SUMMARY OF NOTIFIABLE DISEASES IN STATES DURING 1929

The accompanying summary of the reported prevalence of communicable diseases in States during 1929 is taken from Supplement No. 88, which will soon be issued by the Public Health Service. The rates have been computed from data furnished by the health officers of the several States, the District of Columbia, and the insular possessions. The following list of diseases is included in the supplement:

Anthrax in man.
Chicken pox.
Cholera.
Dengue.
Diphtheria.
Gonorrhea.
Influenza.
Lethargic encephalitis.
Malaria.
Measles.
Meningococcus meningitis.
Mumps.
Pellagra.
Plague (human)..
Pneumonia (all forms).
Poliomyelitis.

Rabies in animals.
Rabies in man.
Rocky Mountain spotted fever.
Scarlet fever.
Septic sore throat.
Smallpox.
Syphilis.
Tuberculosis (all forms and respiratory system).
Tularaemia.
Typhoid fever.
Typhus fever.
Undulant fever.
Whooping cough.
Yellow fever.

The following table shows the States (including the District of Columbia and insular possessions) for which morbidity and mortality data were received:

Morbidity	Mortality	Morbidity	Mortality
Alabama	Alabama.	Nevada	Nevada.
Arizona	Arizona.	New Hampshire	New Hampshire.
Arkansas	Arkansas.	New Jersey	New Jersey.
California	California.	New Mexico	New Mexico.
Colorado	Colorado.	New York	New York.
Connecticut	Connecticut.	North Carolina	North Carolina.
Delaware	Delaware.	North Dakota	North Dakota.
District of Columbia	District of Columbia.	Ohio	Ohio.
Florida	Florida.	Oklahoma	Oklahoma.
Georgia	Georgia.	Oregon	Oregon.
Idaho	Idaho.	Pennsylvania	Pennsylvania.
Illinois	Illinois.	Rhode Island	Rhode Island.
Indiana	Indiana.	South Carolina	South Carolina.
Iowa	Iowa.	South Dakota	South Dakota.
Kansas	Kansas.	Tennessee	Tennessee.
Kentucky	Kentucky.	Texas	Texas.
Louisiana	Louisiana.	Utah	Utah.
Maine	Maine.	Vermont	Vermont.
Maryland	Maryland.	Virginia	Virginia.
Massachusetts	Massachusetts.	Washington	Washington.
Michigan	Michigan.	West Virginia	West Virginia.
Minnesota	Minnesota.	Wisconsin	Wisconsin.
Mississippi	Mississippi.	Wyoming	Wyoming.
Missouri	Missouri.	Hawaii Territory	Hawaii Territory.
Montana	Montana.	Philippine Islands	Philippine Islands.
Nebraska	Nebraska.		Porto Rico.

The populations used in computing case and death rates were estimated as of July 1, 1929, based on the 1920 populations and the preliminary figures for the 1930 census. Final figures for the 1930 census will make some difference in the rates for a few States.

For most of the diseases the compilation contains four tables: (1) Estimated expectancy, (2) morbidity, (3) mortality, (4) rates. The estimated expectancy given in the tables for some of the diseases represents an attempt to ascertain from the experience of recent years how many cases of the disease under consideration might be expected in 1929.

In comparing the figures for 1929 with the estimated expectancy, or with reports for preceding years, it should be borne in mind that there has been a gradual improvement in the reporting of communicable diseases during the last few years. An increase in the number of cases reported may be due to better reporting of the particular disease rather than to an increase in the number of cases occurring.

In some instances comparatively large numbers of cases of diseases reported in certain States may be due to the system of reporting rather than to unusual prevalence of the diseases. For instance, in Mississippi physicians report some diseases monthly to the State health officer, giving the number of cases occurring in their practice during the month. This method of reporting probably is responsible, in part, at least, for the comparatively large numbers of cases of certain diseases reported in Mississippi.

Tabulations of reported cases and deaths from communicable diseases, similar to the tables here presented, have been issued by the United States Public Health Service for the years 1912 to 1928, inclusive (Reprints numbered 163, 208, 298, 345, 426, 505, 551, 643, 681, 791, 879, 974, 1056, 1132, and Supplements Nos. 67, 73, and 79, respectively).

As long as the supply lasts, copies of Supplement No. 88 may be had free on request by subscribers of Public Health Reports and others desiring them. Address the Surgeon General, United States Public Health Service, Washington, D. C.

Summary of Notifiable Diseases in States, 1929

CHICKEN POX

48 States: [1]

Cases reported, 1929 (population 121,455,000)	216, 635
Estimated expectancy, based on years 1922–1928	180, 359
Cases per 1,000 inhabitants, 1929	1. 784
Cases per 1,000 inhabitants, estimated expectancy	1. 571

[1] The District of Columbia is also included.

46 States: [1]

Deaths registered, 1929 (population 116,840,000)	147
Deaths per 1,000 inhabitants, 1929	0. 001
Cases reported for each death registered, 1929	1, 416

DIPHTHERIA

48 States: [1]

Cases reported, 1929 (population 121,455,000)	85, 365
Estimated expectancy, based on years 1922–1928	108, 176
Cases per 1,000 inhabitants, 1929	0. 703
Cases per 1,000 inhabitants, estimated expectancy	0. 942
Deaths registered, 1929	7, 937
Deaths per 1,000 inhabitants, 1929	0. 065
Cases reported for each death registered, 1929	11

GONORRHEA

39 States: [1]

Cases reported, 1929 (population 112,106,000)	148, 132
Cases per 1,000 inhabitants, 1929	1. 321

INFLUENZA

40 States: [1]

Cases reported, 1929 (population 89,210,000)	682, 928
Cases per 1,000 inhabitants, 1929	7. 655
Deaths registered, 1929	51, 499
Deaths per 1,000 inhabitants, 1929	0. 577
Cases reported for each death registered, 1929	13

48 States: [1]

Deaths registered, 1929 (population 121,455,000)	66, 247
Deaths per 1,000 inhabitants, 1929	0. 545

LETHARGIC ENCEPHALITIS

44 States: [1]

Deaths registered, 1929 (population, 115,784,000)	1, 359
Deaths per 1,000 inhabitants, 1929	0. 012

MALARIA

33 States:

Cases reported, 1929 (population, 100,853,000)	164, 030
Cases per 1,000 inhabitants, 1929	1. 626
Deaths registered, 1929	4, 036
Deaths per 1,000 inhabitants, 1929	0. 040
Cases reported for each death registered, 1929	41

38 States: [1]

Deaths registered, 1929 (population, 114,447,000)	4. 146
Deaths per 1,000 inhabitants, 1929	0. 036

MEASLES

48 States: [1]

Cases reported, 1929 (population, 121,455,000)	366, 056
Estimated expectancy, based on years 1922–1928	362, 997
Cases per 1,000 inhabitants, 1929	3. 014
Cases per 1,000 inhabitants, estimated expectancy	3. 161

[1] The District of Columbia is also included.

152

48 States [1]—Continued.

Deaths registered, 1929 _____ **2, 919**
Deaths per 1,000 inhabitants, 1929 _____ **0. 024**
Cases reported for each death registered, 1929 _____ **125**

MENINGOCOCCUS MENINGITIS

46 States: [1]

Cases reported, 1929 (population, 120,633,000) _____ **10, 551**
Estimated expectancy, based on years 1922–1928 _____ **2, 432**
Cases per 1,000 inhabitants, 1929 _____ **0. 087**
Cases per 1,000 inhabitants, estimated expectancy _____ **0. 021**

45 States: [1]

Deaths registered, 1929 (population, 115,865,000) _____ **4, 787**
Deaths per 1,000 inhabitants, 1929 _____ **0. 041**

44 States: [1]

Deaths registered, 1929 (population, 115,401,000) _____ **4, 785**
Deaths per 1,000 inhabitants, 1929 _____ **0. 041**
Cases reported for each death registered, 1929 _____ **2**

MUMPS

43 States:

Cases reported, 1929 (population, 107,208,000) _____ **103, 269**
Estimated expectancy, based on years 1922–1928 _____ **84, 800**
Cases per 1,000 inhabitants, 1929 _____ **0. 963**
Cases per 1,000 inhabitants, estimated expectancy _____ **0. 836**

46 States: [1]

Deaths registered, 1929 (population, 116,840,000) _____ **104**
Deaths per 1,000 inhabitants, 1929 _____ **0. 001**

41 States:

Deaths registered, 1929 (population, 102,593,000) _____ **93**
Deaths per 1,000 inhabitants, 1929 _____ **0. 001**
Cases reported for each death registered, 1929 _____ **1, 073**

PELLAGRA

13 States: [1]

Cases reported, 1929 (population 25,841,000) _____ **25, 423**
Cases per 1,000 inhabitants, 1929 _____ **0. 984**

41 States: [1]

Deaths registered, 1929 (population 114,917,000) _____ **7, 386**
Deaths per 1,000 inhabitants, 1929 _____ **0. 064**

PNEUMONIA (ALL FORMS)

46 States: [1]

Deaths registered, 1929 (population 113,626,000) _____ **107, 274**
Deaths per 1,000 inhabitants, 1929 _____ **0. 944**

POLIOMYELITIS (INFANTILE PARALYSIS)

41 States: [1]

Cases reported, 1929 (population 105,716,000) _____ **2, 837**
Estimated expectancy, based on years 1922–1928 _____ **3, 394**
Cases per 1,000 inhabitants, 1929 _____ **0. 027**
Cases per 1,000 inhabitants, estimated expectancy _____ **0. 034**

[1] The District of Columbia is also included.

41 States [1]—Continued.

Deaths registered, 1929 _____ **706**
Deaths per 1,000 inhabitants, 1929 _____ 0. 007
Cases reported for each death registered, 1929 _____ 4

48 States: [1]

Deaths registered, 1929 (population 121,455,000) _____ 843
Deaths per 1,000 inhabitants, 1929 _____ 0. 007

SCARLET FEVER

48 States: [1]

Cases reported, 1929 (population 121,455,000) _____ 182, 634
Estimated expectancy, based on years 1922–1928 _____ 175, 154
Cases per 1,000 inhabitants, 1929 _____ 1. 504
Cases per 1,000 inhabitants, estimated expectancy _____ 1. 525
Deaths registered, 1929 _____ 2, 497
Deaths per 1,000 inhabitants, 1929 _____ 0. 021
Cases reported for each death registered, 1929 _____ 73

SEPTIC SORE THROAT

30 States:

Cases reported, 1929 (population 65,312,000) _____ 3, 267
Cases per 1,000 inhabitants, 1929 _____ 0. 050

38 States: [1]

Deaths registered, 1929 (population 89,839,000) _____ 1, 569
Deaths per 1,000 inhabitants, 1929 _____ 0. 017

SMALLPOX

48 States: [1]

Cases reported, 1929 (population 121,455,000) _____ 42, 282
Estimated expectancy, based on years 1922–1928 _____ 31, 096
Cases per 1,000 inhabitants, 1929 _____ 0. 348
Cases per 1,000 inhabitants, estimated expectancy _____ 0. 271
Deaths registered, 1929 _____ 145
Deaths per 1,000 inhabitants, 1929 _____ 0. 001
Cases reported for each death registered, 1929 _____ 292

SYPHILIS

39 States: [1]

Cases reported, 1929 (population 112,106,000) _____ 196, 932
Cases per 1,000 inhabitants, 1929 _____ 1. 757

TUBERCULOSIS (ALL FORMS)

48 States: [1]

Deaths registered, 1929 (population 121,455,000) _____ 90, 470
Deaths per 1,000 inhabitants, 1929 _____ 0. 745

TUBERCULOSIS (RESPIRATORY SYSTEM)

45 States: [1]

Deaths registered, 1929 (poulation 114,641,000) _____ 77, 011
Deaths per 1,000 inhabitants, 1929 _____ 0. 672

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[1] The District of Columbia is also included.

TYPHOID FEVER

48 States: [1]

Cases reported, 1929 (population 121,455,000) _____ 23, 289
Estimated expectancy, based on years 1922–1928_____ 34, 417
Cases per 1,000 inhabitants, 1929_____ 0. 192
Cases per 1,000 inhabitants, estimated expectancy_____ 0. 300
Deaths registered, 1929_____ 5, 232
Deaths per 1,000 inhabitants, 1929_____ 0. 043
Cases reported for each death registered, 1929_____ 4

WHOOPING COUGH

48 States: [1]

Cases reported, 1929 (population 121,455,000) _____ 197, 371
Estimated expectancy, based on years 1922–1928_____ 153, 862
Cases per 1,000 inhabitants, 1929_____ 1. 625
Cases per 1,000 inhabitants, estimated expectancy_____ 1. 340
Deaths registered, 1929_____ 6, 956
Deaths per 1,000 inhabitants, 1929_____ 0. 057
Cases reported for each death registered, 1929_____ 28

THE INCIDENCE OF INFLUENZA AMONG PERSONS OF DIFFERENT ECONOMIC STATUS DURING THE EPIDEMIC OF 1918 [2]

By Edgar Sydenstricker, *Statistician, United States Public Health Service*

Perhaps no observation during the great influenza epidemic of 1918–1919 was more common than the familiar comment that "the flu hit the rich and the poor alike." Apparently there was ample ground for a belief in the impartiality of the disease. Its widespread prevalence throughout the country, the frequency with which households in every social class were attacked, and the fact that prominent persons in every community were struck down, were among the outstanding, undeniable experiences in the epidemic. A certain consolation seemed to be afforded by the thought that the pestilence was democratic, even in so dreadful a sense, in its behavior.

Like many conclusions based on general impressions, this observation was true only in part. Epidemic influenza undoubtedly was very prevalent among all classes of persons and its mortality toll

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was levied from the wealthy as well as from the poor. But when the generalization was subjected to the closer analysis afforded by actual records of influenza incidence in 1918 in enumerated populations, the interesting indication appeared that there were marked and consistent differences in its incidence—with respect both to morbidity and to mortality—among persons of different economic status. An association between the incidence of epidemic influenza and economic condition was manifested. Apparently the lower the economic level the higher was the attack rate. This relationship was found to persist even after allowance had been made for the influence of the factors of color, sex, and age, and certain other conditions.

CHARACTER OF THE DATA

The scope and method of the special influenza surveys by the Public Health Service have been discussed in previous publications, but so far as they relate to the particular series of data presented here, a brief explanation may be made.

The surveys were made in 10 cities ranging in population from 20,000 to 500,000 and in several smaller cities and rural areas in Maryland. The data here presented are only for nine urban localities with a population of 25,000 and over, and relate to slightly over 100,000 individuals. The information was collected by intelligent enumerators working under careful supervision and with detailed instructions. In each locality a house-to-house canvass was made of not less than 10 areas which were selected in such a way as to include fairly representative samples of different parts of the locality as well as of different classes of the population. The size of the sample populations canvassed in each locality is shown in the detailed tables presented in this report.

Regarding each individual in the population canvassed the enumerators recorded the name, color, sex, and age at last birthday; and whether sick or not sick since September 1, 1918, from influenza, pneumonia, or indefinitely diagnosed illness suspected to be influenza.

Regarding each case of sickness, the facts recorded were the nature of the illness (i. e., whether influenza, pneumonia, or "doubtful"), date of onset, duration, and date of death, if death occurred. The statement of the informant as to the occurrence of sickness was accepted, although the informant was questioned as to what diagnosis the attending physician had made, if a physician was in attendance. While three "types" of sickness were recorded, namely "influenza," "pneumonia," and "doubtful," various analyses of the data strongly suggest that cases recorded as any of the three types properly can be considered, for practical purposes, as epidemic influenza. For example, the chronological curve of "doubtful" cases was very similar to the curves for "influenza" and "pneumonia."

Regarding each household, the enumerators recorded the number of rooms occupied by the household and the economic status of the family. The actual economic classification was made by the enumerators themselves. Each enumerator was instructed to record at the time of her visit to the household her impression of its economic condition in one of four categories—"well-to-do," "moderate," "poor," "very poor." The enumerators were local persons of average intelligence and education. They were purposely given no standards for comparison or more detailed instructions on this point, the intention being to have them record their own impressions naturally and according to their own standards. It was believed also that if not less than four possible categories were allowed them in which to place the families visited, the families classified in the two extremes would permit sufficient contrast.

The results appear to justify the soundness of these assumptions. The distribution of the populations in the various economic classes suggested by the terms employed, the differences in distribution according to age of persons within each economic class, the distinct and fairly regular differences in influenza incidence among the several classes, as well as other internal evidences, suggest that although the method was crude, a classification was made that was sufficiently accurate for finding out whether or not a differential incidence did occur.

