PUBLIC HEALTH REPORTS

VOL. 50 NOVEMBER 1, 1935 NO. 44

DISABLING ILLNESS AMONG INDUSTRIAL EMPLOYEES IN 1934 AS COMPARED WITH EARLIER YEARS

By DEAN K. BRUNDAGE, *Statistician, Office of Industrial Hygiene and Sanitation, United States Public Health Service*

The incidence rate of new cases of sickness and nonindustrial accidents causing absence from work for more than 1 week in a group of 174,643 male industrial employees was lower in 1934 than in the preceding year, when the lowest rate since 1921 was recorded. The frequency of cases in 1934 was 3 percent below the rate for 1933, 21 percent below the 1932 rate, 32 percent lower than in 1929, and 14 percent below the rate for 1921. In these comparisons the rate of occurrence of new cases has been based on the experience of employees in the same industrial establishments with the exception of the rate for 1921, which includes the employees of all establishments reporting at that time. It is apparent, therefore, that the increase in industrial activity since 1932 has not been associated thus far with any increase in the frequency of cases of disabling illness of 8 days and longer among male employees of the 37 reporting companies.

New lows were recorded in 1934 for both the respiratory and nonrespiratory disease groups, although the proportional decrease was greater in the respiratory group. The rate of 24.5 cases of respiratory disease per 1,000 men was 14 percent lower than the previous minimum (in 1933) registered since 1921, when the collection of industrial morbidity statistics was inaugurated. Sickness exclusive of influenza occurred at precisely the same rate as in 1933; hence the lower rate in 1934 was due to a decrease in the prevalence of influenza. The rate of 10.1 influenza cases per 1,000 men was 21 percent lower than the previous minimum influenza rate of 12.9 in 1921.

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TABLE 1.—*Frequency of specified causes of disability lasting 8 consecutive calendar days or longer among male industrial workers in various industries, by years, from 1929 to 1934, inclusive* [1]

Year in which disability began	Sickness and nonindustrial injuries [2]		Sickness		Respiratory diseases [3]		Sickness exclusive of influenza		Nonrespiratory diseases		Average number of men, all reporting establishments
	A	B	A	B	A	B	A	B	A	B	
1929	112.4	110.6	99.9	98.1	47.8	46.8	73.9	71.9	52.1	51.3	194,451
1930	94.1	93.8	81.8	81.6	32.0	32.3	68.5	68.2	49.8	49.3	188,714
1931	94.6	93.2	82.2	81.1	34.9	34.8	63.3	62.1	47.3	46.3	171,694
1932	97.5	94.7	84.9	82.3	37.6	37.0	62.9	60.4	47.3	45.3	163,979
1933	82.3	76.8	71.0	66.2	28.6	25.6	55.7	53.0	42.4	40.6	152,203
1934	78.1	74.7	65.8	62.8	24.5	23.4	55.7	53.0	41.3	39.4	174,643
5 preceding years [4]	96.2	93.8	84.0	81.8	36.2	35.3	64.9	63.1	47.8	46.5	174,208

[1] For the record 1921 to 1928, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 995–1001.
[2] Industrial accidents, venereal diseases, and a few numerically unimportant causes of disability are not reported.
[3] Title numbers 11, 23, 104–115a, in the International List of the Causes of Death, fourth revision, Paris, 1929.
[4] 1929 to 1933, inclusive.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1934.

These findings are based on reports to the Public Health Service from a group of 37 industrial sick-benefit organizations which pay cash benefits to members disabled by illness or nonindustrial accident for eight consecutive calendar days or longer. Employees of the reporting companies are scattered over almost all parts of the country, but most of them are concentrated in the North Central, North Atlantic, and New England States.

TRENDS IN THE FREQUENCY OF RESPIRATORY DISEASES

With the exception of influenza and tuberculosis, there were more cases of respiratory disease per 1,000 men in 1934 than in 1933 in the sample of the industrial population under consideration. However, the increase was not large in any numerically important subgroup, the 1934 incidence rate being below the average rate for the five preceding years for bronchitis, diseases of the pharynx and tonsils, pneumonia (all forms), and "other" respiratory diseases.

The decrease in the frequency of new cases of respiratory tuberculosis during the past 13 years has been little short of spectacular. In 1921 and 1922 the tuberculosis incidence rate was 1.9 cases per 1,000 men per year; in 1933 and 1934 the rate was only 0.8, a decrease of 58 percent. A corresponding decrease is shown in the records of mortality from pulmonary tuberculosis. Among the millions of industrial policyholders of the Metropolitan Life Insurance Co., the death rate from this disease fell almost 50 percent between 1922 and 1934.[1]

[1] Statistical bulletins, Metropolitan Life Insurance Co., New York, vol. 6, no. 1, January 1925, p. 7, and vol. 16, no. 1, January 1935, p. 7.

The frequency rate of pneumonia (all forms) also shows a gratifying decrease in recent years. From 1921 to 1929, inclusive, the average incidence rate of pneumonia was 3.3 cases per 1,000 men per year; during the past 5 years (1930–1934, inclusive) the average rate was only 2.1, a decrease of 36 percent. The lowest rate during the 14 years under review was 1.8 for 1933; in 1934 the rate increased slightly to 2.0, the same incidence as was recorded for 1932.

TABLE 2.—*Frequency of specified respiratory diseases which caused disability for 8 consecutive calendar days or longer among male industrial workers in various industries, by years, from 1929 to 1934, inclusive* [1]

Year in which disability began	Influenza or grippe (11)		Bronchitis, acute and chronic (106)		Diseases of the pharynx and tonsils (115a)		Pneumonia, all forms (107–109)		Tuberculosis of the respiratory system (23)		Other diseases of the respiratory system (104–105) (110–114)	
	A	B	A	B	A	B	A	B	A	B	A	B
1929	26.0	26.2	5.3	5.2	7.2	6.3	3.1	3.2	1.2	1.1	5.0	4.8
1930	13.3	13.4	4.6	4.8	6.0	5.8	2.5	2.7	1.1	1.1	4.5	4.5
1931	18.9	19.0	3.6	3.6	5.2	5.0	2.1	2.2	1.0	1.0	4.1	4.0
1932	22.0	21.9	3.6	3.5	4.5	4.4	2.0	2.0	1.0	1.0	4.5	4.2
1933	15.3	13.2	2.9	2.8	3.9	3.4	1.8	1.7	.8	.8	3.9	3.7
1934	10.1	9.8	3.2	3.2	4.3	3.9	2.0	2.0	.8	.8	4.1	3.7
5 preceding years	19.1	18.7	4.0	4.0	5.4	5.0	2.3	2.4	1.0	1.0	4.4	4.2

[1] For the record 1921 to 1928, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 995–1001.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1934.

Numbers shown in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1929.

TRENDS IN THE FREQUENCY OF DISEASES OF THE DIGESTIVE SYSTEM

The digestive disease rate was higher in 1934 than in 1933 principally on account of an increase in the frequency of appendicitis. However, neither the digestive disease rate nor the rate of appendicitis was abnormally high in 1934 measured by average rates over a series of years. The frequency of appendicitis was only slightly above the average rate for the preceding 5 years and for the period 1921 to 1928. The rate of 12.7 cases of digestive disease per 1,000 males in 1934 was lower than the average for the preceding 5 years and for the period 1921 to 1928. Since 1929 the digestive disease rate has decreased about 15 percent, but the frequency of appendicitis in 1934 was about the same as it was 5 years ago. The decrease in the rate for digestive diseases as a whole during the past 5 years has been due largely to a decline in the incidence of the less serious digestive diseases included in the group of diseases of the stomach except cancer and in the diarrhea and enteritis category; the more serious diseases of the digestive system which are included in "other" digestive diseases occurred at approximately the same rates in 1933 and 1934 as in 1929 and 1930. There has been relatively little change in the frequency

of disability on account of hernia during the past 14 years in the group of male industrial workers under consideration.

TABLE 3.—*Frequency of specified diseases of the digestive system which caused disability for 8 consecutive calendar days or longer among male industrial workers in various industries, by years, from 1929 to 1934, inclusive* [1]

Year in which disability began	Digestive diseases total (115b-129)		Diseases of the stomach except cancer (117-118)		Diarrhea and enteritis (120)		Appendicitis (121)		Hernia (122a)		Other digestive diseases (115b, 116, 122b-129)	
	A	B	A	B	A	B	A	B	A	B	A	B
1929	15.6	15.6	4.7	4.7	1.5	1.4	4.5	4.5	1.8	1.9	3.1	3.1
1930	14.8	14.5	4.7	4.7	1.5	1.5	4.0	3.7	1.7	1.8	2.9	2.8
1931	13.4	12.9	4.0	3.6	1.2	1.2	3.7	3.5	1.8	1.9	2.7	2.7
1932	13.3	12.6	4.0	3.7	1.0	1.0	3.4	3.3	1.9	1.9	3.0	2.7
1933	12.1	11.1	3.3	3.3	1.0	1.0	3.3	3.0	1.3	1.3	3.2	2.5
1934	12.7	12.1	3.2	3.3	1.3	1.2	3.9	3.6	1.5	1.5	2.8	2.5
5 preceding years	13.8	13.3	4.1	4.0	1.2	1.2	3.8	3.6	1.7	1.8	3.0	2.7

[1] For the record 1921 to 1928, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 995-1001.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1934.
Numbers in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1929.

