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STUDIES ON THE DURATION OF DISABLING SICKNESS

IV. Duration of Disability from the Nonrespiratory-Nondigestive Diseases among Male Employees with Particular Reference to the Older Worker¹

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The induction of physically fit young men into the armed services has made it necessary for industry to draw more and more on women and older men, as well as on the physically less fit. With the introduction of large numbers of these persons into the industrial environment there has arisen an increased need for the investigation of certain problems that are closely related to the adequate production of the materials of war.

Foremost among these problems is that of absenteeism accounted for by sickness and nonindustrial injuries which the present series of papers on the duration of disabling sickness is investigating. Three papers (1-3) have appeared thus far. Each presents two basic tables, a table of frequency rates and a table of disability rates. The frequency table gives the average annual number of absences per 1,000 persons connected with disabilities of a specified number of days, t or more; the disability table, on the other hand, shows the average annual number of days of disability per person resulting from all disabilities contributing t days or less.

In the first paper (1) the factors of sex and broad cause group were considered with the use of data from the records of 25 industrial sick benefit organizations with waiting and maximum benefit periods of varying length, and the value of t in the two basic tables varying from 8 through 372 days.

The second paper (2), based on absences of 1 calendar day or longer occurring among male workers of a public utility, presented the effect of introducing disabilities of less than 8 days' duration, and specifically the effect of the respiratory group of diseases with its preponderance of short absences.

The third paper of the series (3) concerned itself with the effect of the age of the worker, the supporting data being drawn from the recorded disability experience of male employees of an oil refining company. The two basic tables were presented by broad age and cause groups,² the t in both tables varying from 8

¹ From the Division of Industrial Hygiene, National Institute of Health. For earlier papers in this series see references 1-3. The present report constitutes the third paper based on data from an oil refining company; the other two are numbers 3 and 4 in the list of references.

² Respiratory diseases, digestive diseases, nonrespiratory-nondigestive diseases, and nonindustrial injuries.

through 365 days. For each cause group and each value of t the frequency and disability rates for the group of males 50 years of age and over were higher than the corresponding rates for the group under 50 years of age. In general, the ratio of the rates, both frequency and disability, for the older age group to the corresponding rates for the younger group increased as t increased. For $t=8$ the ratio of the frequency rates for nonindustrial injuries, respiratory diseases, and digestive diseases, respectively, revealed for males 50 and over excesses of less than 25 percent, while the rate for nonrespiratory-nondigestive diseases among the older group was over twice the corresponding frequency for the younger group. The ratio of disability rates for nonindustrial injuries, respiratory diseases, and digestive diseases for $t=365$ showed excesses for the older group of 83, 57, and 31 percent, respectively; the disability rate for the nonrespiratory-nondigestive diseases, however, was over 3 times the corresponding rate for the younger males.

Because of the increasing importance of age in the wartime industrial economy a more detailed investigation of these nonrespiratory-nondigestive diseases is indicated. It is the purpose of the present inquiry to examine certain pertinent indexes determined by absences on account of specific nonrespiratory-nondigestive diseases with reference particularly to the older worker.

The basic data were yielded by the sick benefit organization of an oil refining company; information concerning the administrative procedures subscribed to by the organization will be found in references 3 and 4. The males in the record are principally white; the analysis covers the 7 years 1933-39. Only recorded absences of 8 calendar days or longer are included, the duration of the absence in days being the number of days from the *onset* of illness to the date of termination of benefits, no benefits being paid after the 365th day.

ANALYSIS OF THE DATA

During the 7 years 1933-39, a total of 67,745 male-years of membership in the sick benefit organization yielded 8,700 absences of 8 days or longer on account of sickness and nonindustrial injuries resulting in 287,885 days of disability. Of the 8,700 absences 2,612 causing 115,493 days lost were among males 50 years of age and over, and 6,080 yielding 172,110 days were among males under 50 years of age. No age was reported for 8 absences accounting for 282 days. An available age distribution of January 1, 1938, applied to the membership of the 7-year period, results in 15,649 and 52,096 male-years of membership for the older and younger groups, respectively. These memberships give rise to frequency and disability rates among males 50 and over of 166.9 absences per 1,000 males and 7.380 days per male; the corresponding rates for the younger group are 116.7 and 3.304.

Frequency, disability, and severity rates by age group and cause.—An age comparison of frequency, disability, and severity rates according to broad cause group and specific nonrespiratory-nondigestive diseases is shown in table 1. For males 50 years of age and over the frequency

TABLE 1.—Average annual number of absences per 1,000 males on account of sickness and nonindustrial injuries, average annual number of days of disability per male, and average number of days per absence, by broad age group and cause; experience of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1933-39, inclusive

Cause	Annual number of absences per 1,000 males		Annual number of days of disability per male		Average number of days per absence		Number of absences		Number of days of disability	
	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over
All disabilities.....	116.7	166.9	3.304	7.380	28.3	44.2	6,080	2,612	172,110	115,493
Nonindustrial injuries.....	12.1	15.0	.396	.724	32.8	48.2	629	235	20,644	11,327
Sickness.....	104.6	151.9	2.908	6.656	27.8	43.8	5,451	2,377	151,466	104,166
Respiratory diseases.....	55.2	65.2	1.051	1.646	19.0	25.2	2,874	1,021	54,728	25,764
Digestive diseases.....	16.6	19.9	.588	.769	35.3	38.7	866	311	30,611	12,037
Nonrespiratory-nondigestive diseases ¹	32.8	66.8	1.269	4.241	38.6	63.5	1,711	1,045	66,127	66,365
Infectious and parasitic diseases.....	2.6	2.0	.083	.051	32.3	26.0	134	31	4,331	807
Cancer, all sites.....	.7	3.6	.070	.492	101.3	137.4	36	56	3,646	7,697
Rheumatic diseases ²	10.2	20.2	.261	.541	25.7	26.8	530	316	13,612	8,461
Diseases of the nervous system ³	2.6	4.2	.195	.504	75.7	119.5	134	66	10,146	7,886
Diseases of the eyes and ears.....	1.7	2.6	.057	.161	32.1	62.9	92	40	2,952	2,517
Diseases of the heart and arteries.....	2.2	14.4	.194	1.654	89.5	115.0	113	225	10,111	25,881
Other diseases of the circulatory system.....	2.3	5.1	.062	.176	26.4	34.4	123	80	3,243	2,756
Diseases of the genitourinary system.....	3.0	4.0	.107	.216	35.4	54.4	158	62	5,598	3,375
Diseases of the skin.....	4.1	4.3	.080	.099	19.4	22.9	215	68	4,166	1,554
All other diseases ¹	3.4	6.4	.160	.347	47.3	53.8	176	101	8,322	5,431

¹ Includes a negligible number of absences of ill-defined or unknown diagnosis.

² Rheumatism, acute and chronic; neuralgia, neuritis, sciatica, and diseases of the organs of movement except diseases of the joints.

³ Except neuralgia, neuritis, sciatica.

Person-years of membership: Under 50 years of age, 52,096; 50 years of age and over, 15,649.

of all nonrespiratory-nondigestive diseases is similar in magnitude to the frequency of respiratory diseases; the disability rate for the nonrespiratory-nondigestive diseases, however, is over 2.5 times the corresponding rate for the respiratory group. Among males under 50 years of age the nonrespiratory-nondigestive disease frequency is approximately 40 percent less than the frequency of respiratory diseases while the two disability rates are of similar magnitude.

Among the specific nonrespiratory-nondigestive diseases the group of rheumatic diseases³ ranks first in frequency for each of the two age groups and yields the highest disability rate for males under 50 years of age. For the older males diseases of the heart and arteries were responsible for the most lost time, over a day and a half per male per year, and rank second in frequency for the older group.

In general, when the two age groups are compared, marked excesses in both frequency and disability rates are shown for the older group. Excesses of over 100 percent in frequency may be noted for diseases of

³ Rheumatism, acute and chronic; neuralgia, neuritis, and sciatica; and diseases of the organs of movement except diseases of the joints.

the heart and arteries (555 percent), cancer, all sites (414 percent), other diseases of the circulatory system (122 percent), and the group of nonrespiratory-nondigestive diseases as a whole (104 percent). Infectious and parasitic diseases showed the only defect for the older group while the excess for diseases of the skin was only 5 percent.

The excesses in the disability rate are in every case higher than the corresponding ones for frequency, excesses of over 200 percent in time lost being noted for diseases of the heart and arteries (753 percent), cancer, all sites (603 percent), and the total group of nonrespiratory-nondigestive diseases (234 percent). A defect in the disability rate is shown for infectious and parasitic diseases.

Severity rates are also higher for the older group, an observation which could have been predicted from a comparison of the excesses yielded by the frequency and disability rates.

Cancer, all sites, the rheumatic diseases, and diseases of the nervous system, respectively, caused among the older group an average loss of approximately half a day per male annually. When these three causes are combined with diseases of the heart and arteries they are found to account for 75 percent of all time lost by males 50 years of age and over because of the nonrespiratory-nondigestive diseases, the corresponding percentage for the younger group being 57. These four causes are thus of considerable importance with respect to lost time particularly among the workers of the older age group and have, therefore, been selected for further investigation principally with the use of the two basic tables previously described.

Average annual number of absences per 1,000 males on account of nonrespiratory-nondigestive diseases disabling for a specified number of days, t or more.—The pertinent data are given in table 2 and shown graphically in figure 1. The table presents the frequency of ended absences of duration t days or more according to age group for all nonrespiratory-nondigestive diseases and for the four selected causes. The values of t are taken at 28-day intervals from 28 through 364 with a 21-day interval from 8 to 28. The frequencies for $t=365$ are also given in table 2 and represent those absences extending over at least one year.

