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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES ¹

September 13–October 10, 1931

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

Poliomyelitis.—For the country as a whole, the total number of cases of poliomyelitis dropped from 4,896 for the four-week period ended September 12 to 4,122 cases for the current four-week period. The incidence was, however, still considerably in excess of that for recent years, the number of cases being 1.8 times the number reported for the same period last year and more than seven times the number in 1929. For the week ended October 10, 800 cases were reported, which is the lowest number reported since the beginning of the outbreak in August.

Since the beginning of January, 13,044 cases have been reported, as compared with 5,709 cases for the corresponding period last year and 1,969 in 1929. Table 1 shows the distribution of the cases by geographic areas.

¹ From the Office of Statistical Investigations, U. S. Public Health Service. The number of States included for the various diseases are as follows: Typhoid fever, 47; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 45; diphtheria, 47; scarlet fever, 47; influenza, 39 States and New York City. The District of Columbia is counted as a State in these reports.

TABLE 1.—*Number of poliomyelitis cases reported in different geographic areas in 1931, with comparative data for 1930 and 1929*¹

Geographic division and year	Total Jan. 1- Oct. 10	Week ended—															
		October		September				August				July					
		10	3	26	19	12	5	29	22	15	8	1	25	18	11	4	
All regions:																	
1931.....	13,044	800	955	1,095	1,272	1,160	1,370	1,321	1,135	1,040	1,029	596	307	116	90	45	
1930.....	5,709	648	595	503	490	420	344	325	303	256	224	221	196	213	173	120	
1929.....	1,969	143	143	127	153	145	124	103	114	109	65	64	76	51	34	25	
New England and Middle Atlantic:																	
1931.....	9,234	468	596	676	822	798	1,031	1,028	916	890	919	525	253	82	56	16	
1930.....	1,154	129	142	136	104	84	69	118	90	61	32	30	22	17	5	8	
1929.....	694	59	56	58	74	55	47	45	51	40	19	19	20	14	5	7	
East North Central:																	
1931.....	2,223	197	227	287	301	263	228	196	135	95	48	40	28	17	5	13	
1930.....	977	149	182	103	132	96	61	32	44	28	21	9	13	10	20	9	
1929.....	324	25	22	23	31	37	17	13	15	13	11	6	3	2	5	2	
West North Central:																	
1931.....	737	81	78	76	93	63	69	53	45	31	24	13	7	3	4	3	
1930.....	1,212	224	136	143	156	128	108	67	55	52	25	26	19	18	11	2	
1929.....	112	9	9	8	9	4	5	2	5	2	3	4	4	1	2	1	
South Atlantic:																	
1931.....	299	20	33	20	22	12	15	26	18	15	12	8	6	3	10	3	
1930.....	224	11	15	9	10	19	8	6	6	11	10	7	9	8	8	7	
1929.....	454	33	33	19	25	31	38	19	19	37	20	25	30	19	12	6	
South Central:																	
1931.....	205	5	6	13	13	12	10	6	9	3	9	6	6	7	8	4	
1930.....	686	38	34	24	26	24	40	33	45	47	61	54	29	50	37	16	
1929.....	183	7	14	6	6	12	6	13	15	11	7	4	13	6	5	6	
Mountain and Pacific:																	
1931.....	346	29	15	23	21	12	17	12	12	6	17	6	7	4	7	6	
1930.....	1,456	97	86	88	62	60	58	60	62	57	75	95	104	110	92	78	
1929.....	202	5	9	13	8	6	11	11	9	6	5	6	6	9	5	3	

¹ Similar tables appeared in PUBLIC HEALTH REPORTS, Vol. 46, No. 36, pp. 2094-95, and No. 40, pp. 2258-59.

In the New England and Middle Atlantic States the number of cases decreased about one-third during the current 4-week period. An increase of 190 cases was reported from the Great Lakes States, but the peak apparently was reached during the week ended September 19 and the disease is now declining. The number of reported cases fluctuates considerably from week to week in the West North Central States, and it can not be definitely said whether the peak has been passed. For the week ended October 10, 81 cases were reported in these States, as against 78, 76, and 93, respectively, in the three preceding weeks. Slight increases during the present 4-week period were reported in the South Atlantic States and in the Mountain and Pacific group; the South Atlantic group seems to have passed the peak, but in the Mountain and Pacific group more cases were reported during the last week for which data are available than during any preceding week.

Table 2 shows by weeks the number of cases of poliomyelitis reported in each State and in New York City. In New York City the number of cases reported during the week ended October 10, the latest data available, had declined to less than one-fifth of the number reported during the peak week in August (591 cases). The disease had also declined in the remainder of New York State and in all

other States in the New England group except Maine. In Maine the number of cases (8) for the week ended October 10 was not large, but it was the same as had occurred in the preceding week, which was the highest on record this year. All of the States in the East North Central group that had shown a considerable increase reached the peak about the middle of September, and have decreased gradually. Minnesota, in the West North Central group, dropped from 76 cases during the week ended September 19 to 58 cases for the week ended October 10. In Iowa and Missouri, in the same geographic group, the numbers of cases reported for the week ended October 10 (Iowa 13, Missouri 7) are small, but they appear to be still increasing. The same might be said of Montana (7 cases), New Mexico (4 cases), and the State of Washington (10 cases).

TABLE 2.—*Number of poliomyelitis cases reported in recent weeks in each State and in New York City*¹

State	Week ended—															
	Oct. 10	Oct. 3	Sept. 26	Sept. 19	Sept. 12	Sept. 5	Aug. 29	Aug. 22	Aug. 15	Aug. 8	Aug. 1	July 25	July 18	July 11	July 4	
Northeast and Middle Atlantic:																
Maine.....	8	8	7	5	2	5	6	7	3	7	4	1	0	0	2	
New Hampshire.....	3	22	2	5	6	2	4	7	3	0	1	0	1	0	1	
Vermont.....	6	9	4	7	12	6	5	5	5	0	0	0	1	0	0	
Massachusetts.....	72	112	105	139	127	184	135	115	90	67	25	16	16	6	5	
Rhode Island.....	5	4	8	12	21	14	20	22	18	16	8	0	0	1	0	
Connecticut.....	45	64	81	101	92	162	134	115	67	97	37	11	5	7	2	
New York City.....	102	140	177	226	254	347	432	422	512	591	404	195	53	31	5	
New York State, except New York City.....	137	135	150	204	176	207	180	133	88	85	29	9	4	5	0	
New Jersey.....	50	52	93	98	94	84	103	78	97	55	16	14	1	3	0	
Pennsylvania.....	40	50	49	25	14	20	9	10	8	1	1	7	1	3	1	
East North Central:																
Ohio.....	8	11	14	5	23	6	18	2	9	5	1	1	1	0	5	
Indiana.....	5	6	3	1	4	4	3	3	3	1	0	0	0	0	0	
Illinois.....	61	51	62	51	39	42	38	36	26	15	15	12	3	2	4	
Michigan.....	74	112	138	170	114	107	76	68	33	17	13	9	7	0	2	
Wisconsin.....	49	47	70	74	83	69	61	26	24	10	11	6	6	3	2	
West North Central:																
Minnesota.....	58	56	62	76	48	50	39	31	29	13	10	3	1	1	0	
Iowa.....	13	13	9	7	5	6	8	8	1	3	1	1	0	0	0	
Missouri.....	7	5	0	1	2	3	4	3	0	7	2	0	0	0	1	
North Dakota.....	1	3	2	2	5	2	0	2	0	1	0	0	0	0	0	
South Dakota.....	0	0	1	2	1	2	0	0	1	0	0	0	1	2	0	
Nebraska.....	1	1	1	5	1	5	1	0	0	0	0	0	0	1	0	
Kansas.....	1	0	1	0	1	1	1	1	0	0	0	3	1	0	2	
South Atlantic:																
Delaware.....	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	
Maryland.....	5	6	5	4	1	5	1	2	1	1	1	0	0	0	0	
District of Columbia.....	3	4	2	0	0	0	0	2	1	1	0	0	0	0	0	
Virginia.....	1	2	0	4	2	1	2	0	0	0	0	0	0	0	0	
West Virginia.....	3	11	3	4	5	3	10	5	2	1	1	1	0	0	0	
North Carolina.....	7	4	5	7	3	5	4	8	10	5	1	2	1	4	2	
South Carolina.....	0	2	0	0	0	1	2	1	0	0	3	2	2	4	0	
Georgia.....	0	0	4	8	1	0	7	0	1	3	1	0	0	1	1	
Florida.....	0	3	1	0	0	0	0	0	0	0	1	0	0	1	0	
East and West South Central:																
Kentucky.....	1	1	2	0	1	1	1	4	0	2	0	0	0	0	0	
Tennessee.....	3	2	7	6	5	0	1	1	0	2	1	1	1	0	0	
Alabama.....	0	0	1	1	4	4	0	4	0	0	0	1	1	4	0	
Mississippi.....	0	0	2	2	1	1	2	0	1	0	1	0	2	4	0	
Arkansas.....	0	1	1	0	0	1	1	0	0	0	0	0	0	0	1	
Louisiana.....	1	0	0	3	0	2	0	0	0	0	1	1	0	0	1	
Oklahoma.....	0	1	0	1	0	0	0	0	1	1	1	2	1	0	0	
Texas.....	0	1	0	0	1	1	1	0	1	4	2	1	2	0	2	

¹ Similar tables appeared in PUBLIC HEALTH REPORTS, vol. 46, No. 36, pp. 2004-95, and No. 40, pp. 2358-59.

TABLE 2.—Number of poliomyelitis cases reported in recent weeks in each State and in New York City—Continued

State	Week ended—											
	Oct. 10	Oct. 3	Sept. 26	Sept. 19	Sept. 12	Sept. 5	Aug. 29	Aug. 22	Aug. 15	Aug. 8	Aug. 1	July 25
Mountain and Pacific:												
Montana.....	7	4	5	6	3	2	3	3	1	2	1	1
Idaho.....	0	0	0	0	0	0	0	1	0	0	0	0
Wyoming.....	0	1	0	0	0	1	1	0	0	0	0	0
Colorado.....	1	0	0	0	0	0	0	1	0	0	1	0
New Mexico.....	4	1	2	0	1	0	1	1	1	1	1	0
Arizona.....	1	0	0	0	0	1	0	0	0	1	0	0
Utah.....	0	0	1	0	0	0	0	0	0	0	0	0
Washington.....	10	5	4	5	1	4	0	3	3	4	0	2
Oregon.....	0	0	1	2	0	1	1	0	0	0	0	0
California.....	6	4	10	8	7	8	6	3	2	9	3	4

Diphtheria.—The number of cases of diphtheria (6,267) reported for the current 4-week period was twice the number reported for the preceding 4-week period. The number was also 58 per cent higher than was recorded for the corresponding period in 1930 and 8 per cent in excess of the number in 1929. All areas shared in the increase except the North Atlantic and the Great Lakes regions, where the disease was slightly less prevalent than in the two preceding years. In the South Central groups of States the number of cases reported was four times the number reported for the same period in 1930 and more than twice the number in 1929. In other regions the increases ranged from 36 per cent to 64 per cent.

Scarlet fever.—The reported cases of scarlet fever were 6,428, an increase of approximately 2,500 over the preceding 4-week period. All regions contributed to the increase. Compared with previous years, the incidence was 23 per cent in excess of the corresponding period in 1930 and about 5 per cent above that in 1929. In only one region, the South Atlantic, was the disease less prevalent than it was during the same period last year. The increases ranged from 1 per cent in the East North Central States to 80 per cent in the South Central groups.

Influenza.—The number of cases of influenza (1,365) reported for the current period represents an increase of about 65 per cent over the preceding 4-week period. In relation to the preceding years the current incidence was about 29 per cent in excess of the incidence for the corresponding period last year, but was 14 per cent below the figure for 1929. While the number of cases (556) reported from the East North Central States was not high, it was more than four times the number recorded for the same period last year and two and one-half times the number in 1929.

Measles.—The incidence of this disease continued at about the same level it had maintained during the preceding 4-week period.

The number of cases reported during the current period (2,050) compared very favorably with the number reported for the corresponding periods in 1930 and 1929, being only about 5 per cent higher than the 1930 figure and 12 per cent below the incidence in 1929. Practically all sections shared in this favorable situation.

Typhoid fever.—The total reported incidence of typhoid fever (4,167 cases) was 10 per cent in excess of last year's figure for the corresponding period and was 35 per cent above the incidence in 1929. The South Central groups of States seemed to be mostly responsible for the increase, showing approximately 45 per cent increase during the current period over the corresponding period in each of the two preceding years. Most other groups closely approximated last year's figure, and all others, except the Mountain and Pacific group, contributed to the increase over 1929.

Smallpox.—For smallpox the comparison with preceding years continued very satisfactory. For the current 4-week period the number of cases reported was 355, as compared with 576 for the corresponding period in 1930 and 856 cases in 1929. All regions participated in the favorable situation except the South Central group of States, where a slight increase (7 per cent) was reported.

Meningococcus meningitis.—For the combined geographic areas, meningococcus meningitis continued at a very satisfactory level. The total number of cases reported during the current 4-week period was 344, representing about 87 per cent of the incidence for the corresponding period in 1930 and approximately 62 per cent of the incidence in 1929. Practically all geographic areas participated in the decrease.

Mortality, all causes.—Deaths from all causes in large cities as reported by the Bureau of the Census for the current 4-week period averaged 10.2 per thousand population (annual basis). This rate was slightly higher than for the preceding period, but was the lowest recorded for the corresponding period in six years.

THE HEALTH OF THE SCHOOL CHILD

A Study of Sickness, Physical Defects, and Mortality

Data collected by the Public Health Service during the past decade on sickness among school children in several localities and on physical defects found on examination of some 30,000 children by medical officers of the Public Health Service have recently been published.¹ Mortality figures for children of school ages in the registration area of the United States are also included. Original data on these subjects are tabulated to show variation with age, sex, and other factors. A few of the results are summarized here.

¹ Public Health Bulletin No. 200.

SICKNESS CAUSING ABSENCE FROM SCHOOL

Absenteeism among about 4,000 school children in Hagerstown amounted to 13 days per child per school year. Fifty-seven per cent of the days lost were due to sickness and the other 43 per cent to causes other than sickness.

Time lost from school on account of sickness was greater for younger than for older children. Time lost on account of causes other than sickness was somewhat less for younger than for older children.

The six disorders that were most important in terms of cases of illness were, in order of importance, colds, headache, digestive disorders, tonsillitis and sore throat, toothache, and influenza and grippe. The six causes of sickness that were most important in terms of days lost per child per year were colds, influenza and grippe, tonsillitis and sore throat, measles, mumps, and digestive disorders.

The case rate of illness was 8 per cent higher for girls than for boys. Of 32 causes of illness common to both sexes, the case rates for 17 of the causes were higher for girls and for 15 were higher for boys.

PHYSICAL DEFECTS AND DISEASES FOUND ON PHYSICAL EXAMINATION

The six conditions most frequently noted in physical examinations were decayed teeth, defective vision, defective tonsils, enlarged anterior cervical glands, excessive wax in ears, and enlarged thyroid gland.

The proportion of individuals with one or more physical defects was 3 per cent less for girls than for boys. Of 34 types of physical defects noted in these examinations, the rates for 14 were higher for girls and for 20 were higher for boys.

In examinations made by dentists, 40 per cent of the children were noted as having five or more decayed teeth, and 25 per cent one or more teeth that were so badly decayed as to be classed as remaining roots.

MORTALITY OF CHILDREN OF THE SCHOOL AGES

The age curve of mortality has a minimum at 10 to 14 years of age. The mortality in the group from 5 to 19 years of age is only a fraction of what it is under 5 years or among older people.