TRENDS IN THE FREQUENCY OF NONRESPIRATORY, NONDIGESTIVE DISEASES

As a whole, diseases other than those of the respiratory and digestive systems occurred at a lower rate in 1934 than in any other year under review. The previous minimum was a rate of 30.3 cases per 1,000 men in 1933; in 1934 the frequency of these diseases as a group declined to 28.6, a reduction of approximately 5 percent. Since a number of diseases which cause a large amount of time lost from work are included in this broad group, the favorable rates during the past 2 years are particularly noteworthy.

The causes of the lower rates for nonrespiratory, nondigestive diseases during the past 2 years are to be found in a reduced incidence of rheumatism (acute and chronic), diseases of the organs of locomotion, diseases of the skin, and certain other disease groups of lesser numerical importance. During the 8 years from 1921 to 1928, inclusive, the incidence rate of rheumatism (acute and chronic) was 6.0 cases per 1,000 men per year; in 1934 the rate was only 4.0, a decrease of one-third. Although the trend has been downward since 1928, the sharpest decreases in the rheumatism incidence rates have occurred since 1932. To what extent this change may be due to the replacement of rheumatic with more able-bodied workers cannot be ascertained at present. A somewhat less abrupt decrease is shown in the frequency of a related group of diseases, e. g., lumbago and other

diseases of the organs of locomotion. In 1934 the frequency of these ailments was about 20 percent below the incidence recorded for 1932. The record for diseases of the skin reveals a marked downward trend since 1927, when the rate was 4.7 cases per 1,000 men. Since then the incidence rate each year has been lower than that for the preceding year, with the exception of 1933, the rate for which was the same as in 1932. In 1934 a new minimum was attained, 47 percent below the rate recorded in 1927 for 8-day or longer disabilities from diseases of the skin.

Disease groups showing relatively little change in frequency in 1933 and 1934 as compared with earlier years include diseases of the heart, diseases of the genito-urinary system and annexa except nephritis, neuralgia, neuritis, and sciatica, diseases of the ears and of the mastoid process, and cancer.

For nephritis (acute and chronic) the rates of 1933 and 1934 (which were identical) were definitely lower than in any preceding year of record.

Claims for sickness benefits on account of neurasthenia decreased sharply in 1933 and 1934 as compared with earlier years. The depression peak for this disorder occurred in 1931, when the rate was 87 percent above the incidence of 1934. Definitely unfavorable, however, is the trend of "other" diseases of the nervous system, which include the more serious pathological conditions such as the psychoses, cerebral hemorrhage, and thrombosis. For this group the average frequency rate during the years 1921 to 1928 was 0.9 cases per 1,000 men per year; during the next 5 years the average rate rose to 1.2, and in 1933 and 1934 the annual rate was 1.4 cases per 1,000 men, the highest rate recorded thus far.

The frequency of cancer (all forms) in 1934 was the same as in 1928 and 1929. There is little evidence of a trend one way or the other in the frequency of new cases of malignant tumor among the industrial workers for whom sickness records are available.

The rate of occurrence of 8-day or longer disabilities from nonindustrial accidents rose 9 percent in 1934 over the rate for the preceding year; compared with the annual frequency in the 1921–28 period the increase was 20 percent. Since 1921 the trend in the frequency of nonindustrial injuries has been upward, probably due in large part to the increasing hazards of motor-car transportation.

TABLE 4.—*Frequency of specified nonrespiratory, nondigestive diseases which caused disability for 8 consecutive calendar days or longer among male industrial workers in various industries, by years, from 1929 to 1934, inclusive* [1]

Year in which disability began	Nonrespiratory, nondigestive diseases, total		Diseases of the circulatory system except diseases of the veins (90–99, 101–103)		Diseases of the veins (100)		Diseases of the heart (90–95)		Nephritis—acute and chronic (130–132)	
	A	B	A	B	A	B	A	B	A	B
1929	36.5	35.7	3.4	3.5	1.7	1.7	2.2	2.3	0.8	0.8
1930	35.0	34.8	3.4	3.4	1.6	1.6	2.1	2.1	.7	.8
1931	33.9	33.4	3.2	3.2	1.8	1.5	2.0	2.1	.7	.7
1932	34.0	32.7	3.7	3.6	1.8	1.7	2.5	2.4	.8	.8
1933	30.3	29.5	3.4	3.2	1.4	1.4	2.1	2.1	.5	.6
1934	28.6	27.3	3.0	2.9	1.5	1.3	2.0	1.9	.5	.6
5 preceding years	34.0	33.2	3.4	3.4	1.7	1.6	2.2	2.2	.7	.7

Year in which disability began	Other diseases of the genito-urinary system and annexa (133–138)		Neuralgia, neuritis, sciatica (87a)		Neurasthenia and the like (87b)		Other diseases of the nervous system (78–85)		Diseases of the organs of vision (88)	
	A	B	A	B	A	B	A	B	A	B
1929	2.2	2.1	2.5	2.5	1.3	1.2	1.1	1.0	1.0	1.0
1930	2.4	2.3	2.3	2.2	1.2	1.2	1.0	1.1	1.1	1.1
1931	2.3	2.2	2.1	2.1	1.5	1.4	1.1	1.3	1.0	1.0
1932	2.3	2.1	2.3	2.3	1.3	1.1	1.2	1.2	.9	.8
1933	2.2	2.1	2.1	1.9	.8	.8	1.4	1.3	.8	.8
1934	2.4	2.1	1.8	1.8	.8	.7	1.4	1.1	.8	.7
5 preceding years	2.3	2.2	2.3	2.2	1.2	1.1	1.2	1.2	1.0	.9

Year in which disability began	Diseases of the ears and of the mastoid process (89)		Rheumatism, acute and chronic (56, 57)		Diseases of the organs of locomotion except diseases of the joints (156b)		Diseases of the skin (151–153)		Infectious and parasitic diseases [2] (1–10, 12–22, 24–33, 36–44)	
	A	B	A	B	A	B	A	B	A	B
1929	0.7	0.6	5.6	5.6	3.9	3.9	4.2	4.2	3.9	3.5
1930	.5	.5	5.6	5.6	3.5	3.5	3.8	3.8	3.8	3.5
1931	.7	.6	5.4	5.4	3.3	3.5	3.2	3.3	3.3	2.9
1932	.7	.7	5.3	5.5	3.3	3.6	2.7	2.7	2.7	2.1
1933	.6	.6	4.9	4.9	2.8	3.0	2.7	2.6	2.0	1.8
1934	.5	.6	4.0	4.0	2.7	2.8	2.5	2.3	2.5	2.4
5 preceding years	.6	.6	5.4	5.4	3.4	3.5	3.3	3.3	3.1	2.8

Year in which disability began	Cancer, all forms (45–53)		Other general diseases [3] (54, 55, 59–77)		Diseases of the bones and joints (154–156a)		Ill-defined and unknown causes of disability (200)		Nonindustrial injuries (163–198)	
	A	B	A	B	A	B	A	B	A	B
1929	0.4	0.4	1.2	1.2	0.8	0.7	1.8	1.8	12.5	12.5
1930	.5	.5	1.2	1.2	.7	.8	1.7	1.7	12.3	12.2
1931	.6	.6	1.2	1.2	.6	.6	1.9	1.9	12.4	12.1
1932	.6	.6	1.7	1.7	.4	.5	2.3	1.7	12.6	12.4
1933	.5	.5	1.7	1.6	.5	.6	2.0	1.8	11.3	10.6
1934	.4	.4	1.9	1.8	.4	.3	1.5	1.5	12.3	11.9
5 preceding years	.5	.5	1.4	1.4	.6	.6	1.9	1.8	12.2	12.0

[1] For the record 1921 to 1928, inclusive, see Public Health Reports, vol. 47, no. 18, Apr. 29, 1932, pp. 995–1001.

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

[3] Includes nutritional diseases, diseases of the endocrine glands, diseases of the blood and blood-making organs, chronic poisonings, and intoxications.

A=all reporting establishments; B=establishments which reported throughout the 6 years ending Dec. 31, 1934.

Numbers shown in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1929.

SICKNESS FREQUENCY ACCORDING TO SEX

Female members of the reporting sick-benefit associations experienced disabilities lasting 8 days or longer 58 percent oftener than males during the 5 years ending December 31, 1933, and in 1934 the female incidence rate was 84 percent above the male rate. This difference is not due to diseases of pregnancy, childbirth, and the puerperal state, because most of the reporting associations pay benefits only for ailments common to both sexes. Furthermore, the age distribution of female industrial workers is more favorable from a health standpoint than that of males, because relatively few women are found in industry at ages above 45. Nevertheless, the frequency both of respiratory and of nonrespiratory diseases was much higher among the women in each of the years under review. The *trend* of sickness frequency, however, was quite similar to that among males. In 1933 and 1934 the female as well as the male incidence rates decreased markedly from a level that was hitherto regarded as probably representative of minimum sickness frequency.

