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REPORTED WHOOPING COUGH MORBIDITY AND MORTALITY IN THE UNITED STATES

By C. C. DAUER, *Epidemiologist, District of Columbia Health Department*

Although whooping cough has always been known to be an especially fatal disease in the very young it has not claimed as much attention as some of the other acute infectious diseases of childhood. Its relative importance as a cause of death at the present time may be judged by the fact that it causes more deaths in children under 2 years of age than any other acute infection with the exception of pneumonia and the diarrheas.

Mortality data on this disease are available for States and cities in the United States for variable periods of time depending on the year when the various political units were admitted to the Registration Area. In a few instances morbidity records are available for certain States and cities since 1910, and for the entire country with the exception of two States since 1925. Prior to these dates the disease was not listed as reportable in most States.

The sources of statistical data used in this report were varied. Mortality data were obtained from published and unpublished reports of the Division of Vital Statistics, Bureau of the Census, Washington, D. C. Morbidity data were obtained either from published reports of the various States or from supplements to Public Health Reports on notifiable diseases. All morbidity data are compilations of reported cases in the various States, the completeness of which apparently varies widely.

Trend of mortality and morbidity.—The general trend of mortality from whooping cough in the United States since 1900 may be estimated by the trend for the Registration States of 1900. During the 5-year period from 1900 the mortality was 10. 2 per 100,000 population and during the next two decades there was a decline of about 20 percent, the rate for the period from 1920 to 1924, inclusive, being 8.1. Beginning about 1925 mortality from whooping cough began to decline rapidly so that the rate for the 5-year period from 1935 to 1939 was only 1.8, a decline of about 80 percent in 15 years.

The reason for this marked decline in mortality from whooping cough since 1900 is not apparent. It does not appear to be due to a change in ascribing deaths from this cause to bronchopneumonia. During the period from 1920 to 1939 mortality rates from bronchopneumonia among persons under 5 years of age showed a decline nearly equal to that from whooping cough. For instance, in Massachusetts there was a decline of approximately 60 percent in mortality from bronchopneumonia in this age group while it amounted to 80 percent in Connecticut.

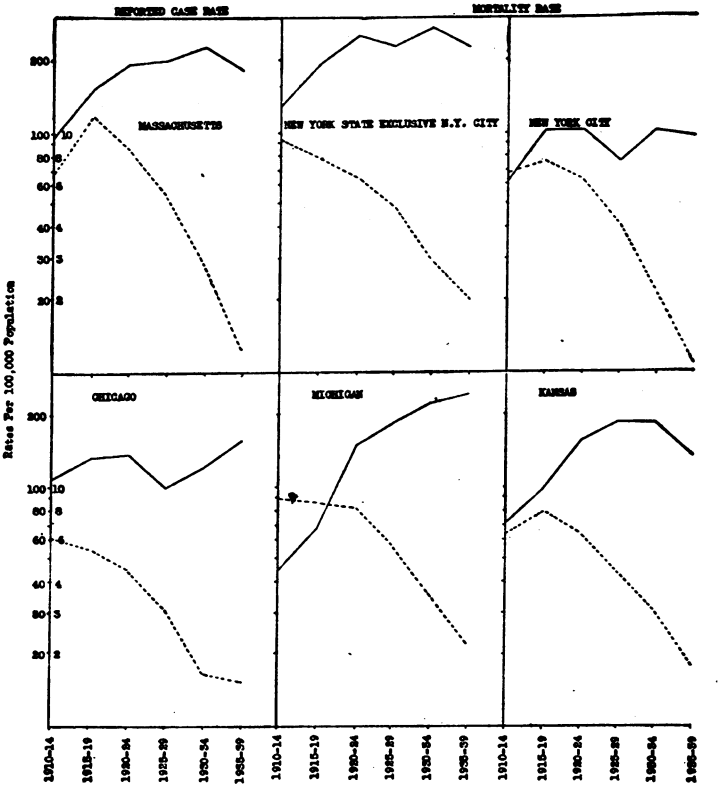

FIGURE 1.—Reported case and mortality rates in certain States and cities, 1910–1939.

The general trend of morbidity and mortality in certain States and cities for which data are available continuously since 1910 is shown in figure 1 and in table 1 of the appendix. During the 30-year period from 1910 to 1939 morbidity rates increased; undoubtedly this trend was due principally to more complete reporting of cases rather than to an actual increase in incidence of the disease. On the other hand the trend of mortality for this same group of States and cities was in the opposite direction, that is, a decline which was approximately equal to that of the Registration States of 1900. The number of

cases per death gradually increased over this same period from an average of about 10 cases per death in 1910 to approximately 100 in the 5-year period from 1935 to 1939.

Regional differences in morbidity and mortality.—Morbidity and mortality rates for all sections of the country are shown by States in table 2 of the appendix for three 5-year periods from 1925 to 1939. In many States there has been an increase in morbidity rates and at the same time a substantial decrease in mortality. However, there have been wide differences in both reported morbidity and mortality when certain sections of the country are compared with others. Differences among States of the same region also were found. For instance, the mortality rates were higher in the South Atlantic, East and West South Central, and Mountain States than in other sections. Among the Mountain States there has been a wide variation in mortality; the rates for New Mexico and Arizona have on the average been twice as high as for other States of that section. Morbidity rates have shown even more variation in the different sections of the country, which probably is due in part to wide variations in completeness of reporting. The number of cases reported per death have shown equally wide variations, in general a greater number being reported in States with relatively low mortality rates such as in the northeastern section of the country and in the Pacific States.

A more detailed picture of the regional differences in mortality from whooping cough may be gained by studying its distribution by counties as illustrated in the accompanying map (fig. 2). When calculating the mortality rates for the individual counties for the 5-year period from 1935 to 1939, the total number of deaths and the population under 5 years of age (1940 census) were used. Since the number of deaths by specific age groups is not available for individual counties, and because 95 to 98 percent of all deaths from whooping cough are in children under 5 years of age, the above method of calculating rates was considered to be the best method of showing regional differences in mortality.

During the period from 1935 to 1939, inclusive, the mortality rate from whooping cough calculated on the basis described above was 45 for the country as a whole. The accompanying map shows that most of the counties with high mortality rates, 75 or more, were located in the Southern and Mountain States. A total of 471, or 15 percent, of all the counties in the United States had rates of 75 or more. However, in 107 of the 471 counties the average number of deaths per year was less than one, and the population was 1,000 or less. One-half of the 107 counties were located in the North Central and Mountain States where a fairly large number of counties have small populations. The high rates in this large number of counties are not without some significance.

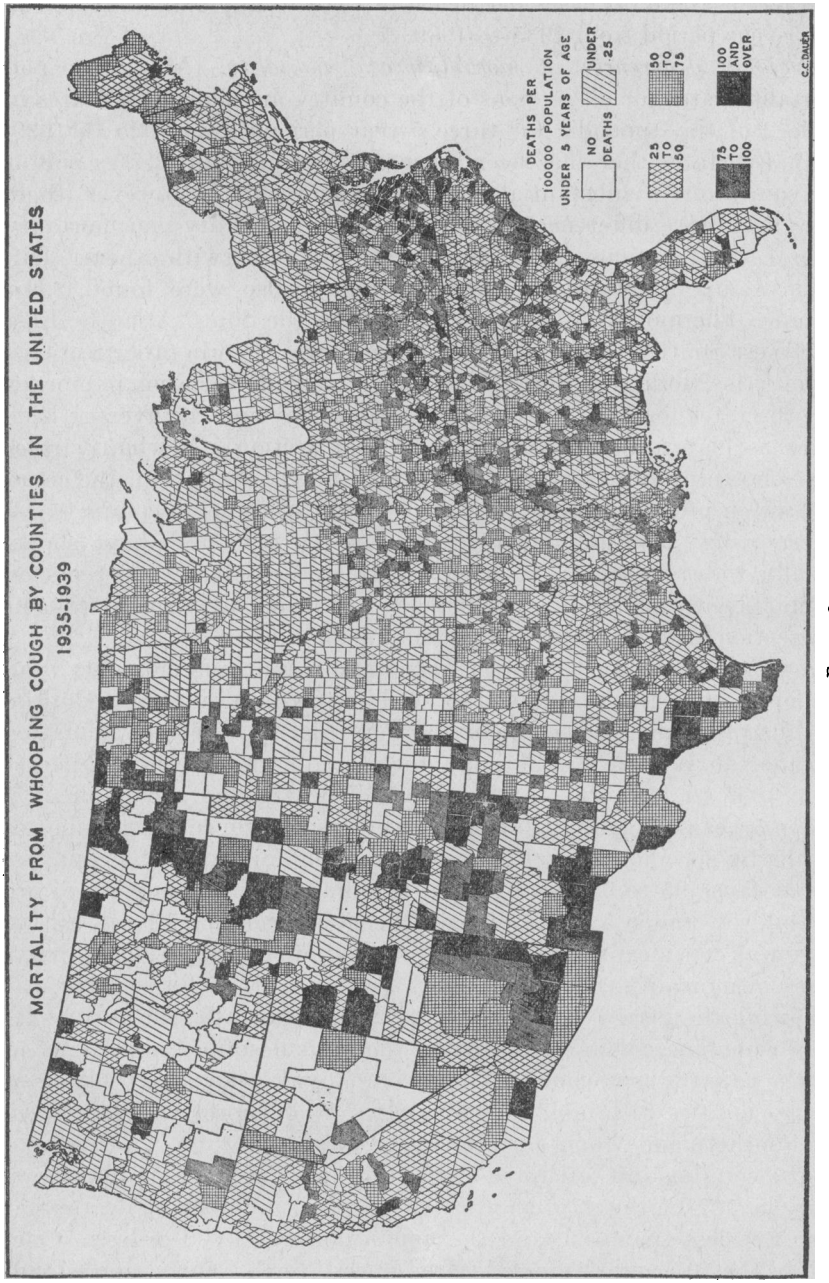
MORTALITY FROM WHOOPING COUGH BY COUNTIES IN THE UNITED STATES
1935-1939
DEATHS PER
100000 POPULATION
UNDER 5 YEARS OF AGE
NO DEATHS
UNDER 25
25 TO 50
50 TO 75
75 TO 100
100 AND OVER
C.C.DAILEY

FIGURE 2.

The 364 counties which had an average of one or more deaths per year and rates of 75 or more were concentrated in the South Atlantic, South Central, and Mountain States. The population of these counties is predominantly rural in character. Only two counties contained cities of 100,000 population or more—Charleston County, S. C. (Charleston City), and Henrico County, Va. (Richmond City). A more detailed consideration of the relationship between mortality from whooping cough and rural population will be found later in this report.

