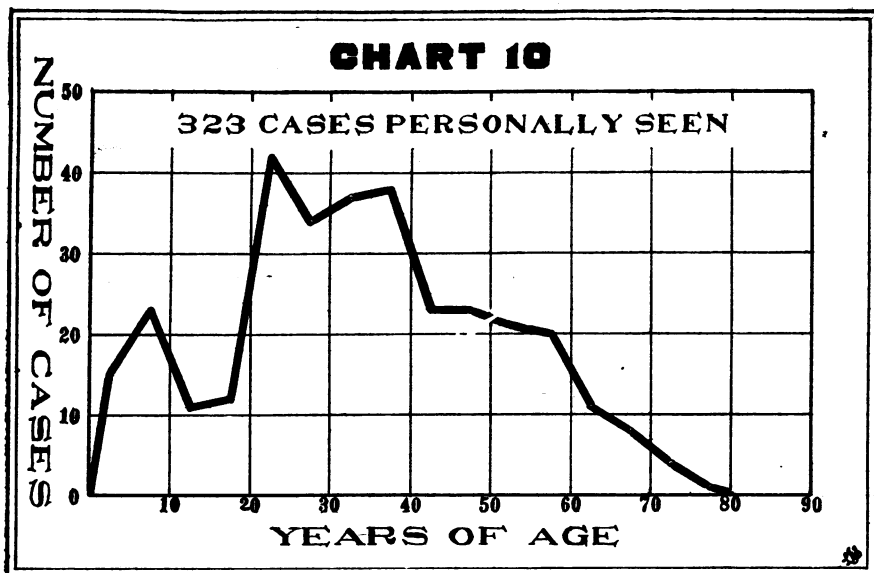
*Age table of all cases.*

Ages in years.	Total of series.	Total number of deaths.	Total number of insane cases.	Ages in years.	Total of series.	Total number of deaths.	Total number of insane cases.
0 to 4.....	33	5		55 to 59.....	62	24	6
5 to 9.....	53	2		60 to 64.....	57	26	6
10 to 14.....	39	6	1	65 to 69.....	39	21	2
15 to 19.....	52	8	6	70 to 74.....	26	13	3
20 to 24.....	118	24	5	75 to 79.....	7	2	
25 to 29.....	167	48	13	80 to 84.....	4		1
30 to 34.....	152	35	12	Above 84.....			
35 to 39.....	158	45	12	Age not reported...	170	71	10
40 to 44.....	114	34	10				
45 to 49.....	86	29	11	Total.....	1,426	431	109
50 to 54.....	89	38	11				



SHOWING FOR PELLAGRINS OF THE ENTIRE SERIES IN WHICH AGE WAS DETERMINED THE AGGREGATE AGE CURVE OF ALL PATIENTS, OF THE DEAD, AND OF THE INSANE.

As has been said, 323 of the cases in this series were personally seen. The age was determined in each case and these ages have been combined into a curve (Chart 10), as in the above charts. These cases have been considered here separately from the reported cases, because the ages of these cases were more accurately determined than the ages of those cases not personally seen.



SHOWING AGE CURVE OF THE 323 CASES PERSONALLY SEEN.

*Marital condition.*—The marital condition of the 323 cases personally seen was determined as follows:

Single, males 43, females 40, total 83.

Married, males 50, females 158, total 208.

Widowed, males 7, females 25, total 32.

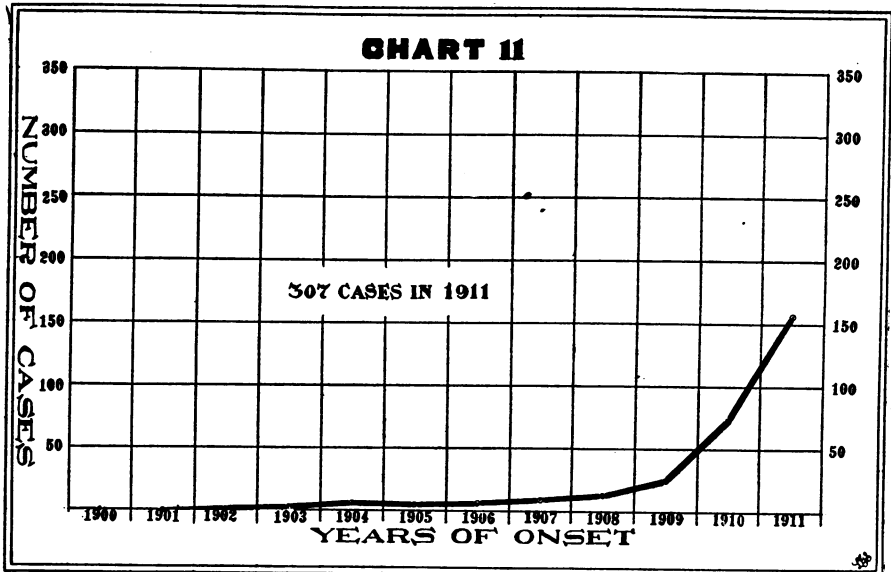
*Date of onset.*—The approximate date of onset of the first attack of the disease was determined in practically all of the cases personally seen and in most of those reported to me. The exact date, as the week or even the month, could not be learned in all of the cases, since the onset of pellagra is quite often a very gradual one. It was thought that by determining the number of new cases for the various years, even only in an incomplete way, some idea might be obtained of the rate of increase of pellagra in the districts which were visited. The number of cases in the series having the onset in the various years is given below. The dates given are those when a positive diagnosis was or could have been made from the signs and symptoms

described. The cases collected in 1911 and those collected in 1912 are listed separately in the following table:

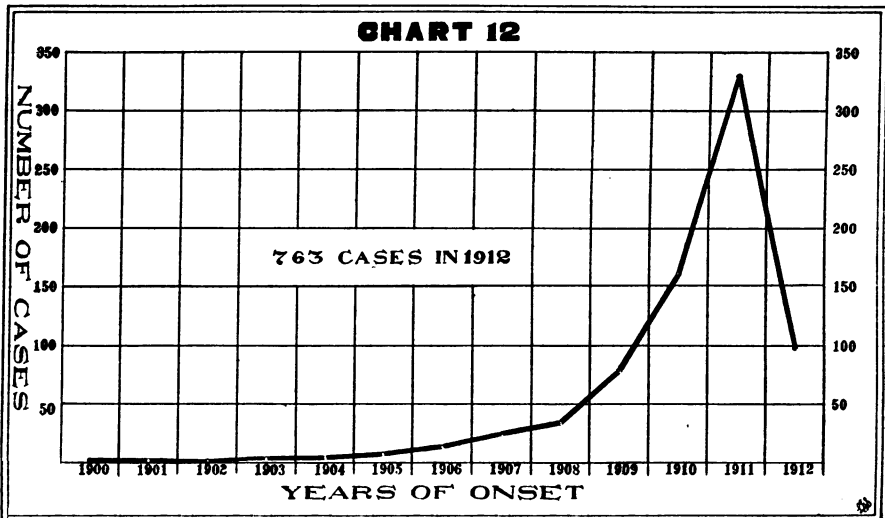
*Table showing years of onset of the disease in the pellagrins considered in this report.*

Years of onset.	Cases collected in 1911.			Cases collected in 1912.		
	Seen.	Reported.	Total.	Seen.	Reported.	Total.
1912.....				53	46	99
1911.....	65	91	156	86	244	330
1910.....	30	44	74	29	133	162
1909.....	7	23	30	21	58	79
1908.....	8	5	13	5	29	34
1907.....	3	6	9	2	23	25
1906.....	2	5	7	1	13	14
1905.....	3	2	5		7	7
1904.....		6	6		4	4
1903.....		3	3		3	3
1902.....	1		1		1	1
1901.....					1	1
1900.....				1	1	2
1897 (?).....		1	1		1	1
1893 (?).....		2	2			
1886 (?).....					1	1
Undetermined.....	2	191	193	4	159	163
Total.....	121	379	500	202	724	926

The numbers in the column of totals for the cases collected in 1911 and for those collected in 1912 are shown graphically in Charts 11 and 12. In 1911 I left the field on October 30, and in 1912 the work was concluded September 1. This may account in part, at least, for the drop in the number of collected cases having their onset in 1912, since other cases may have developed after I had left the districts. It seemed, however, from the reports of the local physicians that the prevalence of pellagra in the districts visited reached a high-water mark in 1911, and that more new cases came to their attention in that year than in previous years and fewer in 1912 than in 1911.



SHOWING YEARS OF ONSET OF THE CASES COLLECTED IN 1911.



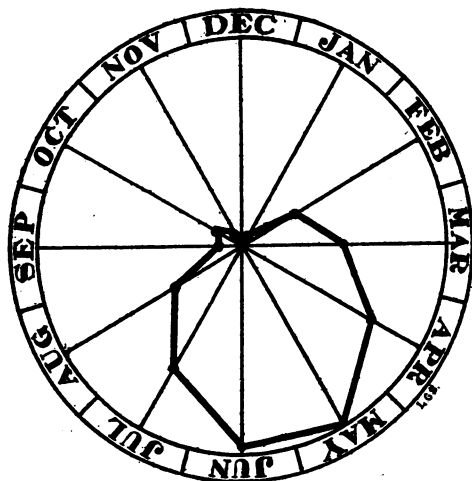
SHOWING YEARS OF ONSET OF CASES COLLECTED IN 1912.

The month of onset was determined with a fair degree of accuracy in 181 of the cases personally seen. The numbers of cases having their onset in the several months are listed below:

Month of onset.	Number of cases.	Month of onset.	Number of cases.
January.....	2	July.....	25
February.....	11	August.....	14
March.....	18	September.....	4
April.....	27	October.....	5
May.....	37	November.....	2
June.....	36	December.....	

These results may be expressed graphically by a curved line which connects points on radii of a circle at distances from the center proportional to the number of cases for the various months of the year.

## CHART 13



### INCIDENCE. 181 CASES.

SHOWING MONTHS OF ONSET OF 181 CASES

#### CONSIDERATION OF CASES PERSONALLY SEEN.

As has been said, 296 pellagrous homes were personally visited and 323 pellagrins personally interviewed. The conditions under which these visits were necessarily made precluded complete clinical histories, so aside from getting clinical data sufficient for a positive diagnosis the time was spent largely in obtaining data on epidemiology. Attention was paid to the general character of the classes of people suffering from the disease, to occupation and economic circumstances; also to location and sanitary conditions of the homes. Food and water supplies were investigated in a superficial way. An attempt was also made to discover any possible relationship of the cases to other cases. On account of the nomadic character of the majority of the pellagrins visited, it was difficult, and practically impossible in many instances, to learn anything exact concerning the environment and conditions under which the disease had developed.

*Occupation.*—Generally speaking the majority of the pellagrins who were personally seen belonged to families with small incomes and their general environment and living conditions were much below even a moderate standard. Most of them seemed to be living a hand-to-



mouth existence, depending for their support upon what they earned from day to day. Cases were seen, however, among the well to do, who had developed the disease under conditions and living environment which apparently seemed above criticism. Some idea of the general status of the people represented in the series may be had by a consideration of the rather detailed classification of occupations constituting the source of the family income given below:

<b>A. Factory:</b>		<b>E. Clerical pursuits:</b>	
1. Cotton mill—		1. Grocery and general merchandise store—	
Men.....	29	Men.....	5
Women.....	91	Women.....	4
Children.....	18	Children.....	4
2. Excelsior mill—		2. Office workers.....	2
Men.....	1	3. Real estate agent's wife.....	1
Women.....	3	4. Itinerant agent.....	1
Children.....	2	5. Bank clerk's child.....	1
3. Chair factory—		Total for clerical pursuits.....	18
Women.....	2		
4. Lumber mill—		<b>Railroad employment:</b>	
Men.....	1	Men.....	2
Women.....	1	Women.....	1
Total for factory.....	148	Children.....	2
		Total for railroad employment.....	5
<b>B. Mining:</b>			
1. Coal—		<b>Professional work:</b>	
Men.....	5	1. Physician.....	1
Women.....	14	2. Druggist's wife.....	1
Children.....	6	3. Clergy—	
2. Metal—		Men.....	1
Women.....	1	Women.....	1
Total for mining.....	26	Children.....	1
		Total for professional work.....	5
<b>C. Agriculture:</b>			
Men.....	12	<b>Without occupation:</b>	
Women.....	29	1. Convicts.....	2
Children.....	7	2. Idiots.....	2
Total for agriculture.....	48	3. Vagrants.....	1
		Total without occupation.....	5
<b>D. Trade:</b>			
1. Machinist—		<b>Miscellaneous:</b>	
Men.....	2	1. Laboring—	
Women.....	1	Men.....	2
Children.....	5	Women.....	33
2. Carpenter—		Children.....	2
Men.....	4	2. Domestic servants.....	2
Women.....	3	3. R. F. D. carrier—	
3. Blacksmith—		Men.....	1
Men.....	1	Women.....	1
Women.....	1	Children.....	1
Children.....	1	4. Foreman (road work).....	1
4. Plumber—		5. Liveryman.....	1
Men.....	1	6. Gin-saw filer.....	1
Women.....	1	Total for miscellaneous.....	45
5. Painters.....	1		
6. Marble cutters.....	1		
7. Slate workers.....	1		
Total for trade.....	23		

The cotton mill workers as a class seemed to be poor, overworked and underfed. They were found living in cottages located around the mills in which they worked. Very few of them own their homes, but live in houses built and owned by the milling companies. Some of these cotton mill villages are located in comparatively isolated spots, but as a rule they were found located near or in the suburbs of a town, and in some instances form a part of a town or city. The general sanitation of these villages is usually well looked after by the milling companies and in many instances the little villages presented

a very attractive appearance. The authority of the companies, however, does not seem to extend to the interior of the homes of their employees, where in the majority of those visited were found evidences of poverty and of extreme neglect. With few exceptions the homes which were visited among this class of people showed bad house sanitation, and in very few of them was it evident that cleanliness and care had received much consideration in the scheme of housekeeping. As a rule little attention seemed to have been paid either to house or to personal hygiene, so that in most instances the general picture presented by these homes and their occupants was one of shiftlessness and negligence. The total earnings of the working members of some of the families seemed quite sufficient for comfortable living, but as a rule they did not seem to understand the art of applying this income toward the improvement of their living conditions.

The general environment and living conditions found among the coal miners were as bad as if not worse than those found among the cotton mill people. The coal mining camps visited were comparatively isolated and were in need of the requisites of proper sanitation.

The conditions found in the camps which were visited indicated a general lack of interest in sanitary matters. One of these camps was having a small epidemic of typhoid fever at the time of my visit. The conditions of living in these camps are continually improving, however, as the mine operators are keenly interested in the health of their employees and are on the lookout to improve conditions whenever possible. These people are continually trying their fortune first in one camp and then in another, and if they are not moving from one camp to another they are moving from house to house in the same camp. Comparatively few of the pellagrins who were visited among this class were found living at the home where they developed the first symptoms of the disease. The interior of these homes was no improvement upon the conditions found among the cotton-mill people.

The 48 pellagrins of the agricultural class were nearly all of the class of "renters" or "croppers," who remain at one place only long enough to cultivate a crop of cotton before moving to the next. A few of them were small landowners, but many were typical "Georgia crackers," and were found living in an environment of poverty and bad hygiene.

*Entomology.*—From the standpoint of entomology the great majority of the pellagrous homes visited in this work would without doubt have furnished interesting material for study. The ordinary bed bug was collected from several of the houses, was acknowledged to be present in others, and in very few of the homes visited were conditions such as to lead one to suspect the absence of this and of other ectoparasites of man. It was the exception to find a pellagrin living

in a screened house, although mosquitoes were said to be present in all of the districts visited. Malarial fever was reported to be common in some of these districts, but in others it was said to be practically unknown. Quite a number of the pellagrins gave a previous history of malarial infection. The ordinary house fly was present in practically all of the homes and in many of those where a pellagrin was confined to bed these flies were especially numerous. The granaries from which corn had been obtained for two families living in the country were inspected and found to be heavily infested with weevils and moths. From one granary corn had been obtained for a family of 9 members among whom 1 case of pellagra had developed (case SCG 105); from the other, corn for a family of 6 members among whom 3 cases of pellagra had developed (cases SCG 75, 76, and 77). In a number of the communities which were visited the presence of the fly *Simulium*, sometimes in close association with cases of pellagra, was demonstrated by Messrs. Jennings and King, of the Bureau of Entomology, United States Department of Agriculture, but this fly was not looked for in all of the districts.

*Location of homes.*—The cases of pellagra in this series were found to have developed in the mountainous sections of southeastern Kentucky and of northwest Georgia; in the rolling upland regions of western South Carolina and middle Georgia; and in the lowlands of south Georgia. More of these cases were collected from the rolling sections than from either the mountainous or low country. The climate of the districts which were visited varies from temperate and never extreme in the mountains to subtropical in the southern portion of Georgia. With reference to elevation, cases were found to have developed at practically all elevations from 1,000 feet down to only a few feet above sea-level. The districts visited appeared to be well watered and to have numerous running streams throughout them; in fact it appeared difficult to find many locations in them far removed from running water. Swamps and ponds were also found to be numerous in these districts. The mining camps and cotton-mill villages were invariably located near some running stream. This was generally true also of the homes of the pellagrins living in the rural districts, and even in the towns and cities visited running water was never far distant. Some of the cases reported to me were said to have developed at considerable distances from running water, but the exact distances were not learned.