TABLE 5.—*Frequency of specified causes of disability lasting 8 consecutive calendar days or longer among female industrial workers in various industries, by years, from 1929 to 1934, inclusive*

Year in which disability began	Sickness and nonindustrial injuries [1]	Percent of male rate	Sickness	Respiratory diseases [2]	Sickness exclusive of influenza	Nonrespiratory diseases	Nonindustrial injuries	Average number of women, all reporting establishments
1929	162.0	144	149.0	68.9	118.1	80.1	13.0	14,425
1930	145.3	154	132.5	49.8	117.1	82.7	12.8	13,582
1931	162.0	171	147.8	63.9	115.5	83.9	14.2	12,272
1932	158.4	162	143.6	71.6	101.1	72.0	14.8	13,520
1933	131.3	160	119.5	51.3	91.4	68.2	11.8	14,587
1934	143.6	184	131.1	52.9	108.2	78.2	12.5	15,644
5 preceding years [3]	151.8	158	138.5	61.1	108.7	77.4	13.3	13,677

[1] Industrial accidents, venereal diseases, and a few numerically unimportant causes of disability are not reported.
[2] Title numbers 11, 23, 104–115a, in the International List of the Causes of Death, fourth revision, Paris, 1929.
[3] 1929 to 1933 inclusive.

For the 5 years ending December 31, 1934, sickness incidence rates have been computed for specific disease groups according to sex (*cf.* table 6). The greatest excess of female over male rates was found in functional nervous disorders (neurasthenia and kindred conditions), the female rate for this type of illness being six times the male rate. The next greatest excess occurred in diseases of the genito-urinary system and annexa except nephritis, the female rate being about four times the male incidence. Diseases which occurred at two to three times the male rate are diseases of the pharynx and tonsils, bronchitis, appendicitis, "other" digestive diseases, ill-defined conditions, and the

group of "all other" diseases. Female industrial workers also experienced more 8-day or longer disabilities from influenza, respiratory tuberculosis, "other" respiratory diseases, diarrhea and enteritis, and infectious and parasitic diseases than the same number of male employees. The rates were about the same for nonindustrial accidents, diseases of the stomach except cancer, "other" diseases of the nervous system, diseases of the circulatory system, nephritis, and diseases of the skin. On account of the smaller proportion of industrially employed women than men at ages above 45, it seems obvious that the female rates for some of these diseases would be higher if the age factor were taken into account. Adjusted rates correcting for differences in the age composition of the two sexes could not be computed, however, on account of lack of data on the age distribution of members of the reporting associations. The younger average age of female employees may account in part for the relatively low rates found for pneumonia, rheumatism, and diseases of the organs of locomotion.

TABLE 6.—*Frequency of specified causes of disability according to sex, 1930–34, inclusive* [1]

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1929 revision)	Annual number of cases per 1,000—		Percent of male rate	Number of cases among—	
	Males	Females		Males	Females
Sickness and nonindustrial injuries	89.5	147.5	165	76,148	10,266
Nonindustrial injuries	12.2	13.2	108	10,373	917
Sickness	77.3	134.3	174	65,775	9,349
Respiratory diseases	31.6	57.5	182	26,853	4,003
Bronchitis, acute and chronic (106)	3.6	7.3	203	3,065	508
Diseases of the pharynx and tonsils (115a)	4.8	12.3	256	4,103	856
Influenza, grippe (11)	15.8	28.0	177	13,470	1,947
Pneumonia, all forms (107–109)	2.1	1.3	62	1,784	88
Tuberculosis of the respiratory system (23)	1.0	1.4	140	815	99
Other respiratory diseases (104–105, 110–114)	4.3	7.2	167	3,616	505
Digestive diseases	13.3	24.5	184	11,340	1,705
Diseases of the stomach, cancer excepted (117–118)	3.8	4.5	118	3,274	315
Diarrhea and enteritis (120)	1.2	2.3	192	1,047	158
Appendicitis (121)	3.7	10.3	278	3,128	717
Hernia (122a)	1.7	.3	18	1,406	24
Other digestive diseases (115b, 116, 122b–129)	2.9	7.1	245	2,485	491
Nonrespiratory, nondigestive diseases	32.4	52.3	161	27,582	3,641
Infectious and parasitic diseases (1–10, 12–22, 24–33, 36–44)	2.4	3.8	158	2,050	262
Rheumatism, acute and chronic (56, 57)	5.1	3.7	73	4,301	258
Neuralgia, neuritis, sciatica (87a)	2.1	2.5	119	1,796	173
Neurasthenia and the like (part of 87b)	1.1	6.9	627	964	478
Other diseases of the nervous system (78–85, part of 87b)	1.2	1.1	92	1,026	77
Diseases of the heart (90–95)	2.1	1.8	86	1,811	127
Other diseases of the circulatory system (96–103)	2.8	2.8	100	2,376	197
Nephritis, acute and chronic (130–132)	.7	.6	86	572	45
Other diseases of genito-urinary system and annexa (133–139)	2.3	9.8	426	1,980	680
Diseases of the skin (151–153)	3.0	3.4	113	2,560	236
Diseases of the organs of locomotion except diseases of the joints (156b)	3.1	1.6	52	2,653	111
Ill-defined and unknown causes (200)	1.8	4.2	233	1,540	291
All other diseases (45–55, 58–77, 88, 89, 140–150, 154–156a, 157, 162)	4.7	10.1	215	3,953	706

[1] Cases causing disability for less than 8 consecutive calendar days are not included. Industrial accidents, the venereal diseases, and certain numerically unimportant causes of disability are not reported.

Number of years of life under observation: Males, 851,233; females, 69,605.

AMOUNT OF TIME LOST ON ACCOUNT OF ILLNESS

Most of the data available on industrial morbidity is confined to sickness frequency or incidence, on account of the technical difficulties involved in sickness severity, or time-lost rates. Chief among these are the widely different maximum benefit periods for one illness or for sickness in any one year provided by different sick-benefit organizations, and the extension of the benefit period sometimes granted to individuals under the discretionary power allowed boards of directors of certain sick-benefit funds. Furthermore, some associations are administered more liberally than others. For these and other reasons, the time-lost data are not strictly comparable even for associations having ostensibly the same maximum period for which sick-benefits are paid. Nevertheless, for certain purposes it appeared feasible to present the average duration per case of disability, and the average number of days of disability per person during a 12-month period for 3 different benefit periods, e. g., 13, 26, and 52 weeks.

In associations having a benefit period of 13 weeks the average duration of disability was 37 calendar days per male case and 35 calendar days per female disability. (See tables 7 and 8.) The time-lost statistics presented in these tables include disability during the waiting period, i. e., the first 7 days of disabling sickness. Time lost was computed from the onset to the termination of incapacity in all cases which recovered before the expiration of the benefit period. For cases which extended beyond this period the time lost was computed from the onset of disability to the end of the benefit period regardless of whether benefits were extended by the board of directors, so as to make the data from different associations as nearly comparable as possible.

A somewhat longer average duration per case was found in the associations having a benefit period of 26 weeks, namely, 46 days per male case and 42 days per female illness. The average length of disability was much the same in the associations having a benefit period of 52 weeks as in those which had established the maximum period at 26 weeks.

Among the disease groups listed in tables 7 and 8, the shortest average duration per case is shown for diseases of the pharynx and tonsils, the longest for respiratory tuberculosis. The next longest average duration occurred in diseases of the nervous system. Other disease groups causing long periods of incapacitation are diseases of the heart, other diseases of the circulatory system, nephritis, other diseases of the genito-urinary system and annexa, hernia, rheumatism, and pneumonia.

TABLE 7.—*Calendar days of disability from cases which were closed in 1934, among the male members of 20 sick-benefit associations, by diseases and disease groups causing disability for 8 consecutive calendar days or longer*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1929 revision)	Calendar days of disability per case [2]			Calendar days of disability per 1,000 males [2]			Number of cases which were closed in 1934		
	Benefit period in weeks			Benefit period in weeks			Benefit period in weeks		
	13	26	52	13	26	52	13	26	52
Sickness and nonindustrial injuries [1]	37.10	45.82	42.63	2,592	3,065	3,906	1,286	1,189	1,885
Nonindustrial injuries	37.26	44.52	38.02	324	452	429	160	176	232
Sickness	37.08	46.05	43.28	2,268	2,613	3,477	1,126	983	1,653
Respiratory diseases	26.34	34.75	29.76	635	694	965	444	346	667
Bronchitis, acute and chronic (106)	29.86	30.77	30.57	83	69	120	51	39	81
Diseases of pharynx and tonsils (115a)	17.70	23.45	15.14	77	115	100	80	85	136
Influenza, grippe (11)	20.87	29.87	24.82	217	221	308	191	128	255
Pneumonia, all forms (107–109)	42.39	60.67	51.55	71	95	95	31	27	38
Tuberculosis of respiratory system (23)	75.05	150.33	208.56	77	52	91	19	6	9
Other respiratory diseases (104–105, 110–114)	28.21	40.48	34.80	110	142	251	72	61	148
Digestive diseases	43.53	49.79	46.69	565	592	721	239	206	318
Diseases of stomach, cancer excepted (117–118)	40.48	47.70	60.41	185	157	200	84	57	68
Diarrhea and enteritis (120)	25.67	45.58	34.72	29	63	72	21	24	43
Appendicitis (121)	43.64	54.54	39.86	145	151	248	61	48	128
Hernia (122a)	53.66	57.73	65.42	102	100	76	35	30	24
Other digestive diseases (115b, 116, 122b–129)	50.66	44.55	46.82	104	121	125	38	47	55
Nonrespiratory, nondigestive diseases	44.35	53.33	55.16	1,068	1,327	1,791	443	431	668
Infectious and parasitic diseases (1–10, 12–22, 24–33, 36–44)	32.63	29.10	21.16	57	50	119	32	30	116
Rheumatism, acute and chronic (56, 57)	41.22	56.67	51.14	134	157	239	60	48	96
Neuralgia, neuritis, sciatica (87a)	48.13	56.25	44.51	79	65	93	30	20	43
Neurasthenia and the like (part 87b)	65.72	68.00	70.00	64	71	75	18	18	22
Other diseases of the nervous system (78–85, part of 87b)	55.75	114.78	152.40	48	119	148	16	18	20
Diseases of the heart (90–95)	57.67	76.00	137.31	113	132	234	36	30	35
Other diseases of the circulatory system (96–103)	45.71	73.71	81.60	122	209	230	49	49	58
Nephritis, acute and chronic (130–132)	54.33	72.00	84.00	18	4	41	6	1	10
Other diseases of genito-urinary system and annexa (133–138)	46.84	43.93	69.95	112	147	136	44	58	40
Diseases of the skin (151–153)	27.29	44.63	33.28	73	82	81	49	32	50
Diseases of the organs of locomotion except diseases of the joints (156b)	33.03	30.84	23.58	52	77	84	29	43	73
Ill-defined and unknown causes (200)	35.57	27.62	32.65	27	41	36	14	26	23
All other diseases (45–55, 58–77, 88, 89, 140–150, 154–156a, 157, 162)	51.95	51.64	69.10	169	173	275	60	58	82
Average number of males included in the record for year 1934							18,407	17,323	20,575
Number of sick-benefit associations included							8	6	6