Morbidity and mortality by age groups.—The study of whooping cough morbidity by age groups is handicapped by a number of deficiencies in available data. In the first place only a few States publish or have available numbers of cases reported by single years under the age of 5 or 10. Still fewer States have data available over a period of years which would make it possible to determine whether or not there has been any change in the age distribution of cases. The data from certain States are unduly weighted by case reports from the larger cities which make it difficult to draw any conclusions regarding the real age distribution of cases for the State as a whole. Still other reports show a fairly large proportion of cases whose ages are classified as unknown. However, Fales (*1*) has expressed the opinion that there was no reason for supposing that the distribution of these cases of unknown age was any different from the group of known age.

In spite of these deficiencies the available data as shown in figure 3 and table 3 of the appendix suggest that there are fairly wide differences in age distribution of cases in different sections of the country and that changes have occurred in certain sections during the past 15 to 20 years.

The age distribution of cases in the New England and Middle Atlantic States in recent years has been different from that in southern States. For the years 1935 to 1939, inclusive, a larger percentage of cases were in children under 5 years of age in Alabama, Tennessee, Maryland, and Virginia, than was the case in Connecticut, Massachusetts, New Jersey, and New York State, exclusive of New York City. The distribution for Minnesota is similar to that for the northeastern States while that for Colorado resembles the distribution in southern States. In the States for which reports are available on the number of cases by single years under the age of 10 the largest number reported in any one year also varies in the North and South. In Connecticut, Massachusetts, and New York, exclusive of New York City, the greatest number were reported in the sixth year while in Alabama the number under 1 year of age was largest. While the largest number of white cases was in the 6-year group in Virginia the greater concentration of cases under 5 years of age is consistent with the data for other southern States for which there are records. The

age distribution of reported cases among Negroes shows a very marked concentration in the first 2 years, and especially in infants under 1 year. However, reporting of cases appears to be very incomplete for the Negro population; consequently the preponderance of reported cases in the very young may be misleading.

Other infectious diseases common in childhood such as diphtheria, poliomyelitis, and scarlet fever show similar geographical differences in age distribution of cases. These diseases, like whooping cough, are more frequently encountered in children under 5 years of age in southern than in northern States.

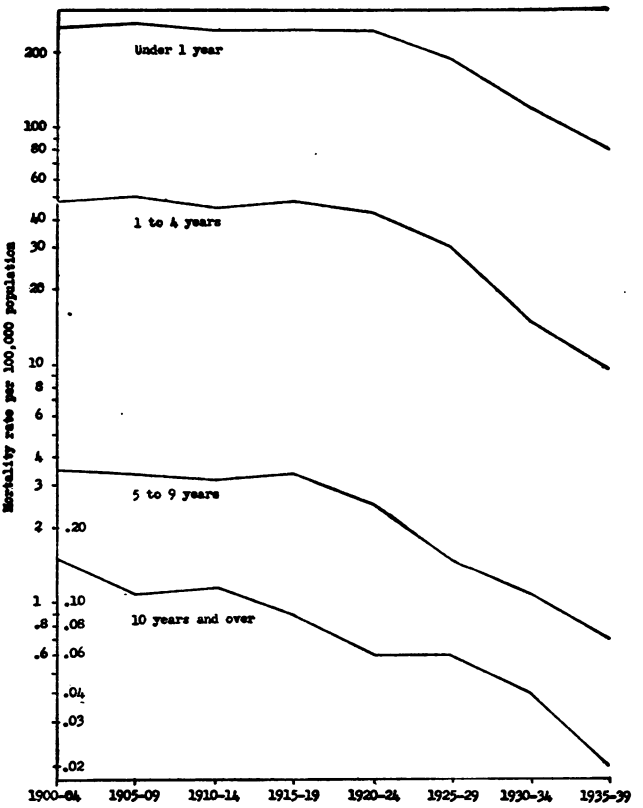

FIGURE 3.—Whooping cough mortality rates in the Registration States of 1900 by age groups, 1900-1939.

It also appears that there has been some shift in the age distribution of reported cases in certain parts of the country. Prior to 1925 the largest number reported was among children 3 years of age in such States as Connecticut, Massachusetts, and New York. In the 5-year period from 1935 to 1939 the greatest number reported in these northern States was in the sixth year. The ratio of the total number of reported cases under 5 years of age to the total in the 5- to 9-year group was 1.4:1.0 prior to 1925 in these States. In other words, the number

under 5 years of age was 40 percent greater than the number 5 to 9 years. In the 5-year period from 1935 to 1939 the ratio had changed so that approximately the same number of cases was reported in each age group. However, the ratio of case rates under 5 years of age to those 5 to 9 years showed less change over the same period of time. The ratio prior to 1925 was 1.3:1.0 and in 1935 to 1939, inclusive, it was 1.1:1.0. This would seem to suggest that changes in the age composition of the population were partially responsible for a shift in the age distribution of reported cases of whooping cough. Data for the State of Alabama from 1925 to 1939 show comparatively little change in age distribution of reported cases or in morbidity rates among white persons. The data for Maryland seem to indicate changes midway between those for Connecticut and Massachusetts on the one hand and Alabama on the other.

Whooping cough mortality data by age groups are available for a much larger proportion of the population of the United States and over a longer period of time than morbidity statistics. Mortality data undoubtedly are much more completely recorded than morbidity figures.

In table 4 of the appendix the percentage distribution of deaths from whooping cough by certain age groups in the various geographical divisions of the country is shown for the period from 1935 to 1939, inclusive. There was no marked variation in percentage of deaths for the different groups under 15 years of age in the various sections except for a slightly lower percentage of deaths in the colored under 6 months of age as compared with the white. However, the proportion of deaths in children under 1 year of age has been approximately the same for both racial groups. The concentration of deaths in the first 2 years of life, especially under 6 months, is constant for all parts of the United States. No other acute communicable disease of childhood, except pneumonia and the diarrheas, shows such a marked concentration in the early years of life.

Some change has taken place in the percentage distribution of deaths in the various age groups during the past four decades. The proportion of deaths in infants under 1 year of age in the Registration States of 1900 increased from slightly more than one-half to approximately two-thirds of the total during the period from 1900 to 1939, inclusive. This shift in age distribution of deaths from whooping cough is exactly opposite that of cases, which, as stated above, is probably due in part to a change in age composition of the population.

The trend of mortality from whooping cough since 1900 has been progressively downward. In the Registration States of 1900 the greatest rate of decline, 87.5 percent, has taken place in the population 10 years of age and over. The 5- to 9- and 1- to 4-year groups experi-

enced nearly the same decrease, namely 80 percent. Under 1 year of age mortality showed a decline of 70.5 percent. As shown in figure 4 the rates have been declining steadily since 1900 in the group 10 years of age and over, while in the 5- to 9- and 1- to 4-year groups the decrease in mortality began about 1920. Not until 1925 was there any appreciable decline in mortality under 1 year of age. Since 1925 the rate of decline has been of the same order in all of the age groups.

Table 5 in the appendix shows the mortality rates by age groups for each State for three 5-year periods from 1925 to 1939. Nearly all

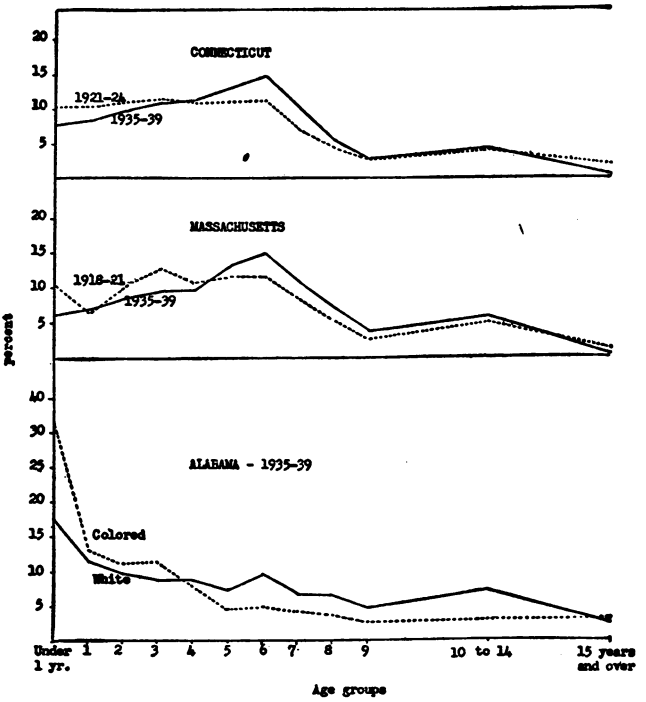

FIGURE 4.—Percentage distribution of reported cases of whooping cough in Connecticut, Massachusetts, and Alabama by age groups.

States have shown a fairly consistent decrease in mortality in the various age groups. Within the various sections there was some difference in mortality in the different groups but the rates in the southern and Mountain States were on the average much higher than those in other parts of the country. The lowest mortality occurred in the Middle Atlantic and Pacific States. Mortality was twice as high among colored persons as for white under 1 year and 5 to 9 years of age, and about three times higher in the 1- to 4-year group.

Sex differences in whooping cough morbidity and mortality.—The higher mortality from whooping cough among females has been found in all parts of the world. One explanation frequently given for the

higher rates in females is that complications occur more frequently because of a smaller lumen in the female larynx which acts as a mechanical obstruction during paroxysms of coughing. However, this hypothesis has not been universally accepted. Hill (*2*) in a study of mortality from whooping cough in England and Wales suggested that the difference might be due to a greater susceptibility to clinical attack, especially after the age of 2 years.

Morbidity data in the United States are available for only a comparatively few States in a form which permits a comparison of the relative numbers of cases reported by age and sex. However, the data shown in table 1 indicate that for ages under 10 years there has been no great excess in the number of reported ases among females while in age of 10 and over the excess has been quite striking. It must be borne in mind that in ages of 20 and over when the emale excess of cases was most marked only a ew cases were reported compared with the younger ages. The possibility that cases among females in the older age groups are more completely reported cannot be ignored and there probably is a greater amount of exposure of adult females to children with whooping cough.

TABLE 1.—*Ratio of female to male cases of whooping cough by age groups reported in certain States, 1935-1939*

Age in years	Connecticut	New Jersey	Maryland		Alabama	
			White	Colored	White	Colored
Under 1	0.95	1.00	1.01	0.98	1.21	1.11
1 to 4	1.04	1.06	1.11	1.31	1.11	1.07
5 to 9	1.03	1.07	1.11	1.01	1.08	1.25
10 to 14	1.10	1.15	1.06	1.65	.83	1.71
15 to 19	.89	1.27	.84	1.00	1.36	1.23
20 and over	2.00	3.56	2.74	3.00	1.12	1.15

The ratio of female to male mortality from whooping cough shows an excess among females of all age groups. For the Registration Area the ratio of female to male deaths among white persons during the 5-year period from 1935 to 1939 was 1.09 under 1 year of age, 1.40 for 1- to 4-year group, 1.32 in the 5- to 9-year group, and 1.39 for those 10 years of age and over. Deaths among colored persons for the same years showed the following ratios: 1.10 under 1 year of age, 1.23 in the 1- to 4-year group, 1.20 in the 5- to 9-year group, and 1.17 in those 10 years of age and over. For all ages the white and colored ratios were 1.20 and 1.15, respectively. The ratio of rates for various racial groups in the United States (see table 2) indicate that all racial groups have an excess in female mortality.