INFLUENZA INCIDENCE AMONG PERSONS OF DIFFERENT ECONOMIC STATUS

Morbidity.—A somewhat detailed tabulation showing the number of persons, the number of cases, and the rates in each economic class, subdivided according to broad age groupings, is given in Table I.

TABLE I.—*Incidence of epidemic influenza in 1918 among white persons of different ages classified according to the general economic condition of the households surveyed in nine localities*

Age group	Rate per 1,000				Number of persons canvassed				Number of influenza cases			
	Well-to-do	Moderate	Poor	Very poor	Well-to-do	Moderate	Poor	Very poor	Well-to-do	Moderate	Poor	Very poor
	All localities											
All ages	232	264	330	372	9,550	55,784	25,356	3,988	2,211	14,751	8,376	1,486
Under 15 years	308	330	374	408	2,129	14,862	9,291	1,695	656	4,910	3,474	692
15–24	297	297	335	374	1,494	9,704	4,412	672	443	2,878	1,480	251
25–44	248	277	347	370	3,244	19,153	7,388	1,060	804	5,303	2,565	392
45 and over	115	138	201	269	2,683	12,065	4,265	561	308	1,660	857	151
	New London, Conn.											
All ages	170	164	230	257	271	4,727	2,442	175	46	776	562	45
Under 15 years	229	186	228	211	48	1,033	975	95	11	196	222	20
15–24	167	183	220	250	30	875	400	20	5	160	88	5
25–44	239	185	270	370	92	1,576	725	46	22	291	196	17
45 and over	79	105	164	214	101	1,223	342	14	8	129	56	3

TABLE I.—*Incidence of epidemic influenza in 1918 among white persons of different ages classified according to the general economic condition of the households surveyed in nine localities*—Continued

Age group	Rate per 1,000				Number of persons canvassed				Number of influenza cases			
	Well-to-do	Moderate	Poor	Very poor	Well-to-do	Moderate	Poor	Very poor	Well-to-do	Moderate	Poor	Very poor
Baltimore, Md.												
All ages	187	252	312	379	2,786	14,585	8,612	1,400	520	3,670	2,685	530
Under 15 years	285	323	364	422	509	3,765	3,003	602	145	1,215	1,093	254
15–24	261	300	318	347	417	2,528	1,594	239	109	757	506	83
25–44	195	265	332	339	912	4,823	2,456	342	178	1,278	816	133
45 and over	93	121	173	276	943	3,469	1,559	217	88	420	270	60
Augusta, Ga.												
All ages	335	404	524	343	358	633	1,203	35	120	256	630	12
Under 15 years	432	476	623	273	118	185	390	11	51	88	243	3
15–24	257	436	504	500	70	110	230	4	18	48	116	2
25–44	374	429	505	445	91	212	327	9	34	91	165	4
45 and over	215	230	414	273	79	126	256	11	17	29	106	3
Macon, Ga.												
All ages	222	195	270	301	1,023	2,998	1,142	614	229	584	309	185
Under 15 years	311	263	316	303	264	699	395	221	82	184	125	67
15–24	250	192	266	310	148	667	244	126	37	128	65	39
25–44	234	202	266	307	384	1,046	319	176	90	211	85	54
45 and over	88	104	185	275	227	586	184	91	20	61	34	25
Des Moines, Iowa												
All ages	204	238	252	279	505	3,801	907	165	103	904	238	46
Under 15 years	294	312	270	352	102	1,091	356	54	30	340	96	19
15–24	257	217	323	242	70	632	135	33	18	137	44	8
25–44	252	252	262	245	155	1,227	244	49	39	309	64	12
45 and over	90	139	198	241	178	851	172	29	16	118	34	7
Louisville, Ky.												
All ages	81	157	217	380	726	6,519	2,106	376	59	1,026	456	143
Under 15 years	128	236	272	422	148	1,738	817	187	19	411	222	79
15–24	97	158	193	450	113	1,085	353	60	11	171	68	27
25–44	94	148	223	313	223	2,162	583	83	21	320	130	26
45 and over	33	81	102	239	242	1,534	353	46	8	124	36	11
Little Rock, Ark.												
All ages	291	356	435	427	574	4,939	1,254	89	167	1,756	545	38
Under 15 years	419	421	508	500	117	1,460	488	42	49	615	248	21
15–24	310	368	465	286	100	832	200	14	31	306	93	4
25–44	295	360	419	458	224	1,873	403	24	66	674	169	11
45 and over	158	208	215	222	133	774	163	9	21	161	35	2
San Antonio, Tex.												
All ages	500	532	571	605	1,217	6,677	3,160	466	609	3,553	1,805	282
Under 15 years	511	575	614	655	311	2,042	1,248	200	159	1,175	766	131
15–24	623	602	593	687	257	1,283	550	83	160	772	326	57
25–44	516	557	581	548	397	2,240	937	126	205	1,247	544	69
45 and over	337	323	398	439	252	1,112	425	57	85	359	169	25
San Francisco, Calif.												
All ages	171	204	253	307	2,090	10,905	4,530	668	358	2,225	1,146	205
Under 15 years	215	242	284	346	512	2,829	1,619	283	110	686	459	98
15–24	187	235	246	280	289	1,692	706	93	54	399	174	26
25–44	195	221	284	322	766	3,994	1,394	205	149	882	395	66
45 and over	86	108	144	172	523	2,390	811	87	45	259	117	15

Since the morbidity rate from influenza varies among persons of different sexes and ages, and since the distribution of persons according to sex and age varies in the different economic classes, it is necessary to make allowance for the influence of these factors in compar-
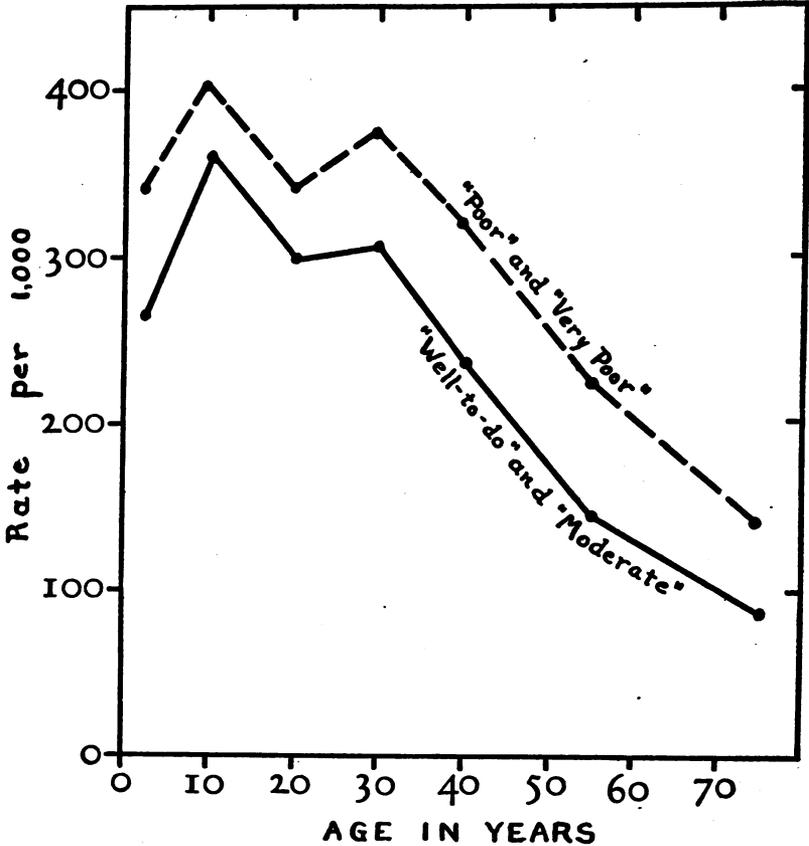
FIGURE 1.—Age incidence of influenza in the epidemic of 1918 among persons of different economic status

ing the morbidity rates for the several economic classes. The factor of sex was found in trial tabulations to be so inconsiderable that adjustments for sex were regarded as an unnecessary refinement. The factor of age, however, was more important.[1] Therefore in the table

[1] In the following tabulation is shown the distribution of persons in each economic class according to broad age groups.

TABLE IIA.—*Distribution of the white population included in special surveys of the 1918 influenza epidemic according to age for each of the general economic classes*

Economic status of household	All ages	Percentage in specified age groups			
		Under 15 years	15-24 years	25-44 years	45 years and over
All classes	100.0	29.6	17.2	32.6	20.7
Well-to-do	100.0	22.3	15.7	24.0	28.1
Moderate	100.0	26.6	17.4	34.3	21.6
Poor	100.0	36.6	17.4	29.1	16.8
Very poor	100.0	42.5	16.9	26.6	14.1

It will be noted that the proportion of the population in the younger age groups regularly increases as we descend in the economic scale, and vice versa. The differences in morbidity rates among persons of different ages in the several economic classes is discussed later.

presented below the rates for the various economic classes were adjusted to a standard age distribution, that of the continental United States in 1910 being used.

TABLE II.—*1918 influenza morbidity rate (adjusted for age)* [1] *per 1,000 white persons of different economic status in nine localities in which special surveys were made*

Locality	Economic status of household			
	Well-to-do	Moderate	Poor	Very poor
All localities	252	272	326	364
New London	192	170	227	266
Baltimore	218	263	309	370
Augusta	339	408	526	(2)
Macon	234	201	267	300
Des Moines	236	243	265	278
Louisville	94	166	210	361
Little Rock	312	352	418	(2)
San Antonio	502	527	559	589
San Francisco	179	209	250	293

[1] The "standard population" used was the total population of the United States in 1910.
[2] Insufficient data.

While the number of persons classified as "very poor" and as "well-to-do"—the two extremes of the economic scale—are relatively small, the relationship between economic status and influenza incidence is fairly regular, not only for the nine localities taken together, but for each of the localities. The ratio of the rate for the "very poor" to that for the "well-to-do" is 1.3 to 1.0 for the nine localities as a group, but it varies considerably in the different localities. The nature of the data did not permit of analyses in sufficient detail to suggest the reasons for this variation.

Mortality.—The same relation is shown when the mortality rates from influenza and pneumonia (all forms) are compared for persons in the different economic classes. After making allowance for differences in the age distribution, it was found that the death rate was the same in the two highest classes, was over 33 per cent greater in the class denoted as "poor," and was nearly three times as high among persons classified as "very poor." The rates are shown in the following table:

TABLE III.—*Mortality from influenza and pneumonia during the epidemic of 1918 among white persons included in surveys made in nine localities classified according to the general economic condition of the household*

Economic status of household	Rate per 1,000 persons (adjusted for age) [1]
Well-to-do	3.8
Moderate	3.8
Poor	5.2
Very poor	10.0

[1] The "standard population" used was the total population of the United States in 1910.

That the higher mortality in the economically less favored classes was not due entirely to a higher incidence, but that the fatality of cases among "poor" and "very poor" persons was higher than among the "well-to-do" and those in "moderate" circumstances was clearly shown when the case fatality rate, after making allowances for differ-
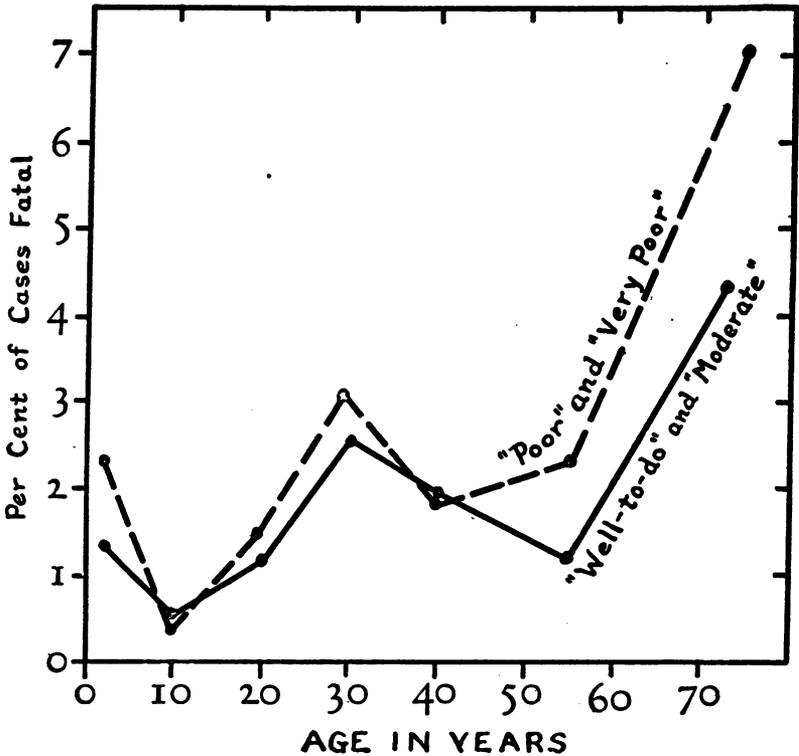
FIGURE 2.—Fatality of cases of influenza in the epidemic of 1918 according to age among persons of different economic status

ences in age distribution, was computed for each economic class. This is exhibited in the following table:

TABLE IV.—*Case fatality of influenza in the epidemic of 1918 among white persons included in surveys made in nine localities classified according to the general economic condition of the household*

Economic status of household	Rate per 100 cases (adjusted for age)[1]
Well-to-do	1.5
Moderate	1.5
Poor	1.7
Very poor	2.8

[1] The "standard population" used was the total population of the United States in 1910.

It will be noted that the case fatality rate was nearly twice as great among the "very poor" as among the "well-to-do" and those classified as in "moderate" circumstances.

THE EFFECTS OF CERTAIN SPECIFIC CONDITIONS

What specific conditions included under the term "economic status" were responsible for these differences in influenza incidence?

The discovery of an association of relatively high influenza incidence with poor economic condition does not, by any means, invest poor-economic condition with causal significance. It points to the probability that the incidence of the disease is influenced by one or more of the many factors that are themselves bound up, causally or otherwise, with the economic status of a population. Whether or not an inheritance of feeble resistance to influenza or to secondary complicating infections goes with incapacity to earn a good living; what effects upon resistance to the disease a continued unfavorable environment may have; what increase in the chance for infection is brought about by the conditions under which members of the poorer households work and live; what differences in the medical and other care of patients in the poorer and richer households may have prevailed and the effect of such differences upon the fatality of the disease—these are only some of the questions which the existence of a statistical correlation does not specifically answer. The correlation merely suggests that some of these conditions may have a bearing on the question.

The specific conditions that may be involved probably are not only numerous but are so intertwined that even a very intensive investigation of a very much larger exposure could give only partial and incomplete answers to the epidemiological questions that present themselves. The present study, therefore, can not be considered as carrying our inquiry much further than the rough determinations presented above. On one or two points, however, some rather definite evidence is given, and suggestive evidence is afforded on other points.

1. A comparison of the proportion of households in which at least one case of influenza occurred, for the different economic classes, shows that the *introduction* of the disease tended to be relatively more frequent in the poorer than in the richer households.

In making this comparison, obviously it is necessary to make allowance for the possible influence of (a) differences among the various economic classes in the sex and age composition of members of the households, and (b) differences among the various economic classes in the size of the households. It was found that differences in sex and age of members of the household affected the morbidity rates only slightly while differences in the size of the households appreciably affected the result in some instances. Accordingly, for each locality the percentages of households attacked were weighted according to a standard size distribution of households. The resulting attack rates per 100 households are shown in Table V.

TABLE V.—*Proportion of total households in which one or more persons were attacked by influenza during the epidemic of 1918 in selected areas in nine localities in which special surveys were made*

Locality	Per cent of total households affected with influenza for each economic class [1]			
	Well-to-do	Moderate	Poor	Very poor
New London	43	37	41	59
Baltimore	42	48	54	61
Augusta	46	63	70	72
Macon	41	39	42	56
Des Moines	52	46	47	43
Louisville	21	30	39	51
Little Rock	50	57	59	77
San Antonio	96	99	95	94
San Francisco	36	41	44	46

[1] Adjusted to a standard distribution of households according to size. Adjustment for sex and age indicated that differences in sex and age composition of households did not affect the rates materially.

Although the rates do not always vary greatly and some of the groups do not comprise large populations, the indication is fairly consistent in seven of the nine localities.[1] Obviously, if an association existed between the incidence of influenza and economic status, some effect of this association in the selection of households by the disease might be expected, other things being equal. But to what extent this selection was due to greater opportunity for infection, or reflects less resistance to infection on the part of persons composing the poorer households, or is the result of other factors, are also questions that can not be answered definitely by our data.