[1] Industrial accidents, the venereal diseases, and a few numerically unimportant causes of disability are not included.

[2] Disability during the waiting period, i. e., the first 7 days of disability, is included.

TABLE 8.—*Calendar days of disability from cases which were closed in 1934, among the female members of 16 sick-benefit associations, by diseases and disease groups causing disability for 8 consecutive calendar days or longer*

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1929 revision)	Calendar days of disability per case [2]			Calendar days of disability per 1,000 females [2]			Number of cases which were closed in 1934		
	Benefit period in weeks			Benefit period in weeks			Benefit period in weeks		
	13	26	52	13	26	52	13	26	52
Sickness and nonindustrial injuries [1]	35.16	41.83	44.30	4,712	5,149	6,491	158	387	376
Nonindustrial injuries	21.00	36.03	39.72	213	367	495	12	32	32
Sickness	36.33	42.35	44.73	4,499	4,782	5,996	146	355	344
Respiratory diseases	25.24	27.06	33.17	1,328	1,171	2,055	62	136	159
Bronchitis, acute and chronic (106)	38.60	28.50	73.71	164	199	603	5	22	21
Diseases of pharynx and tonsils (115a)	15.00	18.07	15.26	153	247	256	12	43	43
Influenza, grippe (11)	21.24	25.02	25.95	612	374	657	34	47	65
Pneumonia, all forms (107–109)	71.50	73.00	30.33	243	93	36	4	4	3
Tuberculosis of respiratory system (23)	91.00	181.00	259.33	77	58	303	1	1	3
Other respiratory diseases (104–105, 110–114)	15.50	33.00	21.42	79	200	200	6	19	24
Digestive diseases	40.00	47.89	49.39	848	944	1,097	25	62	57
Diseases of stomach, cancer excepted (117–118)	56.50	37.00	57.25	96	118	178	2	10	8
Diarrhea and enteritis (120)	17.80	61.00	37.50	75	175	117	5	9	8
Appendicitis (121)	43.82	52.82	38.75	409	554	302	11	33	20
Hernia (122a)	43.00	------	------	36	------	------	1	0	0
Other digestive diseases (115b, 116, 122b–129)	45.50	30.70	61.05	232	97	500	6	10	21
Nonrespiratory, nondigestive diseases	46.42	53.41	57.01	2,323	2,667	2,844	59	157	128
Infectious and parasitic diseases (1–10, 12–22, 24–33, 36–44)	27.50	19.20	21.92	47	61	111	2	10	13
Rheumatism, acute and chronic (56, 57)	51.00	71.10	99.50	87	226	78	2	10	2
Neuralgia, neuritis, sciatica (87a)	47.60	80.86	70.14	202	180	191	5	7	7
Neurasthenia and the like (part of 87b)	48.86	53.95	85.94	290	361	536	7	21	16
Other diseases of the nervous system (78–85, part of 87b)	------	189.00	32.00	------	60	12	0	1	1
Diseases of the heart (90–95)	46.43	92.25	47.00	276	117	37	7	4	2
Other diseases of the circulatory system (96–103)	51.00	24.57	32.14	259	55	88	6	7	7
Nephritis, acute and chronic (130–132)	------	------	------	------	------	------	0	0	0
Other diseases of genito-urinary system and annexa (133–139)	24.38	58.15	53.76	165	610	356	8	33	17
Diseases of the skin (151–153)	48.25	30.29	38.10	163	135	148	4	14	10
Diseases of the organs of locomotion except diseases of the joints (156b)	66.67	24.00	20.33	170	31	24	3	4	3
Ill-defined and unknown causes (200)	50.50	51.47	40.80	257	278	80	6	17	5
All other diseases (45–55, 58–77, 88, 89, 140–150, 154–156a, 157, 162)	53.33	59.97	67.47	407	553	1,183	9	29	45
Average number of females included in the record for year 1934	------	------	------	------	------	------	1,179	3,144	2,566
Number of sick-benefit associations included	------	------	------	------	------	------	6	5	5

[1] Industrial accidents, the venereal diseases, and a few numerically unimportant causes of disability are not included.
[2] Disability during the waiting period, i. e., the first 7 days of disability, is included.

A sickness rate of special interest is the number of days lost on account of illness per person per year, because it is the product of the rate of occurrence of disease (frequency) and its severity (duration). Exclusive of cases causing disability for less than 1 week, sickness and nonindustrial accidents caused a time loss in 1934 of 2.6 calendar days per male, and 4.7 per female member of associations having a benefit period of 13 weeks. In associations having a 26 weeks' benefit

period, the male rate was 3.1 days per person, the female rate 5.1. Under a maximum benefit period of 52 weeks, the number of days of disability per male member was 3.9 calendar days, per female member, 6.5 days. When the benefit period is less than 52 weeks, it is obvious that the full record of disabilities lasting an entire year is not obtained.

The diseases and conditions which caused the largest amount of time lost in 1934 among male industrial workers who belonged to reporting associations having a benefit period of 52 weeks, appear in the order of their importance as follows: (1) Nonindustrial accidents; (2) influenza or grippe; (3) "other" respiratory diseases; (4) appendicitis; (5) rheumatism (acute and chronic); (6) diseases of the heart; (7) other diseases of the circulatory system; (8) diseases of the stomach, cancer excepted; (9) diseases of the genito-urinary system and annexa; and (10) "other" diseases of the nervous system.

On account of the relatively small number of women included in the sick-benefit association records available, a word of caution appears advisable against too detailed comparison of the rates by sex. However, there seems to be sufficient evidence that certain disease groups are relatively more important from the standpoint of time lost to female than to male industrial workers. Neurasthenia, for example, appears to account for a larger proportion of the number of days of disability among women than among male employees. Similarly, diseases of the genito-urinary system and annexa, and diseases of the pharynx and tonsils probably rank higher in the list of important causes of lost time among women than among men in industry. The female time lost rates as well as their incidence rates, it will be observed, were generally higher than the corresponding rates for males.

SUMMARY

1. The frequency of cases of sickness causing disability for more than 1 week among approximately 175,000 male industrial workers was lower in 1934 than in any other year since the record was started in 1921. Compared with 1929 the sickness incidence rate has decreased almost one-third.

2. Influenza, which is one of the major causes of morbidity, occurred in 1934 at the lowest rate in 14 years.

3. The frequency of new cases of respiratory tuberculosis among male employees of the reporting industrial establishments decreased 58 percent between the years 1922 and 1934. A somewhat smaller decrease (36 percent) occurred in the incidence rate of pneumonia, all forms.

4. Divergent trends are manifested in the frequency of different nonrespiratory disease groups.

5. The incidence rate of 8-day or longer disabilities was 58 percent higher among female than among male industrial workers during the 5 years ending December 31, 1933, although the comparison excluded nearly all diseases not common to both sexes, and in spite of the fact that the average age of female workers is younger than that of male industrial employees.

6. Certain kinds of illness common to both sexes were found to occur much more often among female than among male workers. A few diseases, however, occurred at definitely lower frequency than was recorded for the men.

7. The average number of days of disability per case and the annual number of days of disability per person were computed from the record of time lost from cases which terminated in 1934. In that year illnesses and nonindustrial accidents lasting longer than 1 week caused 3.9 calendar days of disability per male, and 6.5 days per female member of reporting associations having a benefit period of 52 weeks.

8. Diseases and conditions causing a large amount of time lost from work are nonindustrial accidents, influenza, appendicitis, rheumatism, and, among women, neurasthenia.