Racial differences in mortality from whooping cough.—If reported cases are used to determine the incidence rates of whooping cough, it would have to be concluded that the incidence is much higher among

white persons than among colored. This does not seem reasonable, and since reliable data are not available to judge the relative differences in the white and colored populations any discussion of racial differences in morbidity will be omitted.

The differences in mortality in the white and colored populations of the southern States have already been mentioned in this report. The rates for the latter have been two to three times higher than those for the former, and this difference has existed in all age groups. Crude mortality rates have been calculated for several nonwhite groups in the Registration Area and tabulated in table 2. For the two 5-year periods from 1930 to 1939 the rates for Negroes were more than twice those for the white. The mortality among Indians has been more than six times higher, but among the Chinese and Japanese combined the rate has been approximately the same as for the white. The excess of mortality among females has been less for Negroes and greater for Indian and Chinese and Japanese than for the white population.

TABLE 2.—*Mortality rates per 100,000 population (all ages) from whooping cough in different racial groups in the registration area, by sex and ratio of female to male mortality*

	White	Negro	Indian	Chinese and Japanese
1930–34:				
Males	3.3	9.7	22.0	3.2
Females	4.1	10.7	28.8	6.4
1935–39:				
Males	2.4	6.9	19.7	1.5
Females	2.8	7.1	27.1	2.9
Ratio of female to male mortality:				
1930–34	1.24	1.10	1.31	2.00
1935–39	1.16	1.02	1.37	1.91

There has been very little difference in percentage distribution of deaths by age groups for white, Negro, and all other nonwhites combined in the Registration Area except for a slightly higher proportion of deaths among white infants under 6 months of age. When the first 2 years are combined the distribution is nearly identical for all racial groups.

Discussion.—In different parts of this report comment was made on the higher death rates from whooping cough in the southern and Mountain States. This difference was evident in crude and age specific rates by States and also in the distribution by counties. In attempting to explain these geographical differences in mortality many factors would have to be taken into consideration, some of which can be measured statistically while others are more intangible and cannot be measured at all or very inaccurately.

One of the striking characteristics of the population of States or counties in which there were relatively high rates of mortality from whooping cough from 1935 to 1939, inclusive, is the predominantly rural distribution of population, which includes all those living on farms and in villages with less than 2,500 inhabitants. This is in agreement with Godfrey's (3) statement in a report on whooping cough in New York State that mortality had been relatively high in villages and rural areas of that State. The percent of rural population in the individual States shows a high degree of correlation with mortality particularly with the age group under 1 year (table 3).

TABLE 3.—*Coefficients of correlation between certain factors and whooping cough mortality by States*

	Mortality rates per 100,000 population		
	Under 1 year	1 to 4 years	5 to 9 years
Percent of rural population	+.77±.06	+.52±.10	+.53±.10
Percent of dwellings with 1.51 or more persons per room	+.88±.03	+.58±.09	+.60±.09
Percent of families with 3 or more children under 10 years of age	+.74±.07	+.55±.10	+.57±.09
Percent nonwhite population	+.50±.11	+.44±.11	+.34±.13
Percent of illiteracy in persons 21 years or older	+.71±.07	+.54±.10	+.46±.12

A relatively large percentage of rural population may be a rough index of a comparatively low density of population per square mile of land area, but this may mask a certain amount of crowding within individual dwelling units. When the percentage of dwellings averaging 1.51 or more persons per room is correlated with mortality from whooping cough the resulting coefficient is of a very high order, $+.88\pm.03$ for the age group under 1 year, and somewhat less significant for children 1 to 4 and 5 to 9 years. Likewise, the percentage of families with three or more children under 10 years of age also shows a fairly high degree of correlation with mortality.

Although mortality rates are generally higher among nonwhite than white persons there is not as high a degree of correlation between the percentage of nonwhite population and mortality as was the case with the other factors discussed. This may be partly due to the fact that several States with relatively high mortality in the Mountain region have included in their white populations certain groups among whom the mortality rates are probably as high as among Negroes and Indians. Included in this category are relatively large numbers of Mexicans or persons of Spanish-American parentage.

It appears that the amount of illiteracy in the population may also be related in some manner with whooping cough mortality because there is a fairly high degree of correlation between the percentage of illiterates 21 years of age or older in the population and the death rate from whooping cough.

It does not seem unreasonable to suppose that these various factors which show a fairly high degree of correlation with mortality, especially among infants, are interrelated in their effects. A population living for the most part in rural areas on farms or in small villages, many of the dwellings housing more than an average of 1.5 person per room, many of the families having three or more children under 10 years of age, and a fairly large proportion of the adults being illiterate would seem to form an ideal combination of factors favoring high mortality from whooping cough.

The more intangible factors are those concerned with medical care. Comparatively few counties with relatively high mortality rates include large cities where hospitals and the services of physicians and nurses are more accessible. The lack of these facilities, their inaccessibility, or nonutilization of them even though available probably have contributed to the higher mortality in certain rural areas.

In recent years there has been an increasing interest in the development and use of prophylactic inoculations of whooping cough vaccine. Although a number of favorable reports on the use of vaccine have appeared, it has not been given on a sufficiently large scale to make it possible to judge its value in reducing mortality. If mortality continues to decline at the same rate during the next 15 years that it did during the past 15 years, it will be extremely difficult to show statistically that this prophylactic procedure had any effect in reducing mortality from whooping cough. Furthermore, with a large percentage of deaths (40 percent) occurring in infants under 6 months of age, inoculations would have to be given at an extremely early age to be effective. Whether or not vaccination would be effective if given before 3 months of age remains to be seen.

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APPENDIX

TABLE 1.—*Reported case and death rates from whooping cough per 100,000 population, and number of cases per death in certain States and cities, 1910–39*

Years	Connecticut	Massachusetts	New York State, exclusive of New York City	New York City	Chicago	Michigan	Wisconsin	Kansas	Utah
	Reported case rates								
1910–14	114	96	134	63	110	46	43	72	593
1915–19	129	165	194	101	132	68	102	99	560
1920–24	190	190	263	105	135	159	228	162	892
1925–29	190	200	230	77	99	185	255	186	759
1930–34	189	225	280	102	128	224	300	180	873
1935–39	205	182	227	98	167	243	320	137	595
	Death rates								
1910–14	12.2	6.9	9.3	6.9	6.1	9.0	8.5	6.4	13.2
1915–19	11.3	12.7	7.9	7.6	5.5	8.7	6.4	8.0	9.6
1920–24	9.0	8.6	6.5	6.2	4.5	8.1	6.3	6.6	13.6
1925–29	5.0	5.6	4.8	4.1	3.1	5.7	3.7	4.5	10.1
1930–34	2.1	3.0	2.9	2.1	1.7	3.6	2.6	3.1	4.1
1935–39	1.4	1.4	2.0	1.1	1.5	2.2	1.7	1.9	3.6
	Number of cases per death								
1910–14	9	14	14	9	18	5	5	11	45
1915–19	11	13	25	13	24	8	16	12	48
1920–24	21	22	40	17	30	20	36	24	66
1925–29	38	36	48	19	32	32	70	42	75
1930–34	90	75	97	50	75	66	115	58	213
1935–39	146	130	113	90	110	110	188	72	170

TABLE 2.—*Whooping cough case and death rates per 100,000 population and number of cases reported per death by States, 1925–39*

Division and State	Reported case rates			Death rates			Number of cases reported per death		
	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939
NEW ENGLAND:									
Maine	155	234	222	7.1	6.0	3.6	20	39	62
New Hampshire	43	40	38	4.8	4.9	2.6	9	8	15
Vermont	427	378	343	6.4	4.4	3.2	66	86	107
Massachusetts	200	225	182	5.6	3.0	1.4	36	75	130
Rhode Island	57	153	193	9.6	3.3	3.1	6	46	62
Connecticut	190	189	205	5.0	2.1	1.4	38	90	146
MIDDLE ATLANTIC:									
New York	143	168	158	4.4	2.5	1.5	32	67	105
New Jersey	191	206	240	5.1	2.3	1.5	37	90	160
Pennsylvania	166	192	180	6.5	3.4	2.0	25	56	90
EAST NORTH CENTRAL:									
Ohio	177	171	143	6.4	3.4	2.5	28	50	74
Indiana	80	91	60	6.8	4.5	2.9	12	18	12
Illinois	144	120	145	4.2	2.6	2.2	50	52	96
Michigan	185	224	243	5.7	3.6	2.2	32	66	110
Wisconsin	255	300	320	3.7	2.6	1.7	70	115	188
WEST NORTH CENTRAL:									
Minnesota	77	97	93	4.3	2.7	1.8	18	36	57
Iowa	31	40	44	4.3	3.1	2.3	7	13	19
Missouri	77	93	65	6.9	4.7	3.5	11	20	19
North Dakota	89	110	108	5.9	4.3	4.1	15	26	26
South Dakota	59	77	66	5.5	6.0	3.2	11	13	21
Nebraska	52	76	36	4.9	3.9	1.8	11	15	20
Kansas	184	180	137	4.5	3.1	1.9	42	58	72

TABLE 2.—*Whooping cough case and death rates per 100,000 population and number of cases reported per death by States, 1925–39*—Continued

Division and State	Reported case rates			Death rates			Number of cases reported per death		
	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939
SOUTH ATLANTIC:									
Delaware	63	117	146	7.5	5.6	4.4	8	21	33
Maryland	249	237	173	10.9	5.9	3.3	24	40	52
District of Columbia	151	117	120	5.1	4.1	3.0	30	29	40
Virginia	400	282	126	12.3	9.2	7.2	32	31	8
West Virginia	123	142	106	13.2	9.8	6.5	9	21	17
North Carolina	359	310	252	10.4	8.4	5.8	34	37	43
South Carolina	223	170	145	9.5	10.1	7.7	23	17	19
Georgia	45	54	50	-----	7.0	4.1	-----	8	12
Florida	50	31	38	4.5	5.4	3.0	11	9	13
EAST SOUTH CENTRAL:									
Kentucky	40	75	91	9.9	8.5	6.2	4	9	15
Tennessee	74	80	71	9.5	7.8	5.3	8	10	13
Alabama	60	63	54	10.3	8.1	5.5	6	8	10
Mississippi	692	474	352	9.7	8.9	5.4	71	53	65
WEST SOUTH CENTRAL:									
Arkansas	60	39	46	7.8	6.1	4.8	8	6	10
Louisiana	28	23	40	8.8	6.4	4.5	3	3	9
Oklahoma	51	27	36	5.6	4.9	4.1	9	5	9
Texas	35	64	94	2.9	4.4	4.1	12	14	23
MOUNTAIN:									
Montana	72	157	214	6.6	4.5	4.1	11	35	52
Idaho	80	70	60	5.1	5.2	3.7	16	13	16
Wyoming	123	112	132	4.7	4.1	5.5	26	28	24
Colorado	110	211	137	10.0	7.9	4.6	11	27	30
New Mexico	215	130	100	-----	10.9	11.5	-----	12	17
Arizona	47	144	144	9.1	12.3	9.3	5	12	16
Utah	759	873	595	10.1	4.1	3.6	75	213	170
Nevada	-----	133	107	1.8	4.0	3.9	-----	33	37
PACIFIC:									
Washington	136	161	126	3.0	1.9	1.3	45	85	97
Oregon	72	100	101	3.3	2.3	1.7	22	43	60
California	158	207	206	5.6	3.0	1.9	28	69	108