The six most important causes of death among children 5 to 19 years of age are accidents, tuberculosis, heart diseases, pneumonia, diphtheria, and appendicitis. Accidents are easily the leading cause of death, and automobile accidents constitute about one-third of the total accidental deaths. Of diseases causing deaths, respiratory tuberculosis is the most important for these ages.

The mortality of the group 5 to 19 years of age is 15 per cent less for girls than for boys. Of the 28 most important causes of death at these ages, girls have a higher rate for 10 causes and boys for 18 causes.

In the 27 years from 1900 to 1927 the death rate from all causes among children 5 to 19 years of age in the original registration States decreased 44 per cent.

Respiratory tuberculosis shows a more or less steady decline throughout the period. Nonrespiratory tuberculosis increased up to about 1910, but since that year has decreased a little more rapidly than respiratory tuberculosis.

With the exception of the high rates in 1918, 1919, and 1920, pneumonia has decreased somewhat; but when influenza is added to pneumonia, there is little or no decline.

Mortality from diseases of the heart has increased only slightly for persons 5 to 19 years of age. Nephritis of both the acute and chronic types has steadily decreased in this age group since 1900, the trend being in marked contrast to what has occurred among persons of all ages. Diabetes increased slightly from 1900 to about 1922, but from 1923 to 1927 the rate has been little more than half of what it was prior to that time. Among persons of all ages there is no such drop in the rate as in these persons 5 to 19 years of age.

Appendicitis has increased gradually. Typhoid fever and diarrhea and enteritis have decreased very much since 1900, the relative decrease in typhoid fever being greater for these ages than the decrease in diarrhea and enteritis.

Diphtheria decreased considerably up to about 1912, fluctuated around the same level for the next eight or nine years, and has decreased markedly since 1921. Scarlet fever has decreased considerably since 1900, and measles and whooping cough show some tendency to decrease. The recorded mortality from meningitis has decreased markedly since about 1905. The mortality from poliomyelitis has increased since the 1916 epidemic.

The death rate from accidents of all types among children 5 to 19 years of age has increased slightly since 1900. Deaths from automobile accidents have increased markedly since 1906, when they were first tabulated as a separate cause, but the relative increase in the rate has not been as great in the past few years as it was prior to 1920. Accidental deaths other than automobile fatalities in the age group under consideration have decreased slightly since 1900.

DENTAL DECAY AND CORRECTIONS AMONG SCHOOL CHILDREN OF DIFFERENT AGES ¹

Based on 12,435 Oral Examinations by Dental Personnel in Georgia, Illinois, Missouri, and Hagerstown, Md.

(STUDIES IN DENTAL CARIES NO. 1)

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The teeth of a great many school children have been examined by medical officers of the United States Public Health Service in connection with the general physical examination. Although the examination of the mouth and teeth was a part of every general physical examination, it is obvious that the thoroughness and completeness of the examination would not be comparable to examinations made by dentists with special instruments, such as a mirror and an explorer, to aid in the detection of the cavities. Moreover, the general physical examinations that have been made have not provided for recording the specific tooth that is carious, and the susceptibility to decay varies a great deal between the temporary and permanent teeth and even among different teeth of each set.

Data published by the Metropolitan Life Insurance Co. indicate the condition of specific teeth in the mouths of adults, but we have been unable to locate any such detailed data on the conditions of the teeth of children. Even the simple problem of finding the real prevalence of carious teeth among children is rather complicated (*a*) because of the presence of both temporary and permanent teeth with markedly different tendencies to decay, and (*b*) because of the fact that a few years difference in the age of a child makes considerable difference not only in the extent to which the teeth decay, but even in the number of teeth that are found in the mouth.

With the idea of determining the real prevalence of decayed teeth among children, the United States Public Health Service provided for the examination of the mouths of a large number of school children in various localities in the United States, the examinations to be made by personnel trained in dentistry and with the aid of the necessary instruments to examine the teeth thoroughly and locate all caries. Because of the fact that many of the decayed places were

From the data collected in this detailed manner it is planned to publish a series of articles on the real prevalence of dental decay. The present paper considers separately decay in the temporary teeth, decay in the permanent teeth, and a summary of the total number of decayed teeth, both temporary and permanent. Subsequent papers will consider sex differences in regard to dental caries and the susceptibility to decay of each individual tooth.

During the three school years from the fall of 1922 to the summer of 1925, a dental unit, composed of a dentist and one of the authors, who is a dental hygienist, was sent into the field by the United States Public Health Service, and this dental unit examined over 12,000 white school children from 5 to 19 years of age. During the first school year, 2,749 such examinations were made in Missouri and Illinois; during the next year, 5,274 children were examined in Georgia; and during the school year 1924-25, 4,412 were examined in Hagerstown, Md.

Communities of different sizes were chosen for the survey. Columbus, Ga., Springfield, Mo., and Hagerstown, Md., were the only cities of more than 25,000 inhabitants in which many examinations were made.

The dental hygienist (V. T. M.), who was with the unit throughout the period, made most of the examinations. Associated with her in the dental unit were at first, a dentist, Dr. H. B. Butler, who made some of the earlier examinations, and later Miss Mary A. Knight, a dental hygienist, who examined some of the children in Georgia.

Before making examinations independently, these investigators built up a standardized technique by examining the same children and comparing the results of their examinations. It was thought that after such a period of work together, the later examinations made by the three investigators separately would be comparable. All the examinations in Hagerstown and most of those in the other localities considered in this study were made by one of us (V. T. M.). In Hagerstown, reexaminations were made in later years, but the present study includes only the original examinations.

Some explanation of the manner in which the various conditions have been classified is necessary to an understanding of the data. The term "Remaining roots" as tabulated signifies teeth having crowns which are entirely carious, those having the pulp involved, and those with fistulæ. "Decayed teeth" as tabulated include all carious teeth without regard to the extent of the caries, "Remaining roots" and teeth with fistulæ being also included in this category. The number of filled teeth rather than the number of individual fillings was recorded. The term "All teeth" means the teeth, both temporary and permanent, which were present in the child's mouth at the time of the examination. The term "Total past decay"

when applied to permanent teeth includes decayed, missing, and filled teeth. However, missing temporary teeth are not included in the "Total past decay" of all teeth.

To secure the maximum amount of data, the records from Hagerstown, Md., Georgia, Illinois, and Missouri were combined, which made a total of 12,435 children examined. Prevalence rates for several conditions were computed separately for these four localities and are shown in Table 7. Although the rates for the different localities show considerable variation in level, they have the same general age curve, and it was thought permissible to combine the records in this paper, which deals with the prevalence of certain dental defects and corrections at different ages.

TEMPORARY TEETH

Since the loss of temporary teeth begins at about the sixth year, the percentages of children having decayed or filled temporary teeth decrease rapidly after the eighth year. (Fig. 1, Table 1.) At

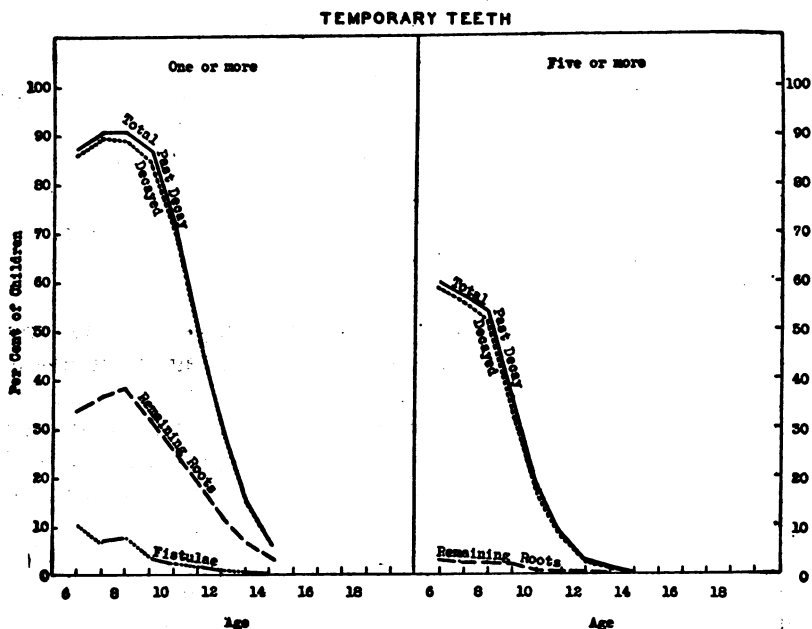


FIGURE 1.—Condition of temporary teeth of children at successive years of age

6 years of age, over 87 per cent of the children have temporary teeth decayed or filled. The percentage rises in the seventh and eighth years and drops rapidly thereafter, only 6 per cent of 14-year-old children having one or more temporary teeth decayed or filled. The percentage of children having 5 or more temporary teeth decayed or filled falls rapidly from about 60 per cent at 6 years to less than 1 per cent at 13 years.

So few temporary teeth are filled that the percentages of children having teeth which are carious but unfilled do not differ much from those having teeth decayed or filled.

TABLE 1.—*Condition of temporary teeth of children of each age from 6 to 14 years*

Age	Total children	Decayed or filled		Decayed		Remaining roots		Fistulæ
		1 or more	5 or more	1 or more	5 or more	1 or more	5 or more	1 or more
NUMBER								
6.....	913	798	545	787	535	308	29	94
7.....	1,122	1,019	643	1,006	625	411	30	74
8.....	1,116	1,016	604	996	577	429	27	82
9.....	1,335	1,160	484	1,131	447	420	30	47
10.....	1,652	1,187	294	1,162	281	412	11	37
11.....	1,702	821	127	806	125	307	8	20
12.....	1,361	400	34	397	32	157	5	5
13.....	1,183	172	8	167	8	72	0	1
14.....	767	45	0	44	0	24	0	0
PER CENT								
6.....	100.0	87.4	59.7	86.2	58.6	33.7	3.2	10.3
7.....	100.0	90.8	57.3	89.7	55.7	36.6	2.7	6.6
8.....	100.0	91.0	54.1	89.2	51.7	38.4	2.4	7.3
9.....	100.0	86.9	36.3	84.7	33.5	31.5	2.2	3.5
10.....	100.0	71.9	17.8	70.3	17.0	24.9	.7	2.2
11.....	100.0	48.2	7.5	47.3	7.3	18.0	.5	1.2
12.....	100.0	29.4	2.5	29.2	2.3	11.5	.4	.4
13.....	100.0	14.5	.7	14.1	.7	6.1	-----	.1
14.....	100.0	5.9	-----	5.7	-----	3.1	-----	-----

Nearly 34 per cent of the 6-year-old children have at least one temporary tooth nearly destroyed by caries (remaining roots). The percentage rises in the 8-year group and then drops rapidly, reaching 3 per cent at 14 years. Only 3 per cent of the 6-year-old children and less than 1 per cent of children over 10 years of age have five or more temporary teeth with crowns entirely destroyed by caries.

Ten per cent of 6-year-old children have at least one temporary tooth with a fistula. The percentages decrease quite rapidly with age, none of the 14-year-old children having temporary teeth so affected. No child in this group has five teeth with fistulæ.

In the graph in Figure 1 are shown the percentages of children in each age group having one or more and five or more teeth showing various dental defects. In Figure 2 somewhat similar data are shown; but instead of age, the number of teeth affected forms the abscissa and each line represents a different age group. In Table 2, percentages for each age group from 6 to 14 are given. The first age group and every third group thereafter are shown in Figure 2. It will be noted that instead of the percentages of children having one tooth, three teeth, etc., affected, the percentages having one or more, three or more, etc., are given.

Nearly the same percentage of 6-year-old as of 9-year-old children (about 85 per cent) had one or more temporary teeth decayed or filled. Because at 9 years of age many children have already lost a number of temporary teeth, the percentages of children having three or more, five or more, etc., temporary teeth decayed or filled are lower among the 9-year-old than among the 6-year-old children. For the same

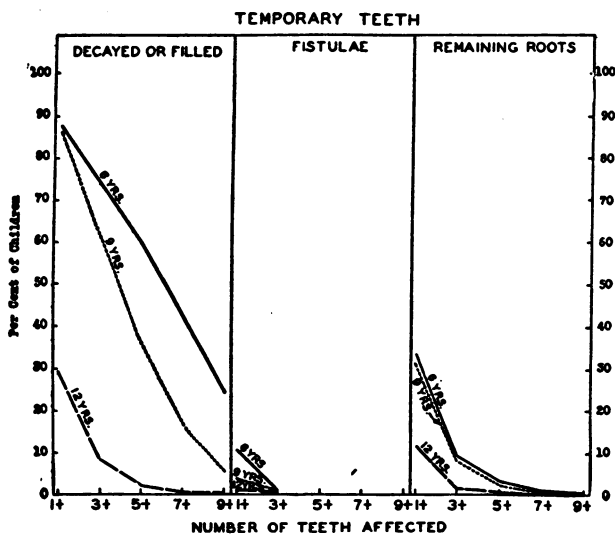


FIGURE 2.—Extent of decay and corrections in temporary teeth of children of three age groups

reason, all the percentages of the 12-year-old group are much lower than those of the younger age groups.

TABLE 2.—Condition of temporary teeth of children of each age from 6 to 14 years

Age	Number of children	PER CENT									
		Decayed or filled					Remaining roots				
		1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	7 or more	9 or more
6	913	87.4	73.6	59.7	42.5	24.4	33.7	9.1	3.2	0.9	0.3
7	1,122	90.8	78.0	57.3	36.8	17.8	36.6	9.0	2.7	.7	.3
8	1,116	91.0	75.7	54.1	31.3	11.8	38.4	10.3	2.4	.8	.2
9	1,335	86.9	62.0	36.3	16.4	5.8	31.5	8.5	2.2	.4	.1
10	1,652	71.9	40.5	17.8	6.2	1.4	24.9	5.0	.7	.1	-----
11	1,702	48.2	20.1	7.5	1.6	.4	18.0	2.8	.5	.1	-----
12	1,361	29.4	8.5	2.5	.4	.1	11.5	1.5	.4	.1	-----
13	1,183	14.5	2.4	.7	.1	-----	6.1	.5	-----	-----	-----
14	767	5.9	.8	-----	-----	-----	3.1	.4	-----	-----	-----

The proportion of 9-year-old children having temporary teeth nearly destroyed by caries (remaining roots) is very nearly as large as that of the 6-year-old children, indicating that, although the 9-year-old children have fewer temporary teeth than the 6-year-olds, a larger

proportion of their teeth had become carious. So many temporary teeth have been lost at 12 years of age that the percentages for this group are considerably below those for the younger children.

The percentages of children having temporary teeth with fistulæ decrease with age.

PERMANENT TEETH

Twenty per cent of the 6-year-old children had one or more permanent teeth decayed, missing, or filled. (Fig. 3, Table 3.) The percentage increases rapidly in the 7- and 8-year-old groups, 63 per cent of the 8-year-old children having at least one permanent tooth which

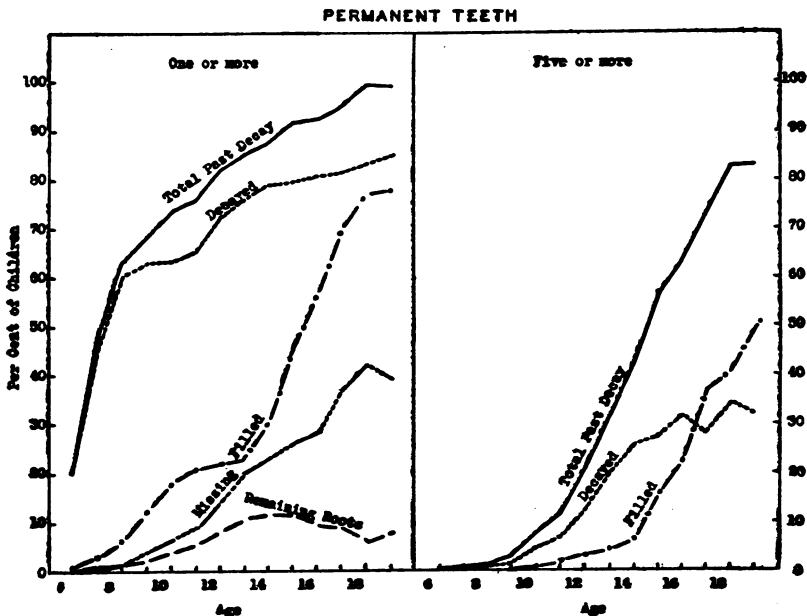


FIGURE 3.—Condition of permanent teeth of children at successive years of age

is or had been carious. After the 8-year-age group, the percentage increases less rapidly but is higher in successive groups, reaching 99 per cent at 18 years. The percentages of children having five or more permanent teeth which are or have been decayed remain very low in the early age groups, because few children in these groups have had any permanent teeth other than the four 6-year molars long enough to become carious.