A classification of the homes of the pellagrins personally visited is given below with reference to location:

A. With reference to population (at time of onset):	Number.
In a cotton-mill village.....	142
In a town or suburbs.....	92
In a coal-mining camp.....	24
In the country.....	58
In a city.....	7
Total.....	323

B. Distance from watercourses (at time of visit):	Number.
0 to 50 yards.....	31
50 to 100 yards.....	35
100 to 200 yards.....	49
200 to 500 yards.....	118
500 yards to 1 mile.....	51
1 to 3 miles.....	110
Exact distance not determined.....	29
Total.....	323

Of the remaining classes the clerical was probably the highest in the social scale, next the professional, and then the trade. In some of the cases among these classes, however, the environment and living conditions with reference to house and to personal hygiene appeared excellent and quite different from those of the great majority of the pellagrins personally visited. Throughout my work the finding of a pellagrin living under conditions which were above criticism was the exception and not the rule.

*Economic condition.*—After interviewing each pellagrin an estimate of the economic condition was made. A rough classification of these estimates of cases is given below:

Economic condition of pellagrins:	Number.
Poverty.....	258
Comfort.....	59
Affluence.....	6
Total.....	323

Sanitary condition of homes:	Number.
Good.....	11
Fair.....	36
Bad.....	249
Not visited.....	27
Total.....	323

*Food.*—The collection of much accurate and detailed data on the subject of food used by the pellagrins previous to the onset of the disease presented many difficulties, which under the circumstances could not be surmounted. The attempted plan to collect, systematically, information concerning the various articles in most common use as articles of diet, their kinds, sources, quantity, and quality, had to be abandoned, as it was soon learned that this complete information could be obtained only in a very few instances. In many cases it was impossible to get even a meager account of what had been eaten, as the memory and powers of observation of these people seemed extremely defective when the character of their diet was inquired into, and in addition there was quite often a distinct and very evident reticence regarding such a subject so indicative of their reduced economic circumstances. The subject of food, it seems to me, is one of the most important considerations with which the pellagrologist has to deal, but the data presented here is by no means

<sup>1</sup> The homes of these 10 cases have been classified further with reference to distance from ponds or swamps as follows:

Distance from a pond or swamp:	Number.
0 to 100 yards.....	7
100 to 500 yards.....	2
None near, but mosquitoes said to be present (Case SCG 165).....	1
Total.....	10

commensurate with the importance of the subject. The few facts which have been collected will be given with the hope that they will be taken only for what they are worth.

It was found that the great majority of the pellagrins in this series of cases had been subsisting almost exclusively upon food bought at the stores. One of the pellagrins expressed the situation to me by saying that he and his family "lived out of paper sacks," and this was literally true in many instances. The pellagrins, as well as the non-pellagrous inhabitants of the cotton-mill villages and coal-mining camps, were practically dependent upon small grocery stores for their food supply. In the cotton-mill villages there are usually located one or more grocery and general merchandise stores which are operated either by private individuals or, as is more often the case, by the milling companies. These stores are, of course, operated by the companies for the convenience of their employees and for their own profit, and it is needless to say that they are extensively patronized by the mill people. Necessarily the lines and quality of the goods carried by these stores are regulated largely by the finances, the demands, and the tastes of their patrons. Much of the stock handled by these stores seemed to be that which had undergone some process for its preservation, such as canning or desiccation, so that dried and canned goods, packed meats, and the like constituted a considerable proportion of their stock of groceries.

A similar dependence upon stores obtained among the coal mining class, and in many instances the commissary of the coal mining company was the sole source of supplies within miles and the entire food supply used by the families of the miners came out of it. Under conditions such as these, it will be readily realized how important is the part played by these stores as sole distributing agents. A list of articles having the largest sale at a coal mining company store which had been patronized by a number of people in whom pellagra had developed was made up for me by the storekeeper. The list is given here and may be taken as typical of the class of foods used by the great majority of the pellagrins in this series of cases. The list is as follows: "Bacon, lard, meal, flour, fresh meats, cabbage, potatoes, onions, pie peaches, table peaches, dried peaches, dried apples, canned corn, canned tomatoes, canned peas, canned salmon, canned kraut, hominy, canned blackberries, corned beef, potted ham, sausage, canned pumpkin, canned cherries, canned sweet potatoes, postum, coffee, tea, sugar, baking powder, and soda." It seemed to be the consensus of opinion of the physicians practicing among these people that most of them were not receiving the proper quality and quantity of food, and that in many of the families the food received hasty and incomplete culinary preparation, even when obtained in sufficient quantity.

Despite the rural location of their homes and the opportunities for raising much of their food, the above statements can be made with reference to the majority of the pellagrins of the agricultural class. A few of the families visited among this class had vegetable gardens, but only in a very few instances did these gardens furnish the majority of the food consumed by the families. Most of these families, although living in the country, depended to a remarkable extent upon small "crossroads" stores or upon stores in neighboring towns. Not a few of the pellagrins who had been born and reared in the country had apparently not developed pellagra until after they had moved into the environment of a village or town.

It must be said, however, that a greater variety and better character of food stuffs entered into the dietary of the pellagrins living under better conditions than among those living under economically poorer conditions. So far as my observations went with reference to food no constant difference was found to have existed between the diets of the pellagrous and the nonpellagrous members of the families.

*Corn.*—Each one of the pellagrins personally seen gave a history of the more or less regular use of corn products as articles of diet. Some of them acknowledged only a limited use of corn, while others said that they "had been raised on corn bread" or that they "had lived on corn bread and hominy." Hominy and meal seemed to be the forms of corn in most common use, and in all except three instances some of the meal used had been obtained from the stores. In most instances the corn meal used in the families had been obtained exclusively from the stores. The pellagrins of three families stated positively that all of the meal used in their families had been made from corn grown by them on their own farms.<sup>1</sup> It might be said, however, that the grist mills in these districts, for the most part, grind both locally grown and imported corn.<sup>2</sup> The wholesale and retail dealers also handle both kinds simultaneously, so that it was impossible to learn the relative amounts of each kind which had been used in the families in which pellagra had developed or to arrive at any definite conclusion as to the relative amounts of the locally grown and of the imported corn which had been used in the communities visited. It was learned, however, that a considerable proportion

<sup>1</sup> Case SCY 6. White female. Wife of a farmer who is also the proprietor of a small country store. Husband and 3 children not pellagrous at time of my visit.

Case SCG 105. White female. Wife of a farmer. Renting class. Husband and 7 children not pellagrous at time of my visit. Sister said to have died of pellagra.

Cases SCG 75, 76, and 77. Farmer and 2 children. Renting class. Wife and 2 other children not pellagrous at time of my visit. No known relationship to another case of pellagra. 15 miles from nearest town.

<sup>2</sup> By "locally grown" corn is meant corn which is consumed in the districts in which it was grown; by "imported" corn is meant that which had been grown in some of the great corn-growing States, ground at some of the large mills of the country and shipped out in large quantities to dealers. A distinction between these two classes of corn is made here, since both unground corn and meal are known to undergo change during storage and transportation, and especially during and after transportation into warmer climates. This phase of the subject has been ably discussed by Alsberg, Carl L., "Agricultural Aspects of the Pellagra Problem in the United States," New York Medical Journal, July 10, 1909.

of the corn consumed by the people in these districts had been grown in other States and had been "shipped in," either before or after grinding. In several of the districts it was reported to me that some of this imported meal had been condemned after a chemical examination of it had been made. In a number of instances the pellagrins described the condition of the meal at the time they had bought it at the stores as being "sour," "sorry," or "musty," but many of them considered the meal which they had been using as first class. It must be remembered that the districts furnishing this series of pellagra cases belong to the great corn-eating section of the country, where for many years corn, in one form or another, has been one of the main articles of diet for all classes, and where for many years the demand for corn has not been equaled by the local supply.

*Water supply.*—The source of the drinking water at the time of the onset of the disease in these cases was determined and is as follows:

Source.	Number of cases.	Source.	Number of cases.
Wells:		Well and spring.....	9
Bored.....	50	Creek and spring.....	2
Dug.....	109	Spring.....	26
City or town supply.....	62	Hydrant (creek and spring water).....	14
Well and city supply.....	12	Cistern (stored rain water).....	6
Creek.....	3	Varied.....	18
Well and creek.....	10		
Well, creek, and spring.....	2	Total.....	323

*Relationship of cases to other cases.*—Upon reflection it will appear evident that a full presentation of all possible relationships among these cases would have left very little to be done on the subject of epidemiology of pellagra. Such a presentation, however, would have required the combined skill of experts in many lines and would certainly have been a herculean task. On account of the preliminary nature of my work and my limited facilities only a small amount of data has been collected upon this subject. Some of the gross relationships with reference to several points have been put into the following classification:

	Number.
A. Number of cases occurring in families (same house):	
(a) Families having 1 case.....	264
(b) Families having 2 cases.....	23
(c) Families having 3 cases.....	6
(d) Families having 4 cases.....	2
(e) Families having 5 cases.....	1
B. Propinquity and contact (miscellaneous):	
(a) No known relation to another case of pellagra.....	91
(b) Previous to onset had temporary association (as visit) with another case of pellagra.....	24
(c) Onset while living in the immediate vicinity of a pellagrin.....	148
(d) Onset while living in the same house with a pellagrin.....	150
(e) Onset while living in a house previously occupied by a pellagrin of another family.....	10

*C. Sources of food supply.*—In nine of the communities which I visited and in which pellagra was prevalent an attempt was made to dis-

<sup>1</sup> Includes group A above.

cover some relationship among cases with reference to the sources of their food supply at the time when they developed the first symptoms of the disease. The sources of food supply at the time of recurrences of the disease were not considered, nor the sources of food supply of the many cases which were reported to me from these communities and which were not personally seen. The classification of stores given below as sources of food supply is based only on the facts obtained from the pellagrins personally seen, who had developed pellagra in these communities and had since remained there. On account of the unavoidable incompleteness of this small amount of data, it can not be considered as either incriminating or exonerating evidence, but may be of some value in a supplementary way.

	Number.
Stores having 1 case of pellagra to develop among its patrons.....	43
Stores having 2 cases of pellagra to develop among its patrons.....	13
Stores having 3 cases of pellagra to develop among its patrons.....	6
Stores having 4 cases of pellagra to develop among its patrons.....	4
Stores having 5 cases of pellagra to develop among its patrons.....	4
Stores having 7 cases of pellagra to develop among its patrons.....	2
Stores having 10 cases of pellagra to develop among its patrons.....	1
Stores having 13 cases of pellagra to develop among its patrons.....	1
Stores having 19 cases of pellagra to develop among its patrons.....	1

*Relation of pellagra to the family.*—A classification of the 296 families personally visited is given below with reference to the size of each family and to the number of pellagrins among its members. The number of families having the same number of members are arranged vertically and those having the same number of pellagrins are arranged horizontally.

*Table showing pellagrous families classified according to the size of the family and the number of pellagrins in each.*

Number of pellagrins in family.	Number of persons in family.										Total.
	1	2	3	4	5	6	7	8	9+	Un-known.	
	Number of families.										
1.....	5	31	41	50	50	22	20	12	20	13	264
2.....			1	7	2	7	2	1	3	.....	23
3.....			1	1		3	1				6
4.....						1			1	.....	2
5.....									1	.....	1
Total.....	5	31	43	58	52	33	23	13	25	13	296

In this connection there might be mentioned a fact which seems to me to be of considerable importance. This fact is that in many instances where the family visited had one or more cases of pellagra some one or perhaps several other members of the family would be found to present signs and symptoms very suggestive of pellagra, but to an extent not sufficient for a positive diagnosis. These signs and symptoms in many instances seemed to differ from those presented



by the pellagrous member only in degree and not in kind. Among the symptoms in question may be mentioned mild gastro-intestinal or nervous disturbances, the presence of a beefy or of an abnormally red tongue. The previous histories of some of these cases were also very suggestive of pellagra. Persons presenting signs and symptoms such as these were also seen in several of the pellagrous communities who were not members of families having a definite case of pellagra. There were seen a great many of these borderline cases the diagnosis of which was not always made with ease. For purposes of advice and treatment these cases would undoubtedly be considered as early cases of pellagra, and in fact this diagnosis was the most probable one in the majority of instances, but for the purposes of my work they have not been considered as true cases of pellagra, on account of the element of uncertainty in the diagnosis. I have learned that some of these cases which were only suggestive of pellagra at the time of my visit have since developed the disease in pronounced form and succumbed to it, so without doubt it was the very early stages of the disease from which some, at least, of these persons were suffering at the time of my visit. The fact that many such cases exist is of considerable importance in considering the pellagra situation in a family or in a community, and, although it can not be considered as evidence definitely positive, it may, with propriety, it seems to me, be considered as data of an important collateral nature.

*Relation of pellagra to procreation and heredity.*—An attempt was made to collect some data which might shed light upon the questions of whether pellagra is hereditary or not and whether it has any effect upon the powers of procreation. Unfortunately very little data was obtained which might be used in drawing conclusions upon these points, but the data which have been collected will be presented without comment. Only the married female pellagrins who were personally seen and the pellagrous children under 10 years of age who were personally seen are considered here:

	Number.
Married female pellagrins.....	158
1. Who have never borne children.....	14
2. Who have borne children.....	135
3. Parturient history not obtained.....	9
	158

The 135 married female pellagrins who had borne children may be classified with reference to the sequence or priority of the onset of the disease to the birth of their last child, as follows:

	Number.
(a) Onset of pellagra in the mother longer than 1 year after birth of last child.....	50
(b) Onset of pellagra in the mother within 1 year after birth of last child.....	58
Condition of children at time of my visit:	
Apparently healthy.....	47
Poorly nourished.....	2
Dead.....	9
Pellagrous.....	0

	Number.
(c) Onset of pellagra in the mother within 1 year before birth of last child.....	18
Condition of children at time of my visit:	
Apparently healthy.....	14
Poorly nourished.....	2
Dead.....	2
Pellagrous.....	0
(d) Onset of pellagra in the mother longer than 1 year before birth of last child.....	9
Condition of children at time of my visit:	
Apparently healthy.....	6
Dead.....	2
Not seen; reported pellagrous.....	1

Among all of the female pellagrins who were personally seen 30 were with nursing infants at the time of my visit. The condition of these infants is given below:

Apparently healthy.....	24
Poorly nourished.....	3
With diarrhea.....	3
Pellagrous.....	0

The pellagrous children under 10 years of age may be classified with reference to the pellagrous or nonpellagrous condition of their parents at the time of my visit.

Pellagrous children under 10 years of age.....	38
1. With nonpellagrous parents.....	25
2. With one or both parents pellagrous.....	13
(a) Pellagra developed in parent before birth of child.....	0
(b) Pellagra developed in parent after birth of child.....	13

The ages of these children at the time they developed pellagra were 1 at 2 years of age, 3 at 4 years of age, 4 at 6 years of age, 1 at 7 years of age, 1 at 8 years of age, and 3 at 9 years of age.

[To be concluded in next issue.]

# PREVALENCE OF DISEASE.

## IN CERTAIN STATES AND CITIES.

### SMALLPOX.

State Reports for January, 1913.

Places.	Number of new cases reported during month.	Deaths.	Vaccination history of cases.			
			Number vaccinated within seven years preceding attack.	Number last vaccinated more than seven years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
New York:						
Albany County—						
Albany.....	1				1	
Chenango County—						
Norwich.....	2				2	
Clinton County—						
Plattsburg.....	1			1		
Delaware County—						
Middletown.....	5				5	
Essex County—						
Essex Township.....	3					3
Lewis Township.....	17				17	
Cortland County—						
Marathon Township.....	1				1	
Franklin County—						
Malone.....	1				1	
Livingston County—						
Dansville.....	3			1	2	
Montgomery County—						
Amsterdam.....	2					2
Fonda.....	2				2	
Fultonville.....	1				1	
St. Johnsville.....	1				1	
Niagara County—						
Niagara Falls.....	9					9
Oneida County—						
Verona Township.....	2					1
Orange County—						
Newburgh.....	1		1			
Rensselaer County—						
Rensselaer.....	1					1
St. Lawrence County—						
Brashear Township.....	7				7	
Norfolk Township.....	1				1	
Saratoga County—						
Halfmoon Township.....	3				3	
Steuben County—						
Corning.....	1				1	
Washington County—						
Dresden Township.....	1				1	
Westchester County—						
White Plains.....	1				1	
Greater New York.....	3					3
Total.....	70		1	2	47	19
Vermont:						
Chittenden County.....	3			1	2	
Rutland County.....	24					24
Washington County.....	7				7	
Total.....	34			1	9	24

<sup>1</sup> One claimed to have had smallpox when a child.

**California—Imperial County.**

Acting Asst. Surg. Richter, of the Public Health Service, reported by telegraph March 1, 1913, that 1 new case of smallpox had been notified in Imperial County during the week ended March 1, making a total of 31 cases, with 5 deaths, since January 1, 1913.

**California—Oakland.**

Passed Asst. Surg. Long, of the Public Health Service, reported by telegraph March 1, 1913, that 1 new case of smallpox had been notified at Oakland during the week ended March 1.