TABLE 3.—*Percentage distribution of cases of whooping cough by age groups in certain States*

State	Age group (years)												
	Under 1	1	2	3	4	0–4	5	6	7	8	9	5–9	10–14	15 and over
Connecticut:														
1921–24	10.7	6.6	10.6	12.8	11.0	51.7	12.1	12.1	8.6	5.2	2.9	40.9	5.5	1.7
1935–39	6.1	7.1	8.4	9.8	9.9	41.3	13.1	15.0	11.2	7.2	4.1	50.6	6.5	1.4
Massachusetts:														
1918–21	10.3	10.3	11.2	11.9	11.2	54.9	11.5	11.6	7.1	4.7	2.8	38.5	4.0	2.2
1935–39	7.5	8.4	10.0	11.1	11.6	48.6	12.9	14.9	9.9	5.5	2.8	46.0	4.1	.9
New York State, exclusive of New York City:														
1918–19	7.7	8.0	9.7	10.4	10.9	46.7	10.5	10.4	8.9	6.1	4.2	40.1	9.1	3.7
1935–39	7.3	7.5	9.2	10.2	10.3	44.6	13.0	13.4	10.1	6.4	3.7	46.6	6.7	2.0
New Jersey:														
1920–24	9.0	9.8	12.3	12.5	12.6	56.2	-----	-----	-----	-----	-----	39.1	3.0	1.7
1935–39	6.0	7.9	10.0	11.1	11.7	46.7	-----	-----	-----	-----	-----	47.8	4.7	.5
Maryland:														
White:														
1916–20	11.2	9.7	10.2	10.1	10.1	51.3	-----	-----	-----	-----	-----	36.3	8.9	3.5
1935–39	11.3	8.3	9.2	9.9	9.7	48.4	-----	-----	-----	-----	-----	43.5	3.6	1.5
Colored:														
1916–20	15.8	10.9	10.9	9.4	9.4	56.4	-----	-----	-----	-----	-----	29.6	9.9	3.5
1935–39	23.3	12.1	9.4	9.9	8.5	63.2	-----	-----	-----	-----	-----	27.3	9.0	.5
Virginia:														
White:														
1935–39	9.2	7.6	10.2	11.0	10.9	48.9	9.8	12.2	8.7	7.4	3.8	41.9	6.8	2.3
Colored:														
1935–39	16.6	11.5	11.8	10.4	8.9	59.2	8.2	8.2	7.2	5.2	2.6	31.4	5.9	3.9

TABLE 3—*Percentage distribution of cases of whooping cough by age groups in certain States*—Continued

State	Age group (years)													
	Under 1	1	2	3	4	0–4	5	6	7	8	9	5–9	10–14	15 and over
Alabama.														
White:														
1925–29	14.3	11.5	11.7	9.9	9.8	57.2	8.4	9.8	7.2	5.6	3.3	34.3	5.9	2.5
1935–39	17.5	11.1	9.7	8.9	8.9	56.1	7.4	9.6	6.9	6.5	4.2	34.6	7.0	2.4
Colored:														
1925–29	30.0	19.2	12.7	7.9	6.3	76.1	4.7	5.4	2.7	3.1	1.7	17.6	3.5	2.9
1935–39	32.1	13.1	11.0	11.2	7.7	75.1	4.5	4.7	4.1	3.6	2.2	19.1	2.9	2.7
Tennessee:														
White:														
1935–39	12.0	12.3	10.5	9.0	9.4	53.2	-----	-----	-----	-----	-----	37.8	7.3	1.6
Colored:														
1935–39	23.7	16.4	14.0	9.2	8.6	71.9	-----	-----	-----	-----	-----	22.0	5.3	.9
Minnesota:														
1930–34	6.7	7.1	8.5	9.6	9.7	41.5	-----	-----	-----	-----	-----	53.6	4.1	.7
1935–39	7.9	7.4	8.9	9.6	9.9	44.0	-----	-----	-----	-----	-----	50.7	4.5	.8
Colorado:														
1938–39	10.4	9.0	10.0	11.8	10.3	51.5	-----	-----	-----	-----	----	41.9	4.9	1.4

TABLE 4.—*Percentage distribution of deaths from whooping cough by age groups in various geographical sections of the United States, 1935–39*

Geographical Section	Age group							
	Under 5 months	6–11 months	1 year	2 years	3 years	4 years	5–9 years	10–14 years
New England	41.3	28.3	21.8	7.3	2.9	1.7	2.8	0.1
Middle Atlantic	39.6	24.8	20.7	6.8	3.0	1.6	2.3	.3
East North Central	41.0	26.9	20.9	6.9	2.9	1.8	3.1	.6
West North Central	43.8	21.9	17.7	6.6	3.1	1.9	3.5	.6
South Atlantic:								
Total	36.9	24.8	22.5	6.3	3.7	2.1	3.0	.7
White	39.5	21.8	22.2	6.8	3.0	2.3	3.1	.6
Colored	30.0	34.8	22.1	6.5	4.3	2.0	2.7	.7
East South Central:								
Total	37.7	22.6	22.9	7.7	3.9	2.1	3.6	.8
White	39.5	19.6	22.3	7.5	3.7	1.9	3.6	.9
Colored	33.1	22.8	24.1	7.9	4.3	2.4	3.5	.6
West South Central:								
Total	42.0	21.4	20.4	6.2	3.3	1.6	2.8	.6
White	44.0	21.1	20.5	6.0	3.0	1.3	2.6	.6
Colored	37.3	22.1	20.1	6.9	4.1	2.3	3.4	.6
Mountain	39.0	23.3	20.8	7.7	2.7	2.1	3.3	.4
Pacific	41.8	23.7	19.4	5.9	2.7	1.2	3.0	.7
Registration area:								
Total	40.0	24.2	21.8	7.1	3.2	1.7	2.9	.5
White	42.3	23.5	21.4	7.0	3.0	1.6	3.0	.5
Colored	33.0	20.2	23.0	7.4	4.1	2.0	2.9	.7

TABLE 5.—*Mortality rates from whooping cough by age groups, 1925–39*

Division and State	Under 1 year			1 to 4 years			5 to 9 years			10 years and over		
	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939
NEW ENGLAND:												
Maine	242.8	243.3	134.2	29.4	19.3	16.1	2.1	2.5	1.1	0.25	0.09	0.03
New Hampshire	200.0	221.3	104.0	29.1	18.3	13.3	2.9	1.4	1.0	0	.05	0
Vermont	265.6	168.0	135.5	17.0	11.5	11.4	2.3	3.5	.6	.20	.20	.07
Massachusetts	192.0	109.4	62.2	33.2	14.0	8.1	1.4	.9	.5	.22	.03	.01
Rhode Island	322.1	140.0	70.0	55.8	17.1	11.7	3.1	.9	.4	.04	0	0
Connecticut	173.1	96.5	72.2	27.1	10.1	5.8	1.3	.6	.3	0	.03	.01

TABLE 5.—*Mortality rates from whooping cough by age groups, 1925–39*—Con.