Nearly 20 per cent of the 6-year-old children have one or more permanent teeth decayed but unfilled. The percentage rises rapidly to 60 per cent in the 8-year group. The increase is less rapid but steady at later ages, reaching nearly 85 per cent in the 19-year group. The percentages of children in the younger age groups having five or more carious permanent teeth unfilled are small, but the percentages increase gradually with age.

TABLE 3.—Condition of permanent teeth of children of each age from 6 to 19 years

Age	Total children	Decayed, missing, or filled		Decayed		Missing		Filled		Remaining roots	
		1 or more	5 or more	1 or more	5 or more	1 or more	5 or more	1 or more	5 or more	1 or more	5 or more
NUMBER											
6.....	913	187	3	182	1	0	0	9	2	1	0
7.....	1,122	528	6	507	4	9	0	36	1	5	0
8.....	1,116	704	16	669	10	13	0	69	4	14	0
9.....	1,335	915	44	840	23	51	0	164	6	29	0
10.....	1,652	1,213	127	1,046	77	102	0	297	14	61	0
11.....	1,702	1,292	196	1,111	118	148	0	354	30	90	0
12.....	1,361	1,113	286	978	167	192	3	291	42	109	1
13.....	1,183	1,004	376	896	234	235	2	270	48	123	0
14.....	767	672	328	607	198	174	1	229	48	87	3
15.....	556	508	317	442	151	144	2	251	86	62	3
16.....	325	299	206	262	102	91	3	180	71	30	0
17.....	199	188	146	162	56	72	3	138	73	17	0
18.....	120	119	100	100	41	50	1	92	48	7	0
19.....	84	83	70	71	27	33	1	65	42	6	0
PER CENT											
6.....	100.0	20.5	0.3	19.9	0.1	-----	-----	1.0	0.2	0.1	-----
7.....	100.0	47.1	.5	45.2	.3	0.8	-----	3.2	.1	.4	-----
8.....	100.0	63.1	1.4	59.9	.9	1.2	-----	6.2	.3	1.3	-----
9.....	100.0	68.5	3.3	62.9	1.7	3.8	-----	12.3	.4	2.2	-----
10.....	100.0	73.4	7.7	63.3	4.7	6.2	-----	18.0	.8	3.7	-----
11.....	100.0	75.9	11.5	65.3	6.9	8.7	-----	20.8	1.8	5.3	-----
12.....	100.0	81.8	21.0	71.9	12.3	14.1	0.2	21.4	3.1	8.0	0.1
13.....	100.0	84.9	31.8	75.7	19.8	19.9	.2	22.8	4.1	10.4	-----
14.....	100.0	87.6	42.8	79.1	25.8	22.7	.1	29.9	6.3	11.3	.4
15.....	100.0	91.4	57.0	79.5	27.2	25.9	.4	45.1	15.5	11.1	.5
16.....	100.0	92.0	63.4	80.6	31.4	28.0	.9	55.4	21.8	9.2	-----
17.....	100.0	94.5	73.4	81.4	28.1	36.2	1.5	69.3	36.7	8.5	-----
18.....	100.0	99.2	83.3	83.3	34.2	41.7	.8	76.7	40.0	5.8	-----
19.....	100.0	98.8	83.3	84.5	32.1	39.3	1.2	77.4	50.0	7.1	-----

The percentage of children having one or more permanent teeth so nearly destroyed by caries as to be called "remaining roots" is low in the early age groups, rising gradually to 11 per cent at 14 years and then declining to 6 or 7 per cent among the 18- and 19-year-old children. Very few children have five permanent teeth so badly decayed.

One per cent of the 6-year-old children have one or more permanent teeth filled. The percentages increase rather rapidly, reaching 18 per cent at 10 years. Between 10 and 13 years the percentages rise much more slowly, but in the succeeding age groups they increase very rapidly. About 77 per cent of the 19-year-old children have at least one permanent tooth filled. The percentage of children having five or more permanent teeth filled rises slowly to 6 per cent in the 14-year group and more rapidly among older children, 50 per cent of the 19-year-old children having five or more permanent teeth filled.

The percentage of children who have lost one or more permanent teeth increases quite regularly in successive age groups, reaching about 40 per cent in the last two groups. The proportion of children who have lost five permanent teeth is very small.

In Figure 4 the number of teeth affected is given as the abscissa, five age groups being shown. The data for these and the other ages from 6 to 19 years are given in Table 4.

Among 18-year-old children, 99 per cent have at least one permanent tooth decayed, missing, or filled, and nearly 50 per cent have nine

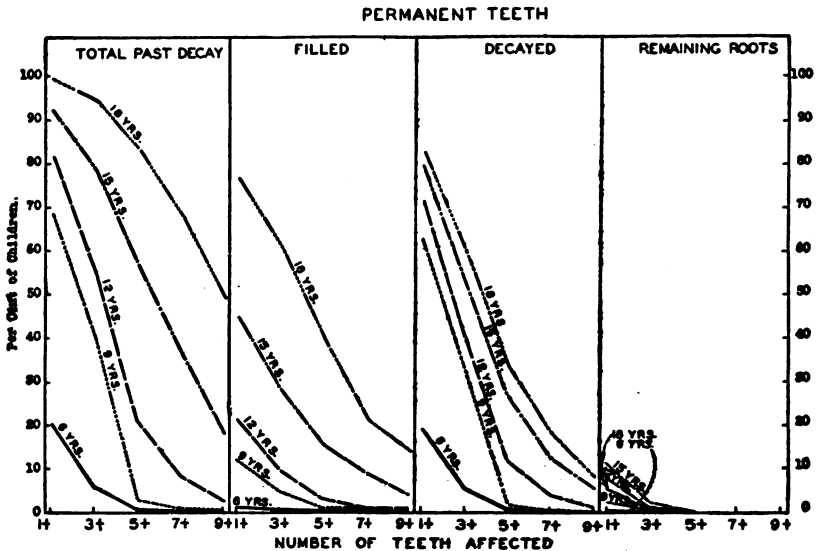


FIGURE 4.—Extent of decay and corrections in permanent teeth of children of five age groups

or more such teeth. Among the 15-year-old children the percentage of those having at least one such tooth is 92 per cent, and 18 per cent have nine or more such teeth. Twenty per cent of the 6-year-olds have one or more, while only 0.5 per cent have five or more.

TABLE 4.—Condition of permanent teeth of children of each age from 6 to 19 years

Age	Num-ber of chil- dren	Per cent																
		Decayed, missing, or filled					Decayed				Filled				Remaining roots			
		1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	1 or more	3 or more	5 or more	
6	913	20.5	5.8	0.3	0.2	0.2	19.9	5.4	0.1	0.1	0.1	1.0	0.3	0.2	0.1	0.1		
7	1,122	47.1	18.2	5.5	2.2	0.2	45.2	16.5	0.3	0.2	0.2	3.2	1.0	0.3		1.3		
8	83	63.1	31.8	1.4	2.2		59.9	28.1	0.9			6.2	1.6	0.3		0.1		
9	1,335	68.5	40.2	3.3	7	3	62.9	31.6	1.7	2	1	12.3	4.4	0.4	0.2	2.2	0.1	
10	1,652	73.4	45.0	7.7	1.6		63.3	32.6	4.7	0.8	0.3	18.0	7.1	0.8	0.2	3.7	0.4	
11	1,702	75.9	48.5	11.5	4.0	1.2	65.3	33.5	6.9	0.6	0.6	20.8	8.2	1.8	0.5	6.3	0.4	
12	1,361	81.8	55.5	21.0	8.4	2.8	71.9	40.1	12.3	4.1	1.3	21.4	9.5	3.1	0.9	10.4	1.0	0.1
13	1,381	84.9	61.8	31.8	14.2	6.9	75.7	45.7	19.8	7.7	3.2	22.8	10.4	4.1	1.9	8.0	1.0	
14	1,767	87.6	66.8	42.8	23.9	9.9	79.1	49.5	25.8	11.9	3.9	26.9	16.6	6.3	2.5	10.4	1.0	
15	556	91.4	78.4	57.0	36.5	18.2	79.5	53.2	27.2	12.8	5.6	45.1	28.1	15.5	9.0	11.3	1.2	4
16	325	92.0	79.1	63.4	44.0	26.5	80.6	53.1	31.4	16.6	5.2	55.4	35.1	21.8	11.1	11.1	2.5	5
17	199	94.5	87.4	73.4	55.8	40.7	81.4	48.7	28.1	13.1	4.5	69.3	50.3	36.7	20.6	13.1	5	
18	120	99.2	94.2	83.3	67.5	49.2	83.3	60.0	34.2	18.3	8.3	76.7	60.3	40.0	21.7	14.2	5.8	
19	84	98.8	95.2	83.3	67.9	52.4	84.5	58.3	32.1	14.3	8.3	77.4	64.3	50.0	32.1	20.2	7.1	2.4

In all the age groups excepting 6 years, the percentage of children having at least one permanent tooth decayed and unfilled is considerably less than the percentage having one or more permanent teeth decayed, missing, or filled. In the three older groups an even more striking difference appears when the percentages having three or more, five or more, etc., permanent teeth decayed and unfilled are compared with the corresponding percentages having permanent teeth decayed, missing, or filled. These differences are chiefly due to the better dental attention given older children, with the consequent increase in the percentage of children with several teeth filled in the older groups. Only about 1 per cent of the 6-year-old children have even one filled permanent tooth. The percentages increase rapidly, however, with age, over 75 per cent of the 18-year-old group

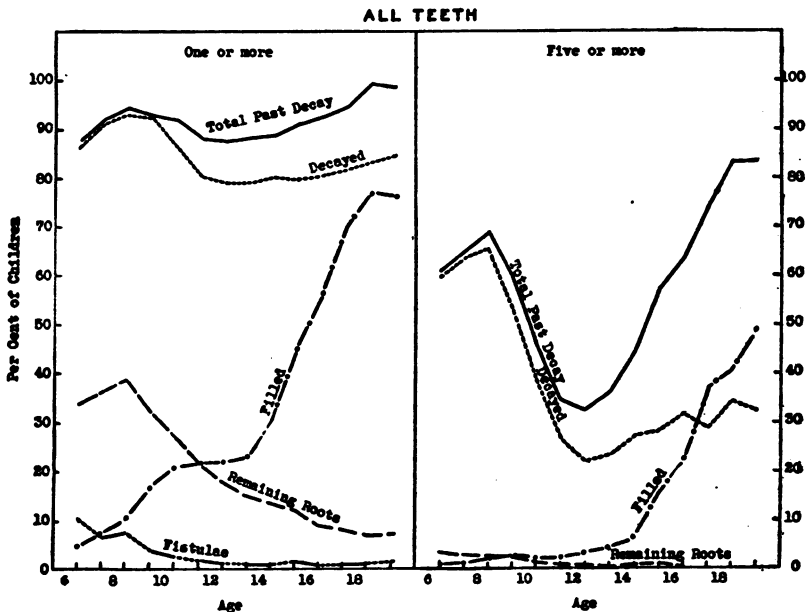


FIGURE 5.—Condition of teeth of children at successive years of age

having one or more and nearly 15 per cent having nine or more permanent teeth filled. Presumably because the teeth of older children are better cared for, the percentage of children having permanent teeth nearly destroyed by caries (remaining roots), although lowest in the 6-year group, is not highest among the 18-year-old children. A higher percentage of 12 and 15 than of 18-year-old children have one or more permanent teeth which are badly decayed.

ALL TEETH

When all the teeth present in the children's mouths at the time of examination are studied without regard to their being temporary or permanent, a type of curve results which is very different from the curves based on either set of teeth considered separately. (Fig. 5, Table 5.) By comparison with Figures 1 and 3, the curves in Figure 5 are seen to resemble the curves based on temporary teeth in the early age groups and those based on permanent teeth in the later age groups.

TABLE 5.—Condition of teeth of children of each age from 6 to 19 years

Age	Total children	Decayed, missing, or filled		Decayed		Remaining roots		Filled		Fistulae
		1 or more	5 or more	1 or more	5 or more	1 or more	5 or more	1 or more	5 or more	1 or more
NUMBER										
6.....	913	801	557	789	546	308	29	44	6	94
7.....	1,122	1,035	730	1,022	711	410	30	83	11	72
8.....	1,116	1,052	769	1,034	731	432	28	115	20	85
9.....	1,335	1,238	799	1,232	714	431	33	224	34	48
10.....	1,652	1,515	766	1,435	629	448	15	346	35	41
11.....	1,702	1,497	593	1,365	454	365	11	369	38	27
12.....	1,361	1,190	442	1,079	299	239	8	299	44	13
13.....	1,183	1,044	427	938	275	175	1	272	48	5
14.....	767	680	341	615	207	103	3	230	47	6
15.....	556	507	320	444	155	66	4	249	86	7
16.....	325	301	206	262	102	29	0	179	72	1
17.....	199	188	147	162	57	16	0	139	73	1
18.....	120	119	100	100	41	8	0	92	48	1
19.....	84	83	70	71	27	6	0	64	41	1
PER CENT										
6.....	100.0	87.7	61.0	86.4	59.8	33.7	3.2	4.8	0.7	10.3
7.....	100.0	92.2	65.1	91.1	63.4	36.5	2.7	7.4	1.0	6.4
8.....	100.0	94.3	68.9	92.7	65.5	38.7	2.5	10.3	1.8	7.6
9.....	100.0	92.7	59.9	92.3	53.5	32.3	2.5	16.8	2.5	3.6
10.....	100.0	91.7	46.4	86.9	38.1	27.1	.9	20.9	2.1	2.5
11.....	100.0	87.9	34.8	80.2	26.7	21.4	.6	21.7	2.2	1.6
12.....	100.0	87.4	32.5	79.3	22.0	17.6	.6	22.0	3.2	.9
13.....	100.0	88.3	36.1	79.3	23.2	14.8	.1	23.0	4.1	.4
14.....	100.0	88.7	44.5	80.2	27.0	13.4	.4	30.0	6.1	.8
15.....	100.0	91.2	57.6	79.8	27.9	11.9	.7	44.8	15.5	1.3
16.....	100.0	92.6	63.4	80.6	31.4	8.9	-----	55.1	22.1	.3
17.....	100.0	94.5	73.9	81.4	28.6	8.0	-----	69.8	36.7	.5
18.....	100.0	99.2	83.3	83.3	34.2	6.7	-----	76.7	40.0	.8
19.....	100.0	98.8	83.3	84.5	32.1	7.1	-----	76.2	48.8	1.2

About 88 per cent of the 6-year-old children had one or more teeth which were or had been decayed. The percentage was somewhat higher among the 8-year-old children. In each succeeding age group the percentage was lower, coincident with the gradual loss of carious and filled temporary teeth and their replacement by sound permanent teeth, until at 12 years 87 per cent evidenced some past or present defect. After 12 years the percentage was higher in each age group, reaching 99 per cent at 18 years of age.