A STUDY OF FACTORS AFFECTING NATURAL INSIDE ILLUMINATION[1]

Until recently little information has been available on the effect of the height, width, location, and orientation of the windows upon the lighting of a room. Also, much of the information that has been published thus far has been based upon measurements made with small models. The present study was made with a full-sized building erected especially for the purpose, actual daylight being the source of illumination. In this building, measurements were made with the ceiling and walls painted a mat white, and also a mat black, so that the effect of the light reflected from the ceiling and walls could be determined. Furthermore, at the same time that measurements of illumination were made within the building, measurements were made of the brightness of the particular portion of the sky producing the illumination within the building. Thus it has been possible for the first time to correlate illumination within an actual building with the brightness of the sky, measured out of doors, producing it, and to reduce the results to the basis of foot-candles per unit of sky brightness. Allowance was also made for the light reflected and absorbed by the glass of the window and, in the final analysis, allow-

[1] Studies in illumination. IV. A study of the effect of the height and width of windows and of the reflecting power of the walls and ceiling upon the natural illumination within a building. By J. E. Ives, F. L. Knowles, and L. R. Thompson. Pub. Health Bull. No. 218.

ance was made for the light lost by the obstruction of sash bars and casings, and by dirt on the glass.

The experimental building in which the studies were made is situated on a knoll on the grounds of the Department of Agriculture Experiment Farm in Arlington, Va., across the Potomac from Washington.

The building is orientated accurately north and south so that the sides face north, west, south, and east, respectively. It is built of wood, except the window sash, which is of steel. The building is 30 feet square and approximately 15 feet from the floor to the eaves.

The study was made with light from the sky alone; no investigation was made of the effect of direct sunlight entering the windows. The illumination was measured on a horizontal plane 36 inches above the floor at 36 stations within the building, for window widths of 9.75, 17.25, and 27 feet, and for window heights of 6, 9, and 12 feet for each of these widths.

From the results obtained for the three combinations used, viz, white ceiling and white walls, white ceiling and black walls, and black ceiling and black walls, the illumination has been separated into its three components—that coming directly from the window, that reflected from the ceiling, and that reflected from the walls. These three components of the illumination are shown on a distribution chart for 25 points in the room, spaced 5 feet apart, for 15 different combinations of window width and window height. The distribution chart gives the distribution of the illumination on a horizontal plane 36 inches above the floor, for any combination of window width, window height, and for reflecting powers of ceiling and walls of 0 and 78 percent. If the average brightness of the sky seen through the window is known, the intensity of the illumination at any point in a comparable room can be found by multiplying the figures on the chart by the average brightness of the sky expressed in hundreds of candles per square foot.

Figures are given showing the brightness of different portions of the clear north sky at Washington, D. C., for different times of the day and for different seasons of the year. Information is also given as to the average brightness of the sky for different regions and latitudes in the United States, for different seasons of the year and different times of the day.

A method has been developed for determining the illumination produced by light from the sky within a building having vertical windows of given dimensions, for any time of day or season of the year in the United States.

EXTENT OF RURAL HEALTH SERVICE IN THE UNITED STATES, DECEMBER 31, 1930–DECEMBER 31, 1934

During the year 1934 data concerning the extent of rural health service were again obtained by the United States Public Health Service from State departments of health. This information has been compiled in table 1, wherein are shown, by States, the counties, townships, or districts in which the rural sections thereof were provided with health service under the administration of whole-time local health officers. The data are presented as of December 31, for the years 1930 to 1934, inclusive.

In the list for the year ended December 31, 1934, there are included all counties, townships, or districts which were operated in units directed by whole-time local health officers and maintained by the pooling of local appropriations from official sources. Counties, townships, or districts with whole-time health organizations maintained entirely by State departments of health are also included in table 1.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*

ALABAMA

1930	1931	1932	1933	1934
Baldwin	Baldwin	Baldwin	Barbour	Autauga
Barbour	Barbour	Barbour	Blount	Barbour
Blount	Blount	Blount	Bullock	Blount
Bullock	Bullock	Bullock	Calhoun	Bullock
Calhoun	Calhoun	Calhoun	Chambers	Calhoun
Chambers	Chambers	Chambers	Cherokee	Chambers
Cherokee	Cherokee	Cherokee	Cleburne	Cherokee
Choctaw	Choctaw	Choctaw	Conecuh	Cleburne
Clarke	Clarke	Clarke	Covington	Colbert
Cleburne	Cleburne	Cleburne	Crenshaw	Conecuh
Coffee	Coffee	Coffee	Cullman	Covington
Colbert	Colbert	Colbert	Dale	Crenshaw
Conecuh	Conecuh	Conecuh	Dallas	Cullman
Covington	Covington	Covington	De Kalb	Dale
Crenshaw	Crenshaw	Crenshaw	Elmore	Dallas
Cullman	Cullman	Cullman	Escambia	Elmore
Dale	Dale	Dale	Etowah	Escambia
Dallas	Dallas	Dallas	Franklin	Etowah
De Kalb	De Kalb	De Kalb	Geneva	Franklin
Elmore	Elmore	Elmore	Houston	Houston
Escambia	Escambia	Escambia	Jackson	Jackson
Etowah	Etowah	Etowah	Jefferson	Jefferson
Franklin	Franklin	Franklin	Lauderdale	Lamar
Geneva	Geneva	Geneva	Lawrence	Lauderdale
Houston	Houston	Houston	Lee	Lawrence
Jackson	Jackson	Jackson	Limestone	Lee
Jefferson	Jefferson	Jefferson	Macon	Limestone
Lamar	Lamar	Lamar	Madison	Lowndes
Lauderdale	Lauderdale	Lauderdale	Marengo	Macon
Lawrence	Lawrence	Lawrence	Marion	Madison
Lee	Lee	Lee	Marshall	Marengo
Limestone	Limestone	Limestone	Mobile	Marion
Lowndes	Lowndes	Lowndes	Monroe	Marshall
Macon	Macon	Macon	Montgomery	Mobile
Madison	Madison	Madison	Morgan	Monroe
Marengo	Marengo	Marengo	Perry	Montgomery
Marion	Marion	Marion	Pickens	Morgan
Marshall	Marshall	Marshall	Pike	Perry
Mobile	Mobile	Mobile	Shelby	Pickens
Monroe	Monroe	Monroe	Sumter	Pike
Montgomery	Montgomery	Montgomery	Talladega	Russell

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

ALABAMA—Continued

1930	1931	1932	1933	1934
Morgan	Morgan	Morgan	Tallapoosa	Shelby
Perry	Perry	Perry	Tuscaloosa	Sumter
Pickens	Pickens	Pickens	Walker	Talladega
Pike	Pike	Pike	Washington	Tallapoosa
Shelby	Shelby	Shelby	Wilcox	Tuscaloosa
Sumter	Sumter	Sumter		Walker
Talladega	Talladega	Talladega		Washington
Tallapoosa	Tallapoosa	Tallapoosa		Wilcox
Tuscaloosa	Tuscaloosa	Tuscaloosa		Winston
Walker	Walker	Walker		
Washington	Washington	Washington		
Wilcox	Wilcox	Wilcox		
Winston	Winston	Winston		

ARIZONA

Cochise	Cochise	Cochise	Cochise	Cochise
Coconino	Gila	Gila	Gila	Gila
Gila	Maricopa	Maricopa	Maricopa	Maricopa
Maricopa	Pima	Pima	Pima	Pima
Pima	Yuma			
Yuma				

ARKANSAS

Arkansas	Arkansas [1]	Arkansas [1]	Ashley	Ashley
Ashley	Ashley	Ashley	Clark	Clark
Clark	Bradley	Bradley	Conway	Conway
Conway	Clark	Chicot	Crittenden	Crittenden
Cross	Cleburne	Clark	Cross	Cross
Desha	Conway	Cleveland	Faulkner	Garland
Drew	Crittenden	Conway	Garland	Jackson
Garland	Cross	Crittenden	Jackson	Jefferson
Jackson	Desha	Cross	Jefferson	Little River
Jefferson	Drew	Drew	Little River	Mississippi
Little River	Garland	Garland	Lonoke	Monroe
Lonoke	Jackson	Jackson	Mississippi	Ouachita
Mississippi	Jefferson	Jefferson	Monroe	Phillips
Monroe	Little River	Lincoln	Ouachita	Pope
Ouachita	Lonoke [1]	Little River	Phillips	Pulaski
Phillips	Miller	Lonoke [1]	Pope	Saline
Pope	Mississippi	Mississippi	Pulaski	Sebastian
Pulaski	Monroe	Monroe	Saline	Woodruff
Saline	Ouachita	Ouachita	Sebastian	Yell
Sebastian	Perry	Phillips	Woodruff	
Union	Phillips	Pope	Yell	
White	Pope	Prairie [1]		
Woodruff	Prairie [1]	Pulaski		
Yell	Pulaski	Saline		
	Saline	Sebastian		
	Sebastian	Woodruff		
	Union	Yell		
	White			
	Woodruff			
	Yell			

[1] 1 district of 3 counties.

CALIFORNIA

Contra Costa	Contra Costa	Contra Costa	Contra Costa	Alameda
Imperial	Imperial	Imperial	Imperial	Contra Costa
Los Angeles	Los Angeles	Los Angeles	Los Angeles	Imperial
Madera	Madera	Madera	Madera	Los Angeles
Monterey	Monterey	Monterey	Monterey	Madera
Orange	Orange	Orange	Orange	Monterey
Riverside	Riverside	Riverside	Riverside	Orange
San Diego	San Bernardino	San Bernardino	San Bernardino	Riverside
San Joaquin	San Diego	San Diego	San Diego	San Bernardino
San Luis Obispo	San Joaquin	San Joaquin	San Joaquin	San Diego
Santa Barbara	San Luis Obispo	San Luis Obispo	San Luis Obispo	San Joaquin
Stanislaus	Santa Barbara	Santa Barbara	Santa Barbara	San Luis Obispo
Yolo	Stanislaus	Stanislaus	Stanislaus	San Mateo
	Yolo	Yolo		Santa Barbara
				Stanislaus

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

COLORADO

1930	1931	1932	1933	1934
Otero	Otero			

CONNECTICUT

Fairfield [2]	Fairfield [2]	Fairfield [2] West Hartford [2]	Fairfield [2] West Hartford [2]	Fairfield [2] West Hartford [2]

[2] Township.