Division and State	Under 1 year			1 to 4 years			5 to 9 years			10 years and over		
	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939	1925 to 1929	1930 to 1934	1935 to 1939
MIDDLE ATLANTIC:												
New York	162.0	104.6	71.2	26.2	14.2	8.3	1.4	1.1	.8	.03	.04	.02
New Jersey	188.0	93.4	67.1	32.8	14.2	9.6	1.9	.7	.5	.02	.03	.02
Pennsylvania	210.3	122.3	80.9	32.5	18.1	10.2	1.3	.6	.3	.05	.03	.01
EAST NORTH CENTRAL:												
Ohio	211.4	121.7	98.8	35.5	18.4	13.4	2.0	1.6	1.1	.04	.07	.05
Indiana	241.8	163.6	114.2	40.3	20.7	11.6	2.4	2.0	1.3	.06	.07	.02
Illinois	141.5	99.8	94.0	25.2	17.4	12.2	1.2	.9	1.0	.03	.01	.02
Michigan	189.8	124.6	86.2	26.5	15.8	10.0	1.2	.9	.5	.04	.04	.04
Wisconsin	145.3	98.7	82.3	17.0	11.0	5.1	.7	.8	.7	0	.05	.01
WEST NORTH CENTRAL:												
Minnesota	153.6	103.8	84.9	16.6	11.1	4.9	1.3	.9	.1	0	.08	.01
Iowa	162.6	130.0	91.9	19.3	10.3	9.8	1.8	1.2	.7	.07	.06	.03
Missouri	230.5	175.8	142.8	40.0	26.8	19.0	3.1	1.5	1.4	.08	.07	.06
North Dakota	203.2	140.7	155.0	25.6	13.2	12.0	2.7	.8	.9	.04	0	.08
South Dakota	------	172.7	110.9	------	27.0	12.9	------	2.2	1.6	------	.11	.08
Nebraska	166.2	142.1	69.6	22.8	14.2	7.4	.9	2.0	1.0	.07	.09	.03
Kansas	150.9	108.0	82.8	24.0	15.0	7.5	.6	1.8	.2	.01	.04	.04
SOUTH ATLANTIC:												
Delaware	290.0	155.9	170.0	43.0	43.3	28.2	1.0	4.7	1.9	0	.29	0
Maryland:												
White	244.1	161.8	85.0	36.7	20.8	14.1	2.5	.9	.8	.08	.05	.09
Colored	683.1	411.5	330.9	143.0	100.0	45.7	5.6	2.8	2.1	0	.18	.78
District of Columbia:												
White	183.7	57.9	57.5	24.4	18.1	10.7	0	3.3	.8	0	0	0
Colored	411.1	314.0	183.0	88.7	78.5	55.8	0	1.7	0	0	.16	0
Virginia:												
White	220.0	193.3	168.9	40.5	32.4	23.4	2.4	1.8	2.4	.20	.11	.05
Colored	551.5	472.7	412.1	104.8	69.5	48.6	6.0	3.7	4.0	.50	.52	.62
West Virginia	295.7	244.5	186.0	58.0	41.7	25.6	3.7	2.5	2.0	.16	.13	.09
North Carolina:												
White	190.0	170.0	134.5	27.4	23.8	15.0	1.7	1.7	.9	.15	.06	.07
Colored	370.0	370.0	272.7	62.8	46.2	37.0	4.1	2.2	2.6	.47	.17	.05
South Carolina:												
White	224.8	201.0	176.2	32.5	22.7	15.8	1.3	1.5	.7	.20	.08	.17
Colored	402.1	391.4	290.0	55.1	49.5	42.4	4.4	3.0	2.0	.46	.20	.20
Georgia:												
White	------	160.0	125.4	------	23.4	14.8	------	1.6	.9	------	.05	.01
Colored	------	276.4	200.0	------	41.2	25.9	------	3.5	1.6	------	.09	.09
Florida:												
White	137.7	95.8	101.0	14.9	11.1	8.2	.8	.9	.6	.05	.13	.07
Colored	304.5	170.8	183.5	29.0	26.0	27.0	3.7	3.9	1.3	.06	.16	.15
EAST SOUTH CENTRAL:												
Kentucky:												
White	223.0	200.7	164.0	49.7	36.6	24.4	3.6	2.9	1.5	.14	.16	.05
Colored	437.8	489.5	355.0	110.4	63.4	72.2	5.4	5.0	3.9	.22	0	.11
Tennessee:												
White	220.0	175.6	155.0	44.6	30.8	20.6	2.9	2.0	1.8	.12	.10	.13
Colored	379.0	392.6	236.9	86.1	76.1	38.9	6.7	3.6	3.0	.16	.10	.05
Alabama:												
White	202.4	180.8	135.1	34.3	27.6	17.2	2.7	2.0	1.4	.16	.12	.04
Colored	331.4	270.4	204.0	60.0	42.9	27.9	2.1	1.6	2.2	.22	.16	.21
Mississippi:												
White	188.4	170.0	122.7	27.2	19.1	13.8	.8	1.5	2.1	.19	.09	.11
Colored	387.1	291.8	156.5	59.2	50.7	27.3	3.5	3.9	2.6	.29	.36	.12
WEST SOUTH CENTRAL:												
Arkansas:												
White	------	150.0	132.3	------	23.1	16.6	------	1.7	1.0	------	.07	.13
Colored	------	215.0	190.4	------	40.0	32.4	------	2.2	1.9	------	.16	.06
Louisiana:												
White	214.6	145.2	124.5	25.6	18.3	9.7	1.4	1.4	.9	.06	.10	.02
Colored	372.0	269.1	208.1	57.1	34.8	25.6	5.7	3.5	1.5	.34	.42	0
Oklahoma	------	152.8	147.0	------	18.0	14.2	------	1.2	1.3	------	.09	.11
Texas	------	------	154.8	------	------	16.0	------	------	1.1	------	------	.05
MOUNTAIN:												
Montana	226.4	146.4	155.0	25.5	20.5	17.3	1.8	2.3	1.3	.23	.18	0
Idaho	175.5	168.0	133.3	24.4	15.7	8.6	1.2	2.8	1.2	.06	.16	.05
Wyoming	174.9	155.5	147.9	30.0	10.8	28.8	1.7	.9	3.5	.23	.21	.20
Colorado	304.6	256.6	173.3	50.6	42.6	20.8	2.5	2.3	.6	.16	.14	.06
New Mexico	------	235.0	300.0	------	40.0	41.8	------	2.8	2.3	------	.41	.10
Arizona	------	300.0	269.3	------	55.0	37.0	------	2.7	2.7	------	.11	.37
Utah	255.0	165.0	110.0	39.6	15.8	12.9	.9	.3	1.8	.06	.15	0
Nevada	------	181.2	217.1	------	13.0	8.2	------	2.6	0	------	0	0
PACIFIC:												
Washington	143.2	90.3	56.1	17.2	7.4	6.4	2.4	1.1	.6	.01	0	.08
Oregon	152.3	108.8	87.6	18.4	11.9	6.3	.8	1.2	.8	.03	.07	.02
California	260.2	132.7	95.1	34.6	18.7	10.5	1.7	1.1	.7	.34	.19	.15

SICKNESS ABSENTEEISM AMONG INDUSTRIAL WORKERS, FINAL QUARTER OF 1942, WITH A NOTE ON THE OCCURRENCE OF BRONCHITIS AND PNEUMONIA, 1933–42[1]

By W. M. GAFAFER, *Senior Statistician, United States Public Health Service*

The accompanying data are derived from analyses of periodic reports on sickness and nonindustrial injuries causing disability lasting more than 7 days among approximately 250,000 male members of

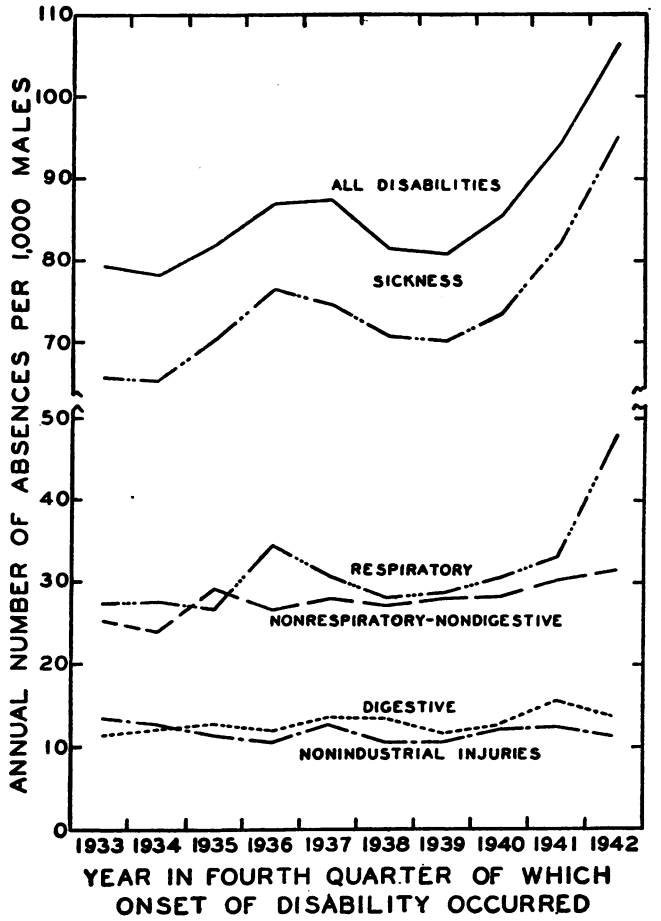

FIGURE 1.—Average annual number of absences per 1,000 males on account of sickness and nonindustrial injuries disabling for 8 consecutive calendar days or longer, by broad cause group, variation of the fourth quarter rates with time; experience of male employees in various industries, 1933–42, inclusive.

industrial sick benefit associations, group insurance plans, and company relief departments.

[1] From the Division of Industrial Hygiene, National Institute of Health. The report for the third quarter appeared in PUBLIC HEALTH REPORTS, 58: 232–234 (February 5, 1943).

Final quarter of 1942.—The rate of 95.3 for sickness yields a 16 percent excess when compared with the corresponding rate (81.9) for 1941, and a 28 percent excess when compared with the mean of the corresponding rates for the 10 years 1933–42. The excess in the fourth quarter sickness rate shown by a comparison of 1942 with 1941 reflects principally the 44 percent increase in the rate for the respiratory diseases, each of the cause groups of the respiratory group showing an increase. Of considerable interest are the increases of 138 percent in pneumonia, 54 percent in influenza and grippe, and 27 percent in bronchitis.

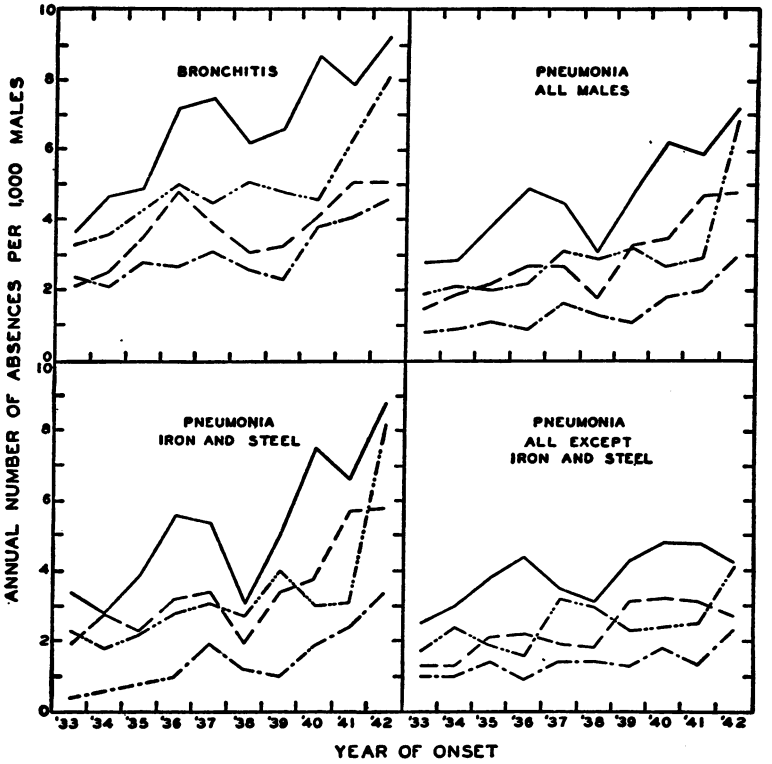

FIGURE 2.—Average annual number of absences per 1,000 males on account of bronchitis and pneumonia disabling for 8 consective calendar days or longer, variation of specific quarterly rates with time; experience of male employees in various industries, 1933–42, inclusive. (*Legend:* Solid line, 1st quarter; broken line, 2d quarter; dash-one dot, 3d quarter; dash-two dots, 4th quarter.)

The rate for the nonrespiratory-nondigestive diseases (31.5) does not show a notable increase when compared with the corresponding rate for the preceding year but it is the highest recorded for the 10-year experience, being 13 percent in excess of the 10-year mean (27.9).

The fourth quarter rates for the broad cause groups covering the period 1933–42 are shown graphically in figure 1.

Bronchitis and pneumonia, 1933–42.—Figure 2 shows for each of the 4 quarters the increasing trends over a 10-year period in the rates for bronchitis and pneumonia, the pneumonia rates representing, respectively, the experience for all males, and for those employed and not employed in the iron and steel industry.

The 1942 fourth quarter rate for bronchitis is 60 percent above the mean (5.0) of the 10 fourth quarters covering 1933–42. The corresponding excess for pneumonia, all males, is 130 percent while for the iron and steel workers, and the noniron and steel workers, the pneumonia excess is 145 percent and 64 percent, respectively. The notable excess shown by the iron and steel workers might be partially attributed to the extraordinary increase in the number of iron and steel workers during the latter part of the 10-year period.