The age curve showing the percentages of children having five or more teeth decayed, missing, or filled follows the same general trend as that described above. Sixty-one per cent of the 6-year-old children had five or more teeth which were or had been carious. The decline from 8 to 12 years was more rapid, and at 12 years the percentage was about 32. At 19 years of age 83 per cent had five or more teeth decayed, missing, or filled.

The percentage of children having one or more unfilled carious teeth is higher from 6 to 10 years than in later age groups. The percentage increases from the sixth to the eighth year then falls in the twelfth and thirteenth. Thereafter, the percentages increase gradually, reaching 84 per cent in the nineteenth year. The percentage of children having five or more unfilled carious teeth is very much higher between 6 and 8 years than among older children. More than 65 per cent of the 8-year-old children had five or more unfilled, carious teeth, whereas among the 12-year-old children there were only 22 per cent. The percentages increase gradually in successive age groups after 12 years, reaching about 33 per cent in the last two groups.

The proportion of children having one or more teeth with the crowns entirely destroyed by caries (remaining roots) is much higher in the younger than in the older age groups. Among the 6-year-old children, 34 per cent have one tooth or more in this condition. The percentage among the 8-year-olds is slightly higher. In each succeeding age group the percentage is appreciably lower, reaching 7 per cent in the last two groups. Only 3 per cent of the 6-year-old children have five or more teeth nearly destroyed by caries. Among children 10 years of age or older, there are less than 1 per cent having this dental condition.

Among the 6-year-old children only about 5 per cent had one tooth or more which had been filled. The percentage of children with filled teeth increases rather rapidly in successive age groups, excepting among the children between 10 and 13 years of age, whose temporary teeth are being lost and permanent teeth are erupting. At 18 years over 75 per cent of the children had one or more filled teeth. Less than 1 per cent of the 6-year-old children had five or more filled teeth. The percentages are increasingly higher in successive age groups after the twelfth year. Nearly one-half of the 19-year-old children had five or more filled teeth.

Teeth with fistulæ are much more prevalent among the younger than among the older children. Ten per cent of the 6-year-old children had at least one tooth with a fistula. The percentages of children with such fistulæ decrease in each age group until at 12 years less than 1 per cent are so affected. The percentages vary about 1 per cent in the later age groups. There were no children who had five teeth with fistulæ.

In Figure 5 are shown the percentages of children in each age group having one or more and five or more teeth which showed various dental defects or corrections.

Figure 6 shows the data for all teeth in the same way in which those for temporary teeth are shown in Figure 2, i. e., with the number of teeth affected represented as abscissæ, and the different age groups

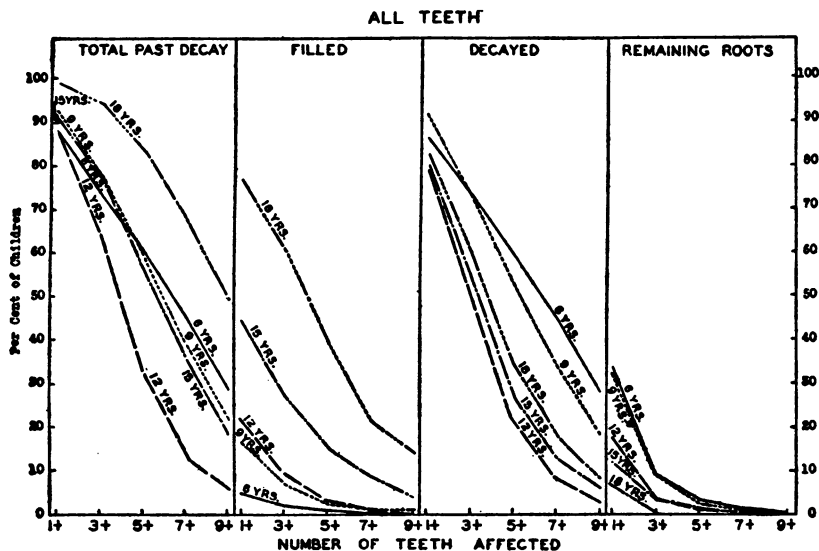


FIGURE 6.—Extent of decay and corrections in teeth of children of five age groups

shown by distinctive lines. Data for each age group from 6 to 19 years are given in Table 6.

The highest percentages of children having teeth decayed, missing, or filled occur in the 18-year-old group. The 12-year-old group, many of their temporary teeth having been replaced by permanent teeth, have the smallest proportion of children with teeth which are or have been carious. The 6 and 9 year old groups, having still a greater number of temporary teeth, and the 15-year-old group, having permanent teeth which have been exposed to decay over a longer period, have larger percentages of children with teeth showing past or present decay.

TABLE 6.—Condition of teeth of children of each age from 6 to 19 years

Age	Num-ber of chil-dren	Per cent																			
		Decayed, missing, or filled					Decayed					Filled					Remaining roots				
		1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	7 or more	9 or more	1 or more	3 or more	5 or more	7 or more	9 or more
6	913	87.7	74.9	61.0	46.1	28.8	86.4	73.5	59.8	44.8	28.3	4.8	2.0	0.7	0.2	0.1	33.7	9.0	3.2	0.9	0.3
7	1,122	92.2	81.2	65.1	48.4	30.4	91.1	79.1	63.4	46.1	28.8	7.4	3.0	1.0	.5	.1	36.5	8.9	2.7	.6	.3
8	1,116	94.3	83.1	65.9	51.3	31.8	92.7	79.6	65.5	47.6	29.3	10.3	4.9	1.8	.7	.2	38.7	10.6	2.5	.8	.3
9	1,335	92.7	78.8	59.9	39.4	21.5	92.3	73.6	58.5	34.1	18.4	16.8	7.3	2.5	1.0	.5	32.3	8.9	2.5	.7	.1
10	1,652	91.7	73.7	46.4	24.5	11.3	86.9	63.9	38.1	19.8	9.4	20.9	8.7	2.1	.4	.1	27.1	6.2	.9	.2	
11	1,702	87.9	64.4	34.8	15.0	5.5	80.2	51.3	26.7	10.7	3.9	21.7	8.6	2.2	.5	.1	21.4	3.7	.6	.2	.1
12	1,361	87.4	64.2	32.5	13.6	5.4	79.3	49.8	22.0	8.4	3.1	22.0	9.6	3.2	1.0	.2	17.6	3.1	.6	.2	.1
13	1,183	88.3	65.1	36.1	16.0	7.8	79.3	49.5	23.2	9.3	4.0	23.0	10.4	4.1	1.9	.9	14.8	2.1	.1		
14	1,707	88.7	65.6	44.5	24.1	10.2	80.2	51.4	27.0	12.1	4.0	30.0	16.5	6.1	2.5	1.4	13.4	1.8	.4		
15	553	91.2	78.4	57.6	36.7	18.7	79.8	53.8	27.9	13.1	6.3	44.8	27.7	15.5	9.0	3.8	11.9	3.1	.7		
16	325	92.6	79.4	63.4	44.3	26.5	80.6	53.2	31.4	16.6	4.9	55.1	35.7	22.1	11.1	4.9	8.9	.3			
17	199	94.5	87.4	73.9	56.3	40.2	81.4	48.7	23.6	13.6	5.0	69.8	53.3	36.7	20.6	13.1	8.0	.5			
18	120	90.2	94.2	83.3	67.5	49.2	83.3	60.0	34.2	18.3	8.3	76.7	60.8	40.0	21.7	14.2	6.7				
19	84	93.8	95.2	83.3	67.9	52.4	84.5	58.3	32.1	14.3	8.3	76.2	63.1	48.8	30.9	19.0	7.1	2.4			

The percentages of children with filled teeth vary directly with age. Although dental decay is more prevalent among the 6- and 9-year-old children than among the 12-year-old children, systematic dental care of the temporary teeth is usually neglected, and a larger proportion of carious temporary teeth than of permanent teeth remains unfilled.

This point is emphasized in the graphs which show the prevalence of untreated dental caries at 3-year intervals. The percentages are highest at 6 and 9 years of age. In the 18-year-old group the percentages are appreciably lower, because of the relatively high proportion of children having filled teeth. The percentages are somewhat lower in the 15-year group and lower still in the 12-year group, as children of this age have lost most of their temporary teeth and caries is spreading only gradually among the permanent teeth.

Badly neglected carious teeth (remaining roots) are much more prevalent at 6 and 9 years of age. These graphs reflect the gradual improvement in dental care as children grow older. The incidence of badly decayed teeth varies inversely with age. The percentage of children having such teeth is lower at 18 years than at 15, and lower at 15 than at 12. The percentages are very nearly the same in the first two groups.

TABLE 7.—*Prevalence of dental conditions among children in Hagerstown, Md., Georgia, Illinois, and Missouri*

Age and locality	Total children	Permanent teeth				Temporary teeth, 1 or more decayed	
		1 or more decayed, missing, or filled		1 or more filled			
		Number	Per cent	Number	Per cent	Number	Per cent
AGES 6 TO 8							
Hagerstown.....	2,082	994	47.7	75	3.6	1,906	91.5
Georgia.....	938	391	41.7	25	2.7	787	83.9
Illinois.....	14	5	35.7	2	14.3	10	71.4
Missouri.....	117	29	24.8	12	10.3	86	73.5
AGES 9 TO 11							
Hagerstown.....	1,665	1,376	82.6	271	16.3	1,223	73.5
Georgia.....	1,749	1,297	74.2	207	11.8	1,150	65.8
Illinois.....	441	292	66.2	121	27.4	255	57.8
Missouri.....	834	449	53.8	216	25.9	471	56.5
AGES 12 TO 14							
Hagerstown.....	623	574	92.1	116	18.6	164	26.3
Georgia.....	1,540	1,359	88.2	333	21.6	234	15.2
Illinois.....	339	264	77.9	93	27.4	56	16.5
Missouri.....	809	592	73.2	248	30.7	154	19.0
AGES 15 TO 17							
Hagerstown.....	42	40	95.2	10	23.8	4	9.5
Georgia.....	874	825	94.4	488	55.8	7	.8
Illinois.....	37	27	73.0	9	24.3	1	2.7
Missouri.....	127	103	81.1	62	48.8	2	1.6

SUMMARY

TEMPORARY TEETH

The highest percentages of children having carious temporary teeth occur in the 7 and 8 year groups, while the highest incidence of "remaining roots" is among 8-year-old children. (Fig. 1.)

Six-year-old children have the highest percentage of temporary teeth with fistulæ. (Fig. 1.)

The number of children with filled temporary teeth is so small as to be negligible.

PERMANENT TEETH

The percentages of children having permanent teeth decayed, missing, or filled increase rapidly up to the eighth year and more slowly among older children. (Fig. 3.)

The incidence of unfilled caries of permanent teeth increases with age. (Fig. 3.)

There were more children at 14 and 15 years than at other ages who had permanent teeth nearly destroyed by caries. (Fig. 3.)

The percentages of children who had permanent teeth filled as well as those who had had permanent teeth extracted increase with age. (Fig. 3.)

ALL TEETH

When both temporary and permanent teeth are considered together, about 90 per cent of the children in each age group had one tooth or more decayed, missing, or filled. (Fig. 5.)

A much greater proportion of younger than of older children had unfilled, carious teeth. (Fig. 5.)

An even greater preponderance of younger children had at least one tooth nearly destroyed by caries. (Fig. 5.)

The number of children with filled teeth is much higher in the older than in the younger age groups. (Fig. 5.)

The percentages of children having teeth with fistulæ are relatively high among children under 10 years of age. (Fig. 5.)

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for August, 1931

The accompanying table, taken from the Statistical Bulletin for September, 1931, issued by the Metropolitan Life Insurance Co., presents the mortality record of the industrial insurance department of the company for August as compared with that for the preceding month and for the corresponding month of last year. It also gives the cumulative rates for the period January-August for the years 1930 and 1931. The rates are based on a strength of approximately

19,000,000 insured persons in the United States and Canada. In recent years the general death rate in this more or less selected group of persons has averaged about 72 per cent of the rate for the registration area of the United States.

In spite of the economic depression, health conditions continue to be excellent in this group of industrial policyholders, which is composed of persons most likely to be affected by such general economic disturbances.

The Bulletin states:

Never before have general health conditions among the industrial policyholders of the Metropolitan Life Insurance Co. been so favorable as in August of this year. The death rate was only 7.4 per 1,000. The previous low figure of 7.5 per 1,000 for this month was recorded in August, 1924. For five consecutive months in 1931, the mortality has shown improvement over the figure for the corresponding month of 1930. The effect of this favorable experience during the spring and summer has been almost enough to offset the increased mortality of the early months of the current year due to the influenza epidemic of last winter. For the eight elapsed months of 1931 a cumulative death rate of 9.1 per 1,000 has been recorded, which is only 1 per cent above the figure recorded for the same period last year.

Among policyholders living west of the Rocky Mountains, the year-to-date death rate at the end of August was 6.4 per 1,000, as compared with 6.7 in 1930. The excellent health conditions which have prevailed so far this year are indeed remarkable, in view of prevailing employment conditions. This factor would ordinarily have led us to expect an increase in the mortality rate.

The continued drop in the mortality from tuberculosis is the outstanding and most favorable item in the health record of 1931. With two-thirds of the year behind us, including the seasons when the tuberculosis death rate is highest, it is now safe to say that a new minimal death rate will be registered for this disease in 1931. It is also probable that the greatest year-to-year decline recorded in many years will be registered this year.

The cumulative death rate for diphtheria at the end of August was only 4.1 per 100,000, a decline of more than one-third, as compared with the 1930 figure for the like period of the year. Diphtheria, so far this year, has a lower death rate than measles, and the rate is only slightly in excess of the rates for scarlet fever and whooping cough.

Other diseases which bid fair to register new minimal death rates in 1931 are typhoid fever, diarrheal complaints, and conditions related to childbearing.

On the other hand, several diseases show more or less marked increases in mortality. Influenza, due to the widespread outbreak of last winter, is the most conspicuous among these. The influenza situation, however, has since adjusted itself and the rates have been running low since the beginning of the spring season. The most unfavorable item in the 1931 mortality record is cancer, whose cumulative death rate has increased 6.6 per cent since 1930—an unusually large rise in any single year. The upward trend in the diabetes death rate, observed since 1924, is still unchecked. The increase in diabetes mortality may be found to be concentrated largely in the later ages of life, and not in youth where insulin has so far shown such favorable results. The rise in 1931 bids fair, however, to exceed any year-to-year increase recorded for several years.

Small increases are shown in the 1931 death rate for both suicides and homicides. All forms of accidents, combined, show a slight drop this year; but the

death rate from automobile fatalities continues to rise and will probably attain a new high point by the time the record for 1931 is completed.

Death rates (annual basis) per 100,000 for principal causes of death

[Industrial insurance department, Metropolitan Life Insurance Co.]