2. On the other hand, a much more marked correlation is evident between economic status and influenza incidence in households after the disease had been introduced, as the following table shows:

TABLE VI.—*Influenza attack rate during the 1918 epidemic in white households of different economic status [1] in Baltimore*

Economic status	Attack rate per 1,000 persons in households in which one or more cases occurred
All classes	475
Well-to-do	390
Moderate	455
Poor	506
Very poor	577

[1] The rates for the different economic classes have been adjusted to a standard age distribution, the "standard population" used being the total population of the United States in 1910.

Here it is seen that in affected households, comparable from the points of view of size and sex and age composition, the influenza attack rate manifests an association with economic status similar

[1] One of the two localities for which this indication does not appear was San Antonio, in which practically all (98 per cent) of the households were attacked. The other was Des Moines; I am unable to suggest any explanation from the data for this exception.

to that already shown by the influenza morbidity rate among persons constituting the entire population of each economic class. The ratio of the attack rates in affected households to the total morbidity rates in the various economic classes manifests no great nor consistent differences, the ratios being as follows: "Well-to-do," 1.55:1; "moderate," 1.67:1; "poor," 1.55:1; "very poor," 1.56:1.

From the two foregoing indications yielded by these data the observation may be made that economic status, or, more precisely, some condition or conditions of which economic status is an index, was a relatively unimportant determinant of the extent to which the disease spread in a community but was of considerable importance as a determinant of the morbidity rate within the households attacked, and thus presumably among persons definitely exposed to an active case of the disease at all of its stages. That factors other than those associated with economic status were far more powerful in the spread of the epidemic within the community is clearly evident from the wide variation in the proportions of households attacked as well as in the morbidity rates in the nine localities surveyed, as the following table shows:

TABLE VII.—*A comparison of the proportion of households attacked by influenza and the influenza morbidity rate per 1,000 persons for nine localities in which special surveys of 1918 were made*

Locality	Per cent of households attacked [1]	Morbidity rate per 1,000 persons [2]
New London	39	185
Baltimore	50	246
Augusta	63	341
Macon	42	213
Des Moines	46	231
Louisville	32	150
Little Rock	57	359
San Antonio	98	535
San Francisco	41	215

[1] Weighted for size of household.
[2] Adjusted to age distribution of the population in the United States in 1910.

In fact, there is a very close correlation between the percentages of households attacked and the morbidity rates,[1] and this correlation persists for each economic class. (Tables II and V.) On the other hand, the attack rates in affected households did not vary greatly in the nine localities. Thus in San Antonio where 98 per cent of the households were affected, the attack rate within these households was 548 per 1,000 persons, whereas in Baltimore, where only 50 per cent of the households were affected, the attack rate within these households was 475 per 1,000.

[1] Although only nine observations are available, their values when plotted in a correlation diagram fall practically on a straight line, and, considering the number, are well distributed (r=0.79±0.08).

.These indications naturally lead us to such consideration of possible intra-household factors as the data may afford.

3. The only information bearing upon intra-household factors that was obtained related to "crowding." The data on this point were the number of persons and the number of rooms occupied in each household. The individuals thus could be classified according to the number of persons per room. Obviously, "crowding," as expressed by "persons per room," is a very crude index of the opportunity for contact among persons living in households, but upon the assumption that such contact generally would be more close and frequent in crowded households than in households where, say, there were two rooms per person, it was thought worth while to compute the influenza morbidity rate for different groups living under different degrees of crowding. These rates are given in Table VIII, adjusted to a standard age distribution.

TABLE VIII.—*1918 influenza morbidity rate per 1,000 white persons classified according to degree of household "crowding" in nine localities* [1]

Locality	Number of persons per room		
	1 or less	More than 1 but not over 2	More than 2
All localities	265	328	405
New London	175	219	304
Baltimore	267	323	242
Augusta	386	564	([2])
Macon	202	249	323
Des Moines	240	251	([2])
Louisville	284	202	280
Little Rock	318	412	408
San Antonio	522	545	619
San Francisco	199	260	257

[1] The rates for the different classes have been adjusted to a single age distribution, the "standard population" used being the total population of the United States in 1910.
[2] Insufficient data.

Taking the nine localities together, a quite definite association of household congestion and influenza is suggested. This, however, might be nothing more than a reflection of economic status. In fact, the actual distribution of the individuals in each economic class according to "persons per room" shows quite clearly that a much larger proportion of individuals were members of relatively congested households in the poorer classes than in the classes denoted as "well-to-do" and as in "moderate" circumstances. The differences in distribution are shown in the following table:

TABLE IX.—*Relation of over-crowding to economic status in white households included in special influenza surveys of 1918 in four localities*

Economic status of household	Total number of persons in the households visited	Number of persons per room		
		One or less	More than 1 but not over 2	More than 2
		Number of persons		
Well to do	6, 575	6, 115	446	14
Moderate	36, 764	27, 789	8, 732	243
Poor	17, 398	9, 240	7, 273	880
Very poor	2, 583	860	1, 377	346
		Per cent of total number of persons		
Well to do	100. 0	93. 0	6. 8	0. 2
Moderate	100. 0	75. 6	23. 7	.7
Poor	100. 0	53. 1	41. 8	5. 1
Very poor	1C0. 0	33. 3	53. 3	13. 4

A more detailed analysis of the data, therefore, was necessary in which the influenza morbidity rate among persons living in households of different degrees of household "congestion" could be compared for each economic class; or, to state it in another way, the influenza morbidity rate among persons in different economic classes could be compared for various degrees of household "congestion." In such an analysis economic status thus would be used as an index of all environmental and other conditions in order to single out with greater distinctness the influence of one of these conditions, namely, household congestion. Obviously those households in which no cases occurred have no bearing on the question of intrahousehold incidence and should be excluded. It was not practicable to tabulate the entire mass of data in such detail, but the experience of San Antonio, where an extensive survey was made and where 98 per cent of the households had one or more cases, conformed to the requirements of the desired analysis.

TABLE X.—*1918 influenza morbidity rate among white persons surveyed in San Antonio and classified according to degree of household crowding and economic status*

Economic status of household	Attack rate per 1,C00 in household with number of persons per room as follows:[1]		
	One or less	More than 1 but not more than 2	More than 2
Well to do	504	514	([2])
Moderate	525	533	570
Poor	562	561	650
Very poor	542	619	603

[1] Adjusted to the age distribution of the population of the United States in 1910 and excluding persons in households that were not affected by influenza in the epidemic of 1918.
[2] Insufficient data.

The San Antonio data afford no clear-cut evidence that the mere fact of household crowding, as measured by the ratio "persons per room," was associated with the incidence of influenza. This indication is at variance with W. Vaughn's (1) observation in Boston that crowded families were more apt to have multiple cases of influenza in the 1918 epidemic, but "crowding" in Boston might be a quite different thing from "crowding" in San Antonio. On the other hand, it is in accordance with the findings of various British investigators (2). Although some doubt may be entertained as to the efficiency of household congestion as an index of the degree of effective contact between a case and susceptible persons, which is the datum desired, it seems to be clear that the association between influenza incidence and economic status persists within each "persons per room" class. This suggests the conclusion that household congestion, although a concomitant of poverty, is not per se the determining factor in establishing the association of economic status and influenza in 1918.

INFLUENZA INCIDENCE AMONG PERSONS OF DIFFERENT ECONOMIC STATUS AND AGE

Morbidity.—A comparison of the influenza morbidity and of case fatality rates at different ages among persons of different economic status throws some light on the relative importance of some of the various conditions included under the term "economic status" as factors in determining incidence and lethal rates. It has been necessary in presenting the various tabulations incident to this analysis of our material, to make combinations of the four economic classes into two, and of the ages into a few broad age groups, especially when mortality from influenza is brought into consideration, since the number of deaths is too small for minute subdivision. Even with these combinations the data are too scanty to place the results entirely beyond the influence of errors arising from chance, but the general indications seem to be fairly clear.

When the morbidity rate at different ages is compared for persons classified as "well-to-do" and in "moderate" circumstances and for persons classified as "poor" and "very poor," it is seen that the higher incidence among members of the poorer households prevailed at all ages. This is shown in the following table, in which the rates are given for 5-year age groups and for broader age groups, and in Figure 1.

TABLE XI.—*Incidence of epidemic influenza in 1918 in each age group among white persons, classified according to the general economic condition of the household, in nine localities where surveys were made*

Age group	Rate per 1,000 white persons in households classified as—		Ratio of (B) to (A)
	Well-to-do and moderate (A)	Poor and very poor (B)	
Under 5	262	339	1.29
5–9	370	412	1.11
10–14	350	390	1.11
15–19	303	349	1.15
20–24	290	331	1.14
25–29	310	378	1.22
30–34	299	375	1.25
35–39	261	348	1.33
40–44	205	281	1.38
45–49	178	245	1.37
50–54	137	237	1.73
55–59	130	197	1.51
60–64	108	190	1.76
65 and over	87	142	1.63
Under 5	262	339	1.29
5–14	360	401	1.11
15–24	297	340	1.15
25–34	305	376	1.23
35–44	235	318	1.35
45–64	145	224	1.54
65 and over	87	142	1.63

Aside from the fact of a persistently higher level of influenza morbidity among persons classified as "poor" and "very poor," there is an interesting—and possibly significant—tendency toward a relatively higher morbidity rate in the older ages among persons classified as "poor" and "very poor" than among those classified as "well-to-do" and in "moderate" circumstances. This is conveniently expressed in the ratio at each specified age of the morbidity rate for the poorer class to that for the higher economic class. The series of ratios (see Table XI) exhibit a tendency to become greater in the adult ages, reaching their maximum in old age. The ratio for children under five years of age is also relatively high.

The suggestion is afforded, therefore, that in the poorer households either the resistance to attack on the part of infants and older adults was lower, or the opportunity for their infection was greater, or both conditions obtained. In this connection, a similar comparison of the attack rates in households affected is of interest. The tabulations include only the Baltimore survey, but the number of persons is sufficiently large (15,513) to yield a fairly regular series of rates, as shown in the table following.

TABLE XII.—*Influenza attack rate in the epidemic of 1918 in each specified age group among white persons in affected households of different economic status, in areas canvassed in Baltimore*

Age group	Attack rate per 1,000 persons in households classified as—		Ratio of (B) to (A)
	Well-to-do and moderate (A)	Poor and very poor (B)	
Under 5	452	522	1.15
5–14	547	585	1.08
15–24	491	522	1.14
25–34	535	601	1.12
35–44	375	489	1.31
45–64	278	388	1.39
65 and over	186	333	1.79

Upon the assumption that all of the individuals in these households were definitely exposed, perhaps frequently, to the disease, the hypothesis that the susceptibility to attack among young children and older adults was greater in poorer households than in households economically better off would seem to be strengthened.

Case fatality.—A similar comparison of the fatality of influenza at different ages among persons of relatively poor economic condition with that among persons in moderate and well-to-do circumstances, is given in the following table and in Figure 2.

TABLE XIII.—*Fatality at each age group of cases of influenza in the epidemic of 1918, classified according to the general economic condition of the households affected*

Age group	Per cent of cases fatal in households classified as—		Ratio of (B) to (A)
	Well-to-do and moderate (A)	Poor and very poor (B)	
Under 5	1.4	2.3	1.64
5–14	.5	.4	.80
15–24	1.2	1.5	1.25
25–34	2.6	3.1	1.19
35–44	1.9	1.8	.95
45–64	1.2	2.4	2.00
65 and over	4.3	7.0	1.63

If the curves were parallel, the conclusion would be admissible that the influences connoted by the term "economic status" operated with equal force at all ages. But the curves are not parallel. As shown in the ratios given in Table XIII, the case fatality rate among poorer persons is distinctly higher than among persons economically better off in three age groups, viz, under 5 years, 15–34, and 45 and over.

What interpretation can be made of these differences, assuming that the sample is sufficiently large to warrant their serious consideration? Since so many conditions unobserved in the course of the survey may

have been involved, a definite conclusion is unwarranted. The definitely greater fatality in the older persons in the lower economic classes than in the higher economic classes suggest that their resistance, for some reason associated with their economic status, was lowered. This suggestion is upon the rather broad but generally favored hypothesis that the mortality rate among a given group of persons of middle age or over is usually a fair indication of their resistance to the effects of disease when compared with that of a standard or normal group. The greater fatality among poorer children under 5 years of age and among poorer adults under 30 or 35 years of age does not fit in with this hypothesis so well. While unfavorable heredity conceivably might be assigned as an important cause of the high fatality rate from influenza among young children in the poorer classes, other factors can not be left out of consideration. Among these factors should be included that of medical and nursing care, in which respect the poor were usually at a disadvantage. The strain upon parents who were themselves attacked at the same time as their children must have been more severe among the poor than among the well-to-do, particularly in view of the fact that the families of the poor more frequently were larger and composed of younger children than those classed as economically better off. But we can only speculate as to the various conditions that possibly or probably might have been involved. The circumstances at the time of the epidemic were such that more detailed data were not obtainable for a sufficiently large sample of our population.

REFERENCES

(1) Vaughn, Warren: A detailed review of the epidemiology of influenza, Monograph No. 1, American Journal of Hygiene, Baltimore, 1921.
(2) Ministry of Health (Great Britain): Report on Influenza, 1918–1919, Chap. VIII.

PRECEDING PAPERS ON THE EPIDEMIOLOGY OF INFLUENZA

Preceding papers from the office of statistical investigations dealing with various phases of the epidemiology of influenza are listed below:
Mortality from Influenza and Pneumonia in 50 Large Cities of the United States, 1910–1929. By S. D. Collins, W. H. Frost, Mary Gover, and Edgar Sydenstricker. Public Health Reports, Vol. 45, No. 39, Sept. 26, 1930. (Reprint 1415.)
Influenza-Pneumonia Mortality in a Group of about 95 Cities in the United States, 1920–1929. By S. D. Collins. Public Health Reports, Vol. 45, No. 8, February 21, 1930. (Reprint 1355.)
The Influenza Epidemic of 1926. Public Health Reports, August 20, 1926. (Reprint 1104.)
Variations in Case Fatality During the Influenza Epidemic of 1918. By Edgar Sydenstricker. Public Health Reports, September 9, 1920. (Reprint 692.)
Statistics of Influenza Morbidity. By W. H. Frost. Public Health Reports, March 12, 1920. (Reprint 586.)

Difficulties in Computing Civil Death Rates for 1918. By Edgar Sydenstricker and Mary L. King. Public Health Reports, February 13, 1920. (Reprint 583.)

The Epidemiology of Influenza. By W. H. Frost. Public Health Reports, August 15, 1919. (Reprint 550.)

Epidemic Influenza in Foreign Countries. By W. H. Frost and Edgar Sydenstricker. Public Health Reports, June 20, 1919. (Reprint 537.)

Influenza in Maryland. By W. H. Frost and Edgar Sydenstricker. Public Health Reports, March 14, 1919. (Reprint No. 510.)

A Comparison of the Mortality Rates by Weeks During the Influenza Epidemic of 1889–90 and during the Primary Stage of the Influenza Epidemic of 1918 in 12 Cities in the United States. Public Health Reports, January 31, 1919. (Reprint 502.)

Preliminary Statistics of the Influenza Epidemic. By Edgar Sydenstricker. Public Health Reports, Vol. 33, No. 52, December 27, 1918.

ESSENTIAL FEATURES IN THE DESIGN OF SANITARY DRINKING FOUNTAINS

The committee on plumbing of the public health engineering section of the American Public Health Association presented a report at the meeting of the association in 1929 covering the essential features in design of sanitary drinking fountains. This report [1] listed 12 details to be considered in the design, construction, and operation of drinking fountains.

Following the issuance of the report further study was given the subject, and the conference of State sanitary engineers at their 1930 meeting adopted the following as essential features of design, construction, and operation of drinking fountains:

1. The fountain shall be constructed of impervious material, such as vitreous china, porcelain, enameled cast iron, other metals, or stoneware.

2. The jet of the fountains shall issue from a nozzle of nonoxidizing, impervious material set at an angle from the vertical. The nozzle and every other opening in the water pipe or conductor leading to the nozzle shall be above the edge of the bowl so that such nozzle or opening will not be flooded in case a drain from the bowl of the fountain becomes clogged.

3. The end of the nozzle shall be protected by nonoxidizing guards to prevent persons using the fountain from coming into contact with the nozzle.

4. The inclined jet of water issuing from the nozzle shall not touch the guard, thereby causing splattering.

5. The bowl of the fountain shall be so designed and proportioned as to be free from corners which would be difficult to clean or which would collect dirt.