TABLE 1.—*Average annual number of absences on account of sickness and nonindustrial injuries disabling for 8 consecutive calendar days or longer among* MALE *employees in various industries, by cause, the fourth quarter of 1942 compared with the fourth quarter of 1941, and the year 1942 compared with the years 1937–41, inclusive* [1]

Cause (Numbers in parentheses are disease title numbers from the International List of Causes of Death, 1939)	Annual number of absences per 1,000 males				
	Fourth quarter		Year		
	1942	1941	1942	1941	1937–41
Sickness and nonindustrial injuries	106.5	94.3	105.3	102.5	94.9
Nonindustrial injuries (169–195)	11.2	12.4	11.6	12.0	11.5
Sickness	95.3	81.9	93.7	90.5	83.4
Respiratory diseases	47.8	33.1	41.4	41.6	36.6
Tuberculosis of the respiratory system (13)	.8	.5	.8	.7	.8
Influenza, grippe (33)	18.6	12.1	15.7	19.2	17.0
Bronchitis, acute and chronic (106)	8.0	6.3	6.7	5.8	4.9
Pneumonia, all forms (107–109)	6.9	2.9	5.5	3.8	3.2
Diseases of the pharynx and tonsils (115b, 115c)	4.9	4.3	5.2	5.5	5.0
Other respiratory diseases (104, 105, 110–114)	8.6	7.0	7.5	6.6	5.7
Digestive diseases	13.7	15.6	16.0	15.3	14.2
Diseases of the stomach except cancer (117, 118)	4.4	4.5	4.7	4.1	3.9
Diarrhea and enteritis (120)	1.5	1.4	1.8	1.5	1.3
Appendicitis (121)	3.7	5.5	4.8	5.2	4.7
Hernia (122a)	1.6	1.4	1.8	1.6	1.6
Other digestive diseases (115a, 115d, 116, 122b–129)	2.5	2.8	2.9	2.9	2.7
Nonrespiratory-nondigestive diseases	31.5	30.2	34.2	30.5	30.1
Infectious and parasitic diseases (1–12, 14–24, 26–29, 31, 32, 34–44) [2]	1.6	2.4	2.5	2.5	2.3
Rheumatism, acute and chronic (58, 59)	3.6	3.3	3.9	3.8	3.9
Neurasthenia and the like (part of 84d)	1.1	.8	1.1	.9	1.0
Neuralgia, neuritis, sciatica (87b)	2.3	2.2	2.2	2.1	2.2
Other diseases of the nervous system (80–85, 87, except part of 84d, and 87b)	1.1	1.5	1.1	1.3	1.1
Diseases of the heart and arteries, and nephritis (90–99, 102, 130–132)	4.4	3.5	4.4	4.0	4.2
Other diseases of the genitourinary system (133–138)	2.5	2.5	2.6	2.4	2.4
Diseases of the skin (151–153)	2.8	2.5	3.0	2.8	2.9
Diseases of the organs of movement except diseases of the joints (156b)	2.9	3.1	3.0	3.0	2.8
All other diseases (45–57, 60–79, 88, 89, 100, 101, 103, 154, 155, 156a, 157, 162)	9.2	8.4	10.4	7.7	7.3
Ill-defined and unknown causes (200)	2.3	3.0	2.1	3.1	2.5
Average number of males covered in the record	264,241	245,611	261,756	232,180	966,101
Number of organizations	21	22	22	22	

[1] Industrial injuries, venereal diseases, and a few numerically unimportant causes of disability are not reported.

[2] Except influenza, respiratory tuberculosis, and the venereal diseases.

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

REPORTS FROM STATES FOR WEEK ENDED APRIL 17, 1943

Summary

The continued high incidence of meningococcus meningitis and the excess in urban deaths as compared with last year and the 3-year (1940–42) average are the most important features of the present health situation as revealed by current communicable disease reports and mortality in large cities.

A total of 604 cases of meningococcus meningitis was reported for the week, as compared with 587 for the preceding week (exclusive of delayed reports for both weeks). As compared with the preceding week, decreases were recorded in the New England, East and West South Central, and Mountain States, and as compared with the averages for the past 3 weeks decreases were reported in those areas and also in the Pacific States, while an increase was shown in the Mountain States. Other areas recorded increases over both the preceding week and the 3-week average. States reporting the largest numbers during the current week were as follows (preceding week's figures in parentheses): New York, 69 (48); Pennsylvania, 43 (39); Massachusetts, 40 (38); California, 38 (38); Missouri, 36 (33); Virginia, 27 (29); North Carolina, 26 (20); New Jersey, 23 (28). The cumulative total for the first 15 weeks of the year is 7,051, as compared with 1,152 for the same period of 1942 and a 5-year median of 766.

Included in other reports for the week are the following: Anthrax, 1 case (in Pennsylvania); dysentery, all forms, 257; infectious encephalitis, 11; Rocky Mountain spotted fever, 4; tularemia, 12; and endemic typhus fever, 36.

Deaths recorded during the current week in 87 large cities of the United States aggregated 9,602, as compared with 9,434 for the preceding week and a 3-year average of 8,691. The accumulated number for the first 15 weeks of the year is 147,923, as compared with 135,235 for the same period last year.

Telegraphic morbidity reports from State health officers for the week ended April 17, 1943, and comparison with corresponding week of 1942 and 5-year median

In these tables a zero indicates a definite report, while leaders imply that, although none were reported, cases may have occured.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1938–42	Week ended—		Median 1938–42	Week ended—		Median 1938–42	Week ended—		Median 1938–42
	Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942	
NEW ENG.												
Maine	0	0	1	2	2	2	12	135	114	5	5	0
New Hampshire	0	0	0	------	------	------	27	34	34	2	0	0
Vermont	0	2	0	------	------	------	279	100	48	0	0	0
Massachusetts	3	4	4	------	------	------	1,834	1,314	921	40	2	2
Rhode Island	0	0	0	1	------	------	14	264	51	8	0	0
Connecticut	0	0	1	3	3	4	430	565	228	17	0	0
MID. ATL.												
New York	36	19	19	[1] 17	[1] 14	[1] 14	2,903	784	1,839	69	16	7
New Jersey	8	3	5	19	6	10	1,937	829	829	23	4	2
Pennsylvania	12	12	23	2	------	------	2,295	1,264	1,264	43	9	8
E. NO. CEN.												
Ohio	13	3	11	14	9	9	1,196	538	538	18	0	0
Indiana	3	5	6	66	22	22	616	143	143	16	1	0
Illinois	28	17	17	30	6	23	1,545	665	665	13	0	1
Michigan [2]	8	8	7	11	3	8	1,616	437	464	17	3	3
Wisconsin	3	1	1	34	56	89	2,277	953	953	4	0	0
W. NO. CEN.												
Minnesota	3	2	2	2	1	1	153	887	178	2	0	0
Iowa	3	7	7	------	------	9	301	328	309	12	1	1
Missouri	3	7	5	3	5	5	392	721	274	36	6	1
North Dakota	0	1	1	4	6	13	0	55	26	0	0	0
South Dakota	1	2	2	------	------	------	125	17	9	0	0	0
Nebraska	1	2	0	2	66	------	311	349	67	1	0	0
Kansas	5	5	4	5	4	18	623	583	597	4	1	1
SO. ATL.												
Delaware	0	0	0	------	------	------	95	13	13	6	1	0
Maryland [2]	0	4	2	6	9	11	168	521	215	16	8	1
Dist. of Col	0	0	2	1	2	2	83	82	82	2	2	0
Virginia	3	10	10	277	313	313	488	322	486	27	7	2
West Virginia	5	2	6	33	5	28	116	159	159	5	0	2
North Carolina	4	11	11	2	21	21	173	1,130	1,130	26	1	1
South Carolina	4	3	8	630	411	411	251	211	211	18	1	0
Georgia	3	7	7	80	48	92	406	203	203	12	1	1
Florida	4	2	4	16	3	7	52	297	297	19	0	0
E. SO. CEN.												
Kentucky	5	4	4	6	------	10	361	126	126	14	0	0
Tennessee	5	3	4	78	49	87	360	114	145	10	1	1
Alabama	5	7	9	108	136	136	243	137	144	6	6	3
Mississippi [2]	7	8	5	------	------	------	------	------	------	14	2	2
W. SO. CEN.												
Arkansas	2	4	7	28	53	99	193	171	171	[3] 16	1	0
Louisiana	9	9	9	16	7	20	84	251	167	2	0	0
Oklahoma	3	8	7	105	137	137	51	331	146	4	0	0
Texas	29	28	28	1,378	690	690	1,297	2,194	882	13	7	2
MOUNTAIN												
Montana	1	0	1	------	3	3	197	106	74	0	0	0
Idaho	0	0	0	2	------	2	67	92	52	5	0	0
Wyoming	0	1	0	20	138	------	126	79	58	1	0	0
Colorado	12	1	12	25	42	23	[4] 1,478	279	375	4	0	0
New Mexico	0	4	4	2	10	6	22	65	65	1	0	0
Arizona	1	0	2	108	100	100	77	155	53	6	0	0
Utah [2]	0	0	0	------	------	6	207	519	374	0	0	0
Nevada	0	0	------	6	------	------	36	130	------	1	0	------
PACIFIC												
Washington	4	0	0	3	------	------	716	209	209	12	0	0
Oregon	3	0	3	11	21	21	357	203	203	11	1	0
California	5	8	14	71	267	186	1,203	6,930	541	38	1	1
Total	244	224	272	3,227	2,668	2,842	27,793	25,994	25,994	[3] 619	88	49
15 weeks	4,142	4,486	5,485	63,965	67,152	129,527	[4] 263,578	254,951	254,951	7,051	1,152	766

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for week ended Ap.il 17, 1943, and comparison with corresponding week of 1942 and 5-year median—Con.