It was observed in the preceding section that among the nonrespiratory-nondigestive diseases the rheumatic group caused the greatest number of 8-day or longer absences (namely, for $t=8$) in each age group; it will be noted in table 2 that among the older group diseases of the heart and arteries rank first in frequency for all other values of t , while for males under 50 years of age the rheumatic diseases continue to rank first but for only $t=28$ and $t=56$. For each age group the rheumatic diseases show the most rapid decline in frequency with increasing values of t , the rates when t is 28 for the older and younger groups, respectively, being only 28 and 27 percent of the initial fre-

TABLE 2.—Average annual number of absences per 1,000 males, by broad age group and cause, on account of nonrespiratory-nondigestive diseases disabling for a specified number of days, *t* or more; experience of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1933-39, inclusive

<i>t</i> days	Nonrespiratory-nondigestive diseases ¹		Cancer, all sites		Rheumatic diseases		Diseases of the nervous system		Diseases of the heart and arteries	
	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over
Annual number of absences per 1,000 males disabling for <i>t</i> days or more										
8.....	32.84	66.78	0.69	3.58	10.17	20.19	2.57	4.22	2.17	14.38
28.....	11.57	31.31	.58	3.12	2.71	5.69	1.61	2.81	1.54	9.97
56.....	5.53	18.98	.38	2.56	1.17	2.04	.88	2.11	1.02	7.41
84.....	3.07	13.48	.27	2.11	.40	.83	.61	1.85	.75	5.62
112.....	2.00	10.10	.21	1.53	.12	.45	.44	1.41	.50	4.79
140.....	1.59	7.80	.15	1.15	.08	.26	.40	1.15	.42	3.90
168.....	1.29	6.58	.10	.89	.02	.26	.35	1.15	.40	3.20
196.....	1.00	6.01	.08	.89	.02	.06	.29	1.09	.27	3.07
224.....	.84	5.62	.08	.83	.02	.06	.23	.96	.23	2.94
252.....	.77	5.05	.08	.77	.02	0	.23	.89	.19	2.75
280.....	.63	4.60	.08	.70	.02	0	.19	.83	.15	2.56
308.....	.60	3.96	.08	.58	0	0	.19	.70	.15	2.36
336.....	.54	3.64	.08	.51	0	0	.17	.64	.12	2.17
364.....	.48	3.07	.06	.26	0	0	.15	.64	.10	1.85
365.....	.46	2.88	.06	.19	0	0	.15	.58	.10	1.79
Number of absences disabling for <i>t</i> days or more										
8.....	1,711	1,045	36	56	530	316	134	66	113	225
28.....	603	490	30	49	141	89	84	44	80	156
56.....	288	297	20	40	61	32	46	33	53	116
84.....	160	211	14	33	21	13	32	29	39	88
112.....	104	158	11	24	6	7	23	22	26	75
140.....	83	122	8	18	4	4	21	18	22	61
168.....	67	103	5	14	1	4	18	18	21	50
196.....	52	94	4	14	1	1	15	17	14	48
224.....	44	88	4	13	1	1	12	15	12	46
252.....	40	79	4	12	1	0	12	14	10	43
280.....	33	72	4	11	1	0	10	13	8	40
308.....	31	62	4	9	0	0	10	11	8	37
336.....	28	57	4	8	0	0	9	10	6	34
364.....	25	48	3	4	0	0	8	10	5	29
365.....	24	45	3	3	0	0	8	9	5	28

¹ Includes a negligible number of absences of ill-defined or unknown diagnosis.

Person-years of membership: Under 50 years of age, 52,096; 50 years of age and over, 15,649.

quencies; for diseases of the heart and arteries the corresponding percentages are 69 and 71. This indication of the preponderance of comparatively short absences on account of the rheumatic diseases is also evidenced by the fact that none of the absences from this cause lasted as long as a year, the longest duration being 300 days.

The frequencies for cancer, diseases of the nervous system, and diseases of the heart and arteries, respectively, are consistently higher for males 50 years of age and over. The rates for the rheumatic diseases are also higher among the older group, except for $t=252$ and $t=280$. It will be seen in figure 1 that the greatest age differences are shown for diseases of the heart and arteries, and cancer. The frequency of cancer among the older group for $t=8$ is approximately 5 times the corresponding rate for the younger group, this ratio rising to 11 at $t=196$, and dropping to 4 when $t=364$. The frequency for $t=8$ of

diseases of the heart and arteries among the older males is almost 7 times the rate for younger males, and this ratio rises to 18 when t is 364.

It is of interest to note that for males under 50 years of age the frequency patterns of diseases of the nervous system and diseases of the heart and arteries are similar, while for males 50 years of age and over the same observation holds for the frequency patterns of diseases of the nervous system and cancer. If the three causes with absences lasting a year or more are examined for $t=365$ it will be observed in table 2 that the three frequencies yielded for the older group are higher,

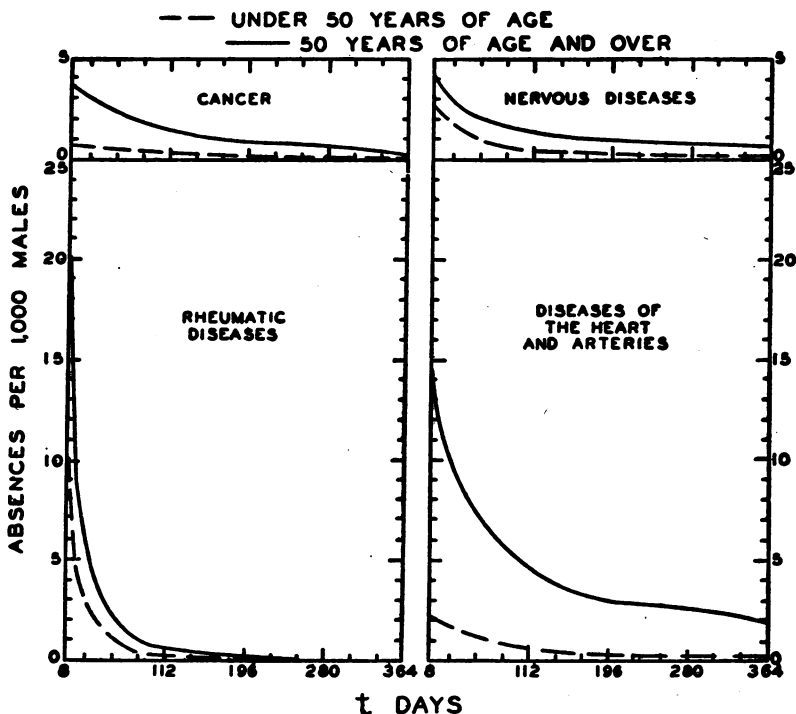


FIGURE 1.—Average annual number of absences per 1,000 males, by broad age group and cause, on account of nonrespiratory-nondigestive diseases disabling for a specified number of days, t or more; experience of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1933-39, inclusive.

respectively, than the highest frequency (0.15 for diseases of the nervous system) yielded for the younger group. Indeed in the present experience almost 2 out of every 1,000 males 50 years of age and over were disabled for at least 1 year on account of diseases of the heart and arteries.

Percentage distribution of causes on specified days of disability after onset.—The number of absences of duration t days or more is equivalent to the number of persons still absent on the t^{th} day of disability after onset, or to the number of absences on that day, or to the number

of days contributed by the t^{th} day to the total number of days lost. This basic relationship suggests a further examination of the data of the last section in respect of the percentage distribution according to specific nonrespiratory-nondigestive causes of absences on specified days of disability after onset. Figure 2 presents graphically for each age group the appropriate percentages derived from table 2.

For each of the specified days of disability after onset the figure shows the percentage contribution of the four selected causes and all other nonrespiratory-nondigestive diseases to the total number of

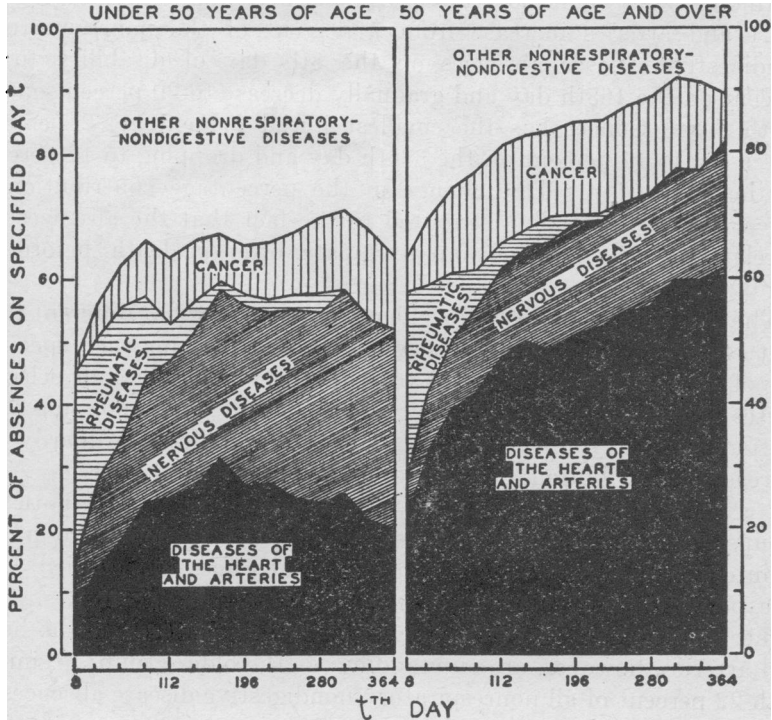


FIGURE 2.—Percentage distribution, according to cause, of absences on account of nonrespiratory-nondigestive diseases on a specified day, t , of disability after onset, for two broad age groups; experience of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1933-39, inclusive.

nonrespiratory-nondigestive disease absences on that day. Thus on the 8th day of disability after onset among males 50 years of age and over diseases of the heart and arteries were responsible for 22 percent of the absences, diseases of the nervous system 6 percent, the rheumatic diseases 30 percent, cancer 5 percent, and all other nonrespiratory-nondigestive diseases 37 percent. The pattern of the figure is determined by the duration and frequency of absences due to these five causes. If all of the absences had lasted 364 days the resulting pattern would consist of five rectangles; if, furthermore, the specific

causes had yielded equal frequencies the rectangles would have been of equal area.

For each age group the rheumatic diseases accounted for approximately 30 percent of the absences on the 8th day of disability. With increasing values of t these percentages decrease until they become zero on the 308th and 252d days for the younger and older groups, respectively. This is in agreement with the observation referred to in the preceding section, namely, that no absence on account of the rheumatic diseases lasted longer than 300 days.

Among males under 50 years of age absences due to diseases of the heart and arteries increase from 7 percent of the nonrespiratory-nondigestive disease absences on the 8th day of disability to 31 percent on the 168th day and gradually decrease to 20 percent on the 364th day. Cancer has the smallest initial percentage, 2 percent, increasing to 14 percent on the 336th day and dropping to 12 percent on the 364th day. This change in the percentage contribution of cancer may be partially attributed to the fact that the absences are of relatively long duration, but terminate, often in death, before the end of a year.