6. The bowl shall be so proportioned as to prevent unnecessary splashing at a point where the jet falls into the bowl.

7. The drain from the fountain shall not have a direct physical connection to a waste pipe unless the drain is trapped.

8. The water supply pipe shall be provided with an adjustable valve fitted with a loose key or an automatic valve permitting the regulation of the rate of flow of water to the fountain so that the valve manipulated by the users of the fountain will merely turn the water on or off.

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9. The height of the fountain at the drinking level shall be such as to be most convenient to persons utilizing the fountain. The provision of several steplike elevations to the floor at fountains will permit children of various ages to utilize the fountain.

10. The waste opening and pipe shall be of sufficient size to carry off the water promptly. The opening shall be provided with a strainer.

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for November, 1930

The accompanying table, taken from the Statistical Bulletin for December, 1930, issued by the Metropolitan Life Insurance Co., presents the mortality record of the industrial insurance department of the company for November, 1930, 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–November, inclusive, for the years 1930 and 1929. The rates in the table are based on a strength of approximately 19,000,000 insured persons in the United States and Canada.

The Bulletin states:

It is now safe to announce that the year 1930 will be recorded as a year of better health conditions than have ever before been enjoyed in the United States and Canada. The exact death rate can not be determined until some time after the close of the year; but the mortality record for 11 of the 12 months has been so much better than ever before registered that only a veritable health disaster in the final month could force the year's mortality rate above the previous minimum. These conclusions are based on the mortality statistics of approximately 19,000,000 industrial policyholders of the company. This group is a representative cross section of the population of the two countries. About 16,500,000 are white persons and about 2,500,000 are negroes. About 1,250,000 are Canadians. Both sexes and every age range are fully represented.

With regard to the factors contributing to this gratifying health record for the year and with reference to new low mortality rates that will probably be established for this group and for the general population, the Bulletin says:

The year has been absolutely free from the widespread prevalence of any contagious or infectious disease. The 1930 influenza death rate will be lower than in many years past. New low mortality rates will surely be established for diphtheria, tuberculosis, and puerperal conditions, and probably for typhoid fever, scarlet fever, and diarrheal complaints. There is good prospect that 1930 will mark a break in the long series of years during which the cancer death rate has been persistently increasing, and that there will be recorded, also, a drop in diabetes mortality for the first time since 1924. In addition, there is every prospect that the accident death rate will be considerably below that of 1929 and possibly below any figure recorded since 1922. Even the picture for automobile fatalities is encouraging; for, up to the end of November, there was no increase over last year's figure.

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

[Industrial insurance department, Metropolitan Life Insurance Co.]

Cause of death	Death rate per 100,000 lives exposed [1]				
	November, 1930	October, 1930	November, 1929	Cumulative, January–November	
				1930	1929
Total, all causes	765.3	810.3	806.3	863.7	938.8
Typhoid fever	2.6	4.4	2.5	2.2	2.4
Measles	.2	.3	.4	2.9	3.0
Scarlet fever	2.0	1.3	1.8	2.5	2.6
Whooping cough	2.3	2.7	3.8	4.3	5.9
Diphtheria	5.7	5.0	12.0	5.8	8.6
Influenza	10.7	6.7	13.4	14.4	43.1
Tuberculosis (all forms)	64.9	75.0	74.6	80.6	87.6
Tuberculosis of respiratory system	57.3	67.4	66.7	70.2	77.4
Cancer	71.3	82.4	75.3	76.7	77.3
Diabetes mellitus	16.1	16.9	16.9	18.1	18.5
Cerebral hemorrhage	55.4	55.7	[2] 51.6	59.3	[2] 57.3
Organic diseases of heart	130.1	130.4	128.6	142.5	146.6
Pneumonia (all forms)	66.6	46.5	65.4	74.9	89.0
Other respiratory diseases	9.3	9.2	9.4	10.9	12.0
Diarrhea and enteritis	19.0	38.5	15.3	20.9	21.3
Bright's disease (chronic nephritis)	60.7	61.9	64.4	66.8	69.6
Puerperal state	8.6	10.1	11.4	11.9	13.4
Suicides	9.6	10.0	7.9	9.6	8.6
Homicides	5.8	6.9	5.5	6.5	6.4
Other external causes (excluding suicides and homicides)	53.5	59.5	63.0	61.7	64.6
Traumatism by automobiles	21.1	23.4	24.3	20.3	20.3
All other causes	171.0	187.4	183.4	191.2	200.8

[1] All figures in this table include insured infants under 1 year of age. The rates for 1930 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.
[2] Rate not comparable with that for 1930.

COURT DECISION RELATING TO PUBLIC HEALTH

Provision of law relative to certificates of unfitness for vaccination construed.—(New Hampshire Supreme Court; Covey et al. *v.* Robinson et al., 152 A. 279; decided Nov. 5, 1930.) The vaccination statute required a local board of health to issue a certificate of unfitness for vaccination "on the advice of a registered physician of the State and practicing in the town in which the child resides." The plaintiffs petitioned for a writ of mandamus to compel the defendants, as the members of the board of health of Laconia, to issue certificates that the children of the plaintiffs were unfit subjects for vaccination. A registered physician of the State had advised the defendants that the children were unfit. Such physician's office and residence were in the neighboring town of Meredith. She had attended many patients in Laconia, but the period of time that the service covered did not appear. For about six months before giving the advice as to plaintiffs' children she had attended no patients in Laconia, and at the time of giving such advice she had there no patients other than such children. Regarding the construction to be placed on the law, the supreme court said:

Here the advising physician was registered in the State, and, if the defendants found her to be practicing in Laconia when the advice was given, their duty to

give the certificates followed. The position is taken that, because her office and residence were in Meredith, she was not practicing elsewhere. This is too narrow a view of the statute. Under it no certificate could be issued for children in towns where no physicians reside or have an office. Judicial notice may be taken of the substantial number of such towns in the State. It is not probable that the legislature intended to create, if it had the power to do so, an arbitrary situation in which exemption from vaccination depended in part upon the fortune of residence in a town where a physician is located. The test suggested by plaintiff's counsel that the physician is practicing in all towns within the ordinary area of his professional activity, regardless of the number of his patients in a particular town at the time his advice is given, seems best expressive of the legislative purpose. The spirit of the statute to give equality of treatment to all is to be assumed, and to give it the restricted scope claimed by the defendants would lead to unfair discrimination.

* * * It might be found that her [the physician's] practice in Laconia was too rarely occasional to make it a part of her ordinary practice, and that it was so outside her regular practice as to be special and separate from it. In continuously holding herself ready and willing to visit any who might call her there, she did not do enough to make it a part of the territorial range of her ordinary service. There must be some measurable extent of actual practice to embrace a given place within such range. And, as of bearing, the population of Laconia may be considered. The more populous a place, the more the service required to make it ordinary. On the other hand, it might be found that her practice there, although occasional and limited, was sufficient to bring it within the required locality.

This issue of fact was for the defendants to determine.

The court said that "It was for them [the defendants] to pass upon the issue under the view of the statute herein set forth," and concluded its opinion by saying:

If the plaintiffs after amendment of their petition show that the issue was determined by an erroneous view and application of the law, the writ should be granted to the extent of requiring proper consideration of the physician's qualifications in respect to area of practice. Otherwise, it should be refused.

ANNUAL MORTALITY SUMMARY FOR 81 CITIES, 1930

Number of deaths, death rates, and infant mortality in 81 large cities in 1930 (December 29, 1929–December 27, 1930) and comparison with 1929

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

City	Total deaths[1]	Death rate[2] (per 1,000 estimated population)	Deaths under 1 year[1]	Provisional infant mortality rate, 1930[1][3]	Infant mortality rate, 1929	Mortality data for calendar year, 1929[4]		
						Total deaths	Death rate (per 1,000 estimated population)	Deaths under 1 year
Total (81 cities)	414,609	11.9	38,964	[5]58	[5]64	432,180	12.6	42,037
Akron	1,984	7.8	271	51	64	2,371	9.4	362
Albany	1,886	14.8	153	58	70	2,031	16.1	178
Atlanta	4,156	15.3	493	97	94	4,191	15.7	477
White	2,070	[6]	227	69	75	2,116	[6]	245
Colored	2,086	[6]	266	147	128	2,075	[6]	232

See footnotes at end of table.

Number of deaths, death rates, and infant mortality in 81 large cities in 1930 (December 29, 1929–December 27, 1930) and comparison with 1929—Continued

City	Total deaths [1]	Death rate [2] (per 1,000 estimated population)	Deaths under 1 year [1]	Provisional infant mortality rate, 1930 [2][3]	Infant mortality rate, 1929	Mortality data for calendar year, 1929 [4] — Total deaths	Death rate (per 1,000 estimated population)	Deaths under 1 year
Baltimore	11,203	13.9	969	63	73	11,629	14.5	1,069
White	8,394	(6)	664	55	62	8,745	(6)	730
Colored	2,809	(6)	305	92	110	2,884	(6)	359
Birmingham	3,527	13.5	385	74	88	3,873	15.3	479
White	1,622	(6)	154	51	65	1,866	(6)	215
Colored	1,905	(6)	231	103	124	2,007	(6)	264
Boston	10,942	14.0	1,259	69	69	11,654	15.0	1,238
Bridgeport	1,588	10.8	144	46	71	1,750	11.9	216
Buffalo	7,375	12.9	762	60	66	7,900	13.9	773
Cambridge	1,346	11.9	121	47	57	1,423	12.6	149
Camden	1,570	13.3	207	69	71	1,674	14.1	212
Canton	1,027	9.8	133	58	66	1,149	11.1	130
Chicago	35,187	10.4	3,100	53	60	37,278	11.2	3,540
Cincinnati	6,996	15.5	574	66	77	7,510	16.8	680
Cleveland	9,897	11.0	947	53	61	10,896	12.2	1,072
Columbus	4,453	15.3	367	69	71	4,167	14.5	379
Dallas	3,000	11.5	369	(7)	(7)	2,948	11.6	367
White	2,275	(6)	288	(7)	(7)	2,201	(6)	267
Colored	725	(6)	81	(7)	(7)	747	(6)	100
Dayton	2,170	10.8	204	55	66	2,246	11.4	232
Denver	4,311	15.0	457	85	84	4,172	14.6	401
Des Moines	1,648	11.6	124	42	53	1,677	11.9	149
Detroit	14,543	9.2	2,090	64	69	16,577	10.9	2,342
Duluth	1,170	11.6	98	46	46	1,195	11.8	88
El Paso	1,750	17.1	347	(7)	(7)	1,954	19.4	404
Erie	1,274	11.0	121	43	57	1,393	12.1	135
Fall River [8]	1,321	11.5	145	63	66	1,532	13.2	149
Flint	1,396	8.9	269	66	72	1,613	10.6	319
Fort Worth	1,798	11.0	177	(7)	(7)	1,876	11.6	230
White	1,436	(6)	136	(7)	(7)	1,444	(6)	151
Colored	362	(6)	41	(7)	(7)	432	(6)	79
Grand Rapids	1,702	10.1	164	47	53	1,710	10.3	185
Houston	3,571	12.1	413	(7)	(7)	3,530	12.5	354
White	2,332	(6)	280	(7)	(7)	2,139	(6)	181
Colored	1,239	(6)	133	(7)	(7)	1,391	(6)	173
Indianapolis	5,232	14.4	321	51	68	5,318	14.7	469
White	4,299	(6)	254	46	61	4,399	(6)	371
Colored	933	(6)	67	86	110	919	(6)	98
Jersey City	3,579	11.3	423	72	67	3,902	12.4	404
Kansas City, Kans	1,438	11.8	137	54	72	1,629	13.4	162
White	1,104	(6)	114	54	68	1,223	(6)	128
Colored	334	(6)	23	56	99	406	(6)	34
Kansas City, Mo	5,258	13.1	435	63	74	5,417	13.7	464
Knoxville	1,428	13.4	170	70	80	1,401	13.5	179
White	1,110	(6)	143	65	75	1,091	(6)	150
Colored	318	(6)	27	106	135	310	(6)	29
Long Beach	1,467	10.2	83	39	39	1,470	10.8	80
Los Angeles	13,896	11.1	1,090	61	65	13,629	11.4	1,113
Louisville	4,146	13.5	305	50	72	4,634	15.1	435
White	3,119	(6)	253	48	66	3,566	(6)	350
Colored	1,027	(6)	52	66	108	1,068	(6)	85
Lowell [8]	1,319	13.1	153	75	69	1,385	13.6	136
Lynn	1,073	10.5	105	52	56	1,154	11.3	105
Memphis	4,257	16.8	436	89	95	3,878	18.9	423
White	2,070	(6)	202	65	73	2,012	(6)	211
Colored	2,187	(6)	234	130	137	1,866	(6)	212
Miami	1,222	11.0	118	57	48	1,100	9.5	91
White	836	(6)	65	44	39	746	(6)	52
Colored	386	(6)	53	90	67	354	(6)	39
Milwaukee	5,588	9.7	678	56	74	6,089	10.7	886
Minneapolis	5,003	10.8	402	50	49	4,955	10.8	391
Nashville	2,523	16.4	340	97	98	2,721	17.8	326
White	1,534	(6)	228	87	90	1,718	(6)	224
Colored	989	(6)	112	127	122	1,003	(6)	102
New Bedford [8]	1,234	11.0	105	54	66	1,350	11.9	134
New Haven	2,036	12.6	121	44	47	2,180	13.4	159
New Orleans	7,986	17.4	805	85	80	8,030	17.7	748
White	4,719	(6)	431	69	61	4,642	(6)	375
Colored	3,267	(6)	374	117	116	3,388	(6)	373

See footnotes at end of table.

Number of deaths, death rates, and infant mortality in 81 large cities in 1930 (December 29, 1929–December 27, 1930) and comparison with 1929—Continued

City	Total deaths [1]	Death rate [2] (per 1,000 estimated population)	Deaths under 1 year [1]	Provisional infant mortality rate, 1930 [2][3]	Infant mortality rate, 1929	Mortality data for calendar year, 1929 [4]		
						Total deaths	Death rate (per 1,000 estimated population)	Deaths under 1 year
New York	74,563	10.7	7,063	57	59	77,435	11.3	7,299
Bronx Borough	9,998	7.8	749	33	63	11,420	9.3	1,127
Brooklyn Borough	25,129	9.8	2,723	56	56	26,761	10.6	2,775
Manhattan Borough	29,550	16.0	2,786	91	58	27,198	14.3	2,345
Queens Borough	7,704	7.1	655	34	67	9,856	9.5	876
Richmond Borough	2,182	13.7	147	51	66	2,201	14.2	176
Newark, N. J	5,280	12.0	499	50	58	5,625	12.8	575
Oakland	3,149	11.1	195	48	47	3,159	11.3	195
Oklahoma City	2,036	10.9	285	76	66	1,869	10.5	192
Omaha	2,885	13.5	200	43	59	2,849	13.4	251
Paterson	1,668	12.1	160	53	56	1,855	13.4	166
Philadelphia	24,462	12.6	2,263	63	62	25,329	13.0	2,165
Pittsburgh	9,230	13.8	1,033	69	73	9,631	14.5	1,081
Portland, Oreg	3,632	12.0	154	36	43	3,749	12.6	179
Providence	3,256	12.9	291	52	66	3,625	14.4	371
Richmond	2,715	14.9	259	73	81	2,935	16.1	291
White	1,588	(6)	107	45	55	1,708	(6)	131
Colored	1,127	(6)	152	127	131	1,227	(6)	160
Rochester	3,763	11.5	283	50	63	3,964	12.2	370
St. Louis	11,455	14.0	681	44	59	11,865	14.5	885
St. Paul	2,750	10.1	150	30	46	2,940	10.9	238
Salt Lake City	1,773	12.6	187	54	55	1,788	12.9	180
San Antonio	3,669	15.8	603	(7)	(7)	3,666	16.2	610
San Diego	2,164	14.5	122	48	49	2,156	15.0	122
San Francisco	8,291	13.0	311	40	50	8,095	13.0	382
Schenectady	1,052	11.0	82	46	71	1,158	12.1	120
Seattle	3,998	10.9	188	34	46	4,013	11.1	237
Somerville	1,004	9.7	106	76	53	947	9.2	88
South Bend	944	9.0	92	44	62	1,039	10.2	128
Spokane	1,429	12.4	87	43	56	1,482	12.9	112
Springfield, Mass	1,813	12.1	166	49	59	1,891	12.7	179
Syracuse	2,430	11.6	233	53	56	2,622	12.7	235
Tacoma	1,326	12.4	73	36	32	1,292	12.2	62
Toledo	3,670	12.6	308	54	70	3,937	13.7	395
Trenton	2,019	16.4	221	74	72	1,913	15.5	195
Utica	1,483	14.6	128	64	74	1,684	16.6	159
Washington, D. C	7,365	15.1	660	70	71	7,428	15.4	629
White	4,596	(6)	326	51	48	4,583	(6)	288
Colored	2,769	(6)	334	110	117	2,845	(6)	341
Waterbury	934	9.4	114	66	68	1,044	10.5	144
Wilmington, Del. [5]	1,537	14.5	152	63	75	1,428	13.4	162
Worcester	2,490	12.8	222	59	59	2,484	12.8	223
Yonkers	1,105	8.2	101	51	64	1,248	9.4	141
Youngstown	1,763	10.4	202	54	72	1,880	12.3	261

[1] Based upon telegraphic reports received each week from city health officers.