DELAWARE

Kent Newcastle Sussex	Kent Newcastle Sussex	Kent Newcastle Sussex	Kent Newcastle Sussex	Kent Newcastle Sussex

FLORIDA

Leon Manatee Taylor	Leon Taylor	Escambia Leon Taylor	Escambia Leon	Escambia Leon

GEORGIA

Baldwin Bartow Bibb Brooks Chatham Clarke Clinch Cobb Coffee Colquitt Decatur De Kalb Dougherty Floyd Glynn Grady Hall Jefferson Jenkins Laurens Lowndes Mitchell Richmond Spalding Sumter Thomas Troup Walker Ware Washington	Baldwin Bartow Bibb Brooks Catoosa [1] Chatham Chattooga [2] Clarke Cobb Coffee Colquitt Dade [2] Decatur De Kalb Dougherty Floyd Glynn Gordon [1] Grady Hall Jefferson Jenkins Laurens Lowndes Mitchell Murray [1] Richmond Spalding Sumter Thomas Troup Walker [2 3] Ware Washington Whitfield [1]	Baldwin Bartow Bibb Brooks Catoosa [2] Chatham Clarke Cobb Colquitt Dade [2] Decatur De Kalb Dougherty Floyd Fulton Glynn Grady Hall Jefferson Jenkins Laurens Lowndes Mitchell Richmond Spalding Sumter Thomas Troup Walker [2] Ware Washington	Baldwin Bartow Bibb Brooks Catoosa [4] Chatham Clarke Cobb Colquitt Decatur De Kalb Dougherty Floyd Fulton Glynn Grady Hall Jefferson Jenkins Laurens Lowndes Mitchell Richmond Spalding Sumter Thomas Troup Walker [4] Ware Washington	Baldwin Bartow Bibb Camden [2] Catoosa [4] Chatham Clarke Cobb Colquitt Decatur De Kalb Dougherty Floyd Glynn [2] Grady Hall Jefferson Jenkins Laurens Lowndes Mitchell McIntosh [2] Richmond Spalding Sumter Thomas Troup Walker [4] Ware Washington

[1] Included in 1 district of 4 counties.
[2] Included in 1 district of 3 counties.
[3] Walker County also included in a tricounty district.
[4] Included in 1 district of 2 counties.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

IDAHO

1930	1931	1932	1933	1934
Twin Falls	Twin Falls	Twin Falls		

ILLINOIS

Du Page Morgan	Du Page	Du Page	Du Page	Du Page

IOWA

Washington Woodbury	Des Moines Washington Woodbury	Des Moines Washington Woodbury	Woodbury	Woodbury

KANSAS

Brown Butler Cherokee Dickinson Geary Greenwood Lyon Marion Ottawa Sedgwick Seward Shawnee	Brown Butler Cherokee Dickinson Geary Greenwood Lyon Marion Sedgwick Shawnee	Brown Geary Lyon Marion Sedgwick Shawnee	Geary Lyon Sedgwick Shawnee	Lyon Sedgwick Shawnee

KENTUCKY

Bell Boyd Breathitt Bullitt Calloway Carlisle Carter Daviess Elliott Estill Fayette Floyd Fulton Henderson Hickman Hopkins Jefferson Kenton Knott Knox Lawrence Lee Leslie Letcher Lincoln Madison Magoffin Martin Mason McLean Menifee Monroe Morgan Muhlenberg Ohio Owsley Perry Pike Scott Trigg Union	Adair Allen Anderson Barren Bath Bell Boyd Breathitt Bullitt Butler Caldwell Calloway Carlisle Carter Casey Clinton Daviess Edmonson Elliott Estill Fayette Fleming Floyd Fulton Gallatin Grant Grayson Green Greenup Hancock Harrison Hart Henderson Hickman Hopkins Jackson Jefferson Kenton Knott Knox Laurel	Adair Allen Anderson Barren Bath Bell Boyd Breathitt Bullitt Butler Caldwell Calloway Carlisle Carter Casey Clinton Daviess Edmonson Elliott Estill Fayette Fleming Floyd Fulton Gallatin Grant Grayson Green Greenup Hancock Hart Henderson Hickman Hopkins Jackson Jefferson Kenton Knott Knox Laurel Lawrence	Adair Allen Anderson Barren Bath Bell Boyd Breathitt Bullitt Butler Caldwell Calloway Carlisle Carter Casey Clinton Daviess Edmonson Elliott Estill Fayette Fleming Floyd Fulton Gallatin Grant Grayson Green Greenup Hart Henderson Hickman Hopkins Jackson Jefferson Kenton Knott Knox Laurel Lawrence Lee	Adair Allen Anderson Barren Bath Boyd Breathitt Butler Caldwell Calloway Carlisle Carter Casey Clinton Edmonson Elliott Estill Fayette Fleming Floyd Fulton Gallatin Grant Grayson Green Greenup Hart Henderson Hickman Hopkins Jackson Jefferson Kenton Knott Knox Laurel Lawrence Lee Leslie Letcher Lincoln

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

KENTUCKY—Continued

1930	1931	1932	1933	1934
Wayne	Lawrence	Lee	Leslie	Madison
Webster	Lee	Leslie	Letcher	Marshall
	Leslie	Letcher	Lincoln	Martin
	Letcher	Lewis	Madison	Mason
	Lewis	Lincoln	Magoffin	McCreary
	Lincoln	McCreary	Marshall	McLean
	McCreary	McLean	Martin	Meade
	McLean	Madison	Mason	Menifee
	Madison	Magoffin	McCreary	Metcalfe
	Magoffin	Marshall	McLean	Monroe
	Marshall	Martin	Meade	Muhlenberg
	Martin	Mason	Menifee	Nicholas
	Mason	Meade	Monroe	Ohio
	Meade	Menifee	Muhlenberg	Owsley
	Menifee	Metcalfe	Nicholas	Perry
	Metcalfe	Monroe	Ohio	Pike
	Monroe	Morgan	Owsley	Powell
	Morgan	Muhlenberg	Perry	Pulaski
	Muhlenberg	Nicholas	Pike	Rockcastle
	Nicholas	Ohio	Powell	Rowan
	Ohio	Owsley	Pulaski	Scott
	Owen	Perry	Rockcastle	Todd
	Owsley	Pike	Rowan	Trigg
	Perry	Powell	Scott	Trimble
	Pike	Pulaski	Todd	Union
	Powell	Robertson	Trigg	Warren
	Pulaski	Rockcastle	Trimble	Wayne
	Robertson	Rowan	Union	Webster
	Rockcastle	Scott	Warren	Wolfe
	Rowan	Todd	Wayne	
	Scott	Trigg	Webster	
	Todd	Trimble	Wolfe	
	Trigg	Union		
	Trimble	Warren		
	Union	Wayne		
	Warren	Webster		
	Wayne	Whitley		
	Webster	Wolfe		
	Whitley			
	Wolfe			

LOUISIANA [1]

Assumption	Assumption	Assumption	Assumption	Assumption
Avoyelles	Avoyelles	Avoyelles	Avoyelles	Avoyelles
Caddo	Caddo	Caddo	Caddo	Caddo
Caldwell	Caldwell	Caldwell	Caldwell	Caldwell
Catahoula	Catahoula	Catahoula	Catahoula	Catahoula
Claiborne	Claiborne	Claiborne	Claiborne	Claiborne
Concordia	Concordia	Concordia	Concordia	Concordia
De Soto	De Soto	De Soto	De Soto	De Soto
East Carroll	East Carroll	East Carroll	East Carroll	East Carroll
Franklin	Evangeline	Franklin	Franklin	Franklin
Iberia	Franklin	Iberia	Iberia	Iberia
Iberville	Iberia	Iberville	Iberville	Iberville
Lafayette	Iberville	Lafayette	Lafayette	Lafayette
Lafourche	Lafayette	Lafourche	Lafourche	Lafourche
La Salle	Lafourche	La Salle	La Salle	La Salle
Lincoln	La Salle	Lincoln	Lincoln	Lincoln
Madison	Lincoln	Madison	Madison	Madison
Morehouse	Madison	Morehouse	Morehouse	Morehouse
Natchitoches	Morehouse	Natchitoches	Natchitoches	Natchitoches
Ouachita	Natchitoches	Ouachita	Ouachita	Ouachita
Point Coupee	Ouachita	Point Coupee	Point Coupee	Point Coupee
Rapides	Point Coupee	Rapides	Rapides	Rapides
Richland	Rapides	Richland	Richland	Red River
St. Landry	Richland	St. Landry	St. Landry	Richland
St. Martin	St. Landry	St. Martin	St. Martin	St. Landry
St. Mary	St. Martin	St. Mary	St. Mary	St. Martin
Tensas	St. Mary	Tensas	Tensas	St. Mary
Terrebonne	Tensas	Terrebonne	Terrebonne	Tensas
Washington	Terrebonne	Washington	Washington	Terrebonne
Webster	Washington	Webster	Webster	Washington
West Carroll	Webster	West Carroll	West Carroll	Webster
	West Carroll			West Carroll