The pattern for males of the older group is somewhat different from that of the younger group. It will be noted that for each specified day of disability after onset the total percentage for the four selected causes among the older group is greater than the corresponding summation for the younger group. This excess reflects primarily the increased contribution of diseases of the heart and arteries. The pattern for the rheumatic diseases is somewhat similar for both age groups, while diseases of the nervous system for the older group contribute a markedly smaller proportion to absences on specified days. The percentages of absences due to cancer are, in general, slightly higher among men 50 years of age and over. Diseases of the heart and arteries, however, are outstanding for the older group; beginning with 22 percent of all nonrespiratory-nondigestive disease absences on the 8th day of disability this proportion rises to 60 percent of all absences extending through the 364th day of disability after onset.

Average annual number of days of disability per male resulting from absences on account of nonrespiratory-nondigestive diseases contributing t days or less.—The second of the basic tables is presented in table 3 and graphically in figure 3. It should be noted that the days of disability do not include those arising from absences which terminated before the 8th day of disability.

For males under 50 years of age the rates for the rheumatic diseases are consistently greater than those for the other causes, while the rates for cancer are consistently low. The disability rates for diseases of the heart and arteries and diseases of the nervous system are similar in magnitude.

TABLE 3.—Average annual number of days of disability per male, by broad age group and cause, resulting from absences on account of nonrespiratory-nondigestive diseases contributing t days or less; experience of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1935-39, inclusive

t days	Nonrespiratory-nondigestive diseases ¹		Cancer, all sites		Rheumatic diseases		Diseases of the nervous system		Diseases of the heart and arteries	
	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over	Under 50	50 and over
Annual number of days of disability per male resulting from absences contributing t days or less										
8.....	.2627	.5342	.0055	.0286	.0814	.1615	.0206	.0337	.0174	1.150
28.....	.6274	1.4147	.0179	.0957	.1794	.3671	.0603	.0989	.0529	3.545
56.....	.8472	2.0816	.0312	.1780	.2275	.4633	.0947	.1657	.0888	6.894
84.....	.9620	2.5233	.0401	.2424	.2482	.5006	.1140	.2203	.1128	7.686
112.....	1.0323	2.8516	.0470	.2943	.2549	.5181	.1288	.2663	.1306	9.154
140.....	1.0825	3.0951	.0519	.3296	.2575	.5299	.1408	.3021	.1437	1.0361
168.....	1.1219	3.2941	.0552	.3575	.2598	.5340	.1513	.3343	.1552	1.1338
196.....	1.1536	3.4691	.0573	.3825	.2593	.5377	.1602	.3553	.1646	1.2220
224.....	1.1803	3.6320	.0595	.4062	.2598	.5395	.1678	.3941	.1719	1.3094
252.....	1.2026	3.7810	.0616	.4285	.2604	.5407	.1742	.4200	.1776	1.3861
280.....	1.2214	3.9175	.0638	.4488	.2609	.5407	.1797	.4448	.1826	1.4611
308.....	1.2385	4.0383	.0659	.4677	.2613	.5407	.1850	.4660	.1869	1.5316
336.....	1.2547	4.1455	.0681	.4830	.2613	.5407	.1901	.4855	.1910	1.5951
364.....	1.2689	4.2380	.0699	.4917	.2613	.5407	.1946	.5034	.1940	1.6521
365.....	1.2693	4.2408	.0700	.4919	.2613	.5407	.1948	.5039	.1941	1.6538
Number of days of disability resulting from absences contributing t days or less										
8.....	13,688	8,360	288	448	4,240	2,528	1,072	528	904	1,800
28.....	32,684	22,138	934	1,498	9,347	5,744	3,141	1,547	2,756	5,548
56.....	44,134	32,575	1,623	2,754	11,854	7,250	4,934	2,593	4,614	9,223
84.....	50,115	39,487	2,089	3,793	12,931	7,834	5,939	3,448	5,877	12,028
112.....	53,777	44,625	2,448	4,606	13,277	8,108	6,708	4,167	6,803	14,325
140.....	56,396	48,435	2,705	5,143	13,414	8,245	7,335	4,727	7,485	16,214
168.....	58,448	51,550	2,875	5,594	13,480	8,357	7,880	5,231	8,084	17,743
196.....	60,099	54,288	2,987	5,986	13,508	8,414	8,345	5,716	8,576	19,123
224.....	61,490	56,837	3,099	6,356	13,536	8,442	8,740	6,168	8,957	20,444
252.....	62,653	59,169	3,211	6,706	13,564	8,461	9,076	6,572	9,252	21,691
280.....	63,628	61,305	3,323	7,024	13,592	8,461	9,300	6,960	9,512	22,865
308.....	64,523	63,196	3,435	7,319	13,612	8,461	9,640	7,293	9,736	23,969
336.....	65,367	64,873	3,547	7,559	13,612	8,461	9,906	7,597	9,950	24,961
364.....	66,103	66,320	3,643	7,694	13,612	8,461	10,138	7,877	10,106	25,853
365.....	66,127	66,365	3,646	7,697	13,612	8,461	10,146	7,886	10,111	25,881

¹ Includes a negligible number of absences of ill-defined or unknown diagnosis.

Person-years of membership: Under 50 years of age, 52,096; 50 years of age and over, 15,649.

For males 50 years of age and over diseases of the heart and arteries are higher than any of the other three causes except for $t=8$ and $t=28$; the rheumatic diseases have the highest disability rates for these values of t and are second in rank for all other values. It is of interest to observe in this connection that the curves for the rheumatic diseases are different from those of the other causes for each age group in that they rise somewhat abruptly and then tend to flatten out. This reflects the fact that there was an unusually high frequency of absences of comparatively short duration, very few days being contributed to the disability rate after $t=84$.

The most striking picture in the age comparisons shown in figure 3 is again given by diseases of the heart and arteries. The number of

days of disability accumulated by this cause among the older group of males after a year of disability is greater than the combined days accumulated by the other three causes, and yields a rate 8.5 times the corresponding disability rate for the younger age group.

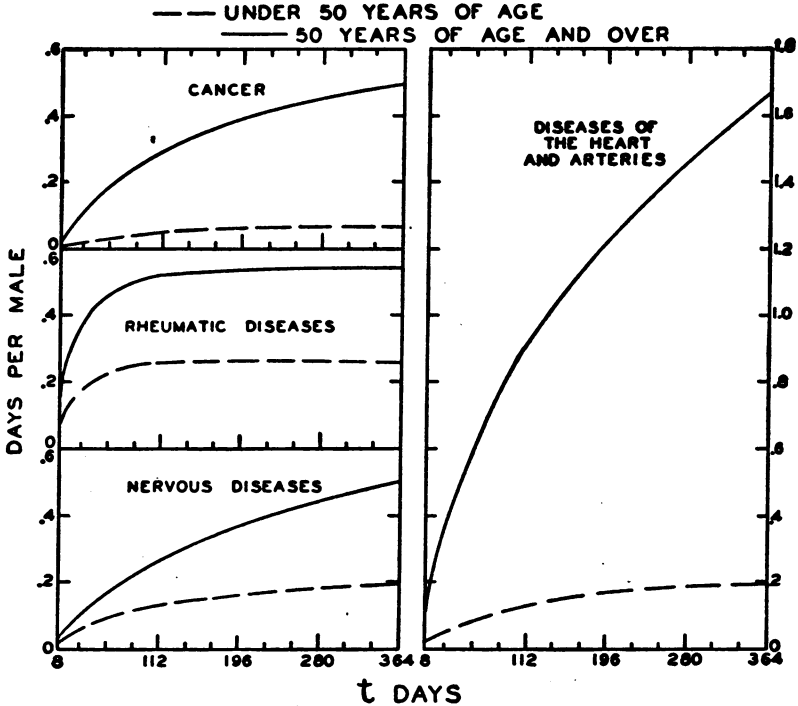


FIGURE 3.—Average annual number of days of disability per male, by broad age group and cause, resulting from absences on account of nonrespiratory-nondigestive diseases contributing t days or less; experiences of male employees of an oil refining company, absences lasting 8 calendar days or longer and ending during 1933-39, inclusive.

SUMMARY

This, the fourth of a series of papers on the duration of disabling sickness, is based on absences lasting 8 calendar days or longer, and presents principally an age comparison for males of certain pertinent indexes determined by specific nonrespiratory-nondigestive diseases. Four specific causes are presented. These causes, which were the principal time-losers among males 50 years of age and over, are diseases of the heart and arteries, the rheumatic diseases, diseases of the nervous system, and cancer, all sites. Thus the frequency of 8-day or longer absences on account of diseases of the heart and arteries among this older group of males was approximately 6.5 times the corresponding frequency for men under 50, the number of days lost per man from this cause being 8.5 times that for the younger group.

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THE HEALTH OFFICER'S PLACE IN THE MANAGEMENT OF MENTAL ILLNESS *

By SAMUEL W. HAMILTON, M. D., *Mental Hospital Advisor, Division of Mental Hygiene, United States Public Health Service*

When mental illness develops, wealthy people are expected to look after the needs of members of their own families, and usually are in position to do so; but somebody has to help the ordinary family when an unexpected problem of mental illness arises. Most families are without experience with that sort of trouble and need strong and skillful aid. In some States this is a function of the poor officer and in far too many it is the duty of the sheriff. A movement to place these sick people in the hands of the health officer is discerned, and this paper briefly reviews that movement from 1910 to the present time. It started in New York and has now spread to eight other States. The latest adherent is Oregon, so it can be said that the movement has reached from coast to coast.

Under the laws previously in force in New York, which in intent were not very different from the laws of other States in the Northeast, the responsibility for immediate help in case of mental illness in indigent families lay with an overseer or superintendent of the poor, whichever was available. If the patient could not stay at home until the nurse from the State hospital arrived to take him, he was removed for temporary care to the almshouse. Probably he knew little about almshouses and had never before been in one. But some patients were excited and disturbed the peace. A very humane law of 1827 had forbidden the use of the jail for detention of mentally ill persons

* Presented at the ninety-ninth annual meeting of the American Psychiatric Association, Detroit, Mich., May 11, 1943.

and the law was pretty well observed, but there was a loophole in that other places of temporary observation might not be strong enough to protect the community from an excited man, so some did actually go to jail before the determination of their mental condition. The poor officer was responsible for calling two physicians to examine the patient, and for getting an order of commitment from the nearest available court. The State Charities Aid Association reported that in one year 18 percent of committed patients had come to the mental hospitals from jails, station houses, and lock-ups, and such a percentage was too high for New York to think of without reproach.

Those who were interested in the mentally ill wanted better provision for the new patient, and took advantage of the increasing scope of public health work. In this century men were asserting that mental health is only one section of the broad field of public health, that it is illogical to think of public health as unconcerned with disorders that affect the thoughts and feelings and actions of a person. A change in the law was proposed in 1910 on the ground that the mentally ill should from the onset of their attack have the benefit of medical care, should be treated as primarily sick people rather than as primarily poor or primarily unruly people, and the new law was duly enacted.