**Indiana—Evansville.**

Surg. Clark, of the Public Health Service, reported March 2, 1913, that 34 cases of smallpox had been notified in Evansville during the week ended February 22, and 29 cases during the week ended March 1.

**Maryland—Allegany County.**

The State Department of Health of Maryland reported by telegraph, March 1, 1913, that 1 new case of smallpox had been notified at Lonaconing, Allegany County.

**Maryland—Love Point.**

The State Board of Health of Maryland reported by telegraph March 3, 1913, that a case of smallpox had been notified at Love Point, Md.

**Maryland—Swanton.**

The State Board of Health of Maryland reported by telegraph March 5, 1913, that a new focus of smallpox infection had been notified at Swanton, Garrett County.

**New York—Niagara Falls.**

Acting Asst. Surg. Bingham, of the Public Health Service, reported by telegraph March 1, 1913, that 2 new cases of smallpox had been notified at Niagara Falls during the week ended March 1.

**City Reports for Week Ended Feb. 15, 1913.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.	2	.....	Manchester, N. H.	7	.....
Cambridge, Ohio.	2	.....	Nashville, Tenn.	1	.....
Cincinnati, Ohio.	2	.....	New York, N. Y.	1	.....
Columbus, Ohio.	2	.....	Niagara Falls, N. Y.	4	.....
Detroit, Mich.	10	.....	Oakland, Cal.	2	.....
Duluth, Minn.	2	.....	Oklahoma, Okla.	1	.....
Elmira, N. Y.	1	.....	Peoria, Ill.	1	.....
Evansville, Ind.	40	.....	St. Joseph, Mo.	1	.....
Kansas City, Kans.	2	.....	St. Louis, Mo.	4	.....
Knoxville, Tenn.	11	.....	San Francisco, Cal.	2	.....
La Crosse, Wis.	3	.....	Spokane, Wash.	21	.....
Lexington, Ky.	3	.....	Superior, Wis.	1	.....
Little Rock, Ark.	5	.....	Washington, D. C.	1	.....
Los Angeles, Cal.	1	.....	Zanesville, Ohio.	1	.....

## Miscellaneous State Reports.

Places.	Cases.	Deaths.	Remarks.
<b>California (Jan. 1-31):</b>			
<b>Counties—</b>			
Alameda.....	21		
Butte.....	2		
Contra Costa.....	9		
Imperial.....	18		
Lassen.....	1		
Nevada.....	1		
Placer.....	2		
Sacramento.....	5		
San Diego.....	2		
San Francisco.....	7		
San Joaquin.....	1		
Santa Cruz.....	1		
Shasta.....	9		
Tulare.....	1		
Yolo.....	1		
Los Angeles.....	5		
<b>Total.....</b>	<b>86</b>		
<b>Illinois (Jan. 1-31):</b>			
<b>Counties—</b>			
Alexander.....	2		
Bureau.....	38		
Clark.....	18		
Cook.....	57		
Dewitt.....	1		
Gallatin.....	1		
Hardin.....	42		
Kane.....	1		
La Salle.....	39		
Lee.....	1		
Madison.....	1		
Marion.....	3		
Morgan.....	1		
Moultrie.....	4		
Peoria.....	4		
Putnam.....	1		
Randolph.....	1		
Rock Island.....	2		
Sangamon.....	1		
Vermillion.....	6		
Will.....	5		
Whiteside.....	26		
Woodford.....	1		
<b>Total.....</b>	<b>256</b>		
<b>Indiana (Jan. 1-31):</b>			
<b>Counties—</b>			
Carroll.....	12		
Clay.....	10		
Daviess.....	28		
Dearborn.....	2		
Gibson.....	3		
Grant.....	10		
Greene.....	15		
Jefferson.....	6		
Jennings.....	7		
Lake.....	6		
Laporte.....	2		
Noble.....	1		
Owen.....	5		
Perry.....	8		
Pike.....	1		
Posey.....	1		
Scott.....	8		
St. Joseph.....	1		
Sullivan.....	1		
Vanderburg.....	206		
Vigo.....	13		
Wabash.....	1		
Warrick.....	7		
Wayne.....	2		
<b>Total.....</b>	<b>356</b>		

## Miscellaneous State Reports—Continued.

Places.	Cases.	Deaths.	Remarks.
<b>Texas (Jan. 1-31):</b>			
<b>Counties—</b>			
Archer.....	1		
Brown.....	15		
Callahan.....	1		
Collin.....		1	
Dallas.....	163	4	
Denton.....	10		
Ellis.....	11		
Floyd.....	1		
Galveston.....		1	
Grayson.....	10		
Gregg.....	1		
Henderson.....	5	1	
Hidalgo.....	5		
Hunt.....	46	15	
Lamar.....		2	
Parker.....	36	1	
Refugio.....	8		
Tarrant.....	16		
Travis.....	2		
Van Zandt.....	2	1	
Waller.....	1		
Wichita.....	40		
Wilbarger.....			
<b>Total.....</b>	<b>374</b>	<b>26</b>	<b>Present.</b>
<b>Utah (Jan. 1-31):</b>			
<b>Counties—</b>			
Beaver.....	3		
Boxelder.....	3		
Cache.....	20		
Carbon.....	14		
Davis.....	35		
Emery.....	4		
Iron.....	2		
Juab.....	1		
Millard.....	29		
Salt Lake.....	183		
Sanpete.....	12		
Sevier.....	1		
Summit.....	10		
Tooele.....	73		
Utah.....	52		
Wasatch.....	7		
Washington.....	3		
Weber.....	37		
<b>Total.....</b>	<b>489</b>		

## Compiled State Reports for the Third Quarter of 1912.

## SMALLPOX—SUMMARY OF CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY STATES AND BY MONTHS.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
California.....	40	4	69	6	29	1	138	11
Colorado.....	16		2		3		21	
Connecticut.....	8		1		1		10	
Illinois.....	36	1	45		19		100	1
Indiana.....	31		11		4		46	
Iowa.....	21		10		5		36	
Kansas.....	13		32		11	2	56	2
Maine.....	41		18		11		70	
Massachusetts.....	7		5		3		15	
Michigan.....	13		9		13		35	
Minnesota.....	97		32		35		164	
Montana.....	3		4		8		15	
New Jersey.....	1		1				2	
New York.....	35		22		43		100	
North Carolina.....	43		65		39		147	
North Dakota.....	21		1		5		27	
Oklahoma.....	8		7				15	
Ohio.....	58		37		11		106	
Oregon.....	10		3		7		20	
Pennsylvania.....	8	1	103	10	86	19	197	30
South Dakota.....	7		7		14		28	
Texas.....	3		63	6	10	5	76	11
Utah.....	81		72	1	81	1	234	2
Vermont.....	12		4		4		20	
Virginia.....	45		19		34		98	
Washington.....	97		43		45		185	
Wisconsin.....	59		30		19	1	108	1
Wyoming.....			1				1	
Total.....	814	6	716	23	540	29	2,070	58

## SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS.

California:								
Counties—								
Alameda.....			3		1		4	
Butte.....	4		3				7	
Calaveras.....	5						5	
Colusa.....	1		1				2	
Fresno.....			1				1	
Kern.....			1				1	
Los Angeles.....	14	4	40	6	8	1	62	11
Sacramento.....					3		3	
San Diego.....			1				1	
San Francisco.....	16		18		14		48	
Sonoma.....					1		1	
Tehama.....					1		1	
Tuolumne.....					1		1	
Yolo.....			1				1	
Total.....	40	4	69	6	29	1	138	11
Colorado:								
Counties—								
Boulder.....			1				1	
Denver.....	1						1	
Gunnison.....					2		2	
Lincoln.....					1		1	
Mesa.....	1		1				2	
Weld.....	14						14	
Total.....	16		2		3		21	
Connecticut:								
Counties—								
Hartford.....					1		1	
New Haven.....	7		1				8	
Windham.....	1						1	
Total.....	8		1		1		10	

## Compiled State Reports for the Third Quarter of 1912—Continued.

SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS—Continued.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Illinois:</b>								
Counties—								
Bond.....	2		2				4	
Bureau.....			2		4		6	
Champaign.....					3		3	
Clinton.....	1						1	
Cook.....	4	1	6		2		12	1
Gallatin.....	13						13	
Henderson.....	1		2		2		5	
Henry.....			4		2		6	
Kane.....	1		1				1	
Lake.....			1				1	
LaSalle.....	10		16		2		28	
Macoupin.....	1						1	
Madison.....			2				2	
Peoria.....			3				3	
St. Clair.....	1						1	
Saline.....			5				5	
Stephenson.....			2		1		3	
Union.....					1		1	
Whiteside.....					1		1	
Winnebago.....	2				1		3	
Total.....	36	1	45		19		100	1
<b>Indiana:</b>								
Counties—								
Allen.....	6						6	
Brown.....	2						2	
Carroll.....					1		1	
Cass.....	1		1				2	
Delaware.....	2						2	
Franklin.....			1				1	
Greene.....			7		1		8	
Henry.....	1						1	
Howard.....	2		1				3	
Laporte.....	1						1	
Lawrence.....	1						1	
Madison.....	1						1	
Marion.....	6						6	
Posey.....					1		1	
Shelby.....	2						2	
Vanderburg.....	4		1				5	
Vigo.....					1		1	
Wabash.....	1						1	
Wells.....	1						1	
Total.....	31		11		4		46	
<b>Iowa:</b>								
Counties—								
Buena Vista.....					1		1	
Decatur.....	1						1	
Hancock.....	1						1	
Henry.....	3						3	
Jasper.....	1						1	
Plymouth.....	13						13	
Pocahontas.....					1		1	
Folk.....	1		1		1		3	
Pottawattamie.....			9		2		11	
Scott.....	1						1	
Total.....	21		10		5		36	
<b>Kansas:</b>								
Counties—								
Barton.....	5						5	
Coffey.....			1				1	
Crawford.....	2		15				17	
Geary.....			1		6	1	7	1
Linn.....	1						1	
Montgomery.....	1						1	
Russell.....					1		1	
Salina.....	2		4		2		8	
Sedgwick.....	1		5				6	
Shawnee.....			1		2	1	3	1
Wichita.....			5				5	
Wilson.....	1						1	
Total.....	13		32		11	2	56	2



## Compiled State Reports for the Third Quarter of 1912—Continued.

- SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS—Continued.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Maine:</b>								
Counties—								
Androscoggin.....	6	.....	1	.....	.....	.....	7	.....
Aroostook.....	27	.....	.....	.....	.....	.....	27	.....
Cumberland.....	.....	.....	3	.....	.....	.....	3	.....
Kennebec.....	7	.....	.....	.....	.....	.....	7	.....
Lincoln.....	1	.....	.....	.....	.....	.....	1	.....
Penobscot.....	.....	.....	.....	.....	3	.....	3	.....
Somerset.....	.....	.....	.....	.....	1	.....	1	.....
Waldo.....	.....	.....	14	.....	7	.....	21	.....
Total.....	41	.....	18	.....	11	.....	70	.....
<b>Massachusetts:</b>								
Counties—								
Franklin.....	6	.....	2	.....	2	.....	10	.....
Hampden.....	.....	.....	2	.....	.....	.....	2	.....
Hampshire.....	.....	.....	1	.....	.....	.....	1	.....
Middlesex.....	1	.....	.....	.....	.....	.....	1	.....
Suffolk.....	.....	.....	.....	.....	1	.....	1	.....
Total.....	7	.....	5	.....	3	.....	15	.....
<b>Michigan:</b>								
Counties—								
Allegan.....	.....	.....	.....	.....	5	.....	5	.....
Calhoun.....	4	.....	1	.....	.....	.....	5	.....
Hillsdale.....	4	.....	.....	.....	.....	.....	4	.....
Oakland.....	1	.....	.....	.....	.....	.....	1	.....
Ottawa.....	.....	.....	1	.....	.....	.....	1	.....
Saginaw.....	.....	.....	1	.....	.....	.....	1	.....
Saint Clair.....	.....	.....	.....	.....	2	.....	2	.....
Shiawassee.....	1	.....	.....	.....	.....	.....	1	.....
Van Buren.....	1	.....	.....	.....	.....	.....	1	.....
Washtenaw.....	.....	.....	.....	.....	2	.....	2	.....
Wayne.....	2	.....	.....	.....	4	.....	6	.....
Wexford.....	.....	.....	6	.....	.....	.....	6	.....
Total.....	13	.....	9	.....	13	.....	35	.....
<b>Minnesota:</b>								
Counties—								
Aitkin.....	1	.....	.....	.....	2	.....	3	.....
Bigstone.....	1	.....	.....	.....	.....	.....	1	.....
Blue Earth.....	.....	.....	1	.....	.....	.....	1	.....
Carlton.....	.....	.....	2	.....	.....	.....	2	.....
Fillmore.....	.....	.....	1	.....	.....	.....	1	.....
Goodhue.....	2	.....	.....	.....	.....	.....	2	.....
Hennepin.....	24	.....	11	.....	13	.....	48	.....
Itaska.....	.....	.....	1	.....	.....	.....	1	.....
Lyon.....	14	.....	2	.....	.....	.....	16	.....
Mower.....	.....	.....	2	.....	4	.....	4	.....
Murray.....	6	.....	.....	.....	.....	.....	6	.....
Nicollet.....	.....	.....	.....	.....	.....	.....	.....	.....
Olmstead.....	.....	.....	.....	.....	1	.....	1	.....
Ramsey.....	39	.....	3	.....	.....	.....	42	.....
Rice.....	.....	.....	2	.....	.....	.....	2	.....
Rock.....	.....	.....	2	.....	.....	.....	2	.....
Saint Louis.....	8	.....	6	.....	5	.....	19	.....
Scott.....	.....	.....	1	.....	.....	.....	1	.....
Steele.....	.....	.....	.....	.....	1	.....	1	.....
Washington.....	2	.....	.....	.....	.....	.....	2	.....
Winona.....	.....	.....	.....	.....	6	.....	6	.....
Yellow Medicine.....	.....	.....	.....	.....	3	.....	3	.....
Total.....	97	.....	32	.....	35	.....	164	.....
<b>Montana:</b>								
Counties—								
Beaverhead.....	1	.....	3	.....	2	.....	6	.....
Custer.....	.....	.....	1	.....	6	.....	7	.....
Dawson.....	1	.....	.....	.....	.....	.....	1	.....
Meagher.....	1	.....	.....	.....	.....	.....	1	.....
Total.....	3	.....	4	.....	8	.....	15	.....

## Compiled State Reports for the Third Quarter of 1912—Continued.

## SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS—Continued.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New Jersey:								
County—								
Hudson.....	1		1				2	
New York:								
Counties—								
Broome.....	1						1	
Cattaraugus.....	1						1	
Chautauqua.....	1						1	
Clinton.....	2		1				3	
Columbia.....	3						3	
Erie.....	1		1				2	
Essex.....					33		33	
Franklin.....	1						1	
Jefferson.....	1						1	
New York.....	2						2	
Niagara.....	13		17		3		33	
Onondaga.....	1						1	
Oswego.....	6						6	
St. Lawrence.....					1		1	
Saratoga.....			1		5		6	
Schenectady.....	1						1	
Steuben.....			2				2	
Washington.....					1		1	
Westchester.....	1						1	
Total.....	35		22		43		100	
North Carolina:								
Counties—								
Bertie.....	2		8		1		11	
Buncombe.....	12		1		5		18	
Burke.....	1				4		5	
Catawba.....			2		2		4	
Craven.....	6				1		7	
Gates.....	1		1				2	
Granville.....	3		5				8	
Guilford.....			2				2	
Haywood.....					1		1	
Iredell.....			1		1		2	
Johnston.....					1		1	
Hoke.....	3				2		5	
Lee.....	1		1		1		3	
Lenoir.....	1		2				3	
Lincoln.....			2				2	
Madison.....			11		12		23	
Mecklenburg.....	1						1	
New Hanover.....	3		3		2		8	
Robeson.....	2		7				9	
Rowan.....			1		1		2	
Scotland.....			3				3	
Swain.....					5		5	
Union.....			2				2	
Wake.....			1				1	
Warren.....	5		6				11	
Wayne.....	1						1	
Yancy.....	1						1	
Total.....	43		65		39		147	
North Dakota:								
Counties—								
Benson.....	1						1	
Bottineau.....	12				3		15	
Burleigh.....	1						1	
Cavalier.....					2		2	
Stark.....	5						5	
Steele.....	1						1	
Walsh.....	1		1				2	
Total.....	21		1		5		27	
Oklahoma:								
Counties—								
Beaver.....	2		5				7	
Canadian.....	6						6	
Delaware.....			2				2	
Total.....	8		7				15	

## Compiled State Reports for the Third Quarter of 1912—Continued.

SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS—Continued.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Ohio:								
Counties—								
Athens.....	5		2				7	
Cuyahoga.....					3		3	
Darke.....			10				10	
Franklin.....	3						3	
Hamilton.....	4		3				7	
Highland.....			13				13	
Lucas.....	12		7		2		21	
Miami.....			1		2		3	
Montgomery.....	8				4		12	
Ross.....			1				1	
Seneca.....	1						1	
Summit.....	25						25	
Total.....	58		37		11		106	
Oregon:								
Counties—								
Harney.....	4						4	
Hood River.....					2		2	
Jackson.....					3		3	
Marion.....	1		2				3	
Multnomah.....	5						5	
Wasco.....			1		2		3	
Total.....	10		3		7		20	
Pennsylvania <sup>1</sup> .....	8	1	103	10	86	19	197	30
South Dakota:								
Counties—								
Aurora.....					3		3	
Brown.....			5		7		12	
Clark.....					1		1	
Grant.....					2		2	
Hand.....					1		1	
Walworth.....	7		2				9	
Total.....	7		7		14		28	
Texas:								
Counties—								
Dallas.....			36	4	10	5	46	9
Hood.....			27	2			27	2
Refugio.....	1						1	
Van Zant.....	2						2	
Total.....	3		63	6	10	5	76	11
Utah:								
Counties—								
Beaver.....	7		5		1		13	
Boxelder.....	1						1	
Cache.....			6		5		11	
Carbon.....	4		1	1	20		25	1
Davis.....	2						2	
Emery.....			2		5		7	
Salt Lake.....	39		33		33		105	
Sanpete.....					1		1	
Sevier.....	1						1	
Summit.....			13		10	1	23	1
Uintah.....	1						1	
Utah.....	10		9				19	
Wasatch.....	7						7	
Weber.....	9		3		6		18	
Total.....	81		72	1	81	1	234	2
Vermont:								
Counties—								
Caledonia.....	10		2		4		16	
Chittenden.....	1						1	
Essex.....			2				2	
Rutland.....	1						1	
Total.....	12		4		4		20	

<sup>1</sup> Distribution of cases not given by counties in reports received from Pennsylvania.