Cause of death	Annual rate per 100,000 lives exposed ¹				
	August, 1931	July, 1931	August, 1930	Cumulative, January to August	
				1931	1930
Total, all causes	735.5	831.7	761.1	909.7	903.6
Typhoid fever	3.2	1.7	3.3	1.6	1.7
Measles7	3.2	.6	4.2	3.9
Scarlet fever	1.7	2.6	1.1	3.6	2.9
Whooping cough	4.2	2.7	5.4	3.6	4.8
Diphtheria	1.9	3.0	3.0	4.1	6.3
Influenza	4.6	4.9	3.4	26.7	17.0
Tuberculosis (all forms)	63.5	74.4	72.5	78.5	84.8
Tuberculosis of respiratory system	55.7	64.9	63.1	69.2	73.6
Cancer	76.1	82.9	74.5	82.2	77.1
Diabetes mellitus	16.9	16.6	16.3	21.2	19.0
Cerebral hemorrhage	49.3	59.6	54.3	62.7	61.6
Organic diseases of heart	118.3	134.7	114.2	153.5	149.9
Pneumonia (all forms)	27.6	37.0	29.8	86.3	85.5
Other respiratory diseases	7.4	9.1	8.4	11.3	11.9
Diarrhea and enteritis	27.1	16.4	32.6	13.1	16.5
Bright's disease (chronic nephritis)	51.9	60.8	59.3	67.9	69.9
Puerperal state	9.1	10.2	10.9	11.4	12.6
Suicides	9.1	9.6	9.4	9.7	9.6
Homicides	7.5	7.0	6.4	6.8	6.5
Other external causes (excluding suicides and homicides)	70.2	89.7	76.6	61.3	63.3
Traumatism by automobiles	22.6	25.1	22.7	20.4	19.5
All other causes	185.0	205.5	179.0	200.3	198.6

¹ All figures in this table include insured infants under 1 year of age. The rates for 1931 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

COURT DECISIONS RELATING TO PUBLIC HEALTH

Piggeries held to be nuisances.—(Pennsylvania Supreme Court; *Lutz v. Dept. of Health of Commonwealth et al.*, 156 A. 235; *Commonwealth ex rel. Woods, Atty. Gen., v. Banholzer et ux.*, 156 A. 237; *Commonwealth ex rel. Woods, Atty. Gen., v. Goodwin et al.*, and *Commonwealth ex rel. Woods, Atty. Gen., v. Topel*, 156 A. 238; decided June 27, 1931.) In these four cases, the court held that certain piggeries, where garbage was fed to swine, were operated and maintained in violation of the rules and regulations of the State department of health and were subject to abatement as public nuisances. The Lutz case was an action to restrain the State health authorities from abating the nuisance arising from the piggery, while the other cases were proceedings to abate nuisances caused by the offending piggeries.

DEATHS DURING WEEK ENDED OCTOBER 10, 1931

Summary of information received by telegraph from industrial insurance companies for the week ended October 10, 1931, and corresponding week of 1930. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce).

	Week ended October 10, 1931	Corresponding week, 1930
Policies in force.....	74, 633, 545	75, 406, 109
Number of death claims.....	11, 479	11, 836
Death claims per 1,000 policies in force, annual rate.....	8. 0	8. 2
Death claims per 1,000 policies, first 41 weeks of year, annual rate.....	9. 8	9. 6

Deaths¹ from all causes in certain large cities of the United States during the week ended October 10, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

[The rates published in this summary are based upon mid-year population estimates derived from the 1930 census]

City	Week ended Oct. 10, 1931				Corresponding week, 1930		Death rate ² for the first 41 weeks	
	Total deaths	Death rate ¹	Deaths under 1 year	Infant mor- tality rate ³	Death rate ¹	Deaths under 1 year	1931	1930
Total (82 cities).....	7, 026	10. 3	661	4 51	10. 9	760	12. 0	12. 0
Akron.....	47	9. 5	9	89	8. 6	5	7. 9	8. 0
Albany ⁴	34	13. 7	1	20	15. 1	3	13. 8	14. 9
Atlanta.....	85	16. 0	6	61	16. 5	16	15. 2	15. 7
White.....	35		2	32		9		
Colored.....	50	(⁵)	4	115	(⁵)	7	(⁵)	(⁵)
Baltimore ⁴	202	12. 9	31	105	13. 0	25	14. 5	14. 0
White.....	153		24	104		18		
Colored.....	49	(⁵)	7	109	(⁵)	7	(⁵)	(⁵)
Birmingham.....	54	10. 5	3	30	10. 0	5	13. 5	13. 7
White.....	28		1	17		1		
Colored.....	26	(⁵)	2	49	(⁵)	4	(⁵)	(⁵)
Boston.....	198	13. 1	17	49	14. 6	32	14. 3	14. 1
Bridgeport.....	33	11. 7	4	66	10. 7	2	11. 2	11. 1
Buffalo.....	114	10. 2	7	29	13. 1	21	13. 1	13. 0
Cambridge.....	23	10. 5	4	80	13. 8	4	12. 1	11. 9
Camden.....	22	9. 6	3	52	8. 8	2	14. 3	13. 5
Ca iton.....	23	11. 2	2	46	10. 9	3	10. 2	10. 0
Chicago ⁴	586	8. 8	58	51	10. 3	68	10. 7	10. 5
Cincinnati.....	132	15. 1	15	90	15. 0	17	16. 1	15. 6
Cleveland.....	171	9. 8	12	35	9. 1	13	11. 3	11. 2
Columbus.....	50	8. 8	5	49	17. 7	13	13. 6	15. 7
Dallas.....	52	10. 0	13		6. 9	4	11. 2	11. 4
White.....	39		11			3		
Colored.....	13	(⁵)	2		(⁵)	1	(⁵)	(⁵)
Dayton.....	46	11. 6	5	70	12. 6	10	11. 9	10. 7
Denver.....	63	11. 3	8	77	17. 0	10	13. 9	14. 9
Des Moines.....	29	10. 5	1	18	8. 8	1	11. 1	11. 7
Detroit.....	197	6. 2	27	43	8. 2	42	8. 3	9. 4
Duluth.....	16	8. 2	1	25	11. 8	2	11. 8	11. 3
El Paso.....	24	11. 9	5		10. 6	5	15. 7	17. 4
Erie.....	15	6. 6	1	19	11. 2	2	10. 5	11. 3
Fall River ⁴	25	11. 3	1	23	9. 0	2	11. 2	11. 9
Flint.....	13	4. 1	1	13	6. 3	6	6. 9	9. 2
Fort Worth.....	30	9. 3	2		7. 6	2	10. 8	11. 0
White.....	22		1			1		
Colored.....	8	(⁵)	1		(⁵)	1	(⁵)	(⁵)
Grand Rapids.....	23	7. 0	2	30	8. 9	3	9. 1	10. 3
Houston.....	45	7. 6	8		10. 2	7	11. 2	12. 2
White.....	31		7			5		
Colored.....	14	(⁵)	1		(⁵)	2	(⁵)	(⁵)

See footnotes at end of table.

Deaths¹ from all causes in certain large cities of the United States during the week ended October 10, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued

City	Week ended Oct. 10, 1931				Corresponding week, 1930		Death rate ² for the first 41 weeks	
	Total deaths	Death rate ²	Deaths under 1 year	Infant mortality rate ³	Death rate ²	Deaths under 1 year	1931	1930
Indianapolis.....	101	14.2	9	74	15.7	7	13.9	14.8
White.....	91		8	75		5		
Colored.....	10	(⁹)	1	67	(⁹)	2	(⁹)	(⁹)
Jersey City.....	76	12.4	6	53	10.2	9	11.6	11.2
Kansas City, Kans.....	27	11.5	2	41	15.0	1	12.7	11.8
White.....	20		2	49		1		
Colored.....	7	(⁹)	0	0	(⁹)	0	(⁹)	(⁹)
Kansas City, Mo.....	81	10.3	9	68	12.9	9	13.1	13.3
Knoxville.....	18	8.6	3	64	10.3	2	12.5	13.6
White.....	13		2	48		2		
Colored.....	5	(⁹)	1	204	(⁹)	0	(⁹)	(⁹)
Long Beach.....	26	8.9	0	0	10.1	1	9.8	9.9
Los Angeles.....	223	8.8	22	64	11.7	21	10.7	11.0
Louisville.....	59	10.0	7	60	13.4	8	14.3	13.6
White.....	46		6	59		7		
Colored.....	13	(⁹)	1	66	(⁹)	1	(⁹)	(⁹)
Lowell.....	23	11.9	0	0	12.4	3	12.7	13.4
Lynn.....	13	6.6	2	52	11.7	1	9.6	10.5
Memphis.....	81	16.3	6	63	11.3	7	16.7	17.1
White.....	38		3	50		4		
Colored.....	43	(⁹)	3	87	(⁹)	3	(⁹)	(⁹)
Miami.....	22	10.2	2	51	10.3	2	11.9	11.1
White.....	18		2	71		2		
Colored.....	4	(⁹)	0	0	(⁹)	0	(⁹)	(⁹)
Milwaukee.....	93	8.2	17	74	9.0	6	9.4	9.6
Minneapolis.....	78	8.6	9	58	9.8	3	11.2	10.7
Nashville.....	50	16.8	5	74	14.2	9	17.0	16.6
White.....	27		2	40		7		
Colored.....	23	(⁹)	3	177	(⁹)	2	(⁹)	(⁹)
New Bedford.....	22	10.2	4	106	8.8	2	12.1	10.9
New Haven.....	48	15.4	2	38	14.4	4	12.4	12.8
New Orleans.....	121	13.5	7	38	15.2	15	16.9	17.4
White.....	69		4	33		7		
Colored.....	52	(⁹)	3	49	(⁹)	8	(⁹)	(⁹)
New York.....	1,321	9.7	97	41	9.4	108	11.2	10.8
Bronx Borough.....	194	7.6	6	14	6.4	11	8.2	7.9
Brooklyn Borough.....	466	9.3	39	41	8.2	40	10.3	9.9
Manhattan Borough.....	486	14.0	40	68	14.7	40	17.0	16.1
Queens Borough.....	134	6.1	9	25	5.9	11	7.3	7.1
Richmond Borough.....	41	13.1	3	54	13.7	6	13.9	14.4
Newark, N. J.....	96	11.2	13	68	10.9	11	11.7	12.1
Oakland.....	56	10.0	3	38	9.1	2	10.5	11.0
Oklahoma City.....	35	9.3	4	55	9.5	6	10.8	10.8
Omaha.....	51	12.3	0	0	10.2	4	13.9	13.6
Paterson.....	34	12.8	2	34	10.9	2	13.4	12.3
Peoria.....	25	12.0	4	105	5.9	1	12.6	12.3
Philadelphia.....	422	11.2	44	64	11.2	49	13.1	12.6
Pittsburgh.....	137	10.6	16	55	12.9	21	14.5	13.8
Portland, Oreg.....	62	10.5	8	97	12.4	2	11.6	12.1
Providence.....	59	12.1	5	46	8.4	2	12.8	13.0
Richmond.....	34	9.6	2	29	10.8	5	15.5	14.8
White.....	20		1	22		1		
Colored.....	14	(⁹)	1	43	(⁹)	4	(⁹)	(⁹)
Rochester.....	63	10.7	5	46	14.3	12	12.0	11.6
St. Louis.....	183	11.5	13	44	13.3	21	15.2	14.2
St. Paul.....	42	7.9	1	10	9.4	4	10.7	10.1
Salt Lake City.....	30	10.9	7	104	11.5	2	12.2	12.1
San Antonio.....	51	11.1	7	—	11.0	5	14.5	16.6
San Diego.....	33	11.0	3	61	11.9	1	13.6	14.4
San Francisco.....	139	11.2	11	73	9.4	6	13.1	13.0
Schenectady.....	20	10.8	0	0	7.1	2	10.5	11.3
Seattle.....	74	10.4	3	28	10.0	4	11.4	10.8
Somerville.....	11	5.5	0	0	10.5	2	8.9	9.8
South Bend.....	14	6.8	1	25	7.0	2	8.1	8.9
Spokane.....	30	13.4	2	52	11.3	2	12.4	12.8

See footnotes at end of table.

Deaths¹ from all causes in certain large cities of the United States during the week ended October 10, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued

City	Week ended Oct. 10, 1931				Corresponding week, 1930		Death rate ² for the first 41 weeks	
	Total deaths	Death rate ¹	Deaths under 1 year	Infant mortality rate ³	Death rate ¹	Deaths under 1 year	19 1	1930
Springfield, Mass.-----	22	7.5	2	31	12.5	5	11.7	12.2
Syracuse-----	41	10.0	9	107	12.7	7	11.6	11.6
Tacoma-----	32	15.5	0	0	6.8	2	12.1	12.3
Toledo-----	58	10.2	3	28	11.4	9	12.0	12.7
Trenton-----	43	18.1	4	70	20.7	8	16.5	16.7
Utica-----	23	11.7	3	78	12.3	1	14.0	14.8
Washington, D. C.-----	133	14.1	9	50	13.8	7	15.8	15.1
White-----	80		4	33		3		
Colored-----	53	(⁶)	5	86	(⁶)	4	(⁶)	(⁶)
Waterbury-----	21	10.9	3	90	5.7	1	9.7	9.7
Wilmington, Del. ⁷ -----	30	14.7	6	129	14.2	3	14.0	14.5
Worcester-----	46	12.2	4	55	11.2	3	12.1	12.8
Yonkers-----	12	4.5	0	40	5.8	0	8.5	8.0
Youngstown-----	24	7.2	3	42	10.7	3	10.2	10.3

¹ Deaths of nonresidents are included. Stillbirths are excluded.

² These rates represent annual rates per 1,000 population, as estimated for 1931 and 1930 by the arithmetical method.

³ Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.

⁴ Data for 77 cities.

⁵ Deaths for week ended Friday.

⁶ For the cities for which deaths are shown by color, the percentage of colored population in 1920 was as follows: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans, 14; Knoxville, 15; Louisville, 17; Memphis, 38; Miami, 31; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

⁷ Population Apr. 1, 1930; decreased 1920 to 1930, no estimate made.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Weeks Ended October 17, 1931, and October 18, 1930

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 17, 1931, and October 18, 1930

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930
New England States:								
Maine.....	2	5	5	2	46	1	0	0
New Hampshire.....	2	5			1		0	0
Vermont.....		1			21	4	0	0
Massachusetts.....	29	69	7	2	50	80	1	1
Rhode Island.....	2	7			26		0	0
Connecticut.....	5	16	2	2	1	8	1	0
Middle Atlantic States:								
New York.....	72	66	11	16	58	74	3	11
New Jersey.....	31	69	4	8	14	32	2	2
Pennsylvania.....	79	108			109	76	4	2
East North Central States:								
Ohio.....	140	63	15	22	62	10	1	8
Indiana.....	37	52	1	10	5	18	4	7
Illinois.....	100	110	6	7	17	20	7	4
Michigan.....	21	68		3	27	42	1	8
Wisconsin.....	18	16	12	5	11	40	0	5
West North Central States:								
Minnesota.....	22	21		1	8	12	2	0
Iowa.....	13	9			2	2	0	1
Missouri.....	86	46	4		2	70	2	2
North Dakota.....	2	7					0	0
South Dakota.....	5	11	1				0	0
Nebraska.....	9	14	1	6	1	19	0	0
Kansas.....	33	11		13	11	1	1	2
South Atlantic States:								
Delaware.....	8	2			1		0	0
Maryland.....	50	29	7	6	5		1	0
District of Columbia.....	11	7			1	1	0	0
Virginia.....							1	
West Virginia.....	103	15	11	12	29	21	2	1
North Carolina.....	207	216		9	8	5	0	5
South Carolina.....	62	65	217	320	6		0	0
Georgia.....	35	36	8	46	1	7	0	0
Florida.....	25	8		1	15	2	0	0

¹ New York City only.

² Week ended Friday.

³ Typhus fever, 1931, 9 cases: 1 case in Maryland; 1 case in South Carolina; 3 cases in Georgia; 2 cases in Alabama; 1 case in Mississippi; and 1 case in Louisiana.