Under the new law the health officer was made responsible for the care of the alleged insane pending commitment. On learning that "any poor or indigent insane or apparently insane person" was in need of attention the health officer was authorized and directed to provide proper care, treatment, and nursing, and to take necessary steps to have him examined for commitment, if need be. What was more, other county, city, and district authorities were required to notify the health officer whenever any such case came to their attention. There were teeth in the law; the fiscal authorities were required to audit the health officer's bills when he hired a room, hired an attendant, and ordered meals for the patient. The importance of this new legislation was not at all lessened by the fact that New York City, Erie County, and Albany County were exempted because they already had psychopathic services in general hospitals which supplied this temporary care. The transfer of duties was complete on paper. Of course it took several years to change the custom of people, so that they would turn to the health officer for a kind of help that had formerly been given by the overseer of the poor.

The law worked very well. The writer was at that time in the New York State service and learned from some of his patients how much better they were now looked after while waiting to come to the hospital than had been the case when the sheriff or overseer of the poor was looking after them. The stigma of association with criminals had been eliminated.

Presently another step in advance was taken. To go back to history, the traditional procedure was that someone would tell the public authorities that John Doe seemed to be mentally ill. The public authorities would arrange for an examination. This might take a day or two and John Doe had to wait. The delay was increased in some States by so-called protective legislation that was enacted around 1870 because of fear that a person who seemed to be mentally ill, but was really not mentally ill, might be mishandled. These "protective laws" required that notice must be served and a hearing held.

The health officer was functioning so well under the new arrangement that before long it was decided to cut the delay between examination and hospital. In 1914 it was provided in New York that the health officer might over his own signature request admission to a State hospital for the indigent mentally ill. His request was to be in writing and must accompany the patient to the hospital. The whole responsibility for passing on the acceptability of the patient in the hospital was placed on the superintendent or his representative, for they were psychiatrists and the health officer was not. If the superintendent thought the request proper he could take the patient in and hold him five days, during which time the patient might get well; if he did not get well another legal arrangement must be made for him. But meanwhile the difficult initial excitement or the suicidal frenzy had been looked after suitably from a medical standpoint because all delay had been averted, and on the legal side no stigma of commitment was inflicted. On the other hand, the superintendent might not think that the patient came within the scope of the work of the State hospital. In this case he did not accept the patient. New York does not think well of persons who are drunk or have delirium tremens, and it was provided that no such case could be received on this paper.

This law worked just as well as the first one and in later years the time that a patient might be held on such a health officer's request was raised from 5 to 10, and later to 30 days. All patients with mental illness and not simply the poor and indigent were included in its scope, and after a while it was made legal to use the same method of admission to a private licensed institution as well as to a public hospital. Such an extension of the health officer's responsibility in the most populous State in the Union was a direct and forceful way of converting the talk about the place of mental health in public health into a mode of action. It is a subject that should receive serious thought today in communities where large numbers—even nine-tenths—of the mental hospital patients are brought to the hospital from jail by the sheriff's deputies, and not infrequently in handcuffs, ropes, or even chains. Lawmakers have not always thought of these matters as medical problems and throughout the breadth of our land

today there is a vast number of communities in which the mentally ill are temporarily cared for by anyone except the health department.

In providing for the welfare of the mentally ill, important improvements sometimes are slow in traveling from one State to another. There is, for instance, family care of mentally ill patients who have been in a State hospital and are now in condition to leave it, but have no home to which to go. Massachusetts provided family care over 40 years before other States took it up. So, too, the health officer's responsibility has been extended very slowly, and the matter is brought up now in order to review briefly what authority has been conferred on the health officer in the eight other States that mention him in their laws relating to mental illness.

1. Oregon has a relatively new law based upon the New York statute, and not yet working smoothly. It gives the health officer custodial care of the mentally ill until they are admitted and requires that the patients be held in some more suitable place than jail. The medical profession is said to believe in the law thoroughly and the sheriffs cooperate in most cases, though some of them are skeptical. The expense is, of course, greater than under the old system.

2. Arkansas adopted a new mental hygiene law last winter. One clause provides that on the request and certificate of a health officer, any person suffering from acute psychosis, including acute or chronic alcoholism or drug addiction, may be admitted to the State hospital in case he needs immediate hospitalization. The health officer may also start commitment proceedings in probate court. Incidentally, the same powers are extended to all licensed physicians.

3. Kentucky has adopted the provision for admission on a health officer's request, such an arrangement being valid for 10 days. A quotation from an unnamed health officer in Kentucky is to the point. "Although I have used my authority to commit to an institution a mentally ill patient on only one occasion, which occurred just a few days ago, I appreciated that authority at the time and feel that I rendered a real service to the patient and the institution, namely the county infirmary, where the patient resided. I am convinced that such emergency temporary commitment is essential to prevent a mentally ill patient from harming himself or community, and the possible embarrassment of a jail sentence caused by the usual delay necessary for court commitment. In my opinion the health officer is the logical person to have this temporary authority."

4. Massachusetts authorizes a State hospital superintendent to admit a patient for 10 days on the request of any physician or any member of a board of health. Relatively few health officers in Massachusetts are physicians, and this clause in the law accordingly has very little use, since some practicing physician is much more likely to be consulted about the patient.

5. The Commissioner of Health of New York remarks that the 323 health officers' requests in New York State during a fiscal year were a very small fraction of the 19,174 admissions to the State hospitals. It may be recalled that the mass of admissions come from cities where observation wards in general hospitals provide temporary care. The smaller cities and towns yield most of the health officers' requests and this procedure has proved very helpful. As Commissioner Godfrey says, this type of commitment appears to be very satisfactory from the standpoint of the mental hygiene authorities.

6. In Missouri a patient who has not been declared insane may be admitted to the State hospital for six weeks on a certificate of diagnosis by a health official. The State health commissioner says that in county units where an independent medical committee program is conducted the health officer shows considerable interest in mental cases and extends considerable care. In other counties the health officer examines some patients and reports to the county court whether the patient should be committed.

7. Ohio has a law under which the health officer can order a patient to be taken to a mental hospital for five days, to a minor jail for not over 12 hours, to a county jail for longer.

8. Utah provides for emergency admission and treatment up to 10 days on the written request of a health officer to the superintendent of the State hospital. The State health commissioner believes that this is a desirable program but that few district or local health officers have participated in it.

9. In Rhode Island no authority is given to health officers generally, but in the city of Providence an officer of the health department may request temporary care not to extend more than 15 days in the city hospital, which maintains a psychiatric service. The health department is called upon in cases where people cannot reach a physician promptly, in indigent cases, and in most cases picked up by the police who do not wish to take the responsibility of sending a person to the psychiatric ward. The superintendent of health states that very few if any mental cases are being neglected and that the arrangement works well.

This report of progress may be summed up as follows:

(1) New York places the responsibility for the immediate and temporary care of the alleged mentally ill entirely in the hands of the health officer, excepting in the cities that have psychiatric hospital wards. It also gives him authority to obtain the admission of such patients to a State hospital on his own request.

(2) Oregon gives the health officer similar responsibility for temporary care.

(3) Kentucky, Massachusetts, Missouri, Ohio, and Utah honor the health officer's request (or order) for a period of temporary treatment of a patient in the State hospital.

(4) Arkansas lets the health officer obtain admission for an acute case on request and certificate, and authorizes him to start commitment proceedings if they are needed.

(5) Rhode Island gives the city of Providence authority to admit mentally ill patients to the city hospital on a request from a health department physician.

Such procedures are greatly in the interest of the mental patient. It is therefore desirable that permissive legislation should be widely extended. It cannot be repeated too often that the patients profit by such an arrangement; nor does the health officer lose, for while somewhat more work is added to his responsibilities, the burden is nowhere excessive and his helpful relations with the community are broadened.

AMERICAN Q FEVER: EXPERIMENTAL TRANSMISSION BY THE ARGASID TICKS *ORNITHODOROS MOUBATA* AND *O. HERMSI*¹

By GORDON E. DAVIS, *Senior Bacteriologist, United States Public Health Service*

In the continuation of a series of studies on the transmission of several disease agents by ticks of the genus *Ornithodoros*, three experiments have been performed with *O. moubata* and two with *O. hermsi* in the transmission of American Q fever. First nymphs of *O. moubata* were used for the infective feeding (larvae of this species do not feed) and first or second nymphs of *O. hermsi*. A Wyoming *Dermacentor andersoni* strain (Davis, 1939) was used for the infective feedings, and any available stock strain for immunity tests.

ORNITHODOROS MOUBATA

In November 1940, and May and August 1941, 32, 82, and 76 ticks, respectively, were allowed to engorge on guinea pigs infected with *Rickettsia diaporica*. Five ticks from each of the last two lots were ground in saline immediately after engorgement and injected into guinea pigs as controls on the infective feedings. Five ticks were injected similarly after each of the first three test feedings. All injected guinea pigs became infected.

Transmission by feeding was not obtained until the ticks had reached the adult stage. In January 1942, 12 females from experiment 1 were tested individually. Four of the host guinea pigs showed

¹ From the Rocky Mountain Laboratory of the Division of Infectious Diseases, National Institute of Health.

febrile periods of 4, 4, 6, and 7 days, respectively, and were subsequently immune. Seven male, 6 male, and 4 female ticks, respectively, tested by injection 670 days following the infective feeding caused the death of two of the recipient guinea pigs and a prolonged febrile period with immunity in the third.

In experiment 2, the last test feeding in the adult stage was made 381 days following the infective feeding. The incubation periods were 6 days in 2 guinea pigs, 7 in 8, 8 in 3, 9 in 4, and 10 in 2. The febrile periods varied from 2 to 8 days. There was one death. The remainder were subsequently immune.

In experiment 3, ticks were shown to be infective by feeding 355 days following the infective feeding.

Transmission through the ovum.—In experiment 1 approximately 5,000 progeny were tested for infectivity. Progeny of four females which had been shown to be infective and of four additional females that failed in transmission caused typical febrile reactions resulting in immunity. In the F2 generation the progeny of two females were tested and found to be infective.

In experiment 2, progeny were tested by feeding following the first three ovipositions using 467, 341, and 1,008 ticks, respectively. Ticks from the first and third series were infective.

In experiment 3, 2,336 first generation ticks were tested. Progeny of the first oviposition failed to produce an infection through three test feedings but ticks from the second oviposition caused infection at the second test feeding and ticks from the third oviposition at the first test feeding.