## Compiled State Reports for the Third Quarter of 1912—Continued.

## SMALLPOX CASES AND DEATHS REPORTED DURING JULY, AUGUST, AND SEPTEMBER, 1912, BY COUNTIES AND BY MONTHS—Continued.

	July.		August.		September.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Virginia:</b>								
Counties—								
Amelia.....	6		2				8	
Botetourt.....	4		4				8	
Brunswick.....	1		4				5	
Dinwiddie.....	4		1		1		6	
Grayson.....			3				3	
Greenville.....	5						5	
Halifax.....					17		17	
Henrico.....	5						5	
Lee.....	3						3	
Lunenburg.....			1				1	
Mecklenburg.....	1						1	
Montgomery.....					2		2	
Nansemond.....	1						1	
Roanoke.....	1				4		5	
Russell.....			4		10		14	
Smyth.....	13						13	
Sussex.....	1							
Total.....	45		19		34		98	
<b>Washington:</b>								
Counties—								
Adams.....	5		3		3		11	
Asotin.....	2		12		15		29	
Benton.....	1						1	
Chelan.....	22		5				27	
Clark.....	3						3	
Douglas.....					1		1	
King.....	2		1				3	
Kittitas.....	15				2		17	
Klickitat.....	2						2	
Lewis.....					1		1	
Pierce.....	2						2	
Snohomish.....	4				1		5	
Spokane.....	15		7		12		34	
Thurston.....			1				1	
Walla Walla.....	1		1				2	
Whitman.....					4		4	
Yakima.....	23		13		6		42	
Total.....	97		43		45		185	
<b>Wisconsin:</b>								
Counties—								
Adams.....	1		3		1		5	
Brown.....			1		1		2	
Buffalo.....	3				1		4	
Clark.....	3						3	
Crawford.....			2				2	
Dane.....	2				6	1	8	1
Dodge.....			1				1	
Douglas.....	1				1		2	
Fond du Lac.....	1						1	
Jefferson.....			1		2		3	
La Crosse.....	1				1		2	
Milwaukee.....	10		15				25	
Monroe.....	1						1	
Outagamie.....			1				1	
Price.....			1				1	
Racine.....					1		1	
Richland.....	13						13	
St. Croix.....					1		1	
Sauk.....	5						5	
Sawano.....					3		3	
Vernon.....	2						2	
Waukesha.....	6						6	
Waupaca.....	4						4	
Waushara.....	1				1		1	
Winnebago.....	1		2				3	
Wood.....	5		3				8	
Total.....	59		30		19	1	108	1
<b>Wyoming:</b>								
County—								
Sweetwater.....			1				1	

**TYPHOID FEVER.****State Reports for January, 1913.**

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
<b>Alabama:</b>		<b>New York—Continued.</b>	
Coosa County.....	1	Lewis County.....	2
Cullman County.....	2	Madison County.....	1
Etowah County.....	2	Monroe County.....	3
Henry County.....	3	Rochester.....	3
Jefferson County.....	20	Montgomery County.....	8
Lauderdale County.....	1	Amsterdam.....	1
Lawrence County.....	2	Nassau County.....	1
Lee County.....	2	Niagara County.....	1
Limestone County.....	4	Niagara Falls.....	4
Marshall County.....	1	North Tonawanda.....	2
Mobile County.....	17	Oneida County.....	1
Monroe County.....	1	Rome.....	4
Montgomery County.....	1	Utica.....	2
Morgan County.....	1	Ontario County.....	1
Pike County.....	1	Orange County.....	1
Shelby County.....	1	Newburgh.....	2
St. Clair County.....	7	Oswego County.....	2
<b>Total.....</b>	<b>67</b>	Otsego County.....	1
<b>New York:</b>		Rensselaer County.....	2
Albany County.....	7	Troy.....	2
Albany.....	8	St. Lawrence County.....	2
Watervliet.....	15	Saratoga County.....	4
Allegany County.....	6	Schoharie County.....	3
Broome County.....	2	Schuyler County.....	1
Binghamton.....	1	Seneca County.....	1
Cattaraugus County.....	2	Steuben County.....	4
Olean.....	1	Corning.....	1
Chautauqua County.....	2	Hornell.....	1
Dunkirk.....	2	Suffolk County.....	1
Chenango County.....	1	Ulster County.....	3
Clinton County.....	1	Kingston.....	3
Columbia County.....	2	Washington County.....	4
Hudson.....	1	Wayne County.....	1
Cortland County.....	1	Westchester County.....	1
Dutchess County.....	2	Mount Vernon.....	1
Poughkeepsie.....	2	New Rochelle.....	2
Erie County.....	1	Yonkers.....	1
Buffalo.....	27	Greater New York.....	79
Lackawanna.....	2	<b>Total.....</b>	<b>253</b>
Essex County.....	1	<b>Vermont:</b>	
Franklin County.....	1	Addison County.....	1
Genesee County.....	3	Orleans County.....	1
Greene County.....	12	Rutland County.....	5
Herkimer County.....	2	Windham County.....	1
Little Falls.....	1	<b>Total.....</b>	<b>8</b>
Jefferson County.....	3		
Watertown.....			

**TYPHUS FEVER.****Massachusetts—Boston.**

The Massachusetts State Board of Health reported by telegraph February 27, 1913, that 1 case of typhus fever had been notified in Boston.

## CEREBROSPINAL MENINGITIS.

## State Reports for January, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Alabama:		New York—Continued.	
Chilton County.....	7	Oswego County.....	1
Clarke County.....	8	Rockland County.....	1
Jefferson County.....	12	Sullivan County.....	1
Madison County.....	1	Westchester County—	
Marshall County.....	1	Mount Vernon.....	1
Mobile County.....	1	Greater New York.....	20
Montgomery County.....	4	Total.....	29
Total.....	34		
New York:		Texas:	
Erie County.....	1	Anderson County.....	5
Monroe County.....	1	Archer County.....	1
Rochester.....	2	Total.....	6
Oneida County.....			
Utica.....	1		

## California—Los Angeles.

Senior Surg. Brooks, of the Public Health Service, reported by telegraph March 1, 1913, that 4 cases of cerebrospinal meningitis, with 1 death, had been notified in Los Angeles during the week ended March 1, making 25 cases, with 10 deaths, since January 1, 1913.

## Texas—Port Arthur.

Acting Asst. Surg. Winter, of the Public Health Service, reported by telegraph March 5, 1913, that 2 cases of cerebrospinal meningitis had been notified in Port Arthur March 4, and that several cases had been reported in Jefferson County during the past few days.

## Cases and Deaths Reported by Cities for Week Ended Feb. 15, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1	1	Los Angeles, Cal.....	6	3
Baltimore, Md.....		4	Lowell, Mass.....	1	
Boston, Mass.....	2		Manchester, N. H.....	1	1
Chicago, Ill.....	1		Nashville, Tenn.....	1	1
Cincinnati, Ohio.....	5	3	New Orleans, La.....	1	
Cleveland, Ohio.....	1		Newton, Mass.....	1	
Hartford, Conn.....	1	1	New York, N. Y.....	7	2
Kansas City, Kans.....	1		Prescott, Ariz.....	1	
La Crosse, Wis.....		1	Reading, Pa.....	1	
Lexington, Ky.....	1		San Francisco, Cal.....		1
Little Rock, Ark.....	1		Worcester, Mass.....	2	1

**POLIOMYELITIS (INFANTILE PARALYSIS).****State Reports for January, 1913.**

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Alabama: Monroe County .....	1	New York—Continued.	
New York:		Wayne County.....	1
Chautauqua County.....	1	Greater New York.....	12
Chemung County—		Total.....	21
Elmira.....	1		
Nassau County.....	1	Texas:	
Niagara County—		Montague County.....	1
Lockport.....	2	Grayson County.....	1
Niagara Falls.....	1	Total.....	2
Orleans County.....	1		
Tioga County.....	1		

<sup>1</sup> These were fatal cases and were reported as deaths.

**Cases and Deaths Reported by Cities for Week Ended February 15, 1913.**

During the week ended February 15, 1913, poliomyelitis was reported by cities as follows: Chicago, Ill., 1 case; Los Angeles, Cal., 1 case; Newark, N. J., 1 case; New Orleans, La., 1 case; Providence, R. I., 1 case.

**ERYSIPELAS.****Cases and Deaths Reported by Cities for Week Ended Feb. 15, 1913.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....		1	Milwaukee, Wis.....	2	
Binghamton, N. Y.....	4	1	Moline, Ill.....	1	1
Boston, Mass.....		2	Newark, N. J.....		3
Buffalo, N. Y.....	7		New Orleans, La.....		1
Chelsea, Mass.....		1	New York, N. Y.....		7
Chicago, Ill.....	21	5	Passaic, N. J.....	1	
Chicopee, Mass.....		1	Pittsburgh, Pa.....	15	1
Cincinnati, Ohio.....	4	1	Providence, R. I.....		1
Cleveland, Ohio.....	4	2	Reading, Pa.....	1	
Concord, N. H.....		1	St. Louis, Mo.....	15	
Erie, Pa.....	2		San Francisco, Cal.....	6	
Harrisburg, Pa.....	2		Williamsport, Pa.....	1	
Los Angeles, Cal.....	5	1			

**LEPROSY.****Texas—San Antonio.**

The secretary of the State Board of Health of Texas reported that a fatal case of leprosy in a white male had been notified at San Antonio during the month of January, 1913.

## PLAGUE.

## Rats Collected and Examined for Plague.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
<b>California:</b>					
<b>Cities—</b>					
Berkeley.....	Feb. 8, 1913	.....	188	143	.....
Oakland.....	do.	12	557	461	.....
San Francisco.....	do.	66	1,570	1,155	.....
<b>Counties—</b>					
San Joaquin.....	do.	.....	4	4	.....
Alameda.....	do.	.....	16	16	.....
<b>Washington:</b>					
<b>City—</b>					
Seattle.....	do.	.....	933	893	.....

## New Orleans, La.—Examination of Rats.

During the period from July 1, 1912, to January 31, 1913, there were examined at New Orleans, La., for plague infection 7,265 rats. One plague-infected rat was found during the month of July, 1912.

## California—Squirrels Collected and Examined for Plague Infection.

During the week ended February 8, 1913, there were examined for plague infection 49 ground squirrels from Alameda County, 115 from San Joaquin County, 17 from San Benito County, and 14 from Merced County.

## PNEUMONIA.

## Cases and Deaths Reported by Cities for Week Ended Feb. 15, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.....	.....	1	Medford, Mass.....	.....	1
Baltimore, Md.....	.....	32	Moline, Ill.....	.....	2
Beaver Falls, Pa.....	1	.....	Newark, N. J.....	.....	8
Binghamton, N. Y.....	5	2	New Bedford, Mass.....	.....	4
Boston, Mass.....	.....	40	New Orleans, La.....	.....	9
Braddock, Pa.....	1	.....	Newport, Ky.....	1	1
Bridgeport, Conn.....	5	.....	Newton, Mass.....	.....	2
Brockton, Mass.....	2	.....	New York, N. Y.....	.....	191
Buffalo, N. Y.....	.....	9	Niagara Falls, N. Y.....	.....	3
Cambridge, Ohio.....	.....	1	Norristown, Pa.....	3	1
Chicago, Ill.....	29	152	Northampton, Mass.....	.....	2
Cincinnati, Ohio.....	.....	13	Oakland, Cal.....	.....	10
Cleveland, Ohio.....	36	23	Oklahoma, Okla.....	.....	1
Clinton, Mass.....	.....	2	Pasadena, Cal.....	.....	1
Concord, N. H.....	.....	1	Passaic, N. J.....	.....	3
Cumberland, Md.....	.....	1	Pawtucket, R. I.....	.....	2
Chicopee, Mass.....	.....	2	Peoria, Ill.....	.....	7
Duluth, Minn.....	5	5	Pittsburgh, Pa.....	31	35
Dunkirk, N. Y.....	7	1	Pittsfield, Mass.....	.....	3
Elizabeth, N. J.....	.....	3	Plainfield, N. J.....	.....	1
Elmira, N. Y.....	.....	1	Portsmouth, Va.....	.....	2
Erie, Pa.....	2	.....	Providence, R. I.....	.....	9
Evansville, Ind.....	.....	4	Reading, Pa.....	4	3
Everett, Mass.....	.....	2	Richmond, Va.....	.....	7
Fall River, Mass.....	.....	7	Roanoke, Va.....	.....	1
Galesburg, Ill.....	.....	2	St. Joseph, Mo.....	.....	5
Grand Rapids, Mich.....	3	4	Salem, Mass.....	.....	3
Harrisburg, Pa.....	.....	3	San Francisco, Cal.....	23	.....
Hartford, Conn.....	.....	5	Saratoga Springs, N. Y.....	3	1
Haverhill, Mass.....	.....	1	Schenectady, N. Y.....	3	3
Jersey City, N. J.....	.....	8	South Bethlehem, Pa.....	2	1
Kalamazoo, Mich.....	4	4	Spokane, Wash.....	.....	3
Knoxville, Tenn.....	.....	2	Springfield, Mass.....	.....	4
La Crosse, Wis.....	.....	2	Superior, Wis.....	.....	1
Lancaster, Pa.....	2	.....	Taunton, Mass.....	.....	1
Lexington, Ky.....	.....	2	Toledo, Ohio.....	.....	8
Los Angeles, Cal.....	4	21	Waltham, Mass.....	.....	2
Lowell, Mass.....	.....	1	Washington, D. C.....	.....	16
Lynchburg, Va.....	.....	2	Wheeling, W. Va.....	.....	4
Lynn, Mass.....	.....	10	Wilkes-Barre, Pa.....	.....	6
Malden, Mass.....	.....	2	Yonkers, N. Y.....	.....	7
Manchester, N. H.....	7	7	Zanesville, Ohio.....	.....	1



**TETANUS.****Cases and Deaths Reported by Cities for Week Ended February 15, 1913.**

During the week ended February 15, 1913, tetanus was reported by cities as follows: Alameda, Cal., 1 death; Cleveland, Ohio, 1 death; New York, N. Y., 1 death; Pittsburgh, Pa., 1 death; Providence, R. I., 1 death.

**SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.****State Reports for January, 1913.**

	Scarlet fever.	Measles.	Diphtheria.
Alabama.....	46		31
New York.....	2,213	6,598	2,189
Texas.....	103		51
Vermont.....	47	968	44

**Los Angeles—Measles.**

Senior Surg. Brooks, of the Public Health Service, reported by telegraph March 1, 1913, that 79 cases of measles had been notified in Los Angeles during the week ended March 1; that 203 cases, with 4 deaths, had been notified during the month of February and 37 cases during the month of January, 1913.

**Pittsburgh—Measles.**

Surg. Stoner, of the Public Health Service, reported by telegraph March 1, 1913, that during the week ended February 22, 1913, there had been notified 424 cases of measles, with 7 deaths, making a total of 5,494 cases, with 78 deaths, since the beginning of the outbreak November 1, 1912.

**Santee, Nebr.—Diphtheria in Indian Mission School.**

A report received through the Department of the Interior from the agency physician at Santee, Nebr., stated that seven cases of diphtheria had occurred in the Episcopal Indian Mission School located at Santee, the first case having been diagnosed January 28.

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

Cases and Deaths Reported by Cities for Week Ended Feb. 15, 1913.