*Cases of certain communicable diseases reported by telegraph by State health officers
for weeks ended October 17, 1931, and October 18, 1930—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930
East Central States:								
Kentucky.....	187	10	45				2	3
Tennessee.....	185	35	10	16	1	4	4	2
Alabama ¹	111	70	1	6		32	1	3
Mississippi ¹	156	56					1	4
West South Central States:								
Arkansas.....	61	7		8	7	1	0	0
Louisiana ¹	33	20	3	2	7	3	3	2
Oklahoma ¹	119	69	13	15	3	7	0	1
Texas.....	50	35	6	8	4	9	1	0
Mountain States:								
Montana.....		2			23	1	1	0
Idaho.....		1				2	0	0
Wyoming.....							0	0
Colorado.....	6	6			4	31	0	1
New Mexico.....	28	12	1		1	8	0	0
Arizona.....	3	5	7	2		5	0	0
Utah ¹	1	1	8	4	1		0	5
Pacific States:								
Washington.....	15	32			11	6	3	2
Oregon.....	5	3	33	13	10	99	1	0
California.....	65	55	67	20	72	123	6	4

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930
New England States:								
Maine.....	12	15	8	23	0	0	11	2
New Hampshire.....	2	1	2	3	0	0	0	0
Vermont.....	6	0	4	8	0	2	0	1
Massachusetts.....	43	42	123	82	0	0	4	11
Rhode Island.....	2	0	17	9	0	0	0	0
Connecticut.....	26	10	14	15	0	0	2	7
Middle Atlantic States:								
New York.....	160	50	168	160	0	0	46	45
New Jersey.....	33	1	72	77	0	0	12	8
Pennsylvania.....	28	10	199	194	0	0	61	58
East North Central States:								
Ohio.....	8	98	348	277	0	17	47	63
Indiana.....	4	16	37	91	3	22	22	12
Illinois.....	35	19	174	187	1	23	46	40
Michigan.....	46	15	116	142	1	22	21	22
Wisconsin.....	53	15	49	89	2	11	3	8
West North Central States:								
Minnesota.....	60	20	46	38	0	4	8	4
Iowa.....	7	19	21	27	26	1	2	2
Missouri.....	1	12	64	57	0	2	22	27
North Dakota.....	1	1	4	12	0	6	1	6
South Dakota.....	2	8	7	12	2	10	1	3
Nebraska.....	2	35	21	29	1	2	0	1
Kansas.....	0	44	45	42	3	2	3	8
South Atlantic States:								
Delaware.....	1	0	3	2	0	0	3	20
Maryland ^{1,2}	2	4	63	44	0	0	53	38
District of Columbia.....	0	1	11	8	0	0	0	0
Virginia.....	3							
West Virginia.....	5	6	52	34	1	0	58	32
North Carolina.....	1	0	126	156	2	1	22	28
South Carolina ¹	1	0	19	42	0	0	28	9
Georgia ¹	0	1	25	24	0	0	37	42
Florida.....	1	1	2	4	0	0	5	1

¹ Week ended Friday.

² Typhus fever, 1931, 9 cases; 1 case in Maryland; 1 case in South Carolina; 3 cases in Georgia; 2 cases in Alabama; 1 case in Mississippi; and 1 case in Louisiana.

³ Figures for 1931 are exclusive of Oklahoma City and Tulsa.

*Cases of certain communicable diseases reported by telegraph by State health officers
for weeks ended October 17, 1931, and October 18, 1930—Continued*

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930	Week ended Oct. 17, 1931	Week ended Oct. 18, 1930
East South Central States:								
Kentucky.....	1	5	68	34	0	0	35	10
Tennessee.....	2	4	88	25	1	5	57	26
Alabama ¹	0	2	56	53	7	0	15	34
Mississippi ²	2	0	53	24	3	0	22	37
West South Central States:								
Arkansas.....	0	2	14	11	6	1	22	21
Louisiana ³	1	4	16	13	0	1	30	10
Oklahoma ⁴	0	7	40	40	4	18	49	41
Texas.....	1	4	46	21	4	2	22	23
Mountain States:								
Montana.....	0	1	17	21	0	2	3	8
Idaho.....	1	1	3	1	0	0	0	3
Wyoming.....	0	2	3	3	0	1	0	0
Colorado.....	0	4	8	31	0	3	9	8
New Mexico.....	0	0	8	12	0	0	11	21
Arizona.....	1	0	6	4	0	0	5	1
Utah ²	0	0	4	12	0	1	2	5
Pacific States:								
Washington.....	4	3	7	48	4	24	3	6
Oregon.....	0	2	4	13	3	1	2	6
California.....	7	87	98	58	3	4	6	14

¹ Week end Friday.

² Typhus fever, 1931, 9 cases; 1 case in Maryland; 1 case in South Carolina; 3 cases in Georgia; 2 cases in Alabama; 1 case in Mississippi; and 1 case in Louisiana.

⁴ Figures for 1931 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Menin- gococ- cus menin- gitis	Diph- theria	Influen- za	Ma- laria	Mea- sles	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>August, 1931</i>										
Kansas.....	4	30	1	1	17	-----	4	52	6	39
Mississippi.....	8	162	297	5,209	25	830	7	58	30	217
Montana.....	4	7	4	-----	37	-----	11	44	4	11
<i>September, 1931</i>										
California.....	21	230	115	7	209	7	45	327	18	106
Maryland.....	1	103	16	-----	24	1	15	119	0	158
Massachusetts.....	7	146	22	3	80	2	588	358	0	30
New Jersey.....	10	57	5	-----	43	-----	354	137	0	62
Ohio.....	6	265	31	10	91	-----	52	586	8	367
Vermont.....	-----	7	-----	-----	24	-----	27	13	4	0
West Virginia.....	2	122	49	-----	39	-----	23	94	2	280
Wyoming.....	-----	1	-----	-----	5	-----	2	14	2	9

August, 1931

	Cases
Anthrax:	
Mississippi.....	2
Chicken pox:	
Kansas.....	19
Mississippi.....	166
Montana.....	11
Dengue:	
Mississippi.....	2
Dysentery:	
Kansas.....	2
Mississippi (amebic).....	52
German measles:	
Kansas.....	5
Montana.....	2
Hookworm disease:	
Mississippi.....	256
Impetigo contagiosa:	
Kansas.....	5
Montana.....	3
Mumps:	
Kansas.....	80
Mississippi.....	67
Montana.....	11
Ophthalmia neonatorum:	
Mississippi.....	8
Paratyphoid fever:	
Kansas.....	1
Puerperal fever:	
Mississippi.....	25
Scabies:	
Kansas.....	1
Septic sore throat:	
Kansas.....	1
Montana.....	3
Tetanus:	
Kansas.....	1
Trachoma:	
Kansas.....	1
Mississippi.....	2
Montana.....	49
Tularaemia:	
Kansas.....	3
Undulant fever:	
Kansas.....	5
Vincent's angina:	
Kansas.....	6
Montana.....	2
Whooping cough:	
Kansas.....	120
Mississippi.....	283
Montana.....	45

September, 1931

Actinomyces:	
Massachusetts.....	1
Anthrax:	
Massachusetts.....	1
Botulism:	
California.....	1
Chicken pox:	
California.....	212
Maryland.....	34
Massachusetts.....	63
New Jersey.....	33
Ohio.....	116
Vermont.....	10
West Virginia.....	20
Wyoming.....	8

	Cases
Diarrhea:	
Maryland.....	53
Diarrhea and enteritis:	
Ohio (under 2 years).....	76
Dysentery:	
California (amebic).....	3
California (bacillary).....	32
Maryland.....	37
Massachusetts.....	7
New Jersey.....	1
Ohio.....	20
Food poisoning:	
California.....	63
Ohio.....	50
German measles:	
California.....	28
Maryland.....	4
Massachusetts.....	29
New Jersey.....	15
Ohio.....	6
Granuloma, coccidioidal:	
California.....	7
Hookworm disease:	
California.....	1
Impetigo contagiosa:	
Maryland.....	124
Lead poisoning:	
Massachusetts.....	6
New Jersey.....	3
Ohio.....	10
Lethargic encephalitis:	
California.....	5
Maryland.....	3
Massachusetts.....	5
New Jersey.....	4
Ohio.....	1
Milk sickness: Ohio.....	1
Mumps:	
California.....	209
Maryland.....	16
Massachusetts.....	121
New Jersey.....	31
Ohio.....	127
Vermont.....	22
Wyoming.....	2
Ophthalmia neonatorum:	
California.....	4
Maryland.....	1
Massachusetts.....	101
New Jersey.....	5
Ohio.....	72
Paratyphoid fever:	
California.....	11
New Jersey.....	4
Ohio.....	7
West Virginia.....	1
Puerperal septicemia: Ohio.....	3
Rabies in animals:	
California.....	23
Maryland.....	2
Rocky Mountain spotted or tick fever:	
Maryland.....	2
Scabies: Maryland.....	10
Septic sore throat:	
California.....	7
Maryland.....	10
Massachusetts.....	19
Ohio.....	48

Tetanus:	Cases	Undulant fever:	Cases
California.....	12	California.....	10
Maryland.....	4	Maryland.....	4
Massachusetts.....	4	Massachusetts.....	1
Ohio.....	1	New Jersey.....	2
Trachoma:		Ohio.....	8
California.....	21	Vermont.....	2
Massachusetts.....	2	Vincent's angina: Maryland.....	14
Ohio.....	5	Whooping cough:	
Trichinosis:		California.....	583
California.....	2	Maryland.....	510
Massachusetts.....	1	Massachusetts.....	546
Tularæmia:		New Jersey.....	880
California.....	2	Ohio.....	803
Ohio.....	5	Vermont.....	69
Wyoming.....	1	West Virginia.....	96
Typhus fever: Maryland.....	2	Wyoming.....	18

TYPHOID FEVER OUTBREAK AT STATE TEACHERS COLLEGE, WEST CHESTER, PA.

In a communication dated October 22, 1931, Dr. Theodore B. Appel, secretary of health of Pennsylvania, states that there has been an outbreak of typhoid fever among the students at the State Teachers College, West Chester, Pa., with approximately 40 cases occurring between the last week in September and about October 10, the peak coming between October 4 and 7.

A carrier among the kitchen or dining room employees is believed to have been the source of the epidemic, as water, milk, and other food supplies were eliminated, as possible sources, and the cases were limited to those students who lived and boarded at the school.

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of September, 1931, by departments of health of certain States to other State health departments

Disease	California	Connecticut	Illinois	Maine	Massachusetts	Minnesota	New Jersey	New York	Oregon	Washington
Actinomycosis.....					1					
Gonorrhea.....						3				
Malaria.....	1									
Poliomyelitis.....	2	4			6	2	1	5		
Scarlet fever.....								1		
Smallpox.....	1									
Syphilis.....						1				
Tuberculosis.....			4			23			6	1
Typhoid fever.....		2		1		2		8		
Undulant fever.....						1	2			

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 95 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 33,270,000. The estimated population of the 88 cities reporting deaths is more than 31,725,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended October 10, 1931, and October 11, 1930

	1931	1930	Esti- mated ex- pectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,978	1,455	-----
95 cities.....	414	440	684
Measles:			
46 States.....	679	617	-----
95 cities.....	177	136	-----
Meningococcus meningitis:			
46 States.....	62	73	-----
95 cities.....	23	33	-----
Poliomyelitis:			
46 States.....	799	553	-----
Scarlet fever:			
46 States.....	2,182	1,929	-----
95 cities.....	635	596	522
Smallpox:			
46 States.....	86	133	-----
95 cities.....	8	10	13
Typhoid fever:			
46 States.....	900	934	-----
95 cities.....	126	126	132
<i>Deaths reported</i>			
Influenza and pneumonia:			
88 cities.....	352	458	-----
Smallpox:			
88 cities.....	0	0	-----

City reports for week ended October 10, 1931

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

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1922 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths reported
		Cases, estimated expect- ancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland.....	0	0	1	-----	0	0	0	0
New Hampshire:								
Concord.....	0	0	0	-----	0	0	0	0
Vermont:								
Barre.....	0	0	0	-----	0	0	0	2
Burlington.....	0	0	0	-----	0	1	0	0
Massachusetts:								
Boston.....	5	17	14	-----	4	0	4	3
Fall River.....	0	3	11	-----	0	1	0	1
Springfield.....	0	4	0	-----	0	2	2	0
Worcester.....	3	4	1	-----	0	2	22	3
Rhode Island:								
Pawtucket.....	0	1	0	-----	0	0	0	2
Providence.....	0	4	3	-----	1	48	0	6
Connecticut:								
Bridgeport.....	1	3	0	-----	1	0	0	1
Hartford.....	0	3	0	-----	0	0	1	1
New Haven.....	0	1	0	-----	0	0	0	2
MIDDLE ATLANTIC								
New York:								
Buffalo.....	2	10	6	-----	0	1	0	3
New York.....	27	99	59	-----	2	4	10	11
Rochester.....	2	2	5	-----	0	0	0	0
Syracuse.....	1	1	0	-----	0	0	4	0
New Jersey:								
Camden.....	3	4	3	-----	0	1	0	0
Newark.....	1	11	0	-----	2	0	1	1
Trenton.....	0	2	0	-----	0	0	0	6
Pennsylvania:								
Philadelphia.....	5	36	8	-----	4	3	9	7
Pittsburgh.....	4	14	9	-----	1	12	17	26
Reading.....	0	1	0	-----	0	0	0	9
EAST NORTH CENTRAL								
Ohio:								
Cincinnati.....	0	8	3	-----	0	0	0	2
Cleveland.....	8	37	3	-----	7	0	6	19
Columbus.....	1	4	13	-----	0	1	1	0
Toledo.....	7	5	5	-----	1	0	1	0
Indiana:								
Fort Wayne.....	0	2	5	-----	0	0	0	3
Indianapolis.....	0	11	4	-----	0	0	4	4
South Bend.....		1		-----				
Terre Haute.....	0	1	2	-----	0	0	0	0
Illinois:								
Chicago.....	8	73	42	-----	2	3	5	7
Springfield.....	0	1	2	-----	0	0	6	0
Michigan:								
Detroit.....	4	47	11	-----	0	4	8	1
Flint.....	2	3	1	-----	0	1	1	1
Grand Rapids.....	1	1	0	-----	0	1	2	0
Wisconsin:								
Kenosha.....	2	0	0	-----	0	0	2	0
Madison.....	0	1	1	-----		1	10	
Milwaukee.....	8	7	2	-----	0	2	12	9
Racine.....	1	1	0	-----	0	1	7	0
Superior.....	0	0	0	-----	0	0	20	3