[1] Parishes.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

MAINE

1930	1931	1932	1933	1934
Motbov Union [3] Rumford [3] Sanford [3] Vassalboro [3]	Bar Harbor Bucksport Cooperative Health Union [4] Motbov Union [3] Rumford [3] Sanford [3]	Bar Harbor Cooperative Health Union [4] Motbov Union [3] Rumford [3] Sanford [3]	Bar Harbor Cooperative Health Union [4] Motbov Union [3] Rumford [3] Sanford [3]	Bar Harbor Cooperative Health Union [4] Motbov Union [3] Rumford [3] Sanford [3]

[3] Including municipalities of Orono, Milford, Bradley, Veazie, and Old Town.
[3] Town (township) wholly or partly rural.
[4] Including towns of Avon, Chesterville, Eustis, Livermore, Phillips, Rangeley, Strong, Temple, Weld, and Wilton.
[5] Including towns of Avon, Chesterville, Dallas Pl., Eustis, Farmington, Industry, Livermore, Lang Pl., New Sharon, Rangeley, Sandy River Pl., Strong, Temple, and Weld. (Farmington, Industry, Dallas Pl., New Sharon added in 1934.)

MARYLAND

Allegany Anne Arundel Baltimore Calvert Carroll Cecil Frederick Harford Kent Montgomery Prince Georges Talbot Washington Wicomico	Allegany Anne Arundel Baltimore Calvert Carroll Cecil Dorchester Frederick Garrett Harford Kent Montgomery Prince Georges Queen Annes Talbot Washington Wicomico Worcester	Allegany Anne Arundel Baltimore Calvert Carroll Cecil Charles Dorchester Frederick Garrett Harford Howard Kent Montgomery Prince Georges Queen Annes Somerset Talbot Washington Wicomico Worcester	Allegany Anne Arundel Baltimore Calvert Carroll Cecil Charles Dorchester Frederick Garrett Harford Howard Kent Montgomery Prince Georges Queen Annes St. Marys Somerset Talbot Washington Wicomico Worcester	Allegany Anne Arundel Baltimore Calvert Caroline Carroll Cecil Charles Dorchester Frederick Garrett Harford Howard Kent Montgomery Prince Georges Queen Annes St. Marys Somerset Talbot Washington Wicomico Worcester

MASSACHUSETTS

Barnstable	Barnstable Nashoba Southern Berkshire	Barnstable Nashoba [1] Southern Berkshire [2]	Barnstable Nashoba [1] Southern Berkshire [2]	Barnstable Nashoba [1] Southern Berkshire [2]

[1] Represents 14 towns.
[2] Represents 16 towns.

MICHIGAN

Alcona [3] Alpena [3] Antrim [3] Charlevoix [3] Cheboygan [3] Crawford [3] Emmet [3] Genesee Iosco [3] Isabella Kalkaska [3] Kent Midland Missaukee [3] Montmorency [3] Oakland	Alcona [3] Alpena [3] Antrim [3] Barry Charlevoix [3] Cheboygan [3] Crawford [3] Emmet [3] Genesee Iosco [3] Isabella Kalkaska [3] Kent Midland Missaukee [3] Montmorency [3]	Alcona [3] Allegan Alpena [3] Antrim [3] Barry Charlevoix [3] Cheboygan [3] Crawford [3] Emmet [3] Genesee Iosco [3] Isabella Kalkaska [3] Kent Lake [4] Midland	Alcona [3] Allegan Alpena [3] Antrim [3] Barry Charlevoix [3] Cheboygan [3] Crawford [3] Eaton Emmet [3] Genesee Iosco [3] Isabella Kalkaska [3] Kent Lake [4]	Alcona [3] Allegan Alpena [3] Antrim [3] Barry Charlevoix [3] Cheboygan [3] Crawford [3] Eaton Emmet [3] Genesee Grosse Pointe [5] Hillsdale Iosco [3] Isabella Kalkaska [3]

[3] Included in 4 districts of 4 counties each.
[4] Included in 1 district of 3 counties.
[5] Township; includes 5 villages.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

MICHIGAN—Continued

1930	1931	1932	1933	1934
Ogemaw [3]	Oakland	Missaukee [3]	Midland	Kent
Oscoda [3]	Ogemaw [3]	Montmorency [3]	Missaukee [3]	Lake [4]
Otsego [3]	Oscoda [3]	Newaygo [4]	Montmorency [3]	Midland
Ottawa	Otsego [3]	Oakland	Newaygo [4]	Missaukee [3]
Presque Isle [3]	Ottawa	Oceana [4]	Oakland	Montmorency [3]
Roscommon [3]	Presque Isle [3]	Ogemaw [3]	Oceana [4]	Newaygo [4]
Saginaw	Roscommon [3]	Oscoda [3]	Ogemaw [3]	Oakland
Wexford	Saginaw	Otsego [3]	Oscoda [3]	Oceana [4]
	Wexford	Ottawa	Otsego [3]	Ogemaw [3]
		Presque Isle [3]	Ottawa	Oscoda [3]
		Roscommon [3]	Presque Isle [3]	Otsego [3]
		Saginaw	Roscommon [3]	Ottawa
		Wexford	Saginaw	Presque Isle [3]
			Wexford	Roscommon [3]
				Saginaw
				Van Buren
				Wexford

[3] Included in 4 districts of 4 counties each. [4] Included in 1 district of 3 counties.

MINNESOTA

St. Louis	St. Louis	St. Louis	St. Louis	St. Louis

MISSISSIPPI

Adams	Adams	Adams	Adams	Adams
Bolivar	Bolivar	Bolivar	Bolviar	Bolivar
Clarke	Clarke	Coahoma	Coahoma	Coahoma
Coahoma	Coahoma	Copiah	Forrest	Copiah
Copiah	Copiah	Forrest	Hancock	Forrest
Forrest	Forrest	Hancock	Harrison	Hancock
Hancock	Hancock	Harrison	Hinds	Harrison
Harrison	Harrison	Hinds	Holmes	Hinds
Hinds	Hinds	Holmes	Humphreys	Holmes
Holmes	Holmes	Humphreys	Jackson	Humphreys
Humphreys	Humphreys	Jackson	Lamar	Jackson
Issaquena	Issaquena	Lamar	Lauderdale	Lamar
Jackson	Jackson	Lauderdale	Lee	Lauderdale
Lamar	Lamar	Lee	Leflore	Lee
Lauderdale	Lauderdale	Leflore	Lincoln	Leflore
Lee	Lee	Lincoln	Monroe	Lincoln
Leflore	Leflore	Monroe	Pearl River	Monroe
Lincoln	Lincoln	Pearl River	Pike	Pearl River
Monroe	Monroe	Perry	Sharkey	Pike
Pearl River	Pearl River	Pike	Sunflower	Sharkey
Perry	Perry	Sunflower	Union	Sunflower
Sharkey	Pike	Union	Warren	Union
Sunflower	Sharkey	Warren	Washington	Warren
Tishomingo	Sunflower	Washington	Yazoo	Washington
Union	Tishomingo	Yazoo		Yazoo
Warren	Union			
Washington	Warren			
Yazoo	Washington			
	Yazoo			

MISSOURI

Boone	Boone	Boone	Buchanan	Buchanan
Buchanan	Buchanan	Buchanan	Dunklin	Dunklin
Dunklin	Dunklin	Dunklin	Greene	Greene
Greene	Greene	Greene	Jackson	Jackson
Jackson	Jackson	Jackson	Marion	Marion
Marion	Marion	Marion	Miller	Miller
Miller	Miller	Miller	New Madrid	New Madrid
New Madrid	New Madrid	New Madrid	Pemiscot	St. Louis
Nodaway	Pemiscot	Pemiscot	St. Louis	
Pemiscot	St. Louis	St. Louis		
St. Francois	Scott			
St. Louis				
Scott				

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31* —Continued

MONTANA

1930	1931	1932	1933	1934
Cascade	Cascade	Cascade	Cascade	Cascade
Gallatin	Gallatin	Gallatin	Gallatin	Gallatin
Lewis and Clark	Lewis and Clark	Lewis and Clark	Lewis and Clark	Lewis and Clark
Missoula	Missoula	Missoula	Missoula	Missoula

NEW MEXICO

Bernalillo	Bernalillo	Bernalillo	Bernalillo	Bernalillo
Dona Ana	Dona Ana	Dona Ana	Dona Ana	Dona Ana
Eddy	Eddy	Eddy	Eddy	Eddy
Lea	Santa Fe	Santa Fe	Santa Fe	Santa Fe
McKinley	Union	Union	Union	Union
Santa Fe	Valencia	Valencia	Valencia	Valencia
Union				
Valencia				

NEW YORK

Cattaraugus	Cattaraugus	Cattaraugus	Cattaraugus	Cattaraugus
Cortland	Cortland	Cortland	Columbia	Columbia
Suffolk	Suffolk	Suffolk	Cortland	Cortland
Westchester	Westchester	Westchester	Suffolk	Suffolk
			Westchester	Westchester