Cities.	Population United States, census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	558,485	226	22	1	107	1	19	2	38	18
Boston, Mass.	670,585	252	51	1	213	2	52	4	52	16
Chicago, Ill.	2,185,283	772	205	19	568	15	372	32	147	81
Cleveland, Ohio.	560,663	173	47	7	102	2	22	3	26	17
New York, N. Y.	4,766,883	1,732	342	38	473	8	325	10	369	207
Pittsburgh, Pa.	533,905	201	42	6	539	6	28	2	30	12
St. Louis, Mo.	687,029	221	68	7	500	3	32	3	1	.....
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.	423,715	183	7	.....	228	2	9	1	16	15
Cincinnati, Ohio.	364,463	133	16	1	150	1	8	.....	35	15
Detroit, Mich.	465,766	183	45	6	.....	.....	65	6	.....	.....
Los Angeles, Cal.	319,198	147	7	.....	52	1	13	.....	48	21
Milwaukee, Wis.	373,857	125	18	1	13	.....	23	1	23	13
Newark, N. J.	347,469	142	33	.....	10	.....	28	.....	26	16
New Orleans, La.	339,075	159	29	2	121	.....	5	.....	22	22
San Francisco, Cal.	416,912	139	7	.....	8	.....	5	.....	30	15
Washington, D. C.	331,069	135	11	4	333	.....	15	.....	26	11
From 200,000 to 300,000 inhab- itants:										
Jersey City, N. J.	267,779	89	.....	.....	.....	.....	2	.....	.....	8
Providence, R. I.	224,326	78	13	2	6	.....	14	.....	4	5
From 100,000 to 200,000 inhab- itants:										
Bridgeport, Conn.	102,054	32	1	2	.....	.....	3	2	4	1
Cambridge, Mass.	104,839	28	.....	.....	17	.....	1	.....	8	4
Columbus, Ohio.	181,548	81	1	.....	12	1	6	.....	11	.....
Fall River, Mass.	119,295	.....	6	.....	13	.....	16	.....	10	4
Grand Rapids, Mich.	112,571	30	3	.....	46	.....	3	.....	3	.....
Lowell, Mass.	106,294	28	5	1	9	.....	4	.....	6	3
Nashville, Tenn.	110,364	56	1	.....	20	.....	4	.....	4	2
Oakland, Cal.	150,174	42	4	.....	.....	.....	3	.....	4	4
Richmond, Va.	127,628	51	3	.....	480	2	5	.....	7	2
Spokane, Wash.	104,402	41	.....	.....	2	.....	1	.....	.....	2
Toledo, Ohio.	168,497	52	9	.....	51	1	1	.....	10	7
Worcester, Mass.	145,986	55	8	.....	15	.....	19	.....	3	1
From 50,000 to 100,000 inhab- itants:										
Altoona, Pa.	52,127	16	3	1	.....	.....	8	.....	1	1
Bayonne, N. J.	55,545	.....	3	.....	1	.....	10	.....	1	.....
Brooklyn, Mass.	56,878	18	1	.....	.....	.....	2	.....	6	3
Camden, N. J.	94,538	.....	7	.....	32	.....	17	.....	10	.....
Duluth, Minn.	78,466	23	1	1	13	.....	8	.....	.....	3
Elizabeth, N. J.	73,409	20	2	.....	7	.....	1	.....	3	1
Erie, Pa.	66,525	29	6	.....	23	.....	7	.....	2	.....
Evansville, Ind.	69,647	20	5	1	1	.....	18	.....	1	2
Harrisburg, Pa.	64,186	23	4	.....	1	.....	2	.....	.....	1
Hartford, Conn.	98,915	39	8	.....	20	.....	31	.....	9	2
Hoboken, N. J.	70,324	.....	3	.....	19	.....	3	.....	7	1
Johnstown, Pa.	55,482	15	13	4	18	.....	2	.....	.....	.....
Kansas City, Kans.	82,331	.....	1	.....	67	.....	.....	.....	3	.....
Lynn, Mass.	89,336	28	7	.....	47	.....	6	.....	2	2
Manchester, N. H.	70,063	30	8	.....	22	.....	1	.....	5	5
New Bedford, Mass.	96,652	34	3	.....	31	.....	9	.....	8	2
Oklahoma City, Okla.	64,205	18	.....	.....	2	.....	.....	.....	.....	3
Passaic, N. J.	54,773	20	2	.....	2	.....	.....	.....	4	2
Pawtucket, R. I.	51,622	.....	.....	.....	1	.....	.....	.....	.....	1
Peoria, Ill.	66,960	24	5	.....	38	.....	10	.....	.....	1
Reading, Pa.	96,071	45	8	.....	119	.....	2	.....	3	2
Saginaw, Mich.	50,510	29	1	.....	23	.....	5	.....	1	1
St. Joseph, Mo.	77,403	29	1	.....	9	.....	1	.....	.....	2
Schenectady, N. Y.	72,826	24	3	1	2	.....	10	1	.....	3
South Bend, Ind.	53,694	24	3	.....	.....	.....	4	1	.....	3
Springfield, Mass.	88,926	27	1	1	36	.....	9	.....	.....	2
Trenton, N. J.	96,815	49	9	.....	32	.....	8	.....	8	6
Wilkes-Barre, Pa.	67,105	27	1	.....	1	.....	9	.....	2	1
Yonkers, N. Y.	79,803	30	6	1	.....	.....	1	.....	1	1
From 25,000 to 50,000 inhabitants:										
Atlantic City, N. J.	46,150	8	2	.....	3	.....	5	.....	.....	.....
Aurora, Ill.	29,807	9	2	.....	.....	.....	3	.....	.....	.....
Binghamton, N. Y.	48,443	16	1	.....	4	.....	.....	.....	5	3
Brookline, Mass.	27,792	5	2	.....	8	.....	1	.....	.....	.....
Chattanooga, Tenn.	44,604	.....	2	1	.....	.....	3	.....	1	.....
Chelsea, Mass.	32,452	13	1	.....	5	.....	3	.....	5	.....
Chicopee, Mass.	25,401	6	1	.....	8	.....	1	.....	.....	.....

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

## Cases and Deaths Reported by Cities for Week Ended Feb. 15, 1913—Contd.

Cities.	Population, United States census, 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabit- ants—Continued.										
Danville, Ill.	27,871	4			2		3			1
East Orange, N. J.	34,371		3		2		3		1	
Elmira, N. Y.	37,176	4	1		30		2			1
Everett, Mass.	33,484	15			7		6	1		1
Fitchburg, Mass.	37,826	19	2		62	2			1	1
Haverhill, Mass.	44,115	13			77	1	2		1	2
Kalamazoo, Mich.	39,437	23	2		1		1		5	2
Knoxville, Tenn.	36,346	10			10					4
La Crosse, Wis.	30,417	6	2				1			
Lancaster, Pa.	47,227		6		17		1		5	
Lexington, Ky.	35,099	13			2		2		1	
Little Rock, Ark.	45,941								1	
Lynchburg, Va.	29,494	11	1		34				1	1
Malden, Mass.	44,404	11	7	2	24		2		3	2
Newcastle, Pa.	36,280				30		1			
Newport, Ky.	30,309	11	2	1			3			
Newton, Mass.	39,806	15	1		5		3		5	
Niagara Falls, N. Y.	30,445	15			145	3	2		2	
Norristown, Pa.	27,875	9	2				4			
Orange, N. J.	29,630	6			1		1		1	
Pasadena, Cal.	30,291	10								
Pittsfield, Mass.	32,121	17	7				3		4	
Portsmouth, Va.	33,190	12	1				1			
Racine, Wis.	38,002	10	1				2			
Roanoke, Va.	34,874	15	1		7				2	2
Salem, Mass.	43,697	14	2	1	1					
San Diego, Cal.	39,578	6	1						4	4
South Omaha, Nebr.	26,259	7	1						1	
Superior, Wis.	40,384	11	1				2			1
Taunton, Mass.	34,259	16	2				8	1	5	2
Waltham, Mass.	27,834	3	3		1					
West Hoboken, N. J.	35,403						2		4	
Wheeling, W. Va.	41,641	21	1		21	1	6		1	2
Williamsport, Pa.	31,860	14			2		1		1	
Wilmington, N. C.	25,748	7								
York, Pa.	44,750		1		27		1			
Zanesville, Ohio.	28,026	11					1			
Less than 25,000 inhabitants:										
Alameda, Cal.	23,833	4							1	
Beaver Falls, Pa.	12,191	0	1		3				1	
Braddock, Pa.	17,759		4		18		1		2	
Cambridge, Ohio.	17,327									
Clinton, Mass.	13,075	7		1	17					
Coffeyville, Kans.	12,687								3	
Columbus, Ga.	20,554	2								1
Columbus, Ind.		1								
Concord, N. H.	21,479	9			89		1			
Cumberland, Md.	21,839	9			2				2	1
Dunkirk, N. Y.		5	3		4		3		1	
Galesburg, Ill.	22,089	4								
Harrison, N. J.	14,489						1			
Kokomo, Ind.	8,261	3			2				1	
La Fayette, Ind.	20,081	12					1			
Massillon, Ohio.	23,830	9								
Medford, Mass.	23,150	10	2		29		2		2	1
Melrose, Mass.	15,715	4	1				1		3	
Moline, Ill.	24,190	14			1			1		
Morristown, N. J.	12,507	4								
Nanticoke, Pa.	18,857	3	1		3					
Newburyport, Mass.	19,240	5					1			
North Adams, Mass.	22,019	1			2				1	
Northampton, Mass.	19,931	12			3		5			4
Ottumwa, Iowa.	23,012	1	3				10			
Palmer, Mass.		4								1
Plainfield, N. J.	23,550	7							1	
Portsmouth, N. H.	10,637		2	1	2		1			
Prescott, Ariz.	3,559									
Rutland, Vt.	13,546				136					
Saratoga Springs, N. Y.		8			1					2
South Bethlehem, Pa.		9	1		4					
Springfield, Ohio.			1				4			
Wilkinsburg, Pa.		9	1		6				1	
Woburn, Mass.	18,594	5			4					

## IN INSULAR POSSESSIONS.

### HAWAII.

#### Plague-Infected Rodent Found.

A dead mouse was found at Mika's stone wall at Kukuihaele village January 27, 1913, which on examination was found to have died of plague. The stone wall surrounds the house in which the fatal case of human plague occurred January 31, 1913.<sup>1</sup>

### PORTO RICO.

#### Plague Situation.

Passed Asst. Surg. Creel reports:

RATS EXAMINED FEB. 8 TO 15, 1913.

Places.	Rats examined.	Found infected.
All Porto Rico.....	1,508	.....
San Juan municipality:		
San Juan.....	185	.....
Puerta de Tierra.....	99	.....
Santurce.....	279	.....

The last case of plague in man occurred at San Juan September 12, 1912; the last plague-infected rat was found at Caguas, December 19, 1912.

<sup>1</sup> Public Health Reports, Feb. 21, 1913, page 359.

# FOREIGN REPORTS.

## ARABIA.

### Aden—Hookworm Disease.

Consul Schultz reports January 22:

Hookworm disease is not indigenous in this part of Arabia. A prominent physician of 20 years' residence in Southern Arabia states that he has found only two or three cases and the subjects in these cases were not inhabitants of this locality but were men who had traveled in Egypt or Sumatra.

## CANARY ISLANDS.

### Santa Cruz de Teneriffe—Plague.

Five deaths from plague were reported at Santa Cruz de Teneriffe. February 27, 1913.

## CUBA.

### Habana—Transmissible Diseases.

FEB. 1 TO 10, 1913.

Disease.	New cases.	Deaths.	Remaining under treatment.
Leprosy.....	2	1	246
Malaria.....	11		1
Typhoid fever.....	6	2	32
Diphtheria.....	22	2	12
Scarlet fever.....	9		27
Measles.....	19		14
Varicella.....	6		6
Paratyphoid fever.....	4		10

<sup>1</sup> Imported from Porto Rico.

## INDO-CHINA.

### Ancylostomiasis (Hookworm Disease).

The following information relative to ancylostomiasis in Indo-China has been received from Vice Consul Joblin at Saigon: Ancylostomiasis is widely diffused among the native population of Annam. The disease is found among the agricultural class, the most important part of the population. No information as to its presence among workers in mines has been received.

Tonkinese natives are affected by ancylostomiasis in a proportion of more than 50 per cent.

Examination of worms ejected after a dose of thymol or collected by necropsy has shown that the uncinariæ in North Indo-China belong to two species, viz, *Ancylostoma duodenale* (Dubini, 1843) and *Necator americanus* (Stiles, 1902).

According to information collected in 1909 the ratio of ancylostomiasis is nearly the same for each district. The infection is the same in the low region as in the high. The natives from the plain generally use stagnant water from pools, while those from the hill country use running water from streams. Males and females are affected in the same ratio. Children are less affected. The disease is found among the farming class in Tonkin, and also among miners, but this latter class is in the minority in Tonkin. Europeans are affected in a ratio of 15 to 20 per cent.

### **JAPAN.**

#### **Cholera.**

Surg. Irwin at Yokohama reports: During the week ended February 1, 1913, there were reported in Japan 24 cases of cholera. Of these, 15 cases were reported in Shidzuoka-ken, 5 in Tokyo-fu, 3 in Chiba-ken, and 1 in Kanagawa-ken. The origin of most of these cases was in the island of O-shima, which is situated within a few hours' travel from the mainland.

No cases of cholera were reported in Japan during the preceding week.

### **RUSSIA.**

#### **Odessa—Cholera.**

According to information dated February 1, received from the foreign office at St. Petersburg through the American Embassy, five cases of cholera with two deaths were reported at Odessa from January 8 to 21, 1913.

### **TURKEY IN ASIA.**

#### **Malaria.**

Consul General Horton at Smyrna reported, February 3:

There are no official statistics of the prevalence of malaria in Turkey in Asia, but information obtained from local physicians seems to show that the disease is most prevalent in the country adjacent to the province of Aidin, where it is found in chronic form. In the city of Smyrna, which is situated in the Province of Aidin, the disease has shown a tendency to disappear since the drainage of the swamps in the vicinity. The city of Menemen, which is situated about 22 miles from Smyrna, and the villages scattered in the plain of Menemen are centers of malaria. The next greatest areas of prevalence of malaria are the valley of the Caystre, with the villages

of Djimovassi, Malcadji, and Tourbali, and the neighboring plain of Ephesus, with the surrounding villages, chief among which is Kirk-indje, near the railway station of Ayassoulouk, which occupies the site of the ancient city of Ephesus. In all these villages malaria exists in chronic form with enlargement of the liver and spleen. The plain of Ephesus extends to the sea, opposite the island of Samos. In the coast villages of the plain malaria is endemic. The third center of malaria is the valley of the Menander. Malaria may be said to exist in Turkey in Asia in all places situated on plains bordering on rivers.

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

#### Reports Received During Week Ended Mar. 7, 1913.

##### CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Jan. 12-18.....	.....	22	
Madras.....	Jan. 19-25.....	9	2	
Japan.....	Jan. 18-24.....	.....	.....	Total cases, 24. Origin of most of these cases was in the island of Oshima.
Chiba ken.....	do.....	3	.....	
Kanagawa ken.....	do.....	1	.....	
Shidzuoka ken.....	do.....	15	.....	
Tokyo fu.....	do.....	5	.....	
Russia:				
Odessa.....	Jan. 8-21.....	5	2	Including previous report.

##### YELLOW FEVER.

Brazil:				
Manaos.....	Jan. 27-Feb. 1.....	2	2	

##### PLAGUE.

British East Africa:				
Nairobi.....	Jan. 13.....	2	.....	
Canary Islands:				
Teneriffe.....				
Santa Cruz.....	Feb. 21-27.....	.....	5	
China:				
Swatow <sup>1</sup> .....	.....	.....	.....	Jan. 9, in vicinity.
India:				
Calcutta.....	Jan. 12-18.....	.....	6	

##### SMALLPOX.

Canada:				
Montreal.....	Jan. 18-24.....	15	.....	
Ontario.....	Feb. 16-22.....	2	.....	
Ottawa.....	Feb. 9-22.....	5	.....	
China:				
Chungking.....	Nov. 17-Jan. 4.....	.....	.....	Present.
Dalny.....	Jan. 12-18.....	1	1	
Egypt:				
Alexandria.....	Feb. 22-28.....	2	1	
Cairo.....	Feb. 15-21.....	1	.....	
France:				
Marseille.....	Jan. 25-31.....	.....	1	
Paris.....	Jan. 27-Feb. 8.....	4	.....	
Germany.....	.....	.....	.....	Total Feb. 2-8: Cases 1.
Gibraltar.....	Feb. 3-9.....	1	.....	

<sup>1</sup> From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Feb. 12, 1913.

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received During Week Ended Mar. 7, 1913—Continued.****SMALLPOX.**

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Jan. 12-18.....	.....	2	
Madras.....	Jan. 19-25.....	5	2	
Indo-China:				
Saigon.....	Dec. 17-23.....	1	1	
Italy:				
Palermo.....	Feb. 2-8.....	1	.....	
Mexico.....				Feb. 16: Cases, 1,500 to 2,000 with 10 per cent of deaths, mainly along the western coast.
Agascalientes.....	Feb. 10-16.....	.....	4	
Aguierre.....	Feb. 16.....	.....	.....	Present.
Cajame.....	do.....	.....	.....	Do.
Corral.....	do.....	.....	.....	Do.
Puja.....	do.....	.....	.....	Do.
Salina Cruz.....	Feb. 9-15.....	.....	1	
Vera Cruz.....	Feb. 2-8.....	.....	1	
Portugal:				
Lisbon.....	do.....	4	.....	
Russia:				
Moscow.....	Jan. 12-25.....	4	.....	
St. Petersburg.....	Jan. 12-18.....	5	3	
Warsaw.....	Nov. 10-23.....	10	2	
Spain:				
Almeria.....	Jan. 1-31.....	14	.....	
Barcelona.....	Jan. 22-28.....	.....	9	
Seville.....	Jan. 1-31.....	.....	16	
Valencia.....	Jan. 26-Feb. 8.....	8	.....	
Switzerland:				
Cantons—				
Basel.....	Jan. 27-Feb. 1.....	1	.....	
Grisons.....	Jan. 19-25.....	1	.....	
Turkey in Asia:				
Beirut.....	Jan. 19-Feb. 1.....	4	4	
Turkey in Europe:				
Constantinople.....	Jan. 19-Feb. 15.....	.....	25	
Uruguay:				
Montevideo.....	Feb. 18.....	.....	.....	Present.