ORNITHODOROS HERMSI

November 9, 1939, and October 18, 1940, 35 and 114 ticks, respectively, were given infective feedings. Transmissions were first obtained at the second test feeding. Ticks from experiment 1 caused typical infections by feeding 772 days following this infective feeding and 979 days by injection. Similarly, ticks in experiment 2 produced typical infections by feeding 595 days after the infective feeding and 599 days by injection.

Transmission through the o. um.—Five hundred seventy-three ticks from experiment 1 and 318 from experiment 2 (first oviposition) were noninfective by feeding or injection. One hundred unfed larvae (experiment 1, second oviposition) were proved infective by injection.

DISCUSSION

O. moubata is widely distributed in Africa from the east to the west across the central portion, and as far south as the Transvaal. The tick is reported to be common in rest houses along the routes of

travel and has been found recently in Southwest Africa and in the mining districts of the Union of South Africa (Ordman, 1939, 1941). Its hosts are domestic animals and man, and Bedford (vide Ordman) reports it as a parasite of the tortoise. It is the chief tick vector of relapsing fever in these areas. Although Q fever has not been reported from Africa, the facility with which this species transmits the infecting agent, without obvious harm to the tick, suggests that it may be a natural vector. Infected females oviposit as regularly and produce as many viable progeny as do noninfected females. Ticks given an infective feeding in the first nymphal stage failed in transmission until the adult stage was reached, while in the F1 generation the first test feeding resulted in infection.

O. hermsi is known in six of the western States, viz, California, Oregon, Idaho, Nevada, Colorado, and Washington. Its hosts are chiefly chipmunks (*Eutamias* spp.), pine squirrels (*Tamiasciurus* spp.), and man. It is a vector of relapsing fever in these six States. It comes in contact with man mainly in cabins and mountain homes so constructed as to afford nesting places for rodents. It has also been collected in relatively large numbers from "snags" and decaying logs.

In contrast with the results obtained with *O. moubata* and *O. hermsi*, both *O. turicata* and *O. parkeri* have failed in transmission although the organisms remain infective in *O. turicata* for 1,001 days as shown by injection. Transmission through the egg was not demonstrated (Davis, 1940). In a similar study of *O. parkeri* with the Wyoming strain the organism remained infective for 852 days following the infective feeding and 379 days following the last feeding, as demonstrated by injection, but was not transmitted by feeding. Using *O. turicata* and an Australian strain of Q fever, a typical infection with subsequent immunity was obtained by the injection of one tick 647 days after the infective feeding (Davis, unpublished data).

SUMMARY

O. moubata, engorged as first nymphs on a guinea pig infected with American Q fever, transmitted the infecting agent *by feeding* up to 428 days following the infective feeding and conserved the agent in its tissues for 670 days, as shown by injection.

O. hermsi transmitted the infective agent up to 772 days *by feeding* and conserved the agent in its tissues for 979 days, as shown by injection.

Transmission through the egg to the F2 generation was obtained with *O. moubata* but failed in *O. hermsi*, by feeding, in less extensive experiments.

Long periods of fasting did not decrease the virulence of the infecting organism.

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INCIDENCE OF HOSPITALIZATION, MAY 1943

Through the cooperation of the Hospital Service Plan Commission of the American Hospital Association, data on hospital admissions among about 8,000,000 members of Blue Cross Hospital Service Plans are presented monthly. These plans provide prepaid hospital service. The data cover about 60 hospital service plans scattered throughout the country, mostly in large cities.

Item	May	
	1942	1943
1. Number of plans supplying data.....	61	68
2. Number of persons eligible for hospital care.....	7, 885, 482	9, 935, 638
3. Number of persons admitted for hospital care.....	67, 846	82, 446
4. Incidence per 1,000 persons, annual rate, during current month (daily rate x 365).....	101. 2	97. 7
5. Incidence per 1,000 persons, annual rate for the 12 months ended May 31.....	106. 9	106. 4

DEATHS DURING WEEK ENDED JUNE 12, 1943

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

	Week ended June 12, 1943	Correspond- ing week, 1942
Data for 88 large cities of the United States:		
Total deaths.....	9, 074	8, 090
Average for 3 prior years.....	7, 951	
Total deaths, first 23 weeks of year.....	223, 507	202, 603
Deaths under 1 year of age.....	618	568
Average for 3 prior years.....	528	
Death under 1 year of age, first 23 weeks of year.....	15, 431	12, 974
Data from industrial insurance companies:		
Policies in force.....	65, 560, 734	64, 975, 834
Number of death claims.....	12, 012	10, 860
Death claims per 1,000 policies in force, annual rate.....	9. 6	8. 7
Death claims per 1,000 policies, first 23 weeks of year, annual rate.....	10. 4	9. 9

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 JUNE 19, 1943

Summary

Seasonal decrease in the incidence of six of the nine common communicable diseases included in the following table were recorded in reports for the current week, namely, diphtheria, influenza, measles, meningococcus meningitis, scarlet fever, and smallpox. A sharp increase was shown in the total number of poliomyelitis cases reported (chiefly in California and Texas), and slight increases were noted in the totals for typhoid fever and whooping cough.

Of the total of 99 cases of poliomyelitis reported for the week, as compared with 60 for the preceding week and 38 for the 5-year (1938-42) median, 47 occurred in California and 29 in Texas. No other State reported more than 3 cases. To date, 758 cases have been reported—more than for the corresponding period of any prior year since 1934. Of the total cases to date, approximately one-half have occurred in California and Texas.

A further decline occurred in the number of reported cases of meningococcus meningitis—from 382 for the preceding week to 327 for the current week—but increases were shown in a number of States. A total of 11,431 cases has been reported to date this year.

Included in other reports for the week (figures for the corresponding week of last year in parentheses) were the following: Anthrax, 2 (2); dysentery, all forms, 582 (633); infectious encephalitis, 5 (8); leprosy, 1 (1); Rocky Mountain spotted fever, 18 (18); tularemia, 23 (32); endemic typhus fever, 73 (70). Confirmation was received of a delayed report of a fatal case of epidemic typhus fever in Yakima County, Washington, in May. The case occurred in a laborer who had recently arrived from Mexico.

Deaths reported for the week in 90 large cities of the United States totaled 8,391, as compared with 9,138 last week and a 3-year (1940-42) average of 7,745. The accumulated number for the first 24 weeks of 1943 is 233,348, as compared with 211,629 for the same period of 1942.

Telegraphic morbidity reports from State health officers for the week ended June 19, 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 occurred.

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
	June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942	
NEW ENGLAND												
Maine.....	1	1	1	1	1	182	54	81	5	0	0	0
New Hampshire.....	0	0	0	-----	-----	18	8	20	2	0	0	0
Vermont.....	0	0	0	-----	-----	217	171	74	0	0	0	0
Massachusetts.....	2	0	2	-----	-----	1,098	851	1,015	31	2	1	1
Rhode Island.....	0	3	0	1	-----	148	130	26	6	1	0	0
Connecticut.....	1	0	0	-----	-----	246	233	233	6	0	1	1
MIDDLE ATLANTIC												
New York.....	6	17	14	11	11	2,842	965	1,511	56	11	4	4
New Jersey.....	2	0	6	4	2	1,922	529	547	13	6	1	1
Pennsylvania.....	11	3	14	-----	3	721	377	496	17	4	4	4
EAST NORTH CENTRAL												
Ohio.....	2	2	9	13	9	407	138	138	14	1	1	1
Indiana.....	0	2	4	3	1	206	58	58	4	0	0	0
Illinois.....	16	21	19	1	7	973	148	223	21	3	2	2
Michigan ¹	1	7	4	1	-----	3,217	285	793	17	0	1	1
Wisconsin.....	1	1	1	13	13	2,070	996	1,111	1	0	0	0
WEST NORTH CENTRAL												
Minnesota.....	0	0	1	1	-----	295	496	138	3	0	0	0
Iowa.....	0	0	2	-----	1	130	159	159	2	0	0	0
Missouri.....	2	1	2	3	-----	153	67	50	8	3	0	0
North Dakota.....	1	1	1	-----	-----	30	17	17	0	0	0	0
South Dakota.....	0	0	0	-----	-----	74	28	2	0	0	0	0
Nebraska.....	2	0	1	11	-----	42	84	84	0	0	0	0
Kansas.....	3	1	3	3	-----	165	112	179	4	1	0	0
SOUTH ATLANTIC												
Delaware.....	0	0	0	-----	-----	15	4	5	0	0	0	0
Maryland ¹	3	5	3	1	1	187	116	116	11	7	1	1
Dist. of Col.....	0	1	1	-----	-----	74	47	47	3	0	0	0
Virginia.....	4	3	6	31	75	152	93	298	13	6	1	1
West Virginia.....	0	2	2	-----	1	32	12	14	0	0	1	1
North Carolina.....	7	4	5	-----	1	190	251	288	7	2	1	1
South Carolina.....	16	6	3	133	118	105	74	59	50	4	0	0
Georgia.....	3	3	3	4	10	9	132	30	60	6	1	0
Florida.....	1	3	3	8	1	1	24	80	47	3	1	0
EAST SOUTH CENTRAL												
Kentucky.....	3	1	2	3	-----	56	35	65	8	1	1	1
Tennessee.....	4	1	2	9	10	21	79	62	85	3	1	1
Alabama.....	2	1	1	24	40	14	180	44	76	1	2	1
Mississippi ¹	1	6	3	-----	-----	-----	-----	-----	1	0	0	0
WEST SOUTH CENTRAL												
Arkansas.....	6	3	3	6	5	8	46	37	37	1	0	0
Louisiana.....	2	5	5	6	2	9	19	25	14	1	2	2
Oklahoma.....	2	2	2	4	4	15	8	45	69	1	0	0
Texas.....	21	21	21	348	168	138	171	327	327	17	4	2
MOUNTAIN												
Montana.....	1	1	1	2	1	-----	115	70	56	0	1	0
Idaho.....	0	0	0	-----	-----	31	12	18	1	0	0	0
Wyoming.....	0	0	1	20	61	-----	41	80	34	0	0	0
Colorado.....	3	10	10	14	20	20	94	123	107	1	0	0
New Mexico.....	2	0	2	-----	-----	5	8	64	0	0	0	0
Arizona.....	0	1	1	38	24	33	17	38	38	1	0	0
Utah ¹	0	0	0	3	-----	79	537	222	3	0	0	0
Nevada.....	0	0	-----	-----	-----	3	10	-----	0	0	-----	-----
PACIFIC												
Washington.....	4	2	2	2	1	-----	158	645	187	6	1	0
Oregon.....	0	2	0	9	12	12	85	116	56	2	0	0
California.....	16	11	20	42	40	40	809	3,648	1,017	23	3	3
Total.....	152	154	182	763	630	641	18,102	12,480	12,480	327	64	36
24 weeks.....	5,823	6,051	7,427	76,277	77,305	148,631	485,042	435,636	435,636	11,431	1,855	1,130