Division and State	Poliomyelitis			Scarlet fever			Smallpox			Typhoid and paratyphoid fever		
	Week ended—		Median 1938–42	Week ended—		Median 1938–42	Week ended—		Median 1938–42	Week ended—		Median 1938–42
	Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942		Apr. 17, 1943	Apr. 18, 1942	
NEW ENG.												
Maine	0	0	0	14	6	15	0	0	0	0	1	1
New Hampshire	0	0	0	8	12	7	0	0	0	1	0	0
Vermont	0	0	0	4	5	13	0	0	0	0	0	0
Massachusetts	1	0	0	660	462	206	0	0	0	2	2	0
Rhode Island	0	1	0	24	8	12	0	0	0	0	0	0
Connecticut	0	0	0	114	37	97	0	0	0	0	2	2
MID. ATL.												
New York	0	3	1	635	457	727	0	0	0	0	9	5
New Jersey	1	0	0	125	167	214	0	0	0	3	0	1
Pennsylvania	1	0	0	376	290	420	0	0	0	6	3	6
E. NO. CEN.												
Ohio	0	1	0	273	311	311	4	0	1	2	3	1
Indiana	0	0	0	122	115	137	3	1	1	0	1	1
Illinois	0	0	0	201	281	514	2	1	3	4	7	3
Michigan [2]	0	0	0	108	122	373	0	2	2	1	0	1
Wisconsin	0	1	1	377	148	148	1	0	2	0	1	1
W. NO. CEN.												
Minnesota	1	0	0	71	76	52	0	0	3	0	0	0
Iowa	0	0	0	57	51	78	1	0	19	0	1	1
Missouri	2	0	0	152	116	109	2	3	6	0	1	1
North Dakota	0	0	0	6	22	13	0	1	1	1	0	0
South Dakota	0	0	0	19	22	17	0	0	2	0	0	0
Nebraska	0	0	0	117	36	27	0	0	0	0	0	0
Kansas	0	0	0	56	90	81	0	0	1	1	0	1
SO. ATL.												
Delaware	0	0	0	7	53	12	0	0	0	0	0	0
Maryland [2]	0	0	0	148	63	47	0	0	0	0	2	1
Dist. of Col	0	0	0	16	15	18	0	0	0	1	0	1
Virginia	0	1	0	30	39	39	0	0	0	2	0	2
West Virginia	0	0	1	26	29	29	0	0	0	4	3	1
North Carolina	0	0	0	47	22	22	3	0	0	0	2	2
South Carolina	0	1	0	3	4	6	0	0	0	1	1	2
Georgia	0	0	0	10	17	14	0	0	0	1	2	3
Florida	0	0	0	8	5	5	0	0	0	1	6	3
E. SO. CEN.												
Kentucky	1	1	0	38	73	79	0	0	0	5	4	4
Tennessee	0	1	1	38	44	66	0	4	2	1	2	2
Alabama	2	0	0	9	26	15	1	0	0	1	4	3
Mississippi [2]	1	0	0	10	7	7	0	1	1	2	3	1
W. SO. CEN.												
Arkansas	0	0	0	7	6	4	3	3	3	0	4	4
Louisiana	0	0	0	5	8	7	0	0	0	5	6	6
Oklahoma	0	0	0	16	17	19	0	4	4	1	0	1
Texas	1	0	1	63	56	50	1	0	5	8	6	6
MOUNTAIN												
Montana	0	0	0	6	20	20	0	0	0	0	0	0
Idaho	0	0	0	42	0	6	1	0	1	0	1	0
Wyoming	0	0	0	54	15	7	0	1	0	0	0	0
Colorado	0	0	0	45	26	34	0	0	1	0	0	0
New Mexico	1	1	0	17	10	10	0	0	0	3	0	0
Arizona	1	0	0	11	3	6	0	0	0	0	0	1
Utah [2]	0	0	0	30	16	16	0	0	0	0	0	0
Nevada	0	0	------	4	5	------	0	0	------	0	0	------
PACIFIC												
Washington	0	1	0	44	34	34	0	0	0	0	3	1
Oregon	1	0	0	38	2	14	2	0	2	1	0	0
California	5	2	2	192	82	129	0	0	5	1	3	3
Total	19	14	14	4,483	3,531	4,409	24	21	72	59	83	83
15 weeks	378	327	327	59,767	59,424	71,706	395	343	1,075	802	1,126	1,165

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended April 17, 1943, and comparison with corresponding week of 1942 and 5-year median—Con.

Division and State	Whooping cough			Week ended Apr. 17, 1943								
	Week ended—		Median 1938–42	Anthrax	Dysentery			Encephalitis, infectious	Leprosy	Rocky Mt. spotted fever	Tularemia	Typhus fever
	Apr. 17, 1943	Apr. 18, 1942			Amebic	Bacillary	Unspecified					
NEW ENG.												
Maine	44	15	43	0	0	0	0	0	0	0	0	0
New Hampshire	0	17	6	0	0	0	0	0	0	0	0	0
Vermont	15	56	28	0	0	0	0	0	0	0	0	0
Massachusetts	127	243	175	0	0	1	0	0	0	0	0	0
Rhode Island	52	26	21	0	0	0	0	0	0	0	0	0
Connecticut	31	87	46	0	0	1	0	1	0	0	0	0
MID. ATL.												
New York	346	433	430	0	18	15	0	0	0	0	0	0
New Jersey	186	282	99	0	1	0	0	0	0	0	0	0
Pennsylvania	246	163	308	1	0	0	0	0	0	0	0	0
E. NO. CEN												
Ohio	191	187	187	0	0	0	0	4	0	0	1	0
Indiana	73	67	41	0	0	0	0	0	0	0	0	0
Illinois	150	176	114	0	0	0	0	1	0	0	0	0
Michigan [3]	255	135	149	0	1	0	0	0	0	0	0	0
Wisconsin	213	168	168	0	0	0	0	0	0	0	0	0
W. NO. CEN.												
Minnesota	87	30	30	0	1	0	0	0	0	0	0	0
Iowa	17	16	17	0	0	0	0	0	0	0	0	0
Missouri	51	18	22	0	0	0	2	0	0	0	0	0
North Dakota	2	17	17	0	0	0	0	0	0	0	0	0
South Dakota	2	2	2	0	0	0	0	0	0	0	0	0
Nebraska	9	11	8	0	0	0	0	0	0	0	0	0
Kansas	94	63	63	0	0	0	0	1	0	0	1	0
SO. ATL.												
Delaware	1	4	4	0	0	0	0	0	0	0	0	0
Maryland [2]	105	45	45	0	0	0	0	1	0	0	0	0
Dist. of Col	28	19	18	0	0	0	0	0	0	0	0	0
Virginia	125	43	56	0	0	0	37	0	0	0	1	0
West Virginia	54	26	49	0	0	0	0	0	0	0	0	0
North Carolina	152	95	222	0	0	0	0	0	0	1	1	3
South Carolina	30	89	82	0	0	1	0	0	0	0	0	0
Georgia	38	20	32	0	0	0	0	0	0	0	5	5
Florida	17	12	13	0	1	2	0	0	0	0	0	3
E. SO. CEN.												
Kentucky	0	91	47	0	0	0	0	0	0	0	0	0
Tennessee	79	26	36	0	0	0	0	0	0	0	1	0
Alabama	80	101	48	0	0	0	0	0	0	0	0	4
Mississippi [2]	------	------	------	0	0	0	0	0	0	0	0	0
W. SO. CEN.												
Arkansas	25	7	24	0	5	1	0	0	0	0	2	0
Louisiana	18	8	9	0	1	0	0	0	0	0	1	3
Oklahoma	33	16	20	0	0	0	0	0	0	0	0	0
Texas	690	201	303	0	5	121	0	2	0	0	0	18
MOUNTAIN												
Montana	13	12	12	0	0	2	0	0	0	0	0	0
Idaho	12	2	15	0	0	0	0	0	0	0	0	0
Wyoming	1	15	5	0	0	0	0	0	0	2	0	0
Colorado	8	46	46	0	0	1	0	1	0	0	0	0
New Mexico	19	44	29	0	0	0	0	0	0	0	0	0
Arizona	18	54	37	0	3	0	35	0	0	0	0	0
Utah [2]	75	58	58	0	0	0	0	0	0	0	0	0
Nevada	3	14	------	0	0	0	0	0	0	0	0	0
PACIFIC												
Washington	43	50	55	0	0	0	0	0	0	0	0	0
Oregon	18	26	19	0	0	0	0	0	0	1	0	0
California	410	309	309	0	0	2	0	0	0	0	0	0
Total	4,286	3,645	3,645	1	36	147	74	11	0	4	13	36
15 weeks	60,166	57,746	61,897	23	441	2,943	670	166	7	9	258	715

[1] New York City only. [2] Period ended earlier than Saturday. [3] Delayed report of 15 cases included.
[4] A later report shows 1,082 cases of measles in Colorado for the week ended Apr. 10 instead of the number previously published.

WEEKLY REPORTS FROM CITIES

City reports for week ended April 3, 1943

This table lists the reports from 89 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENG.												
Maine:												
Portland	0	0	------	0	0	4	6	0	3	0	0	29
New Hampshire:												
Concord	0	0	------	0	0	0	3	0	0	0	0	0
Vermont:												
Barre	0	0	------	0	1	0	0	0	0	0	0	0
Massachusetts:												
Boston	0	0	------	0	150	16	30	0	196	0	1	40
Fall River	0	0	------	0	51	1	1	0	2	0	0	14
Springfield	0	0	------	0	10	1	1	0	73	0	0	0
Worcester	0	0	------	0	362	0	13	0	9	0	0	11
Rhode Island:												
Providence	0	0	1	0	2	7	5	0	6	0	0	37
Connecticut:												
Bridgeport	0	0	------	0	0	0	1	0	3	0	0	1
Hartford	1	0	------	0	24	1	4	0	0	0	0	3
New Haven	0	0	------	1	3	1	3	0	5	0	0	5
MID. ATL.												
New York:												
Buffalo	0	0	1	1	105	5	9	0	17	0	0	17
New York	17	1	19	2	672	45	80	0	391	0	3	73
Rochester	0	1	------	0	44	1	6	0	12	0	0	20
Syracuse	0	0	------	0	63	2	5	0	16	0	0	20
New Jersey:												
Camden	3	0	------	0	24	2	2	0	2	0	0	0
Newark	0	0	5	2	246	4	7	0	14	0	0	9
Trenton	0	0	1	0	72	0	1	0	11	0	0	2
Pennsylvania:												
Philadelphia	0	0	5	5	522	14	34	0	125	0	0	70
Pittsburgh	0	0	1	2	19	1	6	0	8	0	0	24
Reading	0	0	------	0	175	0	3	0	5	0	0	10
E. NO. CEN.												
Ohio:												
Cincinnati	0	0	2	3	116	0	5	0	42	0	0	5
Cleveland	1	0	2	0	13	2	10	0	43	0	0	47
Columbus	0	0	2	2	18	0	4	0	15	0	0	3
Indiana:												
Fort Wayne	0	0	------	0	4	0	0	0	7	0	0	0
Indianapolis	1	0	------	1	231	0	12	0	25	0	0	12
South Bend	0	0	------	0	3	0	0	0	0	0	0	0
Terre Haute	0	0	------	0	13	0	2	0	0	0	0	0
Illinois:												
Chicago	13	0	3	1	768	12	32	0	81	0	3	70
Springfield	0	0	------	0	12	0	0	0	5	0	0	16
Michigan:												
Detroit	5	0	------	3	541	8	30	0	32	0	0	77
Flint	0	0	------	0	24	0	7	0	3	0	0	12
Grand Rapids	0	0	------	1	11	0	7	0	5	0	0	14
Wisconsin:												
Kenosha	0	0	------	0	0	0	0	0	5	0	0	0
Milwaukee	0	0	1	0	460	2	9	0	177	0	0	41
Racine	0	0	------	0	10	0	0	0	18	0	0	2
Superior	0	0	------	0	0	0	0	0	1	0	0	6
W. NO. CEN.												
Minnesota:												
Duluth	0	0	------	0	3	0	2	0	2	0	0	3
Minneapolis	1	0	------	0	66	2	5	0	17	0	0	16
St. Paul	1	0	------	0	15	1	4	0	7	0	1	48
Missouri:												
Kansas City	0	1	------	0	132	8	6	0	35	0	0	4
St. Joseph	0	0	------	0	3	0	5	0	0	0	0	0
St. Louis	0	0	------	0	51	16	16	0	16	0	0	25