**Reports Received from Dec. 27, 1912, to Feb. 28, 1913.****CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
Bulgaria:				
Eski Saghra.....	Dec. 9.....	2	.....	
Sofia.....	Nov. 21-Dec. 16.....	6	1	
Shumla.....	Dec. 30.....	18	.....	
China: Foochow.....	Nov. 20-Dec. 2.....	.....	.....	Isolated cases.
Dutch East Indies:				
Borneo—				
Pontrank.....	Oct. 6.....	1	.....	
Samarinda.....	Oct. 9.....	1	.....	
Singkawang.....	Oct. 8-Nov. 1.....	1	1	
Java—				
Batavia.....	Nov. 9-23.....	32	21	Feb. 6, present.
Madicoen.....	Sept. 15-Nov. 2.....	189	103	
Megalang.....	Oct. 7-12.....	9	6	
Paserocean Residency..	Sept. 20-26.....	2	1	
Samarang.....	July 19-Nov. 7.....	515	423	
Surabaya.....	Oct. 16-25.....	2	1	
Sumatra—Jambi.....	Sept. 18-24.....	1	.....	
India:				
Bombay.....	Nov. 17-Jan. 25.....	184	129	
Calcutta.....	Nov. 9-Jan. 11.....	.....	309	
Cochin.....	Oct. 19-Nov. 9.....	6	6	
Madras.....	Nov. 24-Jan. 4.....	21	23	
Negapatam.....	Nov. 11-16.....	9	9	
Rangoon.....	Nov. 1-30.....	2	2	
Indo-China: Saigon.....	Aug. 20-Oct. 27.....	42	38	



**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from Dec. 27, 1912, to Feb. 23, 1913—Continued.****CHOLERA—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Japan.....				Total July 10-Jan. 14: Cases 2,736; deaths, July 10-Dec. 31, 1,584. Nov. 1-30: Cases, 623; deaths, 397.
Aita Ken.....	Dec. 2.....	1		
Chiba Ken.....	Nov. 23-Dec. 17...	25		
Fukushima Ken.....	Dec. 5.....	1		
Hiardo Islands.....	Sept. 15-Dec. 1.....	30		
Hioga Ken.....	Nov. 27-Dec. 19...	22		
Hiroshima Ken.....	Nov. 23.....	1		
Ibaraki Ken.....	Dec. 6.....	2		
Iwate Ken.....	Dec. 16.....	1		
Kanagawa Ken.....				Total Nov. 23-Dec. 20: Cases, 53.
Yokohama.....	Nov. 24-Jan. 14...	22		Sept. 25-Dec. 7: 9 cases from vessels.
Kochi Ken.....	Nov. 28-Dec. 4.....	3		
Minami Tokaki gun.....	Sept. 15-Dec. 2.....	40		
Nagasaki Ken.....				Nagasaki Ken and outlying islands Sept. 15-Dec. 2: Cases, 188; deaths 134, including previous reports.
Nagasaki city.....	Sept. 15-Dec. 2.....	10	4	
Osaka Fu.....	Nov. 23-Dec. 3.....	14		
Saga Ken.....	do.....	5		
Sasebo.....	Sept. 15-Dec. 2.....	7		
Shizuoka Ken.....	Dec. 3-29.....	12		
Taiwan (Formosa).....				Total Nov. 3-23: Cases, 48; deaths, 42.
Tokushima Ken.....	Sept. 15-Dec. 1.....	65		Not previously reported.
Tokyo Fu.....	Nov. 23-Jan. 5.....	102		
Tokyo.....				Oct. 2-Dec. 7: Cases, 273, and in vicinity, 342.
Wakumatsu Ken.....	Nov. 26.....	1		
Russia:				
Odessa.....	Dec. 24-Jan. 7.....	4	1	Nov. 18-20: 1 case from s. s. Bosnian from Constantinople. Confined in the quarantine barracks.
Siam:				
Bangkok.....	Oct. 13-Jan. 4.....		6	
Straits Settlements—Singapore.....	Nov. 17-23.....	2	2	
Turkey in Asia.....				Total, Nov. 17-23: Cases, 160; deaths, 218.
Adana—				
Adana.....	Nov. 17-Dec. 2.....	2	2	
Aleppo—				
Aleppo.....	Nov. 24-Dec. 2.....	3	3	
Alexandretta.....	do.....	3	2	
Angora—				
Angora.....	Nov. 24-Dec. 11...	29	23	
Balikesir.....	Nov. 24-Dec. 2.....		1	
Beirut—				
Merdijoun.....	Dec. 3-11.....		15	
Tabariyeh.....	Dec. 13-22.....			Present.
Brusa.....	Nov. 17-Dec. 11...	26	38	
Castamoni.....	Nov. 17-Dec. 2.....	6	4	
Dierbekir.....	do.....	8	2	
Hedjaz—				
Jedda.....	Nov. 25-Dec. 14...	395	393	Among returning pilgrims.
Medina.....	Dec. 3-11.....		6	
Mekka.....	Nov. 17-23.....	111	172	Dec. 3-11: Deaths, 3,007.
Ismidt.....	Nov. 17-Dec. 2.....	3	1	
Mosul.....	do.....		2	
Sinope.....	Dec. 3-11.....	1	4	
Smyrna.....	Nov. 17-Dec. 2.....	3	1	
Tarsus.....	Nov. 24-Dec. 2.....	2	1	
Turkey in Europe:				
Constantinople.....	Dec. 3-Jan. 28.....	1,598	787	Total, Nov. 5-Jan. 28: Cases, 2,515; deaths, 1,245.
Zanzibar.....	Nov. 8-Dec. 21.....	131	130	Total, Aug. 5-Dec. 23: Cases, 943; deaths, 912, including previous reports from Mwera, Chwaka, and Mokotoni. Chwaka district, Oct. 4-Dec. 31, 332 cases, not included in previous reports.
At sea.....				Nov. 18-20: 1 fatal case on s. s. Bosnian, en route from Constantinople to Odessa.

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from Dec. 27, 1912, to Feb. 28, 1913—Continued.****YELLOW FEVER.**

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Brasil:</b>				
Bahia.....	Jan. 24-Feb. 23.....	9	1	
Manaos.....	Jan. 5-25.....	2	2	
<b>Ecuador:</b>				
Agua Piedra.....	Dec. 1-31.....	7	4	
Bucay.....	Nov. 15-Dec. 31.....	3	2	
Duran.....	Nov. 1-Dec. 31.....	3	3	
Guayaquil.....	do.....	25	16	
Do.....	Feb. 18-24.....	16	11	Total Jan. 1-Feb. 24: Cases, 124; deaths, 69.
Milagro.....	do.....	2	2	
Naranjito.....	do.....	3	2	
<b>Senegal:</b>				
Dakar.....	Dec. 7.....			Present.
<b>Venezuela:</b>				
Caracas.....	Nov. 1-30.....	7	1	In September 2 deaths and in October 1 death not previously reported.

**PLAGUE.**

<b>Afghanistan:</b>				
Tchehel-Bagdareh.....	Sept. 1-30.....			And vicinity 100 deaths daily. Present to Oct. 29.
<b>Brazil:</b>				
Bahia.....	Jan. 12-25.....	4	1	
Pernambuco.....	Nov. 1-Dec. 31.....		9	
Rio de Janeiro.....	Nov. 3-Jan. 18.....	11	6	Year 1912: Cases, 21.
Santos.....	Dec. 1.....	2	2	
<b>British East Africa:</b>				
Kilambu.....	Nov. 16-Oct. 21.....	2		
Kisumu.....	Dec. 8-28.....	7		
Mombasa.....	Oct. 1-Dec. 25.....	16	12	Free Nov. 18.
Nairobi.....	Nov. 16-Dec. 25.....	3	1	
<b>Chile:</b>				
Iquique.....	Jan. 8-Jan. 19.....	7	4	
Taital.....	Oct. 22-28.....	3		
<b>China:</b>				
Amoy.....	Jan. 17.....			Present and in vicinity.
Kulangsu.....	do.....	3		International settlement of Amoy.
Hoihow.....	Nov. 1-30.....			Do.
Manchuria.....	Dec. 14.....			Present along the railway, between Harbin and Chang-Chun.
Pakhoi.....	Dec. 1-31.....	30		
Shanghai.....	Nov. 18-Dec. 15.....		2	Dec. 18, present in vicinity of the French settlement.
<b>Dutch East Indies:</b>				
<b>Java—</b>				
Kediri.....	Oct. 6-Dec. 16.....	105	103	
Madioen.....	do.....	66	64	
Paserocean Residency.....	do.....	244	247	
Surabaya.....	do.....	10	10	
<b>Ecuador:</b>				
Duran.....	Nov. 1-Dec. 31.....	4	1	
Guayaquil.....	do.....	139	52	
Do.....	Feb. 18-24.....	22	11	Jan. 1-Feb. 24: Cases, 123; deaths, 61.
Milagro.....	Dec. 1-31.....	8	1	
<b>Egypt:</b>				
Cairo.....	Dec. 30.....	1	1	
Port Said.....	Dec. 29.....	1	1	
Do.....	Jan. 1-2.....	2	1	
<b>Provinces—</b>				
Behera.....	Nov. 29-Dec. 12.....	2	1	
Do.....	Jan. 1-2.....	2	1	
Charkieh.....	do.....	3	2	
Galloubeh.....	Jan. 1-7.....	1	1	
Garbieh.....	Jan. 1-16.....	1	1	
Do.....	Nov. 23-Dec. 17.....	3		
Girgeh.....	Jan. 1-3.....	1	1	
Do.....	Dec. 21-25.....	1	1	
Menouf.....	Jan. 1-9.....	5	3	
Do.....	Oct. 1-Dec. 31.....	13	7	
Minieh.....	Nov. 28-Dec. 29.....	7	4	

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

Reports Received from Dec. 27, 1912, to Feb. 28, 1913—Continued.

## PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Hawaii:				
Kukuihaele.....	Jan. 11-31.....	2	2	
India:				
Bombay.....	Nov. 17-Jan. 25...	61	52	
Calcutta.....	Nov. 9-Jan. 11.....	1	61	
Madras.....	Dec. 29-Jan. 4.....	1	1	
Karachi.....	Nov. 19-23.....	2	2	
Rangoon.....	Oct. 1-Nov. 30.....	68	68	
Provinces.....				Total Oct. 27-Dec. 28: Cases, 25,212; deaths, 19,863.
Delhi.....	Oct. 27-Dec. 28.....	31	14	
Bombay.....	do.....	6,785	5,121	
Madras.....	do.....	1,833	1,337	
Bengal.....	do.....	60	59	
Bihar and Orissa.....	do.....	1,269	1,025	
United Provinces.....	do.....	7,844	6,001	
Punjab.....	do.....	952	709	
Burma.....	do.....	95	85	
Central Provinces.....	do.....	404	301	
Mysore.....	do.....	1,506	1,114	
Hyderabad.....	do.....	1,498	1,212	
Central India.....	do.....	70	60	
Rajputana.....	do.....	2,862	2,824	
Kashmir.....	do.....	3	1	
Indo-China: Saigon.....	Aug. 20-Dec. 16.....	58	36	
Mauritius.....	Oct. 11-Dec. 19.....	202	129	
Morocco: Rabat.....	Nov. 1.....	3		Among the military.
New Caledonia:				
Numea.....	Sept. 17-Oct. 17.....	8	5	
Do.....	Oct. 29-Dec. 2.....			7 cases with 2 deaths among Europeans and 22 fatal cases among natives.
Peru:				
Departments—				
Ancachs.....	July 1-31.....	4		
Do.....	Aug. 1-31.....	4	3	
Arequipa.....	July 1-31.....	7	2	Mollendo, Nov. 17-Jan. 12: Cases, 15; deaths, 4. Jan. 21, 2 cases, with 1 death.
Do.....	Aug. 1-31.....	5	3	
Callao.....	July 1-31.....	1	1	Present in September; Dec. 2-Jan. 12: Cases, 7.
Ferrinhale.....	Dec. 23-Jan. 12.....	1		
Ica.....	do.....	1		
Lambayeque.....	Dec. 2-22.....	7		Present in September.
Jayanca.....	do.....			Present.
Libertad.....	July 1-31.....	8	2	
Do.....	Aug. 1-31.....	12	7	
Cosma.....	Dec. 2-22.....			Do.
Pajjan.....	do.....			Do.
Salaverry.....	Dec. 23-Jan. 12.....	1		
San Pedro.....	Dec. 2-Jan. 12.....	27		
Trujillo.....	do.....	44		
Lima.....	July 1-31.....	3	2	
Do.....	Aug. 1-31.....	4	2	Dec. 2-22: Cases, 2.
Piura—				
Catacaos.....	Dec. 2-Jan. 12.....			Present.
Paíta.....	do.....			Do.
Piura.....	Dec. 23-Jan. 12.....			Do.
Sulanna.....	Dec. 2-22.....			Do.
Philippine Islands:				
Manila.....	Nov. 10-Dec. 28.....	13	10	
Russia:				
Don, territory.....	Nov. 1-Jan. 12.....			In 6 localities. 38 cases with 22 deaths.
Hutor Popova (estate).....	Nov. 1-15.....	20	12	Esasoul district.
Moscow.....	Dec. 29-Jan. 11.....	3	1	
Transbalkal district—				
Verneudinsk.....	Oct. 18-28.....	3	3	Near Nerchinsk.
Trans-Caspian Ty. Merv.....	Dec. 9-21.....	29	29	Pneumonic.

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from Dec. 27, 1912 to Feb. 28, 1913—Continued.****SMALLPOX.**

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia: Aden.....	Jan. 14-20.....	1		Present.
Abyssinia: Adis Ababa.....	Nov. 24-Dec. 21.....			
Algeria:				
Departments—				
Algiers.....	Oct. 1-31.....	11		
Constantine.....	do.....	11		
Oran.....	do.....	118		
Argentina: Buenos Aires.....	Nov. 1-30.....		2	
Austria-Hungary:				
Galicia.....	Nov. 10-Dec. 7.....	3		
Trieste.....	Dec. 8-Jan. 18.....	22		
Brazil:				
Para.....	do.....	2		
Pernambuco.....	Nov. 1-Dec. 31.....		135	
Rio de Janeiro.....	Nov. 3-Jan. 18.....	21	7	
British Columbia: Vancouver.....	Feb. 2-8.....	1		
British East Africa: Mombasa.....	Dec. 1-21.....	5		
Canada:				
Ontario—				
Hamilton.....	Jan. 1-31.....	31		
Ottawa.....	Jan. 4-Feb. 8.....	25		
Toronto.....	Dec. 1-Feb. 15.....	8		
Windsor.....	Feb. 9-15.....	2		
Quebec—				
Montreal.....	Dec. 15-Feb. 15.....	78		
Quebec.....	do.....	23		
St. Johns.....	Jan. 12-15.....	16		
Chile: Punta Arenas.....	Oct. 31-Nov. 30.....	3		Oct. 31, 1 case in vicinity.
China:				
Amoy.....	Jan. 16.....			Present.
Chungking.....	Nov. 3-16.....			Do.
Hankow.....	Dec. 29-Jan. 4.....	1		
Hohow.....	Jan. 3.....			Do.
Hongkong.....	Nov. 24-Jan. 11.....	9	7	
Nanking.....	Dec. 7.....			Do.
Shanghai.....	Nov. 18-Jan. 19.....	19	96	Deaths among natives.
Tientsin.....	Nov. 17-Dec. 14.....		2	
Costa Rica:				
Limou.....	Feb. 1.....	2	2	
Dutch East Indies:				
Java—				
Batavia.....	Nov. 9-Jan. 4.....	26	7	Jan. 5-11, 10 cases, with 5 deaths in the district, mainly in Samarang.
Samarang.....	Oct. 4-24.....	57	23	
Egypt:				
Alexandria.....	Dec. 9-Jan. 21.....	4		
Cairo.....	Nov. 12-Jan. 7.....	8	3	
Port Said.....	Dec. 3-31.....	1	1	
France:				
Marseille.....	Nov. 1-Dec. 31.....		2	
Nantes.....	Jan. 5-18.....	2		
Paris.....	Dec. 1-Jan. 25.....	19		
Germany.....				Total: Nov. 24-30, 5 cases not included in report, page 2231, vol. xxvii; Dec. 1-Jan. 11, 15 cases.
Breslau.....	Jan. 19-25.....	1		
Hamburg.....	Jan. 10-25.....	2		
Gibraltar.....	Dec. 9-15.....	1		
Great Britain: Liverpool.....	Jan. 1-4.....	1		
Honduras:				
Trujillo.....	Feb. 2-8.....	1		
India:				
Bombay.....	Nov. 17-Jan. 25.....	21	7	
Calcutta.....	Dec. 1-Jan. 11.....		12	
Karachi.....	Dec. 1-Jan. 21.....	11	1	
Madras.....	Dec. 1-28.....	4	3	
Rangoon.....	Oct. 1-Nov. 30.....	11	3	
Indo-China: Saigon.....	Aug. 20-Oct. 20.....	2	2	
Italy:				
Palermo.....	Dec. 15-Feb. 4.....	5		
Turin.....	Feb. 3-9.....	1		
Japan.....				Jan. 1-Nov. 30, 1911: Cases, 14; death, 1.
Nagasaki.....	Nov. 1-30.....	1		
Yokohama.....	Jan. 1-13.....	2		From s.s. Pera from London via ports.