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended June 19, 1943, and comparison with corresponding week of 1942 and 5-year median—Continued

Division and State	Polioomyelitis			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
	June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942		June 19, 1943	June 20, 1942	
NEW ENGLAND												
Maine.....	0	0	0	18	8	6	0	0	0	6	0	1
New Hampshire.....	0	0	0	3	3	3	0	0	0	0	0	0
Vermont.....	0	0	0	2	4	4	0	0	0	0	0	0
Massachusetts.....	2	0	0	328	162	157	0	0	0	4	2	1
Rhode Island.....	1	1	0	19	9	6	0	0	0	0	1	1
Connecticut.....	0	0	0	53	17	45	0	0	0	0	0	0
MIDDLE ATLANTIC												
New York.....	2	3	2	288	137	348	0	0	0	10	5	9
New Jersey.....	1	3	1	56	66	101	0	0	0	5	0	2
Pennsylvania.....	1	2	1	107	121	186	0	0	0	6	9	9
EAST NORTH CENTRAL												
Ohio.....	0	0	0	92	95	155	1	2	2	0	4	5
Indiana.....	0	0	0	12	17	43	2	5	5	2	0	3
Illinois.....	0	1	1	68	64	173	1	10	10	7	7	6
Michigan ¹	1	0	0	76	129	211	1	0	1	1	0	2
Wisconsin.....	1	0	0	163	73	79	0	0	1	0	1	1
WEST NORTH CENTRAL												
Minnesota.....	0	2	0	31	24	43	0	1	1	0	0	0
Iowa.....	0	0	0	16	14	28	0	1	10	0	2	1
Missouri.....	1	1	0	25	22	38	0	1	2	5	5	5
North Dakota.....	0	0	0	1	3	3	1	0	3	0	0	0
South Dakota.....	0	0	0	8	5	5	0	0	3	0	0	0
Nebraska.....	0	0	0	6	5	6	0	0	1	0	0	0
Kansas.....	1	1	0	23	26	25	0	2	2	2	1	2
SOUTH ATLANTIC												
Delaware.....	0	1	0	3	5	5	0	0	0	0	0	0
Maryland ¹	0	1	0	60	13	20	0	0	0	0	1	2
District of Columbia.....	0	0	0	10	2	5	0	0	0	1	1	1
Virginia.....	2	2	0	14	11	16	0	0	0	2	3	3
West Virginia.....	0	0	0	13	8	20	0	0	0	3	7	3
North Carolina.....	0	0	0	9	11	11	0	0	0	1	4	7
South Carolina.....	0	1	1	1	1	0	0	0	0	5	2	2
Georgia.....	0	1	1	7	5	6	0	0	0	10	12	12
Florida.....	0	1	1	1	1	2	0	0	0	1	0	4
EAST SOUTH CENTRAL												
Kentucky.....	0	2	1	11	23	21	0	0	0	2	2	5
Tennessee.....	0	0	1	14	17	21	0	2	1	3	3	3
Alabama.....	0	1	1	7	7	7	0	0	0	6	5	5
Mississippi ¹	0	0	0	2	4	4	0	0	0	1	0	2
WEST SOUTH CENTRAL												
Arkansas.....	3	3	0	0	7	4	0	1	1	4	10	7
Louisiana.....	2	2	1	2	3	6	0	0	0	6	7	11
Oklahoma.....	1	0	0	7	2	9	0	1	2	0	3	10
Texas.....	29	2	2	21	18	18	1	1	1	15	16	16
MOUNTAIN												
Montana.....	0	1	0	3	6	8	0	0	0	1	2	0
Idaho.....	0	0	0	55	0	2	0	0	0	0	0	0
Wyoming.....	1	0	0	19	7	3	0	0	0	0	0	0
Colorado.....	0	0	0	42	8	20	0	1	1	1	0	2
New Mexico.....	0	2	0	1	4	5	0	0	0	1	0	3
Arizona.....	1	0	0	12	5	3	0	0	0	1	0	1
Utah ¹	1	2	0	18	8	8	0	0	0	0	0	0
Nevada.....	0	0	0	0	0	0	0	0	0	0	0	0
PACIFIC												
Washington.....	1	0	0	21	21	21	0	0	1	0	0	3
Oregon.....	0	0	0	20	1	9	0	0	1	1	0	1
California.....	47	2	6	129	73	98	0	0	0	4	3	5
Total.....	99	38	38	1,897	1,275	2,061	7	28	78	117	118	161
24 weeks.....	² 758	514	560	80,533	82,084	107,943	550	542	1,685	1,542	2,067	2,242

See footnotes at end of table.

Telegraphic morbidity reports from State health officers for the week ended June 19, 1943, and comparison with corresponding week of 1942 and 5-year median—Continued

Division and State	Whooping cough			Week ended June 19, 1943								
	Week ended—		Median 1938-42	Anthrax	Dysentery			Encephalitis, infectious	Leprosy	Rocky Mt. spotted fever	Tularaemia	Typhus fever
	June 19, 1943	June 20, 1942			Amebic	Bacillary	Unspecified					
NEW ENGLAND												
Maine.....	36	22	22	0	0	1	0	0	0	0	0	0
New Hampshire.....	3	5	2	0	0	0	0	0	0	0	0	0
Vermont.....	20	78	45	0	0	0	0	0	0	0	0	0
Massachusetts.....	98	268	156	0	0	1	0	0	0	0	0	0
Rhode Island.....	35	20	19	0	0	0	0	0	0	0	0	0
Connecticut.....	44	102	81	0	0	0	0	0	0	0	0	0
MIDDLE ATLANTIC												
New York.....	224	446	427	0	2	4	0	1	0	0	0	0
New Jersey.....	169	453	182	0	0	0	0	1	0	1	0	0
Pennsylvania.....	237	198	257	0	0	1	0	2	0	0	0	0
EAST NORTH CENTRAL												
Ohio.....	137	172	300	0	1	0	0	1	0	1	0	0
Indiana.....	71	37	34	0	0	0	0	0	0	1	0	0
Illinois.....	129	232	179	0	0	0	3	0	0	0	0	0
Michigan ¹	281	160	237	0	0	0	0	0	0	0	0	0
Wisconsin.....	228	207	144	0	0	0	0	0	0	0	0	0
WEST NORTH CENTRAL												
Minnesota.....	83	25	28	0	3	0	0	0	1	0	0	0
Iowa.....	41	12	24	0	0	0	0	0	0	0	0	0
Missouri.....	40	8	18	0	0	0	0	0	0	0	2	0
North Dakota.....	1	2	15	0	0	0	0	0	0	0	2	0
South Dakota.....	3	2	2	0	0	0	0	0	0	0	0	0
Nebraska.....	22	11	11	0	0	0	0	0	0	0	0	0
Kansas.....	72	33	43	0	1	0	0	0	0	0	0	0
SOUTH ATLANTIC												
Delaware.....	2	1	7	0	0	0	0	0	0	0	0	0
Maryland ²	147	64	64	0	0	0	1	0	0	1	0	0
Dist. of Col.....	29	17	16	0	0	0	0	0	0	0	0	0
Virginia.....	159	97	97	0	0	0	85	0	0	1	0	0
West Virginia.....	95	18	31	0	0	0	0	0	0	0	0	0
North Carolina.....	338	168	203	0	0	1	0	0	0	2	0	0
South Carolina.....	140	66	73	0	0	1	0	0	0	0	0	1
Georgia.....	30	29	29	0	3	18	5	0	0	0	1	27
Florida.....	26	11	26	0	11	0	0	0	0	0	0	11
EAST SOUTH CENTRAL												
Kentucky.....	39	48	48	0	0	10	0	0	0	0	0	0
Tennessee.....	64	28	59	0	0	0	11	0	0	1	3	0
Alabama.....	82	53	53	2	0	0	0	0	0	0	1	10
Mississippi ³				0	0	0	0	0	0	0	2	0
WEST SOUTH CENTRAL												
Arkansas.....	26	17	25	0	4	55	0	0	0	0	7	0
Louisiana.....	14	9	9	0	1	8	0	0	0	0	0	1
Oklahoma.....	45	10	25	0	0	0	0	0	0	0	0	0
Texas.....	497	201	261	0	11	291	0	0	0	0	0	22
MOUNTAIN												
Montana.....	24	16	13	0	0	0	0	0	0	2	5	0
Idaho.....	0	1	7	0	0	0	0	0	0	0	0	0
Wyoming.....	3	2	3	0	0	0	0	0	0	3	0	0
Colorado.....	18	25	29	0	1	1	0	0	0	0	0	0
New Mexico.....	10	18	18	0	0	1	1	0	0	1	0	0
Arizona.....	23	11	34	0	0	0	34	0	0	0	9	0
Utah ⁴	91	28	97	0	0	0	0	0	0	2	0	0
Nevada.....	3	4		0	0	0	0	0	0	0	0	0
PACIFIC												
Washington.....	35	40	56	0	0	0	0	0	0	0	0	0
Oregon.....	27	29	17	0	0	0	0	0	0	0	0	0
California.....	292	208	349	0	2	9	0	0	0	0	0	1
Total.....	4,341	3,721	3,721	2	40	402	140	5	1	18	23	73
24 weeks.....	97,600	91,802	94,166	33	809	5,292	1,367	263	12	126	438	1,134
24 weeks, 1942.....				37	464	2,469	1,322	209	31	166	459	896

¹ New York City only.

² Period ended earlier than Saturday.

³ Later information shows 1 case of poliomyelitis in Louisiana for the week ended May 29 instead of none as previously reported.

⁴ Delayed report: 1 fatal case of epidemic typhus fever (imported case) in Yakima County, during May. (See p. 995.)