City reports for week ended October 10, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths reported
		Cases, estimated expect- ancy	Cases reported	Cases reported	Deaths reported			
WEST NORTH CENTRAL								
Minnesota:								
Duluth.....	1	1	0	-----	0	0	1	0
Minneapolis.....	13	23	3	-----	0	1	15	3
St. Paul.....	5	10	2	-----	0	0	1	1
Iowa:								
Davenport.....	12	1	0	-----	-----	0	0	-----
Des Moines.....	0	2	0	-----	0	0	0	-----
Sioux City.....	0	2	3	-----	0	0	1	-----
Waterloo.....	4	0	1	-----	-----	0	0	-----
Missouri:								
Kansas City.....	2	4	8	-----	0	0	1	5
St. Joseph.....	0	0	3	-----	0	0	0	1
St. Louis.....	1	28	14	-----	-----	0	0	2
North Dakota:								
Fargo.....	0	0	0	-----	0	0	1	0
Grand Forks.....	0	0	0	-----	-----	0	0	-----
South Dakota:								
Aberdeen.....	15	0	0	-----	-----	29	1	-----
Sioux Falls.....	0	0	0	-----	-----	0	0	-----
Nebraska:								
Omaha.....	0	10	12	-----	0	0	1	5
Kansas:								
Topeka.....	0	2	3	-----	2	0	0	1
Wichita.....	0	2	3	-----	0	0	1	1
SOUTH ATLANTIC								
Delaware:								
Wilmington.....	0	1	0	-----	0	0	0	1
Maryland:								
Baltimore.....	1	18	8	-----	3	0	6	17
Cumberland.....	1	0	0	-----	1	0	0	2
Frederick.....	0	0	0	-----	0	0	0	1
District of Columbia:								
Washington.....	0	12	9	-----	0	1	0	5
Virginia:								
Lynchburg.....	0	3	2	-----	0	0	0	0
Norfolk.....	0	2	4	-----	0	0	1	3
Richmond.....	0	19	17	-----	0	0	0	1
Roanoke.....	1	4	6	-----	0	0	0	0
West Virginia:								
Charleston.....	0	1	2	-----	1	0	0	0
Wheeling.....	0	0	0	-----	0	1	0	1
North Carolina:								
Raleigh.....	0	4	3	-----	0	0	0	1
Wilmington.....	0	1	0	-----	0	0	0	1
Winston-Salem.....	0	4	10	-----	0	0	1	2
South Carolina:								
Charleston.....	0	1	0	-----	3	0	0	0
Columbia.....	0	1	1	-----	0	0	0	1
Greenville.....	0	1	1	-----	0	0	0	0
Georgia:								
Atlanta.....	0	7	2	-----	4	0	0	3
Brunswick.....	0	0	0	-----	0	0	0	0
Savannah.....	0	2	2	-----	3	0	0	1
Florida:								
Tampa.....	0	1	5	-----	-----	0	0	3
EAST SOUTH CENTRAL								
Kentucky:								
Covington.....	0	1	0	-----	-----	0	0	2
Tennessee:								
Memphis.....	0	6	19	-----	0	0	0	6
Nashville.....	0	3	8	-----	0	0	0	0
Alabama:								
Birmingham.....	0	4	6	-----	1	0	0	2
Mobile.....	0	1	2	-----	0	0	0	1
Montgomery.....	0	3	3	-----	-----	0	2	-----

City reports for week ended October 10, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith.....	0	2	3	-----	-----	1	0	-----
Little Rock.....	0	1	2	-----	0	0	1	2
Louisiana:								
New Orleans.....	0	9	4	2	2	0	0	8
Shreveport.....	-----	2	-----	-----	-----	-----	-----	-----
Oklahoma:								
Muskogee.....	0	3	8	-----	0	0	2	0
Oklahoma City..	2	3	8	6	0	0	0	2
Texas:								
Dallas.....	0	13	3	-----	0	0	0	4
Fort Worth.....	0	3	6	-----	0	1	0	2
Galveston.....	0	0	0	-----	0	0	0	2
Houston.....	0	6	8	-----	0	0	0	2
San Antonio.....	0	2	1	-----	0	0	0	3
MOUNTAIN								
Montana:								
Billings.....	1	0	0	-----	0	1	0	0
Great Falls.....	2	0	0	-----	0	0	0	0
Helena.....	0	0	0	-----	0	4	0	0
Missoula.....	0	0	0	1	1	0	0	0
Idaho:								
Boise.....	-----	0	-----	-----	-----	-----	-----	-----
Colorado:								
Denver.....	17	8	3	-----	1	1	1	2
Pueblo.....	3	1	0	-----	0	0	0	0
New Mexico:								
Albuquerque.....	6	0	1	-----	0	0	0	0
Arizona:								
Phoenix.....	0	0	0	-----	0	0	0	2
Utah:								
Salt Lake City..	5	2	1	-----	0	0	2	1
Nevada:								
Reno.....	0	0	0	-----	0	0	0	1
PACIFIC								
Washington:								
Seattle.....	22	4	0	-----	-----	6	5	-----
Spokane.....	2	2	0	-----	-----	0	0	-----
Tacoma.....	0	3	6	-----	1	0	1	4
Oregon:								
Portland.....	28	5	0	-----	0	3	9	2
Salem.....	1	0	0	7	0	1	0	0
California:								
Los Angeles.....	14	23	18	35	1	22	4	10
Sacramento.....	2	2	0	-----	0	3	0	2
San Francisco....	18	11	0	5	0	23	0	7

City reports for week ended October 10, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- cul- osis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland	1	0	0	0	0	0	0	1	0	0	12
New Hampshire:											
Concord	0	2	0	0	0	0	0	0	0	0	7
Vermont:											
Barre	0	0	0	0	0	1	0	0	0	0	4
Burlington	0	0	0	0	0	0	0	2	0	0	13
Massachusetts:											
Boston	27	19	0	0	0	8	3	2	2	8	198
Fall River	2	10	0	0	0	0	0	0	0	0	25
Springfield	3	1	0	0	0	0	0	1	0	4	21
Worcester	7	22	0	0	0	2	0	1	0	13	46
Rhode Island:											
Pawtucket	0	0	0	0	0	1	0	0	0	0	24
Providence	3	1	0	0	0	3	0	0	0	4	59
Connecticut:											
Bridgeport	3	1	0	0	0	1	10	0	0	2	33
Hartford	2	2	0	0	0	2	0	1	1	5	37
New Haven	1	2	0	0	0	1	1	2	0	12	48
MIDDLE ATLANTIC											
New York:											
Buffalo	9	23	0	0	0	5	2	0	0	17	113
New York	43	61	0	0	0	91	28	16	1	147	1,321
Rochester	3	8	1	0	0	0	1	2	1	3	66
Syracuse	3	3	0	0	0	1	1	0	0	18	38
New Jersey:											
Camden	1	4	0	0	0	0	0	2	1	7	22
Newark	5	6	0	0	0	5	1	0	0	72	101
Trenton	1	6	0	0	0	2	0	1	0	2	43
Pennsylvania:											
Philadelphia	31	45	0	0	0	24	10	11	1	113	422
Pittsburgh	22	13	0	0	0	11	2	1	0	29	137
Reading	1	0	0	0	0	1	0	0	0	2	27
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	10	29	1	0	0	6	2	0	0	8	132
Cleveland	17	27	0	0	0	8	2	1	3	98	171
Columbus	5	7	1	0	0	1	1	1	0	1	48
Toledo	7	7	0	0	0	2	1	1	1	21	58
Indiana:											
Fort Wayne	0	0	1	0	0	0	0	0	0	0	20
Indianapolis	7	1	0	0	0	2	2	0	0	14	-----
South Bend	2	-----	0	-----	-----	-----	0	-----	-----	-----	-----
Terre Haute	1	0	0	0	0	2	0	0	0	0	23
Illinois:											
Chicago	52	74	0	0	0	40	6	2	0	144	586
Springfield	1	3	0	0	0	2	1	0	0	1	19
Michigan:											
Detroit	42	15	1	0	0	17	3	5	0	106	197
Flint	8	6	0	0	0	2	1	0	0	1	13
Grand Rapids	6	8	0	0	0	1	1	0	0	6	23
Wisconsin:											
Kenosha	1	2	0	0	0	0	1	0	0	1	2
Madison	2	0	0	0	-----	-----	0	0	-----	0	-----
Milwaukee	11	7	1	0	0	4	1	0	0	57	93
Racine	3	3	0	0	0	0	0	0	0	0	13
Superior	1	2	0	0	0	0	1	0	0	0	10

City reports for week ended October 10, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	4	3	0	0	0	0	0	1	0	0	16
Minneapolis.....	22	6	0	0	0	1	1	0	0	7	78
St. Paul.....	13	4	1	0	0	2	1	0	0	4	46
Iowa:											
Davenport.....	1	0	0	0			0	0		0	
Des Moines.....	4	5	1	0			0	0		0	29
Sioux City.....	1	0	0	0			0	0		3	
Waterloo.....	1	0	0	0			0	0		2	
Missouri:											
Kansas City.....	7	4	0	0	0	11	1	2	0	5	81
St. Joseph.....	1	2	0	0	0	1	0	0	0	0	28
St. Louis.....	20	12	0	0	0	13	5	2	0	32	183
North Dakota:											
Fargo.....	2	2	0	0	0	0	0	0	0	1	3
Grand Forks.....	0	0	0	0			0	0		0	
South Dakota:											
Aberdeen.....	1	0	0	0			0	0		0	
Sioux Falls.....	0	0	0	0			0	0		0	12
Nebraska:											
Omaha.....	3	9	0	1	0	2	0	0	0	1	51
Kansas:											
Topeka.....	3	0	0	0	0	0	0	0	0	5	13
Wichita.....	3	3	0	0	0	0	0	1	0	2	26
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	0	0	0	0	0	1	0	1	0	3	30
Maryland:											
Baltimore.....	9	7	0	0	0	11	7	3	0	98	202
Cumberland.....	0	2	0	0	0	1	0	1	0	0	14
Frederick.....	1	0	0	0	0	0	0	0	0	0	3
District of Colum- bia:											
Washington.....	10	15	0	0	0	11	3	9	1	30	133
Virginia:											
Lynchburg.....	0	1	0	0	0	0	1	0	0	0	18
Norfolk.....	1	7	0	0	0	0	0	0	0	1	
Richmond.....	6	22	0	0	0	5	1	0	0	1	35
Roanoke.....	2	0	0	0	0	0	0	1	0	2	15
West Virginia:											
Charleston.....	2	4	0	0	0	2	1	1	1	7	31
Wheeling.....	1	2	0	0	0	1	1	1	0	0	20
North Carolina:											
Raleigh.....	2	0	0	0	0	0	0	0	0	2	11
Wilmington.....	1	1	0	0	0	1	0	0	0	3	11
Winston-Salem.....	3	3	0	0	0	1	1	1	0	9	14
South Carolina:											
Charleston.....	1	1	0	0	0	2	1	1	0	0	16
Columbia.....	0	0	0	0	0	1	2	0	0	0	12
Greenville.....	1	0	0	0	0	0	0	0	0	0	
Georgia:											
Atlanta.....	7	10	0	2	0	8	2	2	1	0	85
Brunswick.....	0	0	0	0	0	0	0	0	0	0	3
Savannah.....	0	4	0	0	0	3	1	0	0	0	30
Florida:											
Tampa.....	0	0	0	0	0	1	0	1	0	0	24
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	7	0	0	0	1	1	1	0	0	26
Tennessee:											
Memphis.....	4	10	1	0	0	7	3	6	1	18	81
Nashville.....	3	1	0	0	0	5	2	1	0	3	50
Alabama:											
Birmingham.....	5	11	0	0	0	5	2	0	0	5	54
Mobile.....	1	4	0	0	0	2	0	2	0	0	19
Montgomery.....	1	7	0	0			0	1		3	

14 cases nonresidents.

City reports for week ended October 10, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expec- tancy	Cases re- ported	Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	-----	0	0	-----	0	-----	
Little Rock.....	1	2	0	0	0	0	1	1	1	0	-----
Louisiana:											
New Orleans.....	3	3	0	0	0	11	3	19	1	0	131
Shreveport.....	1	-----	0	-----	-----	-----	0	-----	-----	-----	-----
Oklahoma:											
Muskogee.....	0	1	0	0	0	0	0	0	0	0	-----
Oklahoma City.....	3	4	0	0	0	3	2	4	1	0	35
Texas:											
Dallas.....	4	10	0	0	0	0	2	2	1	10	52
Fort Worth.....	1	10	0	0	0	0	1	1	0	0	30
Galveston.....	0	0	0	0	0	0	1	0	0	0	8
Houston.....	1	0	0	0	0	1	0	0	0	0	45
San Antonio.....	1	0	0	0	0	5	1	1	0	0	51
MOUNTAIN											
Montana:											
Billings.....	0	0	0	0	0	0	0	0	0	0	6
Great Falls.....	1	0	0	0	0	0	1	0	0	3	-----
Helena.....	0	0	0	0	0	0	0	0	0	0	2
Missoula.....	0	1	0	0	0	0	0	0	0	0	4
Idaho:											
Boise.....	0	-----	0	-----	-----	0	-----	-----	-----	-----	-----
Colorado:											
Denver.....	7	10	0	0	0	2	2	1	0	4	62
Pueblo.....	0	0	0	0	0	0	2	1	1	0	10
New Mexico:											
Albuquerque.....	1	0	0	0	0	5	2	2	2	0	11
Arizona:											
Phoenix.....	0	0	0	0	0	3	0	0	0	0	-----
Utah:											
Salt Lake City.....	3	4	0	0	0	2	3	2	0	2	30
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle.....	7	9	1	0	-----	3	1	-----	7	-----	
Spokane.....	3	0	0	0	-----	0	0	-----	0	-----	
Tacoma.....	2	0	1	0	0	1	0	0	0	2	32
Oregon:											
Portland.....	5	1	2	0	0	2	1	0	0	1	62
Salem.....	0	0	0	0	0	0	2	0	0	0	-----
California:											
Los Angeles.....	14	18	0	0	0	10	3	2	0	14	223
Sacramento.....	2	0	1	0	0	2	1	2	0	0	13
San Francisco.....	9	7	2	5	0	8	1	0	0	12	131

City reports for week ended October 10, 1931—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland.....	0	0	0	0	0	0	1	2	0
Massachusetts:									
Boston.....	2	0	0	0	1	1	3	17	1
Springfield.....	0	0	0	0	0	0	1	5	0
Worcester.....	0	0	0	0	1	0	1	4	1
Rhode Island:									
Providence.....	0	0	0	0	0	0	1	4	0
Connecticut:									
Bridgeport.....	0	0	0	0	0	0	0	5	1
Hartford ¹	0	0	0	0	0	0	0	3	0
New Haven.....	0	0	0	0	0	0	0	4	0
MIDDLE ATLANTIC									
New York:									
New York.....	3	2	0	0	0	0	14	102	14
Rochester.....	0	0	0	0	0	0	1	3	0
New Jersey:									
Camden.....	2	0	0	0	0	0	0	1	0
Newark.....	0	0	0	0	0	0	1	7	1
Pennsylvania:									
Philadelphia.....	3	1	0	0	1	0	1	5	0
Pittsburgh.....	1	1	0	0	0	0	0	1	0
Reading.....	1	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	1	1	0	0	0	0	1	0	0
Cleveland.....	0	0	0	0	0	0	2	6	2
Columbus.....	0	0	0	1	0	0	0	1	1
Indiana:									
Indianapolis.....	0	0	0	0	0	0	0	1	0
Illinois:									
Chicago.....	2	1	0	0	1	0	4	18	0
Springfield ¹	0	0	0	0	0	0	0	1	0
Michigan:									
Detroit.....	1	0	0	0	0	0	3	11	0
Flint.....	0	0	0	0	0	0	0	1	0
Grand Rapids.....	0	0	0	0	0	0	0	1	0
Wisconsin:									
Madison.....	0	0	0	0	0	0	0	1	0
Milwaukee.....	1	0	0	0	0	0	0	1	0
Racine.....	0	0	0	0	0	0	0	2	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	0	0	0	0	0	0	0	1	0
Minneapolis.....	0	0	0	0	0	0	1	16	1
St. Paul.....	0	0	0	0	0	0	0	27	3
Iowa:									
Des Moines.....	0	0	0	0	0	0	0	2	0
Missouri:									
Kansas City.....	0	0	0	0	1	0	0	0	0
St. Louis.....	1	0	1	1	0	0	1	5	0
Nebraska:									
Omaha.....	0	0	0	0	0	0	1	1	0
SOUTH ATLANTIC¹									
Maryland:									
Baltimore.....	0	0	0	0	0	0	1	0	1
District of Columbia:									
Washington.....	2	1	0	0	1	1	0	3	1
West Virginia:									
Charleston.....	0	1	0	0	0	0	0	0	0

¹ Typhus fever, 5 cases: 1 case at Hartford, Conn.; 1 case at Springfield, Ill.; 1 case at Savannah, Ga.; and 2 cases and 1 death at Tampa, Fla.