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

Reports Received from Dec. 27, 1912, to Feb. 28, 1913—Continued.

## SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Mexico:</b>				
Aguascalientes.....	Dec. 9-Feb. 9.....	.....	6	
Chihuahua.....	Dec. 9-Feb. 16.....	.....	7	
Durango.....	Dec. 1-Jan. 31.....	.....	65	
Guadalajara.....	Jan. 5-11.....	1	.....	
Mazatlan.....	Jan. 1-7.....	2	.....	
Mexico.....	Nov. 17-Jan. 4.....	36	15	
Salina Cruz.....	Nov. 17-Jan. 25.....	6	2	
San Luis Potosi.....	Sept. 15-21.....	1	.....	
Sonora.....	.....	.....	.....	Jan. 30: Present in Esperanza, Navojca, and Tarin.
Agua Zarca.....	Jan. 30.....	2	.....	
Nogales.....	.....do.....	1	.....	
Veracruz.....	Jan. 26-Feb. 1.....	3	.....	1 case imported from Pasco de Macho.
Netherlands: Rotterdam.....	Dec. 22-28.....	.....	1	
<b>Peru:</b>				
Callao.....	Sept. 1-14.....	.....	.....	Present.
Lima.....	.....do.....	.....	.....	Do.
Mollendo.....	Nov. 24-Dec. 7.....	5	1	
Salaverry.....	Dec. 4-11.....	1	.....	
Philippine Islands: Manila.....	Dec. 21.....	.....	.....	1 case removed from s. s. Mauban to the San Lazaro hospital.
Portugal: Lisbon.....	Dec. 1-Feb. 1.....	37	.....	
Roumania.....	.....	.....	.....	Total Oct. 1-31: Cases, 6.
<b>Russia:</b>				
Batoum.....	Dec. 1-31.....	1	.....	
Libau.....	Dec. 16-Jan. 4.....	2	.....	
Moscow.....	Dec. 8-28.....	3	2	
Odessa.....	Nov. 17-Dec. 14.....	3	.....	
St. Petersburg.....	Nov. 24-Dec. 28.....	96	10	
Warsaw.....	Sept. 22-Oct. 5.....	5	.....	
<b>Siberia—</b>				
Omsk.....	Jan. 1-27.....	7	.....	
Vladivostok.....	Dec. 15-28.....	4	1	
Servia: Belgrade.....	Dec. 22-28.....	2	.....	
Siam: Bangkok.....	Nov. 10-Jan. 4.....	.....	5	
Siberia: Vladivostok.....	Oct. 28-Dec. 28.....	4	3	
<b>Spain:</b>				
Almeria.....	Dec. 1-31.....	.....	40	
Barcelona.....	Dec. 1-Feb. 1.....	.....	87	
Cadiz.....	Nov. 1-Dec. 31.....	.....	7	
Madrid.....	.....do.....	.....	34	
Malaga.....	Dec. 1-31.....	.....	1	
Seville.....	.....do.....	.....	27	
Valencia.....	Nov. 14-Jan. 11.....	39	.....	
Straits Settlements: Singapore.....	Nov. 24-Jan. 4.....	2	1	
Sweden: Stockholm.....	Oct. 8-21.....	3	.....	
<b>Switzerland:</b>				
<b>Cantons—</b>				
Aargau.....	Dec. 15-Jan. 18.....	2	.....	
Basel.....	Nov. 14-Jan. 25.....	15	.....	
Grisons.....	Dec. 1-Jan. 18.....	13	.....	
Turkey in Asia: Beirut.....	Dec. 8-Jan. 18.....	53	7	
Turkey in Europe: Constantinople.....	Dec. 1-Jan. 18.....	.....	84	
Zanzibar.....	Nov. 8-Jan. 14.....	13	1	

# SANITARY LEGISLATION.

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## STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

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### WASHINGTON.

#### Communicable Diseases—Disinfection and Fumigation for (Regulations State Board of Health Adopted July 15, 1912).

SEC. III. 1. Disinfection and fumigation shall be carried out as specified under individual diseases, provided that for all cases of quarantinable diseases the premises shall be thoroughly disinfected before the persons are released from quarantine.

2. The State commissioner of health is hereby authorized to specify from time to time standard methods of disinfection and fumigation applicable to various purposes, and to specify standard bacteriological strengths of disinfecting agents required.

3. Whenever disinfection or fumigation is mentioned in these rules it is meant, unless otherwise specified, that the disinfection shall be done with formaldehyde gas, using at least 16 ounces of a 40 per cent solution, in a generator or by oxidation, for each 1,000 cubic feet of room space (or the equivalent, if used in another form); all windows, doors, or other openings must be closed and the cracks sealed with strips of paper pasted over them and left so for at least six hours after fumigation.

4. Special disinfection.

(a) Where it is known to either the school or health officials that a person has attended school while suffering with the following diseases—

(1) Any of the quarantinable diseases.

(2) Smallpox, infantile paralysis, epidemic cerebrospinal meningitis or measles. the local health officer shall cause such schoolrooms to be thoroughly disinfected before being used again for school purposes. The same shall apply to private, parochial, and Sunday schools.

(b) Whenever a railroad coach or vessel has been removed from service because of being infected with a contagious or infectious disease, it shall not be allowed to return into public service until it has been thoroughly disinfected under supervision of the proper health officer.

(c) Whenever any premises used for dairy or food purposes have been infected with any contagious or infectious disease, and the sale of food and dairy products has been discontinued by the health officer, such premises shall be thoroughly disinfected before again being used for business purposes.

#### Health Officers of Cities—Duties of (Regulations State Board of Health Adopted July 15, 1912).

SEC. IV. *Cities other than the first class.*—1. All city health officers, except those in cities of the first class, are under statutory law (sec. 3, ch. 85, Laws 1907—"All city health officers, except those of cities of the first class \* \* \* shall make weekly reports to the county health officer of all contagious or infectious diseases occurring

within the city"), subordinate to the county health officer in all matters pertaining to contagious or infectious diseases; therefore, all city health officers, except those of cities of the first class, shall report their contagious diseases to the county health officer in the form and manner designated.

2. In accordance with section 3, chapter 85, Laws 1907, which states: "All city health officers, except those of cities of the first class, shall report immediately to the State Board of Health every new outbreak of any contagious or infectious disease \* \* \* occurring in the city," and for the purpose of better preventing the spread of contagious or infectious diseases into adjacent counties, all city health officers, except those of cities of the first class, shall report immediately in duplicate to their county health officers and to the State commissioner of health whenever cases of any contagious disease not previously present in that city occur in two or more families.

3. In accordance with section 3, chapter 85, Laws of 1907, after the first report to both the State commissioner of health and county health officer concerning a new outbreak of any contagious or infectious disease, all city health officers, except those of cities of the first class, shall thereafter report weekly all contagious and infectious diseases to the county health officer.

4. If no contagious or infectious diseases are present within their jurisdiction, all city health officers, except those of cities of the first class, shall make such report to the county health officer not less than once each month, on blanks furnished for that purpose by the State board of health.

5. Upon receipt of a report of any contagious or infectious disease from a physician or householder, or after discovering the existence of such disease by personal investigation, each local health officer shall make a permanent record of all such cases of contagious or infectious diseases, and not later than the fifth day of the month following all city health officers, except those of cities of the first class, shall forward to the county health officer the original or duplicate reports of all such cases reported to them for the previous month, together with a summary of the total number of contagious and infectious diseases on a special report blank furnished for that purpose by the State board of health.

6. The city health officers, except those of cities of the first class, when forwarding to the county health officer the individual case reports of all contagious and infectious diseases reported to them for the previous month, shall add to the data required to be furnished by the attending physician, as specified in section I "Contagious and infectious diseases," the following data:

- (1) Date of quarantine or placarding.
- (2) Date of release, if any.
- (3) Number of persons exposed: (a) immediately, (b) remotely.
- (4) Place of business or school attended.

*Sec. V. Counties and cities of the first class.* 1. Health officers of cities of the first class shall make the same reports and shall be governed by the same rules as county health officers, unless otherwise specified, and they shall communicate with the State commissioner of health direct concerning all sanitary matters in their jurisdiction.

2. According to an act of the legislature approved March 12, 1903, as subsequently amended by an act approved March 7, 1907, the county boards of health and county health officers, as executive officers of such boards, are given sanitary supervision over all portions of their respective counties, except cities of the first class; therefore, county health officers must require health officers of all cities other than those of the first class to report all contagious and infectious diseases to them, according to the procedure laid down in other sections of these rules; they shall supervise the measures taken to suppress and control all such diseases; they shall see that all the rules of the State board of health are strictly and impartially enforced, and they shall report to the State board of health on any other sanitary conditions as the State board of health may from time to time require.

3. County health officers must promptly notify both the secretaries of the county boards of health (county auditor) and the State commissioner of health of any changes that may occur in the personnel of their deputies, subregistrars, or employees.

4. Monthly reports of all contagious and infectious diseases must be made by the county health officer to the State commissioner of health not later than the 10th day of each month following. If no infectious or contagious diseases have occurred within the jurisdiction of the county health officer, he must make such report to the State commissioner of health.

5. The county health officer shall make his report to the State board of health on blanks furnished for that purpose by the State commissioner of health.

6. The State commissioner of health may from time to time as need arises require that all county health officers forward with their monthly report either the original reports or duplicate copies of the reports of the individual cases of any specified diseases reported to them by physicians or city health officers.

7. Upon learning of the existence of any cases of Asiatic cholera, leprosy, plague, typhus fever, or yellow fever, all county health officers shall investigate and immediately report to the State commissioner of health the existence of such disease.

8. Immediately upon learning of the existence of anterior poliomyelitis (infantile paralysis), chicken pox in adults, diphtheria, epidemic cerebrospinal meningitis, scarlet fever, smallpox, typhoid fever or para typhoid fever within their jurisdiction, when any such cases have been absent from the county for a period exceeding one month previous to such report, all county health officers shall carefully investigate such cases and after such investigation shall send a report to the State commissioner of health, stating fully the probable source of infection, the probable number of persons exposed from this or previously unknown or unreported cases, the probable danger of immediate further spread of the disease, and what measures have been taken for its control and suppression, and thereafter they shall make reports on the progress of such outbreaks at such intervals as directed by the State commissioner of health.

9. According to the statute entitled "County boards of health," all county health officers are given supervisory powers over all health officers within their jurisdiction, except those of cities of the first class. Therefore, in case of dispute or difference of opinion arising between a physician and a city health officer, or between a health officer of a city other than the first class and the county health officer, as to whether or not any person is afflicted or sick with a disease requiring quarantine or isolation, the diagnosis of the city health officer, or, if the case is appealed to the county health officer, the diagnosis of the county health officer in turn, shall prevail regarding such case until a decision is demanded from the State board of health, and the State commissioner of health investigates the circumstances of the case, when, in accordance with section 5, chapter 85, laws of 1907, his decision shall be final.

## ARIZONA.

### **Appropriation—Salaries and Expenses, State Board of Health, for the Year Ending June 30, 1913 (an act approved June 19, 1912).**

SECTION 1. There is hereby appropriated out of the general fund the sum of \$1,000 to pay the salary of the secretary<sup>1</sup> of the State board of health for the fiscal year commencing July 1, 1912, and ending June 30, 1913.

SEC. 2. There is hereby appropriated out of the general fund the sum of \$1,000 to pay the salary of the registrar<sup>1</sup> of vital statistics for the fiscal year commencing July 1, 1912, and ending June 30, 1913.

SEC. 3. There is hereby appropriated out of the general fund the sum of \$2,500, or so much thereof as is necessary, for the purchase of official books, records, files, office sup-

<sup>1</sup> The secretary of the State board of health is also the registrar of vital statistics.



plies, and necessary office expenses of the State board of health for the fiscal year commencing July 1, 1912, and ending June 30, 1913.

SEC. 4. The State auditor is hereby authorized and directed to draw his warrants in payment of salary and expense account as herein provided upon the general fund, and the State treasurer is hereby authorized and directed to pay the same.

SEC. 5. Whereas the provisions of this act are necessary for the support and maintenance of a department of state, to wit, the State board of health, an emergency is hereby declared and this act shall be in force and effect from and after its passage and approval by the governor, and is hereby exempt from the operation of the referendum provision of the State constitution.

# **MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.**

## **ALEXANDRIA, VA.**

### **Board of Health—Appointment and Duties of (Ordinance Adopted July 23, 1912).**

SEC. 17. Board of health, with rules for its government, in reference to contagious diseases.

(1) There shall be created and established for the city of Alexandria, a board of health, which shall consist of five members of the city council, one from each ward, and one member at large, two to be appointed from the board of aldermen and three from the common council, by the presiding officer of the respective branches of the city council. The said board of health shall be appointed within 30 days from the passage of this ordinance. The health officer shall be ex-officio member of the board of health but shall not be entitled to vote upon any question before the board. Said board of health shall be invested with all the powers and privileges incident to the creation and objects of such boards as prescribed by law, and subject to such duties as are now or may hereafter be imposed by the laws of the State of Virginia, and the ordinances of the city council.

(2) The board of health herein provided for shall give careful attention as may be necessary looking to the health of the city and its suburbs, especially to the sanitary condition and arrangements of the city, reporting everything which in the opinion of the said board tends to the injury or detriment of the health and comfort of the people of the city, with such recommendations as they deem best for the protection or promotion of the health and general good and welfare of the people from a sanitary standpoint. Said board shall meet as often as its members may deem necessary, or at the call of the chairman, and do such matters and things within their power as may tend to the good of the city and its people. Said board shall make its rules and regulations with reference to its duties and the matters committed to it, which shall be reported to the council, and be approved of whenever proper and conformable to law. Neither said board nor health officer, nor the deputy health officer, however, shall have authority to incur debts or spend money on behalf of the city, except such as shall have been previously appropriated by the city council for such purposes.

## **BAYONNE, N. J.**

### **Sewage—Disposal of. (Regulations Board of Health, Adopted June 20, 1912.)**

SECTION 21. No person shall suffer any slops, dirty water, or other liquid or offensive substance, or otherwise nauseous or unwholesome, to flow from his or her house or premises or throw or deposit the same, or any garbage or other offensive refuse, into or upon any street, gutter, sidewalk, alley, or public ground in said city, nor shall any person place, throw, or leave any nauseous, offensive, or unwholesome matter or substance in or upon any lot or lands in said city.

All waste water shall be conveyed through sufficient drains, underground, to a common sewer, or to such reservoir, sunk underground, as may be approved by this board. And no person shall suffer any waste or stagnant water to remain in any cellar, vault, or upon any lot or vacant ground by him owned or occupied.

SEC. 22. No person, company, or corporation shall throw or deposit, or allow to run, or having the right or power to prevent the same, shall permit to be thrown or deposited

into any waters surrounding this city, or into any sewer therewith connected, or into any street or public place, any gas tar, chemicals, acids, oils, or any refuse matter of or from any works, manufactory, mains, or pipes; or permit the escape of any offensive smoke, soot, odors, fumes, acids, or gases from their works, mains, or pipes; or permit to escape from any of their works, mains, or pipes, any smoke, soot, odors, fumes, acids, or gases dangerous or prejudicial to life or health; or fail to use the most approved of all reasonable means of preventing the escape of such smoke, soot, odors, fumes, acids, or gases.

SEC. 23. No person shall boil any offal, swill, bone, or fats saved in ordinary cooking, nor shall the business of bone crushing, bone boiling, bone grinding, bone burning, shell burning, fat burning, gut cleaning, nor the skinning or making of glue, from any dead animals or parts thereof, nor any other occupation which is dangerous or detrimental to life or health be hereafter established within said city; and no business or pursuit of the kind in this section named shall be carried on anywhere in said city, unless the same be allowed by a permit from this board, which permit shall cost the sum of \$10.

SEC. 24. No person or persons, company or incorporation shall boil, keep, store, or manufacture any offal, swill, blood, bones, fat, tallow, or lard, or any decaying animal or vegetable matter; nor shall the business of lime making, the heating, drying, storing, shipping, or transporting any blood, scrap, fat, grease, or offensive animal or vegetable matter, or manufacturing materials for manure, or any establishment or place of business for tanning, skinning, or scouring, or for dressing hides or leather, or for carrying on any offensive or noisome trade or business, be allowed or conducted in this city, without a special permit from this board to be applied for in writing, specifying the nature and precise location of the proposed business; and every such establishment shall be kept cleanly and wholesome, and be so conducted in every particular as not to be offensive or prejudicial to life or health. Said permit shall cost the sum of \$10 annually.