WEEKLY REPORTS FROM CITIES

City reports for week ended June 5, 1948

This table lists the reports from 88 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	Enecephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland.....	0	0	-----	0	70	6	1	0	0	0	0	12
New Hampshire:												
Concord.....	0	0	-----	0	0	0	2	1	1	0	0	0
Vermont:												
Barre.....	0	0	-----	0	0	0	0	0	0	0	0	0
Massachusetts:												
Boston.....	0	0	-----	0	201	11	19	0	158	0	0	30
Fall River.....	0	0	-----	0	88	1	0	0	2	0	0	3
Springfield.....	0	0	-----	0	19	0	2	0	32	0	0	0
Worcester.....	0	0	-----	0	56	3	6	0	11	0	0	1
Rhode Island:												
Providence.....	0	0	-----	0	71	1	1	0	11	0	0	17
Connecticut:												
Bridgeport.....	0	0	-----	0	7	1	0	0	2	0	0	3
Hartford.....	0	0	-----	0	18	1	1	0	2	0	0	2
New Haven.....	0	0	-----	1	39	1	1	0	1	0	0	0
MIDDLE ATLANTIC												
New York:												
Buffalo.....	0	0	-----	2	74	1	8	0	6	0	0	7
New York.....	14	1	-----	4	1,323	43	60	0	205	0	5	76
Rochester.....	0	0	-----	0	112	1	8	0	6	0	0	14
Syracuse.....	0	0	-----	0	45	1	0	0	5	0	0	20
New Jersey:												
Camden.....	0	0	-----	2	1	1	0	0	1	0	0	2
Newark.....	0	0	-----	2	366	5	7	0	8	0	0	37
Trenton.....	0	0	-----	0	9	0	1	0	2	0	0	0
Pennsylvania:												
Philadelphia.....	1	0	-----	1	175	16	20	0	78	0	0	46
Pittsburgh.....	0	1	-----	0	22	2	10	1	6	0	0	26
Reading.....	0	0	-----	0	18	0	0	0	0	0	0	8
EAST NORTH CENTRAL												
Ohio:												
Cincinnati.....	0	0	-----	0	57	2	2	0	18	0	0	7
Cleveland.....	0	0	-----	2	22	4	11	0	47	0	1	36
Columbus.....	0	0	-----	1	52	0	0	0	7	0	0	1
Indiana:												
Fort Wayne.....	0	0	-----	0	6	0	3	0	0	0	0	0
Indianapolis.....	0	0	-----	2	74	0	4	0	16	0	0	14
South Bend.....	0	0	-----	0	10	0	0	0	0	0	0	3
Terre Haute.....	0	0	-----	0	5	0	2	0	0	0	0	2
Illinois:												
Chicago.....	24	0	-----	3	611	14	28	0	60	0	0	57
Springfield.....	0	0	-----	0	8	0	1	0	1	0	0	0
Michigan:												
Detroit.....	3	0	-----	0	1,218	12	7	0	17	0	0	73
Flint.....	0	0	-----	0	13	0	0	0	0	0	0	0
Grand Rapids.....	1	0	-----	0	93	0	0	0	4	0	0	13
Wisconsin:												
Kenosha.....	0	0	-----	0	3	0	1	0	4	0	0	2
Milwaukee.....	0	0	-----	1	481	1	1	0	138	0	0	54
Racine.....	0	0	-----	0	3	0	2	0	17	0	0	0
Superior.....	0	0	-----	0	33	0	1	C	0	0	0	1
WEST NORTH CENTRAL												
Minnesota:												
Duluth.....	1	0	-----	1	83	0	0	0	2	0	0	0
Minneapolis.....	1	0	-----	0	257	0	3	0	14	0	0	9
St. Paul.....	0	0	-----	0	30	0	4	0	3	0	0	57
Missouri:												
Kansas City.....	0	0	-----	0	108	0	6	0	21	0	1	8
St. Joseph.....	0	0	-----	0	9	0	2	0	0	0	0	0
St. Louis.....	0	0	-----	0	42	5	10	0	5	0	0	16

City reports for week ended June 5, 1943—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Polio-myelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and Paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
WEST NORTH CENTRAL—continued												
North Dakota:												
Fargo.....	0	0	0	0	4	0	0	0	0	0	0	0
Nebraska:												
Omaha.....	0	0	0	0	4	0	3	0	3	0	0	0
Kansas:												
Topeka.....	0	0	0	0	34	0	1	0	1	0	0	11
Wichita.....	1	0	0	0	2	0	1	0	2	0	0	5
SOUTH ATLANTIC												
Delaware:												
Wilmington.....	1	0	0	0	15	1	1	0	1	0	0	4
Maryland:												
Baltimore.....	2	0	2	1	94	10	10	0	41	0	0	76
Cumberland.....	0	0	0	0	0	1	0	0	0	0	0	0
Frederick.....	0	0	0	0	0	0	0	0	0	0	0	0
District of Columbia:												
Washington.....	0	0	0	0	84	5	6	0	8	0	5	30
Virginia:												
Lynchburg.....	1	0	0	0	8	0	0	0	0	0	1	5
Richmond.....	0	0	1	0	24	0	2	0	3	0	0	22
Roanoke.....	0	0	0	0	0	0	0	0	0	0	0	0
West Virginia:												
Charleston.....	0	0	0	1	0	0	0	0	0	0	0	0
Wheeling.....	0	0	0	0	0	1	0	0	0	0	0	1
North Carolina:												
Raleigh.....	0	0	0	0	5	0	1	0	0	0	0	0
Winston-Salem.....	0	0	0	0	0	0	1	0	0	0	0	21
South Carolina:												
Charleston.....	0	0	0	0	1	0	2	0	0	0	0	0
Georgia:												
Atlanta.....	1	0	0	0	28	2	6	0	3	0	1	7
Brunswick												
Savannah.....	0	0	0	0	2	1	0	0	0	0	1	0
Florida:												
Tampa.....	0	0	0	0	1	0	2	0	0	0	0	0
EAST SOUTH CENTRAL												
Tennessee:												
Memphis.....	0	0	0	0	59	0	5	0	0	0	0	3
Nashville.....	0	0	1	0	8	0	3	0	2	0	0	4
Alabama:												
Birmingham.....	0	0	3	0	13	0	2	0	2	0	0	3
Mobile.....	0	0	1	0	2	0	2	0	0	0	0	0
WEST SOUTH CENTRAL												
Louisiana:												
New Orleans.....	0	0	7	2	6	2	4	0	1	0	1	2
Shreveport.....	0	0	0	1	0	0	5	0	0	0	0	0
Texas:												
Dallas.....	0	0	0	0	1	0	2	0	1	0	1	9
Galveston.....	1	0	0	0	1	0	3	0	0	0	0	4
Houston.....	0	0	0	0	4	0	6	1	0	1	0	5
San Antonio.....	0	0	1	1	0	0	7	0	1	0	0	1
MOUNTAIN												
Montana:												
Billings.....	0	0	0	0	7	0	0	0	0	0	0	0
Great Falls.....	0	0	0	0	14	0	0	0	2	0	0	5
Helena.....	0	0	0	0	15	0	0	0	0	0	0	0
Missoula.....	0	0	0	0	0	0	0	0	0	0	0	0
Idaho:												
Boise.....	0	0	0	0	0	0	0	0	0	0	0	0
Colorado:												
Denver.....	3	0	1	0	90	0	4	0	8	0	0	5
Pueblo.....	0	0	0	0	6	0	0	0	0	0	0	4
Utah:												
Salt Lake City.....	0	0	0	0	54	0	1	0	7	0	0	27

City reports for week ended June 5, 1943—Continued

	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle.....	0	0		0	92	2	0	0	2	0	0	12
Spokane.....	0	0		0	5	0	4	0	4	0	0	2
Tacoma.....	1	0		0	3	1	0	0	0	0	0	0
California:												
Los Angeles.....	1	0	14	0	121	3	7	4	17	0	0	48
Sacramento.....	0	1		0	3	0	3	0	0	0	0	23
San Francisco.....	2	0	3	0	47	5	11	1	20	0	0	23
Total.....	59	3	47	23	6,790	167	340	8	1,040	1	17	1,019
Corresponding week, 1942.....	59	4	36	12	4,693	33	284	6	938	0	21	1,297
Average, 1938-42.....	75		49	15	4,818		285		1,158	9	26	1,221

Anthrax.—Cases: Philadelphia, 1; Seattle, 1.
Dysentery, amebic.—Cases: New York, 2; Philadelphia, 1; Richmond, 1.
Dysentery, bacillary.—Cases: Buffalo, 1; New York, 1; Winston-Salem, 1; Charleston, S. C., 18; Atlanta, 1; Los Angeles, 11.
Dysentery, unspecified.—Cases: Richmond, 3; San Antonio, 12; Sacramento, 1.
Rocky Mountain spotted fever.—Cases: Missoula, 1.
Typhus fever.—Cases: Dallas, 1; San Antonio, 2.

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

Rates (annual basis) per 100,000 population, by geographic groups, for the 88 cities in the preceding table (estimated population, 1942, 54,627,700)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza		Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Pollomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
			Case rates	Death rates								
New England.....	0.0	0.0	0.0	2.5	1,414	62.1	82.0	2.5	547	0.0	0.0	169
Middle Atlantic.....	6.7	0.9	3.1	2.2	957	31.2	50.3	0.4	141	0.0	2.2	105
East North Central.....	16.4	0.0	4.1	5.3	1,570	19.3	36.3	0.0	192	0.0	0.6	154
West North Central.....	5.9	0.0	0.0	2.0	1,120	9.8	58.6	0.0	100	0.0	2.0	207
South Atlantic.....	8.5	0.0	5.1	1.7	449	35.9	53.0	0.0	96	0.0	13.7	284
East South Central.....	0.0	0.0	23.8	5.9	487	0.0	71.3	0.0	24	0.0	0.0	56
West South Central.....	3.1	0.0	24.9	12.4	37	6.2	83.9	3.1	9	3.1	6.2	65
Mountain.....	24.1	0.0	8.0	0.0	1,495	0.0	40.2	0.0	137	0.0	0.0	330
Pacific.....	7.0	1.7	29.7	0.0	474	19.2	43.7	8.7	75	0.0	0.0	189
Total.....	8.9	0.5	7.1	3.3	1,022	25.1	51.2	1.2	157	0.2	2.6	163

PLAGUE INFECTION IN MONTEREY COUNTY, CALIFORNIA

Plague infection has been reported proved in a pool of 21 fleas from 9 meadow mice, *Microtus* sp., collected March 23 from the Fort Ord Military Reservation, 12 miles southwest of Salinas, Monterey County, Calif.

**FATAL CASE OF EPIDEMIC TYPHUS FEVER IN YAKIMA COUNTY,
WASHINGTON**

A delayed report has been received of a fatal case of epidemic typhus fever which occurred in Yakima County, Wash., during May. The case was in a Mexican laborer who arrived in Yakima County on April 20. About 10 days after his arrival, he became ill; and, as his condition became progressively worse, he was taken to the hospital in Yakima, where he died on May 22. The diagnosis of epidemic typhus fever was made from clinical manifestations and substantiated by the agglutination test.