[2] Allowance has been made for the extra day, which must be added to the 52 weeks to give a period of 365 days.

[3] Infant mortality rate is based upon deaths under 1 year as returned each week and estimated births, 1930.

[4] Based upon deaths which occurred within the calendar year.

[5] Infant mortality rate for the cities in the birth registration area appearing in the summary.

[6] Not available.

[7] Cities with no infant mortality rate are not in the registration, area for births.

[8] Mortality rates based upon population Apr. 1, 1930, decreased 1920 to 1930; no estimate made.

NOTE.—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; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

DEATHS DURING WEEK ENDED JANUARY 3, 1931

Summary of information received by telegraph from industrial insurance companies for the week ended January 3, 1931, and corresponding week of 1930. (From the Weekly Health Index issued by the Bureau of the Census, Department of Commerce)

	Week ended. January 3, 1931	Corresponding week, 1930
Policies in force	74, 607, 778	75, 180, 975
Number of death claims	12, 754	13, 985
Death claims per 1,000 policies in force, annual rate	8. 9	9. 7

Deaths [1] from all causes in certain large cities of the United States during the week ended January 3, 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 Jan. 3, 1931				Corresponding week, 1930	
	Total deaths	Death rate [3]	Deaths under 1 year	Infant mortality rate [3]	Death rate [3]	Deaths under 1 year
Total (81 cities)	9, 133	13. 4	817	[4] 63	13. 3	803
Akron	31	6. 3	3	30	9. 6	5
Albany [5]	28	11. 3	2	40	11. 4	1
Atlanta	109	20. 5	9	92	17. 1	13
White	55		6	95		4
Colored	54	([5])	3	86	([6])	9
Baltimore [5]	249	16. 0	24	81	15. 6	21
White	182		17	74		13
Colored	67	([6])	7	169	([6])	8
Birmingham	82	15. 9	9	91	17. 3	10
White	32		2	34		2
Colored	50	([6])	7	170	([6])	8
Boston	283	18. 8	26	74	16. 8	34
Bridgeport	35	12. 4	4	66	14. 9	6
Buffalo	152	13. 6	25	102	16. 6	28
Cambridge	38	17. 4	1	20	16. 5	4
Camden	48	21. 0	6	105	13. 6	5
Canton	18	8. 8	1	23	14. 9	4
Chicago [5]	751	11. 3	59	52	10. 9	46
Cincinnati	126	14. 4	6	36	19. 1	14
Cleveland	193	11. 0	19	55	12. 9	23
Columbus	81	14. 3	9	88	15. 9	9
Dallas	61	11. 7	12		14. 5	6
White	49		9			6
Colored	12	([6])	3		([6])	0
Dayton	50	12. 6	1	14	9. 5	6
Denver	95	17. 0	14	136	12. 6	6
Des Moines	37	13. 3	3	53	9. 8	0
Detroit	263	8. 3	23	37	9. 5	38
Duluth	24	12. 3	1	25	12. 8	3
El Paso	56	27. 8	16		21. 8	8
Erie	20	8. 9	2	37	7. 6	1
Fall River [5][7]	28	12. 7	5	113	12. 7	3
Flint	29	9. 2	5	64	7. 9	4
Fort Worth	40	12. 5	4		12. 1	5
White	35		3			4
Colored	5	([6])	1		([6])	1
Grand Rapids	28	8. 5	3	44	12. 6	3
Houston	76	12. 8	8		16. 9	10
White	53		5			10
Colored	23	([6])	3		([6])	0
Indianapolis	113	15. 9	11	91	15. 7	4
White	101		10	94		2
Colored	12	([6])	1	67	([6])	2
Jersey City	71	11. 6	7	62	13. 6	11
Kansas City, Kans	30	12. 7	1	21	9. 8	2
White	24		1	25		2
Colored	6	([6])	0	0	([6])	0
Kansas City, Mo	119	15. 2	11	83	12. 2	9
Knoxville	24	11. 5	4	85	8. 3	1
White	22		4	95		0
Colored	2	([6])	0	0	([6])	1
Long Beach	42	14. 4	2	48	8. 3	1
Los Angeles	345	13. 7	23	67	12. 9	21
Louisville	81	13. 7	13	111	17. 1	11
White	66		12	118		7
Colored	15	([6])	1	66	([6])	4

See footnotes at end of table.

Deaths [1] from all causes in certain large cities of the United States during the week ended January 3, 1931, infant mortality, annual death rate, and comparison with corresponding week of 1930—Continued

City	Week ended Jan. 3, 1931				Corresponding week, 1930	
	Total deaths	Death rate [2]	Deaths under 1 year	Infant mortality rate [3]	Death rate [2]	Deaths under 1 year
Lowell [7]	28	14.5	4	102	11.4	1
Lynn	23	11.7	0	0	8.1	1
Memphis	109	22.0	15	159	16.2	6
White	49	----	9	150	----	3
Colored	60	(6)	6	174	(6)	3
Miami	37	17.2	3	76	11.7	4
White	30	----	1	35	----	3
Colored	7	(6)	2	177	(6)	1
Milwaukee	88	7.8	11	48	12.0	22
Minneapolis	118	13.0	15	97	13.6	10
Nashville	51	17.1	5	74	21.3	6
White	27	----	4	80	----	4
Colored	24	(6)	1	59	(6)	2
New Bedford [7]	31	14.4	4	106	13.4	1
New Haven	38	12.2	0	0	14.4	2
New Orleans	205	22.9	26	143	21.6	14
White	120	----	15	124	----	8
Colored	85	(6)	11	179	(6)	6
New York	1,706	12.5	154	64	12.3	157
Bronx Borough	226	8.9	16	36	7.8	16
Brooklyn Borough	580	11.5	72	76	11.3	65
Manhattan Borough	686	19.7	49	83	18.8	60
Queens Borough	172	7.8	14	38	9.1	16
Richmond Borough	42	13.4	3	54	10.8	0
Newark, N. J.	119	15.9	10	52	16.1	14
Oakland	83	14.8	4	51	14.4	6
Oklahoma City	41	10.9	3	41	6.7	3
Omaha	81	19.5	9	101	15.6	1
Paterson	28	10.5	0	0	14.7	3
Philadelphia	495	13.1	46	67	14.3	42
Pittsburgh	218	16.8	20	69	12.9	23
Portland, Oreg	80	13.6	5	61	13.3	2
Providence	65	13.3	5	46	17.1	9
Richmond	52	14.7	9	131	15.7	6
White	30	----	6	131	----	3
Colored	22	(6)	3	130	(6)	3
Rochester	84	13.2	5	46	13.8	9
St. Louis	258	16.2	8	27	16.7	5
St. Paul	59	11.1	3	31	13.0	0
Salt Lake City [5]	52	19.0	2	30	11.5	2
San Antonio	70	15.2	11	----	21.7	12
San Diego	51	17.0	4	81	22.0	3
San Francisco	210	16.8	8	53	11.6	7
Schenectady	13	7.0	2	59	12.0	2
Seattle	93	13.0	4	38	11.5	5
Somerville	19	9.4	1	37	11.5	1
South Bend	20	9.7	1	25	8.9	1
Spokane	34	15.2	3	78	14.0	3
Springfield, Mass	45	15.4	2	31	14.2	2
Syracuse	54	13.2	7	83	12.7	7
Tacoma	42	20.3	4	103	10.2	0
Toledo	65	11.5	4	37	12.3	3
Trenton	57	24.0	4	70	13.5	0
Utica	29	14.8	1	26	19.5	5
Washington, D. C.	164	17.3	13	72	17.3	13
White	105	----	6	49	----	7
Colored	59	(6)	7	120	(6)	6
Waterbury	23	11.9	0	0	9.4	3
Wilmington, Del. [7]	30	14.7	3	65	10.8	2
Worcester	51	13.5	2	27	17.3	7
Yonkers	23	8.6	3	79	8.1	2
Youngstown	35	10.6	2	28	9.2	0

[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 76 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; 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 January 10, 1931, and January 11, 1930

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended January 10, 1931, and January 11, 1930

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930
New England States:								
Maine	1	4	1	8	7	-------	0	0
New Hampshire	3	3	-------	8	21	27	0	0
Vermont	1	-------	-------	-------	14	22	0	0
Massachusetts	83	121	18	10	630	279	2	1
Rhode Island	2	16	-------	6	1	-------	1	0
Connecticut	17	24	10	12	271	62	1	1
Middle Atlantic States:								
New York	125	104	[1] 438	[1] 34	376	367	17	16
New Jersey	79	114	73	26	326	219	3	9
Pennsylvania	151	169	-------	-------	962	510	9	10
East North Central States:								
Ohio	44	74	12	34	158	494	2	9
Indiana	45	38	29	-------	275	96	8	20
Illinois	159	181	15	20	553	367	12	14
Michigan	55	101	1	7	150	269	5	18
Wisconsin	15	20	61	102	213	566	5	0
West North Central States:								
Minnesota	10	34	1	-------	15	186	4	4
Iowa	8	15	-------	1	4	253	3	1
Missouri	56	41	23	46	1,160	34	8	8
North Dakota	4	8	-------	-------	-------	17	2	3
South Dakota	8	1	-------	-------	5	41	21	3
Nebraska	6	12	3	10	18	313	1	4
Kansas	14	24	-------	5	12	130	1	3
South Atlantic States:								
Delaware	4	10	-------	-------	5	-------	0	0
Maryland [2][3]	37	25	47	54	138	15	2	1
District of Columbia	15	8	2	-------	11	1	1	0
Virginia								
West Virginia	19	13	41	15	25	103	3	3
North Carolina	47	83	35	33	90	15	1	1
South Carolina	21	31	890	1,133	17	-------	4	6
Georgia [3]	9	20	201	158	76	93	4	1
Florida	17	8	3	6	35	9	0	0
East South Central States:								
Kentucky	-------	8	-------	-------	74	69	3	2
Tennessee	9	21	162	147	180	88	2	40
Alabama	56	25	103	204	357	24	0	2
Mississippi	11	20	-------	-------	-------	-------	1	7
West South Central States:								
Arkansas	11	9	56	120	6	2	0	5
Louisiana	46	39	138	35	5	49	5	6
Oklahoma [4]	29	43	83	164	39	45	1	2
Texas	50	102	84	·87	60	6	2	0
Mountain States:								
Montana	4	1	-------	-------	3	29	1	3
Idaho	-------	-------	-------	-------	12	21	0	1
Wyoming	-------	1	-------	-------	-------	3	1	1
Colorado	8	10	-------	2	41	69	3	1
New Mexico	6	8	-------	-------	100	9	1	0
Arizona	-------	16	13	30	50	-------	3	25
Utah [2]	1	1	13	4	-------	88	2	6

[1] New York City only.
[2] Week ended Friday.
[3] Typhus fever, 1931; Maryland, 1 case; and Georgia, 3 cases.
[4] 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 January 10, 1931, and January 11, 1930—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930
Pacific States:								
Washington	9	9	--------	4	39	47	3	3
Oregon	6	10	39	46	67	15	1	0
California	62	60	92	76	272	442	8	11

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930	Week ended Jan. 10, 1931	Week ended Jan. 11, 1930
New England States:								
Maine	0	0	18	45	0	0	4	1
New Hampshire	0	0	4	16	0	0	0	0
Vermont	0	0	9	12	0	1	1	0
Massachusetts	2	1	274	349	0	0	6	4
Rhode Island	0	0	31	35	0	0	0	0
Connecticut	0	0	57	129	0	0	0	0
Middle Atlantic States:								
New York	3	1	611	492	11	13	11	11
New Jersey	1	0	219	232	0	0	2	3
Pennsylvania	2	1	552	466	1	0	22	17
East North Central States:								
Ohio	4	0	527	279	92	159	9	6
Indiana	1	0	287	177	90	205	3	4
Illinois	3	0	446	567	50	158	5	10
Michigan	0	0	258	321	18	70	7	0
Wisconsin	1	1	122	138	0	43	1	2
West North Central States:								
Minnesota	0	0	54	101	12	10	0	2
Iowa	4	0	156	73	37	121	1	1
Missouri	2	0	165	41	28	37	6	5
North Dakota	1	0	35	49	15	34	0	0
South Dakota	0	0	16	16	34	30	1	0
Nebraska	2	1	49	60	59	140	1	0
Kansas	2	0	53	118	106	52	4	2
South Atlantic States:								
Delaware	0	0	22	22	0	0	0	0
Maryland [2][3]	0	2	83	102	0	0	2	5
District of Columbia	0	0	43	19	0	0	1	0
Virginia	--------	--------	--------	--------	1	--------	--------	--------
West Virginia	0	1	37	52	8	23	10	10
North Carolina	0	0	75	96	7	33	6	0
South Carolina	0	0	16	27	1	0	4	9
Georgia [3]	0	0	43	14	0	0	7	6
Florida	0	0	4	14	6	0	1	1
East South Central States:								
Kentucky	1	0	89	69	11	23	2	0
Tennessee	1	1	17	45	4	6	3	7
Alabama	0	0	48	28	2	45	0	1
Mississippi	2	0	19	26	9	1	3	2
West South Central States:								
Arkansas	0	0	70	21	11	12	5	7
Louisiana	1	0	8	24	6	12	14	14
Oklahoma [4]	0	0	38	47	90	34	8	16
Texas	1	0	51	73	48	97	9	4
Mountain States:								
Montana	0	0	43	46	8	9	2	1
Idaho	0	0	4	9	1	11	0	0
Wyoming	1	0	16	1	1	12	0	0
Colorado	0	0	34	36	24	25	1	0
New Mexico	0	2	7	7	2	2	1	1
Arizona	0	0	2	13	0	34	0	2
Utah [2]	0	0	4	17	2	0	0	0
Pacific States:								
Washington	0	3	32	75	27	108	3	0
Oregon	0	0	22	39	10	15	0	3
California	5	3	97	299	59	77	4	7

[2] Week ended Friday.
[3] Typhus fever, 1931: Maryland, 1 case; and Georgia, 3 cases.
[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	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
October, 1930										
Florida		74	4	102	14	6	2	21	4	11
November, 1930										
District of Columbia	5	36	6		14	1	0	102	0	6
Mississippi	7	326	1,782	2,022	74	385	3	169	12	137
December, 1930										
Connecticut	7	68	9		483		1	293	0	21
District of Columbia	4	56	8		43		3	110	0	4
Massachusetts	11	348	28	5	1,280	2	31	1,022	0	25
Nebraska	7	54	13		6		13	180	173	5
Tennessee	19	143	324	16	136	7	2	282	15	35
Vermont		15			30		0	29	2	5
Wyoming	4	4	11		2		1	63	3	3

October, 1930	Cases
Florida:	
Chicken pox	4
Dysentery	2
Mumps	11
Typhus fever	5
Whooping cough	19

November, 1930	
Chicken pox:	
District of Columbia	38
Mississippi	322
Dengue:	
Mississippi	3
Dysentery:	
Mississippi (amebic)	18
Mississippi (bacillary)	331
Hookworm disease:	
Mississippi	230
Mumps:	
Mississippi	113
Ophthalmia neonatorum:	
Mississippi	10
Puerperal septicemia:	
Mississippi	24
Rabies in animals:	
Mississippi	7
Trachoma:	
Mississippi	8
Whooping cough:	
District of Columbia	7
Mississippi	412

December, 1930	
Anthrax:	
Massachusetts	1
Chicken pox:	
Connecticut	337
District of Columbia	83
Massachusetts	1,842
Nebraska	217
Tennessee	283
Vermont	219
Wyoming	149

	Cases
Conjunctivitis:	
Wyoming	1
Dysentery:	
Connecticut (bacillary)	1
Massachusetts	3
German measles:	
Massachusetts	139
Impetigo contagiosa:	
Tennessee	2
Lead poisoning:	
Connecticut	1
Massachusetts	1
Lethargic encephalitis:	
Connecticut	1
Massachusetts	3
Mumps:	
Connecticut	201
Massachusetts	263
Nebraska	67
Tennessee	62
Vermont	7
Wyoming	28
Ophthalmia neonatorum:	
Massachusetts	78
Tennessee	1
Puerperal septicemia:	
Tennessee	1
Rabies in animals:	
Connecticut	5
Septic sore throat:	
Connecticut	10
Massachusetts	17
Tennessee	7
Vermont	3
Wyoming	1
Tetanus:	
Connecticut	1
Massachusetts	2
Tennessee	1
Trachoma:	
Connecticut	1
Massachusetts	6

Trichinosis:	Cases	Vincent's angina:	Cases
Connecticut	1	Tennessee	7
Massachusetts	3	Whooping cough:	
Tularaemia:		Connecticut	221
Tennessee	8	District of Columbia	17
Typhus fever:		Massachusetts	488
District of Columbia	1	Nebraska	36
Undulant fever:		Tennessee	47
Connecticut	9	Vermont	57
Nebraska	2	Wyoming	92
Vermont	2		

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 96 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 33,220,000. The estimated population of the 88 cities reporting deaths is more than 24,585,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended January 3, 1931, and January 4, 1930

	1931	1930	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	1,483	1,736	986
96 cities	500	715	
Measles:			
45 States	4,943	4,542	
96 cities	1,718	793	
Meningococcus meningitis:			
46 States	121	201	
96 cities	47	91	
Poliomyelitis:			
46 States	65	20	
Scarlet fever:			
46 States	4,475	4,303	
96 cities	1,428	1,508	1,344
Smallpox:			
46 States	670	1,266	
96 cities	43	122	40
Typhoid fever:			
46 States	196	147	
96 cities	33	16	31
Deaths reported			
Influenza and pneumonia:			
88 cities	780	810	
Smallpox:			
88 cities	0	0	

City reports for week ended January 3, 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.