SEC. 25. All persons engaged in the business of rendering fat, lard, petroleum, or animal matter shall cause the scrap or residuum to be dried or otherwise prepared as effectually to deprive such material of all offensive odors, and to preserve the same entirely inoffensive, immediately after the removal thereof from the receptacles in which the rendering process may be conducted.

SEC. 26. No person, corporation, or company shall hereafter erect, start, establish, or maintain in this city, without a permit from this board, any manufactory or place of business for boiling any varnish or oil, or for the distilling of any ardent or alcoholic spirits, or for making any lampblack, turpentine, or tar, or for conducting any other business that will or does generate any unwholesome, offensive, or deleterious gas, soot, smoke, deposit, or exhalation, or any business that is or would be dangerous to life or detrimental to health. Said permit shall cost the sum of \$10 annually.

SEC. 27. No animal or vegetable substance, nor street sweeping, manure, muck or bilt, no dirt gathered in cleaning yards, building docks or slips, or waste of mills or factories, nor any materials which are offensive or tend to decay, or to become putrid, or to render the atmosphere impure or unwholesome, shall be deposited or used to fill up or raise the surface or level of any lot, grounds, docks, wharf, or pier in this city, unless pursuant to a special permit from and under the direction of this board.

SEC. 28. All carts and vehicles for carrying any garbage, nauseous or offensive substances, boxes, tubs, and receptacles in which any nauseous or offensive substance may be, or may be carried, shall be strong and tight, and the sides shall be so high above the load or contents that no part of such contents or load shall fall, leak, or spill therefrom; and either the said vehicle or vessel carried by it shall be so covered as to be inoffensive.

SEC. 29. No driver of such cart or vehicle nor any person having undertaken or being engaged about the unloading thereof, nor person engaged about cleaning or emptying, or having undertaken to empty or remove any manure, garbage, offal, or

the contents of any vault, sink, privy, cesspool, or any noxious or offensive substance, shall do or permit to be done about the same, or in connection therewith, that which shall be needlessly offensive or filthy in respect to any person, street, place, building, or premises.

SEC. 30. No person or persons, or corporation, its agents or servants, shall raise the surface of any ground, street, or lot, or depress or excavate the same in such manner as to permanently cause or permit noisome odors or noxious gases to rise.

SEC. 31. No person or persons shall engage in the business of transporting night soil, stable manure of any kind, swill, offal, hog hair, or any offensive or noxious substance, or in driving any cart or vehicle for such purpose, in said city, until he shall have first received a permit from this board, of such form and effect as the regulations of the board shall provide, authorizing such person so to engage.

SEC. 32. It shall be the duty of all owners, lessees, tenants, or occupants of any and all buildings in said city to keep the gutter and sidewalk in front of such buildings free from any offensive substance, liquid or solid, or any dirt, rubbish, water, or stones, or any other things dangerous to health, life, or limb.

SEC. 33. When any lot or lots, or any part or parts of any lot or lots, or any land or parts of any land, public or private, in any portion of this city, shall, from any artificial, natural or other cause whatsoever, become in whole or in part the repository of stagnant water or any decaying or offensive substance, liquid or solid, it shall be the duty of the owner or owners, lessee, tenant or occupant, or the agent of any such owner or owners, or of any other person having charge and control of such lot or lots, or part or parts of such lot or lots, or other premises, after due notice in writing from this board of the condition of such lot or lots, and asking the remedying of the same, to cause such lot or other premises herein mentioned to be filled with clay or other inoffensive and efficient substance, so as to prevent water or liquid substance from gathering or remaining on such ground or any part of the same, and to cause the proper drainage of the same, if it be found necessary to the keeping of the said ground in a dry and healthy state, and the preventing of any adjoining ground becoming flooded by reason of such filling.

SEC. 34. When any land or any buildings thereon erected shall, by reason of excavation, stoppage of natural or artificial drainage or sewerage, become covered or saturated with foul or stagnant water, or shall otherwise be dangerous to life or health, and the said premises shall, on inspection, be adjudged a nuisance by this board, it shall be lawful for this board, after due notice to the owner or person in charge of said premises, and upon his neglect or refusal to abate such nuisance, to fill in, drain, or otherwise render inoffensive the said premises; and the contractor or other person filling in or otherwise making the said premises inoffensive, shall file an account of the expense therefor in the office of this board, which said account shall be recorded in a properly indexed book by the clerk of this board, together with the resolution of this board adjudicating the same to be a nuisance, a description of said premises and the names of its owner or owners (which names shall be properly indexed in said book), together with a report of the health officer or agent, that the nuisance aforesaid has been properly abated; and the expense thereof may be recovered by action at law, as this board may direct.

SEC. 35. It shall be the duty of every owner, lessee, or tenant of any vacant, sunken, or excavated lot in said city to keep the same at all times clean and inoffensive, and when required by this board, to provide around the same a proper fence, so as to effectually prevent the throwing or depositing therein or thereupon any garbage or offensive thing whatsoever, and also to prevent persons passing from falling into such excavation.

SEC. 36. No offal, blood, scrap, guts, fat, or refuse of slaughterhouses shall be transported through, brought in, or allowed to be brought into said city without a permit in writing from this board, which permit shall cost the sum of \$5 annually.

SEC. 37. No person or persons shall gather, collect, accumulate, store, expose, carry, or transport in any manner through the streets and public places of this city, or in or to any tenement house, cellar, or house, or in any lot or yard in said city any bones, refuse, or offensive material without a special permit in writing from this board, in accordance with the conditions and subject to the limitations thereof, and in such manner as not to cause offensive odors or any nuisance whatsoever.

SEC. 38. No lager beer, ale, porter, or other brewery, nor any slaughterhouse, nor any manufactory or other establishment having quantities of liquid and waste substances or slops to be disposed of, shall draw off, cast off, or allow to run from said brewery, slaughterhouse, manufactory, or other establishment in the city of Bayonne any liquid substance or any other matter into any sewer, drainpipe, or cesspool or other conductor, unless the same shall be so constructed and made as to be watertight and will convey said liquid substance or other matter without leakage or escape therefrom; nor unless the said sewer, drainpipe, cesspool, or other conductor be securely and properly connected with some capable and efficient sewer draining its contents into the water surrounding this city, so as to prevent said liquid substances or other matter from flowing in and becoming exposed on any vacant lot or lots, or ground, or other place, public or private, in said city.

SEC. 39. No works for the manufactory of the substance known as poudrette or for the conversion of night soil into any form of fertilizer or guano shall be allowed to be operated or maintained by any owner, agent, employee, or other person in the city of Bayonne except by the permit of this board and during the time for which such permit may have been given and remain unrescinded.

SEC. 40. The owners, lessees, tenants, and managers of every blacksmith or other shop, forge, coal yard, foundry, manufactory, and premises where any business is done or in or upon which an engine or boilers are used shall cause all ashes, cinders, rubbish, dirt, and refuse to be removed to some proper place, so that the same shall not accumulate on any of the above-mentioned premises or in the appurtenances thereof, nor the same become filthy or offensive. Nor shall any smoke, soot, cinders, dust, gas, steam, or offensive odor be allowed to escape from any building, place, or premises to the detriment or annoyance of any person not being therein or thereupon engaged, and every furnace employed in the working of engines by steam, gas, or oil or in any mill, factory, printing house, dye factory, iron foundry, glass house, distillery, brew house, sugar refinery, bake house, gas works, or in any other buildings used for the purpose of trade or manufacture shall be so constructed as not to cause smoke, soot, odors, fumes, or gases, to the detriment of human life or health; and where such smoke, soot, or cinders escape from said building, shop, or manufactory, to the annoyance and detriment of the neighbors, this board shall have the power to close the same at once and until the nuisance is abated.

#### **BELLEVUE, OHIO.**

##### **Health Officer—Duties of (Regulation Board of Health adopted March 21, 1912).**

SECTION 1. The health officer shall be executive officer of the health department and as such shall enforce all the rules and regulations of the board of health, statutes, and all ordinances relating to the public health. He shall also carry out the requests of the State board of health. As executive officer he shall maintain proper discipline among subordinate officers and employees in the department, and such discipline shall relate both to decorum and performance of duty. He shall direct the work in each branch of the department consistent with the rules of the board to the end of securing the best public service. To direct this work, ample time shall be devoted to visiting dairies, dairymen, and milk venders, in going over the districts covered by the sanitary police, in visiting markets, stock yards, stores and slaughter houses, restaurants, bakeries, etc., to keep in touch with the sanitary conditions and with the duties performed by various officials.

He shall make special investigations as to general sanitary conditions of the city. He shall report to the board twice yearly upon investigation, as to the housing of the poor, offensive trades, pollution of lakes, streams and the public water supply, refuse disposal, places of public gathering, and like matters of public health interest. He shall bring suit under direction of the city solicitor for violation of any provision of the sanitary code.

Sec. 2. The health officer shall make monthly reports to the board of all work done, including reports on vital statistics and diseases.

Sec. 3. The health officer shall give a bond in the sum of \$200 to the city for the faithful discharge of his duties.

## DES MOINES, IOWA.

### Scavengers—Licensing and Regulation of (Ordinance adopted Nov. 13, 1812).

SECTION 1. No person shall remove the contents of any cesspool or privy vault without he be in possession of a scavenger license. Such license shall be for one year, and shall only be issued upon written application to the health department, and after the department is satisfied that the applicant is trustworthy, capable, and in possession of the proper facilities for his business. Every person securing a license shall file with the city treasurer a bond with a responsible surety; said bond shall be in the penal sum of \$1,000, but in no case shall a license be issued or bond accepted unless the written application for same has been approved by the health officer and the secretary of the health department.

A license fee of \$25 shall be charged for each license issued under the provisions of this ordinance and said license shall expire the last day of March next, after date of issue. Licenses shall not be transferable and all receipts for work done shall be signed in the name of the party holding the license.

Sec. 2. The cleaning, emptying, and removing of the contents of privy vaults or cesspools shall be done in an inoffensive manner, and any scavenger having begun any such work shall, without interruption or delay, finish the same, and shall in every instance leave the privy building in as good condition upon the vault as when the work was undertaken.

After the removal of contents of any privy vault or cesspool, the excavation shall be thoroughly disinfected with air-slacked lime, and a smudge fire of tar paper shall be kept continuously burning during the time the contents are being removed.

The cleaning, emptying, and removing of the contents of privy vaults and cesspools shall be done between the hours of 6 a. m. and 7 p. m. All work done upon privy vaults or cesspools after the hours mentioned shall only be done by and with the consent of the health department. Every scavenger desiring to do work after the hours as defined in these rules shall make written request to the health department at least 24 hours in advance of the date said work is to be performed. Said request shall state the location of property, name of owner, and the hour the work is to be commenced.

Scavengers shall remove all of the contents of privy vaults or cesspools and shall report to the health department all cases where owners, agents, or any person in charge of property refuse to permit them to thoroughly empty the contents.

Sec. 3. Water-tight barrels shall be used, which shall be kept externally clean. Every precaution shall be observed to avoid noxious odors, either at the premises where vault or cesspool is located or in transit through the public highway. All barrels in use shall be of a capacity of not less than 3½ cubic feet, and 10 barrels shall constitute a load.

Sec. 4. No scavenger shall charge more than 50 cents per barrel for the removal of the contents of any privy vault or cesspool, except where the amount is less than one

load, when a minimum charge of \$3 may be made. An additional charge of \$1 per load may be made when the premises are located outside the following territory:

East Des Moines—North of Guthrie Avenue, extended east and west.

West Des Moines—West of Twenty-fourth Street or north of Franklin Street.

South Des Moines—South of Hillside Avenue, extended east and west, or west of Southwest Ninth Street.

North Des Moines—North of Des Moines River on a line with Guthrie Avenue, extended east and west.

SEC. 5. Each vehicle used in the conveyance of night soil or the contents of cesspools shall have signs displayed on each side of the wagon box. Signs to be constructed of metal or any other impervious material, and the lettering on same shall be not less than 4 inches in height and shall bear the name of the scavenger and the word "scavenger."

SEC. 6. Every licensed scavenger shall file on Monday of each week with the secretary of the health department, upon blanks furnished for that purpose, a sworn statement giving a list of all privy vaults or cesspools cleaned by him during the previous week, the name of the person in charge of the premises, the street and number, the date when work was completed, and the amount removed from each privy vault or cesspool, and in all cases these reports shall bear the signature of the person or officer in charge of the premises where the contents of privy vaults or cesspools are deposited.

SEC. 7. The secretary of the health department shall post a bulletin each day for the convenience of scavengers. Said bulletin shall give the name of the person in charge of property and the location of the premises where notice has been served the previous day for the removal of the contents of any privy vault or cesspool.

SEC. 8. No night soil or contents of any cesspool shall be deposited within the corporate limits of the city of Des Moines except at such places as may be designated and in such manner as may be approved by the health department.

All premises used for dumping purposes by scavengers shall be kept in a sanitary and slightly condition.

SEC. 9. It shall be unlawful for any person, firm or corporation to remove the contents of any cesspool or privy vault, without first obtaining from the health department a written permit to remove such contents. Said permit shall describe the premises, as to location, the party authorized to remove the contents thereof, and the time and date of issuance.

SEC. 10. The contents of more than one privy vault or cesspool shall not be placed upon one wagon.

SEC. 11. Every scavenger shall keep a record of all work contracted for, and of all work completed, showing the name of the person in charge of the premises, the street and number, and the amount removed from each privy, and shall file with the secretary of the health department a sworn statement each week a copy of all entries made, and list of all work completed. Scavengers shall also file upon blanks furnished for that purpose, the name of the owner or person in charge of property, location, and amount removed from privy vault or cesspool upon premises designated, and these reports shall be signed by the person or officer in charge of the premises used for dumping purposes.

SEC. 12. Any person, firm or corporation engaging in the scavenger business shall furnish the health department the name and address of all persons employed, and shall notify the department of all discharges from the working forces.

SEC. 13. All work contracted or undertaken by a licensed scavenger shall be completed within the limit of the notice requiring said work to be done, and in all cases where work is contracted or undertaken by scavengers, whether notified through the health department or otherwise, shall be completed within three days thereafter, unless for reasonable cause an extension of time has been granted by the health department. In no case shall two permits be issued for the same work, except where the

scavenger securing the first permit fails to complete the work within the time required by the notice from the health department. No extension of time shall be granted any person, firm, association or corporation unless good and sufficient cause can be shown the health department for the same.

SEC. 14. Any licensed scavenger failing to perform any service which he is licensed to perform upon the request of any person, firm, or corporation, upon being tendered the legal charge therefor, or who violates any rule or regulation of the health department or board of health, shall subject his license to forfeiture by the city council.

SEC. 15. Failure to comply with any of the provisions or rules of this ordinance shall be deemed sufficient cause for revocation of license and shall be punished by a fine of not less than \$10 nor more than \$100, or by imprisonment in the city jail not less than 1 day nor more than 30 days.

SEC. 16. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SEC. 17. This ordinance shall be in full force and effect from and after its passage and publication as required by law.

### LOS ANGELES, CAL.

#### **Foods and Beverages—Addition of Antiseptic, Antiferment or Preservative Compound or Chemical to (Ordinance No. 25034 Adopted May 7, 1912).**

SECTION 1. It shall be unlawful for any person to sell, offer or expose for sale, or to give away any article of food or drink for mankind, to which has been added any antiseptic, antiferment or preservative compound or chemical, other than salt, salt-peter, wood smoke, vinegar, sugar, or spice. Provided that nothing herein contained shall be construed to prohibit the use as a preservative of benzoate of soda to an amount not greater than one-tenth of 1 per cent in weight in catsup and similar sauces, crushed fruits and fruit sirups used for beverages, and unsweetened, unfermented fruit juices, when the vessel or package containing such catsup, sauces, crushed fruit sirup, or fruit juice bears a label on which is legibly and distinctly printed the words "Preserved with ——— per cent of benzoate of soda," giving the percentage of the preservative, and that nothing herein contained shall be construed to prohibit the use of boric acid or borax in cured meats or in sausage meat, in a proportion not greater than the equivalent of one-tenth of 1 per cent in weight of boric acid, when the meat containing such preservative is plainly marked or labeled in such manner as to inform the purchaser that said meat is preserved by means of boric acid or borax, as the case may be.

SEC. 2. It shall be unlawful for any person offering or exposing for sale or keeping exposed to view any article of food or drink for mankind in any store or place where merchandise is sold, to refuse to sell a sample thereof for its reasonable market price or value to the health commissioner of the city of Los Angeles or to any of his assistants, deputies, or to any employee in the health department of said city, upon demand, if such officer, deputy, or employee shall declare at the time of making such demand that he requires such sample for analysis.

SEC. 3. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding \$500 or by imprisonment in the city jail for a period not exceeding six months, or by both such fine and imprisonment.

SEC. 4. That ordinance No. 11373 (new series), approved August 14, 1905, be, and the same is hereby, repealed: *Provided*, That any such repeal shall not affect or prevent the prosecution and punishment of any person, firm, or corporation for any act done or permitted in violation of any ordinance which may be repealed by this ordinance, and shall not affect any prosecution or action which may be pending in any court for the violation of any ordinance repealed by this ordinance.