City reports for week ended October 10, 1931

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
SOUTH ATLANTIC ¹ —contd									
South Carolina:									
Charleston.....	0	0	0	0	2	0	0	0	0
Columbia.....	1	0	0	0	0	0	0	0	0
Georgia:									
Brunswick.....	0	0	0	0	0	1	0	0	0
Savannah ¹	0	0	0	0	1	0	1	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis.....	0	0	0	0	1	0	0	0	0
Nashville.....	0	1	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	0	0	1	1	0	0	0
Mobile.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	3	1	0	0	0
Oklahoma:									
Muskogee.....	0	0	0	0	1	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	2	0	0	1	0
MOUNTAIN									
Montana:									
Great Falls.....	0	0	0	0	0	0	0	1	0
Missoula.....	0	0	0	0	0	0	0	1	0
Arizona:									
Phoenix ²	1	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Spokane.....	0	0	0	0	0	0	1	1	0
California:									
San Francisco.....	2	2	0	0	1	0	0	0	0

¹ Typhus fever, 5 cases: 1 case at Hartford, Conn.; 1 case at Springfield, Ill.; 1 case at Savannah, Ga.; and 2 cases and 1 death at Tampa, Fla.

² Rabies (in man): 1 death at Phoenix, Ariz.

The following tables give the rates per 100,000 population for 98 cities for the 5-week period ended October 10, 1931, compared with those for a like period ended October 11, 1930. The population figures used in computing the rates are estimated mid-year populations for 1930 and 1931, respectively, derived from the 1930 census. The 98 cities reporting cases have an estimated aggregate population of more than 33,000,000. The 91 cities reporting deaths have more than 31,500,000 estimated population.

Summary of weekly reports from cities, September 6 to October 10, 1931.—Annual rates per 100,000 population compared with rates for the corresponding period of 1930¹

DIPHTHERIA CASE RATES

	Week ended—									
	Sept. 12, 1931	Sept. 13, 1930	Sept. 19, 1931	Sept. 20, 1930	Sept. 26, 1931	Sept. 27, 1930	Oct. 3, 1931	Oct. 4, 1930	Oct. 10, 1931	Oct. 11, 1930
98 cities.....	35	44	34	46	45	56	² 56	60	³ 65	70
New England.....	58	60	36	34	39	56	50	53	72	58
Middle Atlantic.....	26	26	22	36	25	31	25	40	40	40
East North Central.....	32	63	29	74	42	74	44	79	⁴ 54	99
West North Central.....	34	56	42	48	71	58	⁵ 88	60	99	68
South Atlantic.....	45	68	73	46	67	100	150	68	132	116
East South Central.....	99	24	53	24	128	30	140	102	221	96
West South Central.....	41	45	57	63	101	136	103	104	⁶ 75	59
Mountain.....	26	35	17	26	52	62	78	9	⁷ 36	44
Pacific.....	29	22	29	12	41	26	⁸ 43	51	47	81

MEASLES CASE RATES

	14	16	22	16	15	18	¹ 18	19	² 28	22
98 cities.....	14	16	22	16	15	18	¹ 18	19	² 28	22
New England.....	29	41	31	19	31	46	24	36	137	34
Middle Atlantic.....	8	19	18	16	9	13	12	12	15	15
East North Central.....	13	9	17	14	16	13	12	5	³ 13	11
West North Central.....	11	15	13	19	4	29	⁴ 10	70	2	77
South Atlantic.....	6	6	14	22	8	10	2	22	6	12
East South Central.....	6	6	0	0	0	66	29	0	0	18
West South Central.....	10	3	17	0	3	10	17	7	⁵ 4	0
Mountain.....	35	35	122	44	44	26	35	70	⁶ 54	115
Pacific.....	45	16	53	18	51	16	⁷ 82	22	106	20

SCARLET FEVER CASE RATES

	49	50	57	61	57	71	¹ 66	71	² 100	65
98 cities.....	49	50	57	61	57	71	¹ 66	71	² 100	65
New England.....	106	56	87	77	53	87	132	80	144	116
Middle Atlantic.....	30	26	43	45	45	32	51	46	76	51
East North Central.....	64	84	62	10	62	117	62	106	³ 113	135
West North Central.....	36	35	59	45	65	77	⁴ 95	72	86	93
South Atlantic.....	55	56	71	44	67	62	59	76	142	126
East South Central.....	64	36	81	36	93	114	70	66	233	161
West South Central.....	41	24	47	52	34	52	37	35	⁵ 57	35
Mountain.....	61	79	87	50	122	97	96	115	⁶ 135	291
Pacific.....	39	63	55	67	71	75	⁷ 74	73	67	75

SMALLPOX CASE RATES

98 cities.....	1	3	1	4	0	3	10	1	11	2
New England.....	2	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	2	2	1	9	0	2	0	1	10	2
West North Central.....	6	27	0	21	6	14	12	0	2	6
South Atlantic.....	0	0	0	0	0	0	0	2	4	0
East South Central.....	6	0	0	0	0	0	0	0	0	0
West South Central.....	0	0	0	0	0	3	0	3	10	3
Mountain.....	0	0	0	0	0	0	0	0	10	0
Pacific.....	0	8	4	4	0	16	10	0	10	6

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1931 and 1930, respectively.

² Waterloo, Iowa, and Spokane, Wash., not included.

³ South Bend, Ind., Shreveport, La., and Boise, Idaho, not included.

⁴ South Bend, Ind., not included.

⁵ Waterloo, Iowa, not included.

⁶ Shreveport, La., not included.

⁷ Boise, Idaho, not included.

⁸ Spokane, Wash., not included.

Summary of weekly reports from cities, September 6 to October 10, 1931.—Annual rates per 100,000 population compared with rates for the corresponding period of 1930—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Sept. 12, 1931	Sept. 13, 1930	Sept. 19, 1931	Sept. 20, 1930	Sept. 26, 1931	Sept. 27, 1930	Oct. 3, 1931	Oct. 4, 1930	Oct. 10, 1931	Oct. 11, 1930
98 cities	23	26	42	22	21	17	¹ 21	20	¹ 20	20
New England	7	22	22	12	5	12	17	12	19	22
Middle Atlantic	13	24	16	15	16	13	21	14	15	14
East North Central	10	17	91	11	15	9	9	9	⁴ 6	9
West North Central	13	21	38	29	36	15	¹ 14	14	11	10
South Atlantic	79	70	26	68	43	56	65	42	53	70
East South Central	35	48	47	48	47	18	52	60	64	42
West South Central	91	52	44	63	47	35	24	52	⁶ 82	49
Mountain	35	62	26	0	26	44	26	115	⁷ 36	44
Pacific	27	4	35	14	10	12	¹ 14	16	10	16

INFLUENZA DEATH RATES

	4	3	3	3	2	2	3	2	¹ 3	5
91 cities										
New England	2	0	2	2	0	2	2	0	2	5
Middle Atlantic	4	4	3	2	1	2	3	2	4	6
East North Central	3	3	3	2	3	2	2	1	⁴ 2	3
West North Central	9	0	6	0	0	0	12	0	0	6
South Atlantic	2	2	4	0	4	4	0	2	0	2
East South Central	0	19	0	26	6	13	6	13	6	0
West South Central	17	0	0	7	0	4	0	11	⁶ 7	11
Mountain	0	0	0	18	0	0	0	18	⁷ 18	9
Pacific	2	0	2	0	0	5	0	2	5	0

PNEUMONIA DEATH RATES

	55	54	60	57	52	57	53	58	¹ 55	71
91 cities										
New England	58	68	50	56	67	39	58	44	77	70
Middle Atlantic	65	63	66	65	55	72	60	59	56	74
East North Central	36	43	45	42	38	47	35	53	⁴ 36	55
West North Central	44	45	44	75	44	36	59	69	56	87
South Atlantic	63	58	57	56	51	56	61	52	79	86
East South Central	82	26	57	71	32	65	63	104	69	123
West South Central	73	57	93	46	52	71	66	71	⁶ 77	110
Mountain	70	123	78	115	70	53	61	132	⁷ 36	97
Pacific	46	25	84	40	86	40	53	40	55	40

¹ Waterloo, Iowa, and Spokane, Wash., not included.

² South Bend, Ind., Shreveport, La., and Boise, Idaho, not included.

³ South Bend, Ind., not included.

⁴ Waterloo, Iowa, not included.

⁵ Shreveport, La., not included.

⁶ Boise, Idaho, not included.

⁷ Spokane, Wash., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Weeks ended September 26 and October 3, 1931.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the weeks ended September 26 and October 3, 1931, as follows:

Province	Cerebro-spinal fever	Dysentery	Influenza	Poliomyelitis	Smallpox	Typhoid fever
<i>Week ended Sept. 26</i>						
Prince Edward Island ¹						1
Nova Scotia						2
New Brunswick						23
Quebec				105		36
Ontario			1	14	5	5
Manitoba						14
Saskatchewan		22			1	1
Alberta				1	12	4
British Columbia	1	2		1		
Total	1	24	1	121	18	86
<i>Week ended Oct. 3</i>						
Prince Edward Island ¹						5
Nova Scotia				2		23
New Brunswick						25
Quebec				148		2
Ontario	1			6	2	9
Manitoba				2		1
Saskatchewan					6	6
Alberta	1			1		
British Columbia		1		2		
Total	2	1		161	8	76

¹ No case of any disease included in the table was reported during the week.

Quebec Province—Communicable diseases—Week ended October 3, 1931.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended October 3, 1931, as follows:

Disease	Cases	Disease	Cases
Chicken pox	23	Poliomyelitis	148
Diphtheria	39	Puerperal fever	3
Erysipelas	2	Scarlet fever	53
German measles	5	Tuberculosis	46
Measles	28	Typhoid fever	26
Mumps	2	Whooping cough	30
Paratyphoid fever	2		

CHINA

Shansi Province—Bubonic plague epidemic—October 17, 1931.—Information received under date of October 17, 1931, stated that there was an epidemic of bubonic plague in the districts of Linhsien, Hsinghsien, and Paoteh, in western Shansi Province, and that it was gradually moving eastward and had already reached Kolan and Lanhsi. At Hsinghsien, where the outbreak was the severest, more than 2,000 deaths were reported.

VIRGIN ISLANDS

Communicable diseases—September, 1931.—During the month of September, 1931, cases of certain communicable diseases were reported in the Virgin Islands as follows:

St. Thomas and St. John:	
Gonorrhea.....	1
Tetanus.....	1
Tuberculosis.....	1
St. Croix:	
Gonorrhea.....	1

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

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

CHOLERA

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

Place	Apr. 5- May 2, 1931	May 3- 30, 1931	May 31- June 27, 1931	June 28-July 26, 1931	Week ended—											
					August, 1931				September, 1931							
					1	8	15	22	29	5	12	19	26	3	10	17
Ceylon: Colombo.....					1	1	1	1								
China:					1	1	1									
Canton.....			1						1	1						
Shanghai.....			1													
Swatow.....				1		1	5	1	1	58	30	36	35	29		
Tientsin.....			10	7						3	4	2	5	8		
India.....			1	1												
Bombay.....	11,462	13,604	18,001	22,074	7,357	9,848	9,817	9,492								
Calcutta.....	5,767	10,337	12,063	12,029	4,029	5,584	5,411	5,252								
Karikal.....						9	18	6	27	6	5	6	1	1		
Madras.....						16	4	5	9	5	2	18	18	23		
Moulmein.....						232	237	20	10	3	15	6	6	12		
Nagapatam.....						149	168	7	4	2	3	1				
Rangoon.....						12			1							
Vizagapatam.....						7										
India (French):																
Chanderagor.....	6	4	3	5	1	4	2	2		1	1					
Pondicherry.....	5	4	3	1	1	4	1	1		1						
	24	17	3	3	1	1	1	1				2				
	4	7	3	3	1							1				

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

CHOLERA--Continued

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

[illegible]

Philippine Islands: * Provinces— Capit.	29 24	17 15	4 4						9 6	9 6	17 5	49 35	21 16	5 5	4 3
Cebu.....	O														
Iloilo.....	O			26 21	27 23										
Negros, Occidental.....	O			2 2											
Pampanga.....	O			1 1											
Siam.....	O														
Bangkok.....	O			10 4 3 2	14 6 3 1	4 2 1 1	3 1 4 2	1 1 1 1							
On vessel:															
S. S. Arankola, at Rangoon from Calcutta.....	O			1											
S. S. City of Eastborne, at Calcutta from Cochinada.....	O			1											
S. S. Talrea, at Penang from Calcutta.....	O			1											
S. S. Bandar Shalpour, at Bushire, Persia, from Basra.....	O				1 1 2										
S. S. Kohistan, at Basra from Bushire, Persia.....	O														
S. S. Cathay, at Kobe, Japan, from Shanghai.....	O							4 1		1	2 1				
S. S. Kasagi Maru, at Moji from Shanghai.....	O														
S. S. Ankoo, at Nagasaki from Shanghai.....	O														
	O														
Place	Febru- ary, 1931	March, 1931	April, 1931	May, 1931			June, 1931			July, 1931			Aug. 1-10, 1931		
				1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31			
Indo-China (French) (see also table above):															
Cambodia:	C	125	100	113	33	44	40	83	96	120	72	82	87	12	
Cochin-China:	D	80	29	70	20	22	21	45	64	---	---	---	60	3	
	C	29	105	107	47	52	75	71	69	---	---	---	47	29	
	D	18	73	74	36	40	57	52	54	---	---	---	43	32	

* From May 3 to 25, 1931, 152 cases of cholera with 75 deaths were reported in Rafsanjan and vicinity, Karman district, Persia.

* Figures for cholera in the Philippine Islands are subject to correction.

* Reports incomplete.

PLAQUE

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

[illegible]

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

PLAGUE—Continued

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

Place	Week ended—															
	July, 1931				August, 1931				September, 1931				October, 1931			
	4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	
Peru (see table below).																
Senegal (see table below).																
Siam.....																
Spain: Hospitalet—Barcelona Province.....																
Syria, Beirut.....																
Tunisia: Tunis.....																
Union of South Africa:																
Cape Province.....																
Plague-infected rats.....																
Orange Free State.....																
British East Africa (see also table above):																
Kenya.....																
Indo-China (see also table above):																
Amboitra Province.....																
Antsirabe Province.....																
Marinarivo Province.....																
Moramanga Province.....																
Tananarive Province.....																
Peru.....																
Senegal:																
Baol ¹																
Dakar ¹																
Diourbel ¹																
Louga ¹																
Rufisque ¹																
Thies ¹																
Tivaouane ¹																

¹ Reports incomplete.

															1

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

SMALLPOX—Continued

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

Place	Apr. 5– May 2, 1931	May 3–30, 1931	May 31– June 27, 1931	Week ended—											
				July, 1931				August, 1931				September, 1931			
				4	11	18	25	1	8	15	22	29	5	12	19
Rumania (see table below).															
Siam.....	1	6	5		1									3	
Spain.....	D	1	1			1									
Straits Settlements.....	C				7										
Sudan.....	10	2	2						1						
Sudan (Anglo-Egyptian).....	5	5	1											32	
Sudan (French) (see table below)	3	6												6	
Syria (see table below).	D	2													
Turkey (see table below).	D														
Union of Socialist Soviet Republics (see table below).	D														
Union of South Africa:															
Cape Province.....	P	P												P	
Natal.....															
Orange Free State.....	P	P	P	P	P	P				P	P	P	P		
Transvaal.....			P	P	P										
Upper Volta.....	3	38	12	1											
On vessel:	D	1													
S. S. Clan McTavish at Manila from Chittagong.....															
S. S. Taif (pilgrim ship) at Saukin from Jeddah.....	1														
S. S. Talodi at Suakin.....	1	1									1				