City reports for week ended January 3, 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			
NEW ENGLAND								
Maine:								
Portland	23	1	0	1	0	0	3	1
New Hampshire:								
Concord	0	0	0	------	0	1	0	0
Nashua	0	0	0	------	0	0	0	0
Vermont:								
Barre	0	0	0	------	0	0	0	1
Burlington	0	0	0	------	0	0	0	0
Massachusetts:								
Boston	61	36	21	2	1	57	5	31
Fall River	6	4	1	------	0	0	6	5
Springfield	6	5	6	------	0	1	1	1
Worcester	21	5	15	2	1	3	1	2
Rhode Island:								
Pawtucket	7	2	3	------	0	0	0	6
Providence	21	11	2	------	0	0	0	6
Connecticut:								
Bridgeport	1	7	0	------	1	0	0	4
Hartford	------	7						
New Haven	2	1	0	------	0	7	1	5
MIDDLE ATLANTIC								
New York:								
Buffalo	20	15	6	------	0	20	24	19
New York	------	210	97	68	------	76	------	
Rochester	7	8	1	------	0	0	2	6
Syracuse	28	4	0	------	0	2	0	5
New Jersey:								
Camden	2	6	1	------	0	41	0	3
Newark	32	2	17	9	0	3	13	15
Trenton	0	3	0	------	0	0	0	4
Pennsylvania:								
Philadelphia	117	72	17	6	6	48	10	63
Pittsburgh	64	21	10	------	4	7	5	35
Reading	16	2	0	------	0	25	11	
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	7	12	2	------	0	6	6	14
Cleveland	88	34	9	7	1	6	33	20
Columbus	4	6	3	------	0	1	1	12
Toledo	70	10	9	------	0	1	3	5
Indiana:								
Fort Wayne	5	5	1	------	1	37	0	1
Indianapolis	28	10	10	------	1	4	4	13
South Bend	3	1	0	------	0	0	0	2
Terre Haute	1	0	1	------	2	0	0	1
Illinois:								
Chicago	116	121	82	10	4	18	46	56
Springfield	0	2	1	------	0	4	0	3
Michigan:								
Detroit	92	62	29	1	1	1	13	28
Flint	10	4	0	------	1	4	4	2
Grand Rapids	3	2	1	------	0	1	0	2
Wisconsin:								
Kenosha	44	1	0	------	0	0	9	0
Madison	23	0	3	------		0	5	------
Milwaukee	71	18	5	1	1	6	42	12
Racine	10	2	2	------	0	1	0	0
Superior	4	1	0	------	0	0	0	0
WEST NORTH CENTRAL								
Minnesota:								
Duluth	1	1	0	------	0	0	0	0
Minneapolis	4	21	4	------	0	2	6	9
St. Paul	36	10	3	------	0	0	0	9
Iowa:								
Davenport	0	0	0	------	------	1	0	------
Des Moines	2	2	0	------	------	0	1	------
Sioux City	10	1	3	------	------	0	2	------
Waterloo	18	0	0	------	------	0	0	------

City reports for week ended January 3, 1931—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria Cases, estimated expectancy	Diphtheria Cases reported	Influenza Cases reported	Influenza Deaths reported	Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
WEST NORTH CEN- **TRAL**—continued								
Missouri:								
Kansas City	17	7	8		1	3	0	21
St. Joseph	3	1	0		0	1	0	6
St. Louis	33	44	20			968	8	
North Dakota:								
Fargo	6	0	0		0	0	2	0
Grand Forks	0	0	0			0	0	
South Dakota:								
Aberdeen	2	0	0			1	0	
Nebraska:								
Omaha	10	6	4		0	3	4	7
Kansas:								
Topeka	14	2	1	1	0	1	0	4
Wichita	7	2	0		0	0	0	4
SOUTH ATLANTIC								
Delaware:								
Wilmington	0	3	1		0	1	0	5
Maryland:								
Baltimore	110	29	6	8	4	52	15	42
Cumberland	0	0	0		0	0	0	2
Frederick	0	1	0		0	0	1	0
District of Columbia:								
Washington	27	17	5	1	1	14	0	18
Virginia:								
Lynchburg	7	2	0		0	1	0	2
Norfolk	8	2	1		0	1	0	3
Richmond	0	6	3		0	26	1	2
Roanoke	4	2	1		0	0	0	2
West Virginia:								
Charleston	0	1	2		0	0	5	2
Wheeling	16	1	1		0	0	0	3
North Carolina:								
Raleigh	4	1	1		0	0	0	2
Wilmington	7	1	1		0	0	0	1
Winston-Salem	6	1	0		0	1	0	1
South Carolina:								
Charleston	0	1	2	102	1	3	4	11
Columbia	20	0	0		0	0	14	4
Georgia:								
Atlanta	3	5	5	13	4	59	0	9
Brunswick	0	0	0		0	0	0	1
Savannah	0	1	1	12	0	0	0	5
Florida:								
Miami	1	2	0		1	1	1	3
Tampa	0	2	2		0	4	0	3
EAST SOUTH CENTRAL								
Kentucky:								
Covington	0	1	2		0	0	0	2
Tennessee:								
Memphis	31	5	2		3	1	0	10
Nashville	0	1	0		0	0	0	5
Alabama:								
Birmingham	7	4	5	2	0	153	5	12
Mobile	1	1	3	3	1	0	0	3
Montgomery	0	0	0	4		0	0	
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith	1	1	0			0	0	
Little Rock	0	1	0		0	1	0	0
Louisiana:								
New Orleans	0	13	21	12	16	0	0	24
Shreveport	4	2	0		0	0	0	4
Oklahoma:								
Muskogee	1	0	1		0	0	0	0
Tulsa	9	2	3			10	2	
Texas:								
Dallas	8	11	8		3	5	2	8
Fort Worth	0	5	1		0	0	0	7
Galveston	1	1	1		0	0	0	3
Houston	2	8	5		4	0	0	7
San Antonio	2	3	4		3	1	0	10

City reports for week ended January 3, 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			
MOUNTAIN								
Montana:								
Billings	0	1	0	----	0	0	0	1
Great Falls	5	0	0	----	0	0	1	0
Helena	2	0	0	----	0	0	0	0
Missoula	0	0	0	----	0	0	0	0
Idaho:								
Boise	6	0	0	----	1	1	0	2
Colorado:								
Denver	--	8	----	----	----	----	----	----
Pueblo	5	1	0	----	0	22	0	4
New Mexico:								
Albuquerque	6	0	0	----	0	0	0	7
Arizona:								
Phoenix	1	0	0	----	0	0	0	0
Utah:								
Salt Lake City	10	4	4	----	1	3	8	7
Nevada:								
Reno	1	0	1	----	0	0	0	1
PACIFIC								
Washington:								
Seattle	7	5	4	----	----	2	15	----
Spokane	10	2	0	----	----	0	0	----
Tacoma	9	2	2	----	0	0	2	4
Oregon:								
Portland	18	11	0	----	0	2	5	9
Salem	0	0	0	----	0	2	3	0
California:								
Los Angeles	47	39	12	29	4	4	12	37
Sacramento	2	2	5	1	0	0	2	5
San Francisco	14	16	4	3	0	6	0	8

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	3	4	0	0	0	1	0	0	0	43	25
New Hampshire:											
Concord	1	0	0	0	0	1	0	0	0	0	14
Nashua	0	0	0	0	0	0	0	0	0	0	------
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	2	5
Burlington	1	0	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston	78	50	0	0	0	11	1	1	0	25	283
Fall River	3	5	0	0	0	1	0	0	0	4	28
Springfield	9	6	0	0	0	1	0	0	0	0	48
Worcester	12	21	0	0	0	2	0	0	0	3	51
Rhode Island:											
Pawtucket	2	14	0	0	0	1	0	0	0	0	25
Providence	11	13	0	0	0	1	0	0	0	3	65
Connecticut:											
Bridgeport	10	9	0	0	-0	1	0	0	0	1	35
Hartford	7	------	0			1	0				
New Haven	6	5	0	0	0	1	0	0	0	8	38
MIDDLE ATLANTIC											
New York:											
Buffalo	26	32	0	0	0	4	1	0	0	28	147
New York	209	156	0	0	------	8	4	------	------	------	1,706
Rochester	9	66	0	0	0	2	0	1	0	19	80
Syracuse	13	17	0	0	0	0	0	0	0	11	54

City reports for week ended January 3, 1931—Continued

Division, State, and city	Scarlet fever Cases, estimated expectancy	Scarlet fever Cases, reported	Smallpox Cases, estimated expectancy	Smallpox Cases reported	Smallpox Deaths reported	Tuberculosis, deaths reported	Typhoid fever Cases estimated expectancy	Typhoid fever Cases reported	Typhoid fever Deaths reported	Whooping cough, cases reported	Deaths all causes
MIDDLE ATLANTIC— continued											
New Jersey:											
Camden	6	1	0	0	0	1	0	0	0	1	48
Newark	28	22	0	0	0	15	0	1	0	28	117
Trenton	4	11	0	0	0	8	0	1	1	0	57
Pennsylvania:											
Philadelphia	94	158	0	0	0	26	2	1	0	20	495
Pittsburgh	37	42	0	0	0	9	0	0	0	19	218
Reading	3	0	0	0	0	1	0	0	0	0	21
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	19	37	0	0	0	9	1	1	0	4	125
Cleveland	43	42	0	0	0	13	1	0	0	9	193
Columbus	10	12	0	0	0	2	0	0	0	1	81
Toledo	13	12	1	0	0	4	0	0	0	6	65
Indiana:											
Fort Wayne	5	2	1	0	0	0	0	0	0	0	20
Indianapolis	10	18	5	8	0	5	0	0	0	5	--------
South Bend	3	4	0	0	0	3	0	0	0	1	20
Terre Haute	3	4	0	0	0	3	0	0	0	0	23
Illinois:											
Chicago	128	172	1	0	0	52	0	5	1	46	751
Springfield	2	6	0	0	0	0	0	1	0	0	26
Michigan:											
Detroit	101	86	2	0	0	25	2	0	0	29	263
Flint	13	2	1	0	0	3	0	0	0	1	29
Grand Rapids	12	14	1	0	0	2	1	0	0	7	28
Wisconsin:											
Kenosha	2	4	0	0	0	0	0	0	0	0	14
Madison	3	2	0	0	--------		0	0	--------	0	
Milwaukee	33	13	0	0	0	4	0	0	0	20	88
Racine	6	2	0	0	0	0	0	0	0	4	10
Superior	3	2	0	0	0	0	0	0	0	0	4
WEST NORTH CENTRAL											
Minnesota:											
Duluth	11	1	0	0	0	1	0	0	0	0	24
Minneapolis	53	5	1	0	0	2	0	0	0	2	118
St. Paul	31	8	4	0	0	1	0	0	0	3	63
Iowa:											
Davenport	2	1	1	2	--------		0	0	--------	0	--------
Des Moines	10	4	2	6	--------		0	0	--------	0	37
Sioux City	1	11	1	0	--------		0	1	--------	0	--------
Waterloo	2	1	0	0	--------		0	0	--------	1	--------
Missouri:											
Kansas City	18	5	0	1	0	8	0	0	0	1	119
St. Joseph	2	5	0	0	0	0	0	0	0	0	29
St. Louis	37	67	1	0	0	18	1	0	1	7	258
North Dakota:											
Fargo	2	1	0	0	0	0	0	0	0	0	8
Grand Forks	1	0	0	0	--------		0	0	--------	2	--------
South Dakota:											
Aberdeen	0	0	0	0	--------		0	0		0	--------
Nebraska:											
Omaha	5	12	2	16	0	2	0	0	0	9	81
Kansas:											
Topeka	4	1	0	0	0	0	0	0	0	2	28
Wichita	5	6	0	7	0	0	0	0	0	2	22
SOUTH ATLANTIC											
Delaware:											
Wilmington	5	9	0	0	0	0	0	0	0	4	30
Maryland:											
Baltimore	33	38	0	0	0	13	2	1	0	8	249
Cumberland	1	2	0	0	0	0	0	0	0	0	14
Frederick	0	0	0	0	0	0	0	0	0	0	3
District of Col.:											
Washington	24	30	0	0	0	8	1	0	0	12	164

City reports for week ended January 3, 1931—Continued

Division, State, and city	Scarlet fever — Cases, estimated expectancy	Scarlet fever — Cases, reported	Smallpox — Cases, estimated expectancy	Smallpox — Cases, reported	Smallpox — Deaths reported	Tuberculosis, deaths reported	Typhoid fever — Cases, estimated expectancy	Typhoid fever — Cases, reported	Typhoid fever — Deaths reported	Whooping cough, cases reported	Deaths, all causes
SOUTH ATLANTIC— continued											
Virginia:											
Lynchburg	1	3	0	0	0	1	0	1	0	0	17
Norfolk	2	1	0	0	0	1	0	0	0	4	----
Richmond	6	12	0	0	0	6	0	0	0	5	50
Roanoke	2	2	0	0	0	0	0	0	0	0	21
West Virginia:											
Charleston	2	0	0	0	0	1	0	0	0	0	25
Wheeling	2	4	0	0	0	1	0	0	0	0	17
North Carolina:											
Raleigh	1	0	0	0	0	0	0	0	0	3	11
Wilmington	0	0	0	0	0	0	0	0	0	3	18
Winston-Salem	3	10	1	0	0	1	0	0	0	0	17
South Carolina:											
Charleston	0	0	0	0	0	3	0	0	0	0	28
Columbia	1	0	0	0	0	3	0	0	0	0	35
Georgia:											
Atlanta	5	18	1	0	0	4	0	0	0	2	107
Brunswick	0	0	0	0	0	0	0	0	0	0	4
Savannah	1	1	0	0	0	2	1	0	0	0	37
Florida:											
Miami	2	3	0	0	0	1	0	0	0	1	37
Tampa	1	2	0	0	0	1	0	0	0	0	35
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	13	0	0	0	0	0	0	0	0	28
Tennessee:											
Memphis	7	25	0	0	0	9	1	0	1	1	109
Nashville	2	0	0	0	0	4	1	0	1	0	51
Alabama:											
Birmingham	4	8	1	0	0	13	1	5	0	1	82
Mobile	0	3	0	0	0	2	0	0	0	0	29
Montgomery	1	1	0	0	----	----	0	3	----	7	----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	1	0	0	----	----	0	0	----	0	----
Little Rock	2	1	0	0	0	0	0	0	0	0	----
Louisiana:											
New Orleans	7	11	0	2	0	13	3	0	0	0	205
Shreveport	2	1	0	0	0	1	0	0	0	0	36
Oklahoma:											
Muskogee	1	0	1	0	0	0	0	0	0	0	----
Tulsa	2	6	0	8	----	----	0	0	----	0	----
Texas:											
Dallas	6	6	0	0	0	1	0	1	0	6	61
Fort Worth	2	4	1	0	0	1	0	0	1	0	40
Galveston	0	1	0	0	0	2	0	0	0	0	12
Houston	4	5	2	3	0	3	0	0	0	0	76
San Antonio	1	5	0	0	0	4	0	0	0	0	70
MOUNTAIN											
Montana:											
Billings	2	0	0	1	0	0	0	0	0	1	5
Great Falls	3	2	0	0	0	0	0	0	0	5	7
Helena	1	1	0	0	0	0	0	0	0	1	1
Missoula	0	0	0	0	0	0	0	0	0	0	6
Idaho:											
Boise	0	0	0	0	0	0	0	0	0	0	11
Colorado:											
Denver	12	----	0	----	----	0	0	----	----	----	----
Pueblo	2	1	0	0	0	2	0	0	0	5	13
New Mexico:											
Albuquerque	1	0	0	0	0	5	0	0	0	4	18
Arizona:											
Phoenix	0	0	0	0	0	0	0	0	0	0	----
Utah:											
Salt Lake City	4	1	1	0	0	2	0	2	0	13	52
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	8