City reports for week ended April 3, 1943—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
W. NO. CEN.—CON.												
North Dakota:												
Fargo	0	0	------	0	4	0	0	0	1	0	0	0
Nebraska:												
Omaha	0	0	------	0	1	0	5	0	6	0	0	3
Kansas:												
Topeka	1	0	------	0	308	0	3	0	0	0	0	11
Wichita	0	0	1	0	102	0	1	0	1	0	0	23
SO. ATL.												
Delaware:												
Wilmington	0	0	------	0	27	0	3	0	3	0	0	2
Maryland:												
Baltimore	4	0	3	1	57	15	18	0	57	0	2	90
Cumberland	0	0	------	0	0	1	1	0	1	0	0	0
Frederick	0	0	------	0	5	0	0	0	0	0	0	0
Dist. of Col.:												
Washington	0	0	1	1	75	5	7	1	20	0	0	42
Virginia:												
Lynchburg	0	0	------	0	4	0	0	0	1	0	0	3
Richmond	0	0	------	2	11	1	3	0	6	0	0	0
Roanoke	0	0	------	0	1	0	1	0	2	0	0	0
West Virginia:												
Charleston	0	0	1	0	0	0	0	0	0	0	0	0
Wheeling	0	0	------	0	6	0	2	0	0	0	0	1
North Carolina:												
Wilmington	0	0	------	1	22	0	0	0	2	0	0	14
Winston-Salem	0	0	------	0	2	0	7	0	2	0	0	25
South Carolina:												
Charleston	0	0	34	0	8	1	1	0	0	0	0	1
Georgia:												
Atlanta	0	0	23	1	11	0	2	0	3	0	0	6
Brunswick	0	0	1	1	2	0	0	0	0	0	0	0
Savannah	0	0	8	0	0	1	2	0	1	0	0	2
Florida:												
Tampa	0	0	------	0	0	0	2	0	0	0	0	0
E. SO. CEN.												
Tennessee:												
Memphis	0	0	14	3	232	0	4	0	5	0	2	32
Nashville	0	0	------	0	42	0	3	0	1	0	0	2
Alabama:												
Birmingham	0	0	4	1	5	0	4	0	2	0	0	0
Mobile	0	0	1	0	2	0	3	0	1	0	0	0
W. SO. CEN.												
Arkansas:												
Little Rock	0	0	4	0	10	0	2	0	0	0	0	6
Louisiana:												
New Orleans	2	0	5	2	61	4	12	0	5	0	1	0
Shreveport	0	0	------	0	0	0	7	0	2	0	1	0
Texas:												
Dallas	1	0	------	0	0	2	5	0	6	0	0	12
Galveston	0	0	------	0	6	0	3	0	0	0	0	1
Houston	3	0	------	0	14	1	8	0	3	0	0	4
San Antonio	1	0	3	0	7	0	8	0	0	0	0	1
MOUNTAIN												
Montana:												
Billings	0	0	------	0	0	0	0	0	1	0	0	0
Great Falls	0	0	------	0	36	0	1	0	1	0	0	3
Helena	0	0	------	0	102	0	0	0	1	0	0	0
Missoula	0	0	------	0	2	0	0	0	1	0	0	0
Idaho:												
Boise	0	0	------	0	12	0	0	0	0	0	0	0
Colorado:												
Denver	5	0	20	1	528	2	4	0	8	0	0	4
Pueblo	0	0	------	0	7	0	2	0	2	0	0	4
Utah:												
Salt Lake City	0	0	------	0	137	1	3	1	19	0	0	33

City reports for week ended April 3, 1943—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle	3	0	-----	1	111	2	8	0	4	0	0	11
Spokane	1	0	1	1	150	0	4	0	3	0	0	6
Tacoma	0	0	-----	0	17	0	0	0	2	0	0	0
California:												
Los Angeles	4	0	11	3	99	2	5	0	14	0	0	45
Sacramento	0	0	-----	0	10	1	2	1	3	0	0	1
San Francisco	1	0	-----	1	80	12	16	0	22	0	0	38
Total	69	3	178	44	7,355	207	538	3	1,646	0	14	1,212
Corresponding week 1942	62	1	147	31	4,897	49	438	3	1,427	5	17	961
Average, 1938–42	83	-----	318	[1] 47	[2] 5,487	-----	[1] 485	-----	1,677	12	20	1,097

Anthrax.—Cases: Milwaukee, 1; Camden, 1.
Dysentery, amebic.—Cases: New York, 20; Chicago, 1.
Dysentery, bacillary.—Cases: Cleveland, 1; St. Louis, 2; Charleston, S. C., 2; Buffalo, 1; New York, 4; Los Angeles, 3.
Dysentery, unspecified.—Cases: San Antonio, 3.
Tularemia.—Cases: Columbus, 1; Wichita, 1.

[1] 3-year average, 1940–42.
[2] 5-year median.

Rates (annual basis) per 100,000 population, by geographic groups, for the 89 cities in the preceding table (estimated population, 1942, 34,720,600)

	Diphtheria cases	Encephalitis, Infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENG.	2.5	0.0	2.5	2.5	1,498	77.0	166.5	0.0	738	0.0	2.5	348
MID. ATL.	8.9	0.9	14.3	5.4	866	33.0	68.2	0.0	268	0.0	1.3	109
E. NO. CEN.	11.7	0.0	5.8	5.8	1,299	14.0	68.9	0.0	268	0.0	1.8	178
W. NO. CEN.	5.9	2.0	2.0	0.0	1,339	52.8	91.9	0.0	166	0.0	2.0	260
SO. ATL.	6.8	0.0	121.6	12.0	396	41.1	83.9	1.7	168	0.0	3.4	320
E. SO. CEN.	0.0	0.0	112.8	23.8	1,669	0.0	83.2	0.0	54	0.0	11.9	202
W. SO. CEN.	20.5	0.0	35.2	5.9	287	20.5	132.0	0.0	47	0.0	5.9	70
MOUNTAIN	40.2	0.0	160.8	8.0	6,624	24.1	80.4	8.0	265	0.0	0.0	354
PACIFIC	15.7	0.0	21.0	10.5	816	29.7	61.2	1.7	84	0.0	0.0	177
TOTAL	10.4	0.5	26.7	6.5	1,105	31.1	80.8	0.5	247	0.0	2.1	182

PLAGUE INFECTION IN CALIFORNIA AND WASHINGTON

Plague infection has been reported proved in specimens collected in California and Washington as follows:

CALIFORNIA

Monterey County.—March 30 and 31, in specimens of tissue and fleas from wood rats (*Neotoma fuscipes*), meadow mice (*Microtus californicus*), and mice (*Peromyscus* sp.) collected in Camp Hunter Liggett, Jolon, Monterey County, Calif., as follows: Tissue from 1 rat; 2 pools

of tissue from rats, one of which consisted of tissue from 4 rats from a collection of 41; tissue from 1 meadow mouse; a pool of 237 fleas from 76 rats; a pool of 100 fleas from 87 meadow mice; a pool of 21 fleas from 4 meadow mice; a pool of 50 fleas from 51 meadow mice; a pool of 234 fleas from 108 meadow mice; and a pool of 35 fleas from mice, 3 species of mice, *Peromyscus*.

WASHINGTON

Pierce County—Tacoma.—March 23, in tissue from 1 rat (*R. norvegicus*), and March 29, in a pool of 30 fleas from 76 rats, same species, all from frame buildings in industrial sections of Tacoma, Wash.

TERRITORIES AND POSSESSIONS

Hawaii Territory

Plague (human).—On April 11, one death from bubonic plague was reported in a woman 35 years of age, in the Hamakua District, Island of Hawaii, T. H. This is the third death from plague reported in the District since March 1, 1943.

Plague (rodent).—During the week ended March 27, 1943, 5 rats proved positive for plague were reported in Hamakua District, Island of Hawaii, T. H., as follows: 1 rat in Kapulena Area, 3 rats in Paauhau Area, and 1 rat in Honokaa Area.

DEATHS DURING WEEK ENDED APRIL 10, 1943

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

	Week ended Apr. 10, 1943	Corresponding week, 1942
Data for 88 large cities of the United States:		
Total deaths	9,464	8,620
Average for 3 prior years	8,559	
Total deaths, first 14 weeks of year	138,871	127,079
Deaths under 1 year of age	621	537
Average for 3 prior years	499	
Deaths under 1 year of age, first 14 weeks of year	9,698	7,870
Data from industrial insurance companies:		
Policies in force	65,479,985	64,963,028
Number of death claims	13,330	11,810
Death claims per 1,000 policies in force, annual rate	10.6	9.5
Death claims per 1,000 policies, first 14 weeks of year, annual rate	10.7	10.2

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended March 20, 1943.—During the week ended March 20, 1943, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox		20	2	147	210	33	19	13	44	488
Diphtheria		23	9	25		5			2	64
Dysentery (amebic)					1					1
Dysentery (bacillary)				16						16
German measles		1		22	34		1	4	5	67
Influenza		43	12		28	7	152		469	711
Measles		94	4	219	363	85	251	53	93	1,162
Meningitis, meningococcus			1	5	4	2	1		3	16
Mumps	1	204	5	97	1,068	118	94	103	152	1,842
Scarlet fever		3	56	118	185	24	36	45	21	488
Tuberculosis (all forms)	5	8	2	117	63	18	22	12		247
Typhoid and paratyphoid fever			1	30			1			32
Undulant fever								1		1
Whooping cough		3		93	150	63	19	12		340

REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER RECEIVED DURING THE CURRENT WEEK

NOTE.—Except in cases of unusual prevalence, only those places are included which had not previously reported any of the above-mentioned diseases, except yellow fever, during the current year. All reports of yellow fever are published currently.

A cumulative table showing the reported prevalence of these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

(Few reports are available from the invaded countries of Europe and other nations in war zones.)

Plague

Peru.—For the month of February 1943, 4 cases of plague were reported in Peru as follows: Department of Lima, Huaura, 2; Department of Lambayeque, Chiclayo, 2.

Typhus Fever

Algeria.—For the period March 1–10, 1943, 373 cases of typhus fever were reported in Algeria, including 17 cases in Algiers, 13 cases in Azefon, 13 cases in Bone, 13 cases in Philippeville, 42 cases in Oran, and 10 cases in Mostaganem.

Guatemala.—For the month of February 1943, 101 cases of typhus fever were reported in Guatemala.

Hungary.—For the period March 21–27, 1943, 47 cases of typhus fever were reported in Hungary.