TERRITORIES AND POSSESSIONS

Hawaii Territory

Plague (rodent).—During the week ended May 15, 1943, two rats found in Honokaa area, Hamakua District, Island of Hawaii, T. H., were proved positive for plague.

Virgin Islands of the United States

Notifiable diseases—January–March 1943.—During the months of January, February, and March 1943, cases of certain notifiable diseases were reported in the Virgin Islands as follows:

Disease	January	February	March
Chickenpox	1	5	1
Filariasis	7	4	3
Gonorrhoea	11	13	8
Hookworm disease	2	5	6
Lymphogranuloma inguinale			1
Malaria	2	3	
Mumps	4	1	
Pneumonia			1
Schistosomiasis			2
Syphilis	26	16	23
Tuberculosis	1		
Whooping cough	10	16	4

FOREIGN REPORTS

CANADA

Provinces—Communicable diseases—Week ended May 22, 1943.—During the week ended May 22, 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.....	3	9	2	162	257	42	28	17	97	617
Diphtheria.....		10	2	25		6		4		47
Dysentery (bacillary).....				2			3	1		6
Encephalitis (infectious).....						1				1
German measles.....		1		30	110	16	7	45	18	227
Influenza.....		2			36	17	2		11	68
Measles.....		46		328	1,608	124	90	202	465	2,863
Meningitis, meningococcus.....				3	1				2	6
Mumps.....	2	69	1	40	623	114	43	74	132	1,098
Poliomyelitis.....				1						1
Scarlet fever.....	3	22	6	87	209	51	19	69	32	498
Tuberculosis (all forms).....	3	22	2	146	63	11	22	12		281
Typhoid and paratyphoid fever.....				13	1					14
Undulant fever.....					1					1
Whooping cough.....			1	163	151	68	17	38	96	534

JAMAICA

Vital statistics—1941.—Following are vital statistics for Jamaica for the year 1941:

Number of births.....	39,829	Deaths from—Continued.....	
Number of births per 1,000 population.....	30.75	Infantile convulsions.....	1,015
Deaths, all causes.....	17,317	Intestinal obstruction.....	78
Deaths, all causes per 1,000 population.....	14.07	Leprosy.....	13
Deaths under 2 years of age per 1,000 live births.....	103.9	Malaria.....	603
Deaths from:		Nephritis, chronic.....	804
Appendicitis.....	37	Pneumonia.....	719
Black water fever.....	12	Rheumatic fever.....	126
Cancer and other malignant tumors.....	418	Senility.....	1,563
Congenital debility.....	1,171	Syphilis.....	534
Diarrhea and enteritis.....	356	Tuberculosis, respiratory.....	946
		Typhoid fever.....	160

SWEDEN

Notifiable diseases—March 1943.—During the month of March 1943, cases of certain notifiable diseases were reported in Sweden as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	4	Poliomyelitis.....	9
Diphtheria.....	357	Scarlet fever.....	2,356
Dysentery.....	69	Syphilis.....	63
Epidemic encephalitis.....	1	Typhoid fever.....	3
Gonorrhoea.....	1,219	Undulant fever.....	6
Paratyphoid fever.....	22	Well's disease.....	9

WORLD DISTRIBUTION OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Health, 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]

NOTE.—Since many of the figures in the following tables are from weekly reports, the accumulated totals are for approximate dates.

Place	January-March 1943	April 1943	May 1943—week ended—				
			1	8	15	22	29
ASIA							
Ceylon..... C	47				1		
India..... C	78, 779	4, 244					
Calcutta..... C	547	307	102		66		
Madras..... C	962	2					
Vizagapatam..... C	4						

PLAGUE

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

AFRICA						
Basutoland..... C	P 4					
Belgian Congo—Plague-infected rats.....						
British East Africa:						
Kenya..... C	10	1				
Uganda..... C	6					
Madagascar..... C	17					
Morocco..... C	47	77				
Senegal..... C			1 20		1 24	
Union of South Africa..... C	62					
ASIA						
India..... C	1, 026	99	45	17	5	
Indochina..... C	4					
Palestine..... C	1 8					
SOUTH AMERICA						
Peru:						
Lambayeque Department..... C	2					
Libertad Department..... C	9					
Lima Department..... C	3					
Lima..... C	1					
Plague-infected rats.....	P					
OCEANIA						
Hawaii Territory:						
Hamakua District..... D	2	1		1		
Plague-infected rats.....	47	3	1 2	2		

¹ For the period May 1-10, 1943.

² For the period May 11-20, 1943.

³ In Jaffa and vicinity.

⁴ Plague-infected mice.

SMALLPOX

(C indicates cases; D, deaths)

Place	January-March 1943	April 1943	May 1943—week ended—				
			1	8	15	22	29
AFRICA							
Algeria.....	C 431	86					
Angola.....	505						
Basutoland.....	C 30						
Belgian Congo.....	C 439	123	25	33	46		
British East Africa:							
Mombasa.....	C 3						
Tanganyika.....	C 11						
Dahomey.....	C 25						
Egypt.....	C 19	6					
French Guinea.....	C 7						
Gold Coast.....	C 2	3					
Ivory Coast.....	C 90						
Mauritania.....	C 1						
Morocco.....	C 519	3					
Mozambique.....	C 1						
Nigeria.....	C 1,306	884	113	188	143		
Niger Territory.....	C 46						
Senegal.....	C 18	1					
Sierra Leone.....	C 3						
Sudan (French).....	C 394						
Union of South Africa.....	C 221						
ASIA							
Ceylon.....	C 1	1					
India.....	C 6,253	3,608	932	912	553		
Indochina.....	C 1,598						
Iran.....	C 152						
Iraq.....	C 156	3	19	1			
Palestine.....	C 28	1					
Syria and Lebanon.....	C 553	52	25				
Trans-Jordan.....	C 10						
EUROPE							
Belgium.....	C 1	1					
France.....	C 1						
Scotland.....	C 1						
Portugal.....	C 14	5		2			
Spain.....	C 97	5					
Turkey.....	C 3,756						
NORTH AMERICA							
Canada.....	C 1						
Guatemala.....	C 2	1					
Mexico.....	C 41	20	6	3	7	3	
SOUTH AMERICA							
Brazil.....	C 38	2					
Colombia.....	C 41	56	14				
Ecuador.....	C 10						
Peru.....	D 8						
Venezuela.....	C 13	6					

¹ For 4 weeks.

TYPHUS FEVER

[C indicates cases]

Place	January-March 1943	April 1943	May 1943—week ended—				
			1	8	15	22	29
AFRICA							
Algeria..... C	3,742	1,398					
Belgian Congo..... C	2	1					
British East Africa:							
Kenya..... C	3				2		
Mombasa..... C		1					
Uganda..... C		1					
Egypt..... C	10,443	7,383	2,350	2,528	2,368		
Gold Coast..... C	3	1					
Morocco..... C	6,716	173		41			
Nigeria..... C	1						
Senegal..... C		1					
Sierra Leone..... C	3						
Spanish Morocco..... C	2	1					
Union of South Africa..... C	764	14					
ASIA							
Afghanistan..... C	520						
China: Shanghai..... C	12						
India..... C	898	67	28	1			
Iran..... C	620						
Iraq..... C	265	487	18	97	76	60	79
Palestine..... C	31	33	13	15	29	17	
Syria and Lebanon..... C	11	4	1				
EUROPE							
Bulgaria..... C	235						
Germany..... C	800						
Hungary..... C	320	116	¹ 31	34	22	36	
Irish Free State..... C	7	12					
Portugal..... C		3		1			
Rumania..... C	3,261	1,212		305	256	272	
Slovakia..... C	117	75	6	17	11		
Spain..... C	162	26					
Turkey..... C	872						163
NORTH AMERICA							
Guatemala..... C	318	78					
Jamaica..... C	6	3				2	
Mexico..... C	437						
Puerto Rico..... C	2						
SOUTH AMERICA							
Chile..... C	58	1			1		
Ecuador..... C	84	10		3		12	4
Peru..... C	5						
Venezuela..... C	1						
OCEANIA							
Australia..... C	21	9	4	10			
Hawaii Territory..... C	6	2	1	1			

¹ For 2 weeks.² New cases reported in Ankara for 1 day only.

YELLOW FEVER

[C indicates cases; D, deaths]

Place	January-March 1943	April 1943	May 1943—week ended—	1	8	15	22	29
AFRICA								
Belgian Congo:								
Bondo..... D		1						
Stanleyville..... D	1							
Yanonge..... C	1							
SOUTH AMERICA								
Colombia: Intendencia of Meta..... D	2							

COURT DECISION ON PUBLIC HEALTH

Trichinosis—liability of retail seller of sausage.—(Maryland Court of Appeals; *Vaccarino v. Cozzubo*, 31 A.2d 316; decided April 8, 1943.) An action to recover damages for breach of an alleged implied warranty was brought against a retail seller of sausage. The sausage was purchased by the plaintiff's 11-year-old daughter and his wife cooked it for supper. Six days later the plaintiff became ill and several days after that his wife and daughter also became ill. Their illness was diagnosed as trichinosis. In the trial court a jury rendered a verdict in favor of the plaintiff, and the defendant appealed to the Court of Appeals of Maryland.

With respect to whether privity of contract existed between the plaintiff and the defendant, the appellate court held that such privity did exist, saying that the plaintiff's wife and daughter were acting as his agents in helping him to carry out his obligation to support and maintain the family.

The principal issue presented, however, was whether the trial court had properly instructed the jury as to the liability of the storekeeper to the purchaser. The court reviewed the pertinent provisions of the statute relating to sales and stated that it was absolutely clear that there was an implied warranty that the sausage was of merchantable quality and reasonably fit for human consumption. However, said the court, no implied warranty arises either at common law or under the statute that meat, generally fit to be eaten only when properly cooked, is wholesome when eaten raw or cooked in an unusual or improper manner, and "it would be unfair to impose upon a retail meat dealer an implied warranty that his pork is fit to be eaten when raw." According to the court this was especially true in view of the fact that the danger of contracting trichinosis from eating pork could be eliminated through proper cooking. It was the court's opinion that the implied warranty in the case was not that the sausage was wholesome and fit to be eaten either cooked or raw but that it was wholesome and fit to be eaten after ordinary domestic cooking. The trial court had instructed the jury that if they found that the plaintiff was infected with trichinosis as a result of eating the sausage the verdict should be for the plaintiff, but the court of appeals took the view that the jury should have been authorized to give a verdict for the plaintiff only in case they found that the plaintiff was infected with trichinosis by eating the sausage after it was cooked in the usual or proper manner.

The judgment in the plaintiff's favor was reversed.