City reports for week ended January 3, 1931—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all cases
	Cases, estimated expectancy	Cases, reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases estimated expectancy	Cases reported	Deaths reported		
PACIFIC											
Washington:											
Seattle	9	10	2	0	--------	-------	1	1	--------	16	-------
Spokane	9	3	4	0	--------	-------	0	0	--------	2	-------
Tacoma	3	3	3	1	0	1	0	0	0	1	42
Oregon:											
Portland	6	0	8	2	0	3	1	0	0	0	-------
Salem	0	0	0	0	0	0	0	0	0	0	-------
California:											
Los Angeles	37	17	3	1	0	21	1	1	0	12	345
Sacramento	2	1	1	0	0	2	0	1	1	3	35
San Francisco	17	2	2	3	0	11	1	0	0	7	188

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	0	4	0
Massachusetts:									
Boston	0	0	0	1	0	0	0	2	0
Springfield	0	0	0	1	0	0	0	0	0
Worcester	0	0	0	0	0	0	0	1	1
Rhode Island:									
Providence	0	0	0	1	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo	1	0	0	0	0	0	0	0	0
New York	7	0	0	0	0	0	1	1	0
New Jersey:									
Newark	0	0	1	0	0	0	0	0	0
Pennsylvania:									
Philadelphia	2	1	0	0	0	0	0	1	0
Pittsburgh	1	1	0	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	2	1	0	0	0	0	0	0	0
Cleveland	2	0	0	0	0	0	0	0	0
Indiana:									
Indianapolis	5	4	0	0	0	0	0	0	0
Illinois:									
Chicago	6	2	0	0	0	0	0	3	0
Michigan:									
Detroit	3	0	0	0	0	0	0	0	0
Flint	1	0	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee	0	0	0	0	0	0	0	1	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis	2	0	0	0	0	0	0	1	0
Iowa:									
Des Moines	1	0	0	0	0	0	0	0	0
Waterloo	0	1	0	0	0	0	0	0	0
Missouri:									
Kansas City	0	0	1	1	0	0	0	1	0
St. Louis	2	1	0	0	0	0	0	0	0

City reports for week ended January 3, 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
SOUTH ATLANTIC									
District of Columbia:									
Washington	0	0	0	0	0	0	0	3	2
Virginia:									
Lynchburg	0	0	0	0	8	0	0	0	0
Richmond	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston	0	0	0	0	2	1	0	0	0
Columbia	2	1	0	0	0	2	0	0	0
Georgia:									
Atlanta	1	0	0	0	2	2	0	0	0
Savannah [1]	0	0	0	0	2	2	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	1	1	0	0	0	0	0	0	0
Alabama:									
Birmingham	0	0	0	0	0	1	0	0	0
Montgomery	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	2	0	0	0
Louisiana:									
New Orleans	1	1	0	0	0	0	0	0	
Texas:									
Dallas	0	0	0	0	1	1	0	0	0
Fort Worth	0	0	0	0	0	0	0	0	1
Houston	0	0	0	0	0	1	0	1	0
San Antonio	1	0	0	0	0	0	0	1	0
MOUNTAIN									
Montana:									
Great Falls	1	0	0	0	0	0	0	0	0
Utah:									
Salt Lake City	0	1	0	0	0	0	0	1	1
PACIFIC									
California:									
Los Angeles	3	1	0	0	0	0	0	1	0
Sacramento	2	1	0	0	0	0	0	2	0
San Francisco	1	1	0	0	0	0	0	3	1

[1] Typhus fever: 2 cases at Savannah, Ga.

The following tables give the rates per 100,000 population for 98 cities for the 5-week period ended January 3, 1931, compared with those for a like period ended January 4, 1930. The population figures used in computing the rates previous to 1931 are approximate estimates. Those used in computing the rates for the weeks ended January 3 and January 4 are estimated midyear 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 November 30, 1930, to January 3, 1931—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929–30 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
98 cities	[2] 92	146	[3] 89	134	[3] 97	128	[4] 73	120	[5] 78	113
New England	111	112	117	117	131	168	69	126	[6] 119	141
Middle Atlantic	61	110	50	112	65	106	49	113	66	81
East North Central	113	191	121	170	117	167	103	167	89	153
West North Central	99	121	95	148	87	110	53	67	82	116
South Atlantic	[7] 104	127	112	107	99	107	79	79	61	94
East South Central	162	226	155	137	94	123	94	109	70	102
West South Central	[8] 159	362	[3] 147	293	[3] 219	225	153	171	132	191
Mountain	17	157	26	61	17	61	[4] 67	35	[8] 85	53
Pacific	76	84	64	58	97	56	47	82	53	99

MEASLES CASE RATES

	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
98 cities	[2] 145	98	[3] 166	113	[3] 198	109	[4] 185	91	[5] 270	126
New England	202	81	250	85	248	92	279	90	[6] 171	129
Middle Atlantic	89	54	89	47	91	59	74	51	98	72
East North Central	28	93	26	133	28	94	28	97	54	117
West North Central	933	216	1,055	202	1,387	210	1,250	146	1,871	233
South Atlantic	[7] 57	4	73	28	126	39	114	30	318	144
East South Central	175	14	337	14	310	0	364	0	896	6
West South Central	[3] 12	46	[3] 8	61	[3] 20	133	26	88	24	91
Mountain	51	165	146	104	163	139	[4] 258	78	[8] 441	203
Pacific	31	377	31	464	7	418	19	326	24	261

SCARLET FEVER CASE RATES

	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
98 cities	[2] 207	252	[3] 229	277	[3] 239	249	[4] 227	216	[5] 224	242
New England	246	276	237	375	321	310	323	299	[6] 315	391
Middle Atlantic	187	148	196	172	219	176	200	165	224	175
East North Central	259	409	318	438	309	355	288	311	255	341
West North Central	194	231	205	271	273	235	241	179	235	254
South Atlantic	[7] 211	159	238	193	190	253	163	144	259	202
East South Central	337	144	425	89	223	48	385	75	291	114
West South Central	[3] 100	156	[3] 94	137	[3] 80	99	64	122	105	80
Mountain	137	392	206	322	292	583	[4] 404	322	[8] 85	388
Pacific	113	355	83	340	97	244	99	246	71	225

SMALLPOX CASE RATES

	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
98 cities	[2] 7	19	[3] 15	23	[3] 9	23	[4] 7	18	[5] 7	19
New England	0	0	0	2	0	0	0	0	[6] 0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	1	26	3	29	6	31	3	20	5	16
West North Central	47	64	120	56	47	60	42	58	46	81
South Atlantic	[7] 0	0	0	0	0	0	0	2	0	2
East South Central	0	0	0	0	0	7	0	7	0	0
West South Central	[3] 4	19	[3] 8	34	[3] 16	34	19	27	17	14
Mountain	103	78	146	78	112	52	[4] 45	44	[8] 17	53
Pacific	12	60	7	118	12	113	24	77	10	29

[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 estimates as of July 1, 1931, 1930, and 1929, respectively.
[2] Raleigh, N. C., and Shreveport, La., not included.
[3] Shreveport, La., not included.
[4] Salt Lake City, Utah, not included.
[5] Hartford, Conn., and Denver, Colo., not included.
[6] Hartford, Conn., not included.
[7] Raleigh, N. C., not included.
[8] Denver, Colo., not included

Summary of weekly reports from cities November 30, 1930, to January 3, 1931—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929-30—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
98 cities	[2]10	5	[3]8	6	[3]9	5	[4]7	4	[5]5	3
New England	7	2	18	7	9	0	2	2	[6]2	2
Middle Atlantic	8	4	7	6	3	4	3	3	4	1
East North Central	10	4	7	3	9	3	13	1	4	2
West North Central	6	2	6	6	8	8	6	2	2	0
South Atlantic	[7]17	6	4	7	11	4	15	9	4	6
East South Central	13	48	20	14	40	0	20	34	47	6
West South Central	[3]28	0	[3]25	8	[3]28	38	0	8	3	0
Mountain	9	23	0	9	9	17	[4]11	0	[8]34	9
Pacific	12	10	7	7	7	2	7	10	6	8

INFLUENZA DEATH RATES

	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
91 cities	[2]10	17	[3]10	16	[3]10	19	[4]12	19	[9]15	16
New England	4	11	4	7	2	9	2	9	[6]7	7
Middle Atlantic	6	14	8	9	5	18	11	13	[10]11	9
East North Central	8	9	5	15	10	14	8	13	7	15
West North Central	12	27	21	12	15	15	9	15	3	27
South Atlantic	[7]19	28	22	19	18	13	22	26	20	20
East South Central	15	60	29	60	37	52	22	30	25	26
West South Central	[3]37	47	[3]12	78	[3]25	66	34	94	90	71
Mountain	17	17	9	0	17	26	[4]0	26	[8]34	18
Pacific	3	13	9	19	12	28	21	19	10	10

PNEUMONIA DEATH RATES

	Dec. 6, 1930	Dec. 7, 1929	Dec. 13, 1930	Dec. 14, 1929	Dec. 20, 1930	Dec. 21, 1929	Dec. 27, 1930	Dec. 28, 1929	Jan. 3, 1931	Jan. 4, 1930
91 cities	[2]102	136	[3]109	150	[3]114	158	[4]130	143	[9]150	165
New England	66	74	109	135	106	157	109	94	[6]154	169
Middle Atlantic	107	139	109	156	133	165	132	155	[10]167	170
East North Central	78	126	86	116	70	117	95	116	101	114
West North Central	130	123	145	174	95	180	115	174	177	197
South Atlantic	[7]143	131	123	191	126	184	159	152	227	240
East South Central	177	239	140	216	125	216	134	194	202	227
West South Central	[3]139	238	[3]176	230	[3]147	234	203	234	186	295
Mountain	129	165	154	192	215	235	[4]235	209	[8]254	185
Pacific	74	138	74	107	156	138	166	104	130	92

[3] Raleigh, N. C., and Shreveport, La., not included.
[3] Shreveport, La., not included.
[4] Salt Lake City, Utah, not included.
[6] Hartford, Conn., not included.
[7] Raleigh, N. C., not included.
[8] Denver, Colo., not included.
[9] Hartford, Conn., New York City, N. Y., and Denver, Colo., not included.
[10] New York City, N. Y., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended January 3, 1931.— The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended January 3, 1931, as follows:

Province	Cerebro-spinal fever	Influ-enza	Poliomy-elitis	Small-pox	Typhoid fever
Prince Edward Island [1]					
Nova Scotia		3			
New Brunswick					1
Quebec		1			6
Ontario	3			8	3
Manitoba	1		2		2
Saskatchewan [1]					
Alberta				19	1
British Columbia			1	1	2
Total	4	4	3	28	15

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

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

Disease	Cases	Disease	Cases
Chicken pox	53	Mumps	12
Diphtheria	32	Ophthalmia neonatorum	1
Erysipelas	1	Scarlet fever	77
German measles	1	Tuberculosis	17
Influenza	1	Typhoid fever	6
Measles	26	Whooping cough	23

Quebec Province—Vital statistics—September, 1930.—Births, deaths, and marriages for the month of September, 1930, in the Province of Quebec, Canada, with deaths from certain specified causes, are shown in the following table:

Estimated population	2,735,000	Deaths from—Continued.	
Births	6,348	Heart disease	250
Birth rate per 1,000 population	28.2	Influenza	13
Deaths	2,866	Measles	6
Death rate per 1,000 population	12.7	Pneumonia	102
Marriages	2,066	Poliomyelitis	1
Deaths under 1 year	1,011	Scarlet fever	9
Deaths under 1 year per 1,000 births	159.3	Smallpox	1
Deaths from—		Syphilis	9
Cancer	166	Tuberculosis (pulmonary)	161
Cerebrospinal meningitis	1	Tuberculosis (other forms)	48
Diabetes	18	Typhoid fever	28
Diarrhea	499	Violence	127
Diphtheria	15	Whooping cough	32

CUBA

Habana—Communicable diseases—December, 1930.—During the month of December, 1930, certain communicable diseases were reported in the city of Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chicken pox	4		Scarlet fever	1	
Diphtheria	17	3	Tuberculosis	44	10
Malaria [1]	20	2	Typhoid fever [1]	10	1
Measles	3				

[1] Many of these cases are from the Island of Cuba, outside of Habana.

Provinces—Communicable diseases—Four weeks ended November 22, 1930.—During the four weeks ended November 22, 1930, cases of certain communicable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Ma'anzas	Santa Clara	Camaguey	Oriente	Total
Cancer	1			1			2
Chicken pox		2	1				3
Diphtheria		14	1	2	1	2	20
Malaria	1	16	1		9	24	51
Measles		2		3			5
Paratyphoid fever		1		1			4
Scarlet fever	10		1			2	11
Typhoid fever	3	23		21	1	14	62

ITALY

Communicable diseases—Four weeks ended September 7, 1930.—During the four weeks ended September 7, 1930, cases of certain communicable diseases were reported in Italy as follows:

Disease	Aug. 11–17, 1930		Aug. 18–24, 1930		Aug. 25–31, 1930		Sept. 1–7, 1930	
	Cases	Communes affected	Cases	Communes affected	Cases	Communes affected	Cases	Communes affected
Anthrax	37	34	51	44	57	50	65	56
Cerebrospinal meningitis	6	6	8	8	8	8	6	6
Chicken pox	37	27	72	44	64	39	74	53
Diphtheria and croup	350	214	422	249	417	241	466	258
Dysentery	113	23	32	16	42	23	19	13
Lethargic encephalitis	1	1	1	1	1	1	4	4
Measles	670	201	573	190	615	197	456	172
Poliomyelitis	9	7	12	12	7	7	15	12
Scarlet fever	202	109	295	131	351	134	353	144
Typhoid fever	1,072	523	1,083	501	1,174	536	1,297	589

MEXICO

Tampico—Communicable diseases—December, 1930.—During the month of December, 1930, certain communicable diseases were reported in Tampico, Mexico, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria	3	1	Malaria	173	8
Enteritis, various		26	Tuberculosis		28
Influenza		3	Typhoid fever		3

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

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

Place		June 29–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1930	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 10
								Week ended—									
Afghanistan	C																
China:																	
Amoy	C	P	P														
Canton	C	2		2	1												
	D	1		2	1												
Shanghai	C			34	38	1		1									
	D			P 3	4			1									
Shensi Province	C																
Swatow	C		3														
	D		2														
Tientsin	C			2	1												
	D			1													
India	C	26,121	42,893	51,551	36,529	5,222	5,089	4,146	3,887								
	D	13,822	22,358	23,959	17,635	2,733	2,915	2,149	1,985								
Bassein	C				1												
Bombay	C		14		16	17	6	1		2	2	4	5	9	7		
	D		8		11	10	7	1		2	1	2	3	6	4		
Calcutta	C	220	63	27	24	7	2	11	8	4	6	2	10	44			
	D	128	30	12	15	4	1	6	4	4	4	1	7	39			
Madras	C				2			8									
	D				2			4									
Rangoon	C	1	1	2	2										1		
	D	1	1		1										1		
Tuticorin	C				1		4			4		1		1			
	D				1												
India (French):																	
Chandernagor	C	1			3		1	1	1		1						
	D				1		1										
Pondicherry	C				1								1				
	D				1												
India (Portuguese)	C	1	1	1	1			9	2	1	1	1	1				
	D				1			5	1	1	1	1	1				

Indo-China (see also table below):
  Pnompenh
  Saigon and Cholon
Philippine Islands:[1]
  Ports—
    Cebu
    Iloilo
    Manila
  Provinces—
    Antique
    Bohol
    Bulacan
    Capiz
    Cebu
    Iloilo
    La Union
    Leyte
    Masbate
    Misamis, Occidental
    Negros, Occidental
    Negros, Oriental
    Nueva Acija
    Pampanga
    Pangasinan
    Rizal
    Samar
    Sorsogon

[1] Figures for cholera in the Philippine islands are subject to correction.

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

CHOLERA—Continued

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

Place		June 29–July 25, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1930	Week ended—Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3	Jan. 10
Philippine Islands—Continued.																	
Provinces—Continued.																	
Surigao	C		28	1	(¹)												
	D		17	2													
Tarlac	C		1														
Siam.																	
Bangkok	C	20	3		4	3		1		2	1	1	1	2	1		
	D	9	2		1	3		1		2	1	1		2	1		
Songkla	C	8	1		3	1				2	1						
	D	3	1		2												
On vessel: S. S. Malwa from Shanghai	D			1													

Place		June, 1930	July, 1930	August, 1930	Sept. 1–10	Sept. 11–20	Sept. 21–30	Oct. 1–10	Oct. 11–20	Oct. 21–31	Nov. 1–10	Nov. 11–20	Nov. 21–30	Dec. 1–10, 1930
Indo-China (French) (see also table above):														
Annam ²	C	16	1	3			2	16		6	6	1		28
Cambodia ²	C	144	43	59	23	13	18	14		8	8	5		8
Cochin-China ¹	C	273	46	27	9	6								

¹ During the period from Aug. 24 to Sept. 28, 1930, 26 cases of cholera with 17 deaths were reported in Manitum, Surigao Province, P. I.

² Reports incomplete.

PLAGUE

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

Place		June 20–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1932	*Nov. 1	*Nov. 8	*Nov. 15	*Nov. 22	*Nov. 29	†Dec. 6	†Dec. 13	†Dec. 20	†Dec. 27	‡Jan. 3	‡Jan. 10
Algeria:																	
Algiers	C	3	7	11	6	5	3	1	2			1	1				
	D					3											
Constantine	C								2				1				
Oran	C		4	10	10	1	1	1									
Plague-infected rats	C	2	1	1	3	1		1	1								1
Philippeville	C					1	1		1	1							
	D					1			1								
Argentina: Cordoba Province—Chazon	C	2	2	5	3	1											
	D	2	2	3	3	1											
Belgian Congo	C																
	D																
British East Africa (see also table below):																	
Tanganyika	C	228	236	202	165	53	37	34	47								
	D	213	229	191	104	53	36	33	46								
Uganda	C		1														
Canary Islands: Las Palmas	C																
Ceylon: Colombo	C	3	2	2	3						1						
	D	3	2	3	3												
		1															
China:																	
Manchuria—Tungliau and Nungan	C		30	29	2	P											
Shensi	C			P		P											
Dutch East Indies:																	
Batavia and West Java	C	84	83	79	107	41	36	27	39	53	56						
	D	84	83	76	103	42	37	28	39	53	56						
Plague-infected rats	C	1	1	3													
Java and Madura	D	217	188	200	335	124	140	107	130	137							
Egypt:																	
Alexandria	C	23	11	10	9	2	1	1	3		1		2	1	1		
	D	10	6	8	6	3		2	2				1		1		
Assiout	C	2					3				2		7	5			
Aswan	C	2									3		1				
Beni-Suef	C		1														

* Week ended, November, 1930 † Week ended, December, 1930 ‡ Week ended, January, 1931

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

PLAGUE—Continued

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

Place		June 29–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1932	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3, 1931	Jan. 10, 1931
Egypt—Continued.																	
Gharbieh	C O D																
Girga	C O	1	3 1	1										3	1 1	3 1	
Minieh	C O	3 1	1				1										
Port Said	C O				1		1						1				
France:																	
Marseille	C O D	1	5		4	2	1										
St. Ouen	C O	1					1		1								
Gambia	C O D	1	4 4														
Greece (see also table below):																	
Patras	C O D	1			2												
Pyrgos	C O D			2	1,068		1										
India	C O D	377 256	877 477	2,497 1,132	2,371 1,068	604 336	616 288 1	558 317	943 556								
Bassein	C O D		2	3	1												
Bombay	C O D	1	1	1	2 2	1	1										
Plague-infected rats	C	52 47 31	35 81 34	47 127 57 10	64 196 110	2 60 43	9 81 22	11 45 37	8 40 22 1	11 38 24	5	12	4	10			
Madras Presidency	C D																
Rangoon	C D	2 2 6	2 7 P	9 8	2 1	1	1		1	1	1			1	1	1	
Plague-infected rats	D																
India (Portuguese)	D			3			3										
Indo-China (see also table below):																	
Pnompenh	C D	2 2	4		2 3	1			1 1	1 1	3 3	1 1	1 1	1 1	1		
Saigon and Cholon	C O D	18 7	1 9 3	1	1 1		1		P	2 1	2 1						
Iraq: Baghdad	D								2 1								

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930
Kwang-Chow-Wan	C					
Madagascar (see also table below): Tamatave	D					
Morocco						
Nigeria: Lagos						
Plague-infected rats						
Peru: Lima [1]						
Senegal (see table below)						
Siam	C					
Bangkok						
Nagara Rajsima						
Syria: Beirut						
Tripolitania						
Tunisia: Sfax district						
Tunis						
Union of Socialist Soviet Republics: Saisk region						
Union of South Africa: Cape Province	C					
Orange Free State	D					

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930
British East Africa (see also table above): Kenya	C — 107	97	87	53	58	62
	D				2	
Greece (see also table above)	C	1				
Indo-China (see also table above)	C — 11	1	2	4		
Madagascar (see also table above): Antsirabe Province	C — 3	24	11	21		
	D — 3	24	11	21		
Miarinarivo Province	C — 1	1	2	7	7	
	D — 1		2	7		
Moramanga Province	C — 3		27	18		
	D — 3		27	17		
Tananarive Province	C — 16	28	39	79		1
	D — 16	28	38	79		1

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930
Senegal: Baol [2]	C					4
Dakar [3]	C/A/D — 53	140	108	3		
Louga [3]	117	122	90	8		
Thies [2]	60	138	75	61	37	10
Tivaouane [3]	21	103	33	30	25	3
	52	54	34	12	24	27
	35	30	20	4	15	23
	43	119	110	20	53	31
	28	70	64	14	31	25

[1] Eight cases of plague were reported at Lima, Peru, during December, 1930. Plague infection is said to exist in interior towns north of Lima.   [2] Reports incomplete.

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

SMALLPOX

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

Place		June 29–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1930	Week ended— Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan. 3, 1931
Algeria:																
Algiers	C	1												1		
Constantine	C	1	3													
Arabia: Aden	C	1														
Brazil:																
Porto Alegre (alastrim)	C															
Rio de Janeiro	C		1	1	28	3	14	14								
British East Africa (see also table below):																
Tanganyika	C	168	242	522	95		1		13	7	26	18				
	D	42	37	60	6	1		2		12	1	1				
British South Africa: Southern Rhodesia	D	31	1	1	153	2	54	1	38	2						
Canada:																
Alberta	C	5	1	1	22					1		1				19
British Columbia—Vancouver	C	6	6	2	2											1
Manitoba	C			1												
Ontario	C	24	20	10	19		20	9		7	12	3			2	8
Kingston	C															4
North Bay	C														1	2
Ottawa	C							9	14		8	1	1			
Toronto	C	13	7	5	1	14	1			1	2	2	1	1		
Quebec	C	1	5	1												
Montreal	C	3	7		3					1			1	1		
Saskatchewan	C	5	8				2			2		16				
China:																
Changking	C	P	P	P	P	P	P		P	P		P				
Foochow	C	P	P	P	P	P	P	P	P	P		P				
Hong Kong	D	2												1		
Manchuria—																
Harbin	C	3	2			1										
Kwantung—Dairen	D	8								2			1	1		
Nanking	C	P	P	P	P	P	P	P	P	P		P	P	P		

Place														
Shanghai—														
Foreigners only	C	4						1						
Including natives	D	1						1						
Swatow	D											1		
Tientsin	C													
Chosen (see table below)														
Colombia:														
Barranquilla	C	10	2											
Buenaventura	C		2			2						1		
Cali	D	2	1											
Curacao (alastrim)	C													
Dutch East Indies:														
Borneo	C	2												
Java—														
Batavia and West Java	C	8	12	11	14	2	13	11		2		2		
	D	5	5	4	4	2	1	1		1				
East Java and Madura	C	11	36	14	29									
Eanggi Islands	C	3	2	3	3									
Egypt: Port Said	C	3				2	13	11	1	2	1	2	1	
						3	1	1	1	1				
France (see table below)														
Great Britain:														
England and Wales	C	529	344	341	325	80	87	92	107	116	160	95	137	138
Ashton under Lyne	C	8	2	3	3	1	1	2	2	3	5	1	1	10
Bradford	D	1	2	1		1		2	3	4	2	0		7
Cardiff	C	2				1	1	5	10	2	5	4		0
Leeds	A											6		
London	C	250	178	164	120	29	32	41	47	52	67	27	48	42
London and Great Towns	A	408	285	263	223	52	58	68	82	88	136	74	112	111
Stoke-on-Trent	C	0	2	2	1	2	1		4		1	1		
Scotland	A	1	5	5	1	2	1	2		1	1	6		
Honduras: Naco	C	1	2	2		2	2	2	3	3		2	2	
India	A	7,630	4,877	3,131	2,322	570	469	644	659					
		2,348	1,246	680	572	242	104	108	112					
Bombay	C	50	12	6	1	2	4	3		3	1	1	1	
Calcutta	A	33	10	5	2	2	2	4	3	4	0	0	0	
Cochin	C	73	25	14	2	3	5	5	10	4	4	4	2	10
Karachi	A	56	21	9	2	1				2	6	6	7	7
		6	14	3	1	1		7	2	2	2	2	0	
Madras	C	1	4	1	1			2		1	1	1		
Moulmein	A	49	4	4	19	2	1	4		1	1	6		
		12	38	2	8						5	1		
Negapatam	C	18	11	34		2	2	2	3	3				
Rangoon	A	1	2	6	14							1	2	
		1	1	1	2									
Tuticorin	C	4	4	1	1									
Vizagapatam	C		3	9	1									

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

SMALLPOX—Continued

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

Place		June 29–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 21–Oct. 18, 1930	Oct. 25, 1930	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27	Jan., 1931
India (French): Chandernagor	C	4		3	3		3									
	D	3			1		1									
Karikal	C	2	9	5	1											
	D	2	9		1											
Pondicherry Province	C	26	22	35	39	2	2		7	7	7			8		
	D	25	22	33	36	2	2		7	7	5			7		
India (Portuguese)	C	1	9	4												
	D	1	2													
Indo-China (see also table below): Pnompenh	C	1	1								1					
	D	1	3								1					
Saigon and Cholon	C	1	1	1	2					2	1		1			
	D	3		1						1			1			
Iraq: Baghdad	C	3	1	1	2	1	2		1	1	1					
	D	1	1				2									
Mossoul Liwa	C	67			61		3	6		7	9					
	D	20			27		1			1	1					
Ivory Coast (see table below)																
Mexico (see also table below): Jalisco (State) Guadalajara	C	4	1		3	1		1	1	1		2				
	D		2													
Juarez	C															
	D															
Mexico City and surrounding territory	C	37	10	12	13	1	3	8	2	1	2		3			
	D	8	6	5	3	1	1	1					6			
Vera Cruz	C						1									
Morocco (see table below)																
Nicaragua: Porto Cabezas	C													2		
	C															
Poland																
Portugal: Lisbon	C	13	50	27	16	12	3		8	11		15	11	21	17	
Oporto	C	0	1		1											
	D	3														
Siam																

Place	Aug. 1930 1-10	Aug. 1930 11-20	Aug. 1930 21-31	Sept. 1930 1-10	Sept. 1930 11-20	Sept. 1930 21-30	Oct. 1930 1-10	Oct. 1930 11-20	Oct. 1930 21-31	Nov. 1930 1-10	Nov. 1930 11-20	Nov. 1930 21-30	Dec. 1-10, 1930
Somaliland, British: Boales	C									1			
Spain	C	5	5	1	14	5	11	21	23	23		3	38
D	11	0	1	3	3	4	9	3	1	3	2	9
Straits Settlements	C	3	1	5	3	1	1	2	1	1			43
Sudan (Anglo-Egyptian)	D	12	42	128	82	3	2				47	47	16
	C	1	3	52	7		1				5	5	
Sudan (French) (see table below)													
Switzerland: Berne Canton	C	1	2	1	1								
Syria (see table below)													
Tunisia: Tunis	C	1		1	2								
Turkey (see table below)													
Union of South Africa:													
Cape Province	C	P	P	P	P	P	P	P	P				
Orange Free State	C	P	P	P		P	1	1					
Transvaal	C		P	P	P	P	P	P					
Upper Volta	C		P	P									
On vessel:													
S. S. Manoa, from Honolulu to San Francisco	C							6					
S. S. Muncaster, at Manila from Hong Kong	C	1									1		

Place	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930
Indo-China (see also table above)	C	213	238	59	424	54
						62 86
Ivory Coast	C					
Sudan (French)	D	76	34			17 2
		18	2			
Syria: Belrut	C	7		1		

Place	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930
British East Africa (see also table above):						
Kenya	C	171	142	186	2	
		78				C 3 2
Uganda	D	69		3		D 5 4
		107	1	2		
Chosen	C	35				
Seishin	D	2				
		1				

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

TYPHUS FEVER

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

Place		June 20–July 26, 1930	July 27–Aug. 23, 1930	Aug. 24–Sept. 20, 1930	Sept. 27, 1930	Oct. 4	Oct. 11	Oct. 18	Oct. 25	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29	Dec. 6	Dec. 13	Dec. 20	Dec. 27
												Week ended—						
Algeria:																		
Algiers	C	6	2	3														
Constantine Department	C	2	3			2					1			2		1		
Oran	C	3	1	1														
Bulgaria	D	10	1	4	2		1	2	1			2	1	3	3	2		
China:																		
Manchuria—Harbin (see also table below)	C	1												1		6		
Shanghai	C	2	2	2			1	3							1			
Chosen (see table below).																		
Czechoslovakia (see table below).																		
Egypt:																		
Alexandria	C, D	1	1	3	1									1				
Behoira Province	D, C	15	1	1								2	1					
Cairo	D, C	2	7	1								2					1	
Port Said	C	1	4	2		1			1	1						1	1	
Great Britain: Scotland—Dunfermline	C								1	1								
Greece (see table below).																		
Ireland: Irish Free State—																		
Galway County—Oughterard	C	2																
Leitrim County—Mohill	C	1																
Mayo County—																		
Ballina	C	1	1															
Castlebar	C		1															
Westport	C	2																
Roscommon County—																		
Roscommon	C	1																
Strokestown	C	1																
Wicklow County—Shillelagh	C	2																
Latvia (see table below).																		
Lithuania (see table below).																		

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930
Mexico:						
Durango	D					1
Mexico City, including municipalities in Federal District	4	1	1	12		5
San Luis Potosi		2	8	2	1	2
Morocco		1	1	11	8	2
Palestine	1	1	6	6	3	3
Poland	7	12		30	34	23
Portugal: Oporto		2		4	9	1
Rumania	14	19	2	28		4
Spain		1		1	1	1
Tunisia	5	5		24	10	6
Turkey (see table below)	P	P	P	P	P	P
Union of South Africa:						
Cape Province	P	P	P	P	P	P
Municipality of East London	P	1	1	1		
Natal		P	P		P	2
Orange Free State	P	P	P	P	P	P
Transvaal	P	P	P	P	P	P
Yugoslavia (see table below)	P	P	P	P	P	P

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930
China: Harbin (see also table above)	C	14	5		3	
Chosen: Seoul	C 2	3	2	1		
Czechoslovakia	C 1		1			
Greece: Athens	C 3	6	6	4	4	4
Latvia	C 3	3	1	2		

Place	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Oct., 1930	Nov., 1930	Cases
Lithuania	C 16	18	7	24	1		5
Turkey	D 2	7				16	1
Yugoslavia	C 6	7	2	2	4	4	3

YELLOW FEVER

	Cases
Brazil:	
Campos, Rio de Janeiro Province, May 23, 1930	1
Pará, June 23, 1930	2
Gold Coast:	
July 10, 1930	1
Aibosso, Aug. 4, 1930 (death)	1
Liberia, Monrovia, June 3, 1930	1
Nigeria, Lagos, July 12, 1930 (probably laboratory infection)	1

X