NORTH CAROLINA

Beaufort	Beaufort	Beaufort	Beaufort	Beaufort
Bertie	Bladen	Bladen	Bladen	Bertie
Bladen	Buncombe	Buncombe	Buncombe	Bladen
Buncombe	Cabarrus	Cabarrus	Cabarrus	Buncombe
Cabarrus	Columbus	Columbus	Columbus	Cabarrus
Cherokee	Cumberland	Cumberland	Cumberland	Columbus
Columbus	Davidson	Davidson	Davidson	Cumberland
Craven	Durham	Durham	Durham	Davidson
Cumberland	Edgecombe	Edgecombe	Edgecombe	Duplin
Davidson	Forsyth	Forsyth [1]	Forsyth [1]	Durham
Durham	Franklin	Franklin	Franklin	Edgecombe
Edgecombe	Gaston	Gaston	Gaston	Forsyth [1]
Forsyth	Granville	Granville	Granville	Franklin
Franklin	Guilford	Guilford	Guilford	Gaston
Gaston	Halifax	Halifax	Halifax	Granville
Guilford	Johnston	Lenoir	Hyde	Guilford
Granville	Lenoir	Mecklenburg	Lenoir	Halifax
Halifax	Mecklenburg	Moore	Mecklenburg	Haywood [2]
Henderson	Moore	New Hanover	Moore	Hyde
Johnston	New Hanover	Northampton	Nash	Jackson [2]
Lenoir	Northampton	Pitt	New Hanover	Lenoir
Mecklenburg	Pitt	Randolph	Northampton	Mecklenburg
Moore	Randolph	Richmond	Pitt	Moore
Nash	Richmond	Robeson	Randolph	New Hanover
New Hanover	Robeson	Rowan	Richmond	Northampton
Northampton	Rowan	Rutherford	Robeson	Pitt
Pitt	Rutherford	Sampson	Rowan	Randolph
Randolph	Sampson	Stokes [1]	Sampson	Richmond
Richmond	Stokes	Surry	Stokes [1]	Robeson
Robeson	Surry	Vance	Surry	Rowan
Rowan	Vance	Wake	Vance	Rutherford
Rutherford	Wake	Wayne	Wake	Sampson
Sampson	Wayne	Wilkes	Wayne	Stokes [1]
Surry	Wilkes	Wilson	Wilkes	Surry
Vance	Wilson	Yadkin	Wilson	Swain [2]
Wake	Yadkin		Yadkin	Vance
Wayne				Wake
Wilkes				Wayne
Wilson				Wilkes.
				Wilson
				Yadkin [1]

[1] Included in 1 district of 3 counties.
[2] Included in 1 district of 3 counties.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

OHIO

1930	1931	1932	1933	1934
Allen	Allen	Allen	Allen	Allen
Ashtabula	Ashtabula	Ashtabula	Belmont	Athens
Belmont	Belmont	Belmont	Butler	Butler
Butler	Butler	Butler	Clinton	Clinton
Clinton	Clinton	Clinton	Coshocton	Coshocton
Columbiana	Columbiana	Columbiana	Crawford	Crawford
Coshocton	Coshocton	Coshocton	Cuyahoga	Cuyahoga
Crawford	Crawford	Crawford	Darke	Darke
Cuyahoga	Cuyahoga	Cuyahoga	Delaware	Delaware
Darke	Darke	Darke	Erie	Erie
Delaware	Delaware	Delaware	Fayette	Fayette
Erie	Erie	Erie	Hamilton	Hamilton
Fayette	Fayette	Fayette	Hancock	Hancock
Franklin	Franklin	Franklin	Hocking	Hocking
Hamilton	Guernsey	Hamilton	Huron	Huron
Hancock	Hamilton	Hancock	Jefferson	Jefferson
Hocking	Hancock	Hocking	Lorain	Lorain
Huron	Hocking	Huron	Lucas	Lucas
Jackson	Huron	Jackson	Mahoning	Mahoning
Jefferson	Jackson	Jefferson	Marion	Marion
Lorain	Jefferson	Lorain	Medina	Medina
Lucas	Lorain	Lucas	Meigs	Meigs
Mahoning	Lucas	Mahoning	Mercer	Mercer
Marion	Mahoning	Marion	Miami	Miami
Meigs	Marion	Medina	Montgomery	Montgomery
Mercer	Medina	Meigs	Perry	Perry
Miami	Meigs	Mercer	Pickaway	Pickaway
Montgomery	Mercer	Miami	Preble	Preble
Morrow	Miami	Montgomery	Richland	Richland
Muskingum	Montgomery	Morrow	Ross	Ross
Perry	Morrow	Perry	Scioto	Seneca
Pickaway	Perry	Pickaway	Seneca	Shelby
Preble	Pickaway	Preble	Shelby	Stark
Richland	Preble	Richland	Stark	Summit
Ross	Richland	Ross	Summit	Trumbull
Sandusky	Ross	Scioto	Trumbull	Tuscarawas
Scioto	Scioto	Seneca	Tuscarawas	Washington
Seneca	Seneca	Shelby	Washington	Wayne
Shelby	Shelby	Stark	Wayne	Wood
Stark	Stark	Summit	Wood	
Summit	Summit	Trumbull		
Trumbull	Trumbull	Tuscarawas		
Tuscarawas	Tuscarawas	Washington		
Washington	Washington	Wayne		
Wayne	Wayne	Wood		
Wood	Wood			

OKLAHOMA

Carter	Carter			Le Flore
Le Flore	Le Flore			
McCurtain	McCurtain			
Muskogee	Muskogee			
Okmulgee	Okmulgee			
Ottawa	Ottawa			
Pittsburg	Pittsburg			
Pottawatomie	Pottawatomie			
Seminole	Seminole			

OREGON

Clackamas	Clackamas	Clackamas	Clackamas	Clackamas
Coos	Coos	Coos	Jackson	Douglas
Douglas	Douglas	Douglas	Klamath	Jackson
Jackson	Jackson	Jackson	Lane	Klamath
Klamath	Klamath	Klamath	Marion	Lane
Lane	Lane	Lane	Multnomah	Marion
Marion	Marion	Marion		Multnomah
Multnomah	Multnomah			

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

PENNSYLVANIA

1930	1931	1932	1933	1934
Allegheny	Allegheny	Allegheny	Allegheny	
Bucks	Bucks	Bucks	Bucks	
Luzerne	Luzerne	Luzerne	Luzerne	

SOUTH CAROLINA

Aiken	Aiken	Aiken	Aiken	Aiken
Anderson	Anderson	Anderson	Anderson	Anderson
Beaufort	Beaufort	Beaufort	Beaufort	Beaufort
Berkeley	Berkeley	Berkeley	Berkeley	Berkeley
Charleston	Charleston	Charleston	Charleston	Charleston
Cherokee	Cherokee	Cherokee	Cherokee	Cherokee
Darlington	Darlington	Darlington	Darlington	Darlington
Dillon	Dillon	Dillon	Dillon [1]	Dillon [1]
Dorchester	Dorchester	Dorchester	Dorchester	Dorchester
Fairfield	Fairfield	Fairfield	Fairfield	Fairfield
Florence	Florence	Florence	Florence	Florence
Georgetown	Georgetown	Georgetown	Georgetown	Georgetown
Greenville	Greenville	Greenville	Greenville	Greenville
Greenwood	Greenwood	Greenwood	Greenwood	Greenwood
Horry	Horry	Horry	Horry	Horry
Kershaw	Kershaw	Kershaw	Kershaw	Kershaw
Lexington	Lexington	Lexington	Marion [1]	Marion [1]
Marion	Marion	Marion	Newberry	Newberry
Newberry	Newberry	Newberry	Oconee	Oconee
Oconee	Oconee	Oconee	Orangeburg	Orangeburg
Orangeburg	Orangeburg	Orangeburg	Pickens	Pickens
Richland	Pickens	Pickens	Richland	Richland
Spartanburg	Richland	Richland	Spartanburg	Spartanburg
	Spartanburg	Spartanburg		

[1] Included in 1 district of 2 counties.

SOUTH DAKOTA

Pennington	Pennington	Pennington	Pennington	

TENNESSEE

Bledsoe	Bledsoe [2]	Bledsoe [2]	Bledsoe	Anderson [5]
Blount	Blount	Bradley	Bradley	Bledsoe [5]
Bradley	Bradley	Carter	Davidson	Blount
Carter	Carter	Clay [2]	Dyer	Bradley
Clay	Clay [2]	Davidson [3]	Fentress [4]	Campbell [5]
Davidson	Cumberland	Dyer	Gibson	Carter [5]
Dyer	Davidson [3]	Fentress [2]	Giles	Davidson
Fentress	Dyer	Gibson	Greene	Dyer
Gibson	Fentress [2]	Giles	Grundy [4]	Fentress [5]
Giles	Gibson	Greene	Hamilton	Gibson
Greene	Giles	Grundy [2]	Hardeman	Giles
Grundy	Greene	Hamilton	Humphreys	Greene
Hamilton	Grundy [2]	Hardeman	Jackson [4]	Grundy
Hardeman	Hamilton	Humphreys	Knox	Hamilton
Humphreys	Hardeman	Jackson [2]	Lake	Hardeman
Jackson	Humphreys	Knox	Lauderdale	Humphreys
Knox	Jackson [2]	Lake	Lincoln	Jackson [5]
Lake	Knox	Lauderdale	Maury	Knox
Lauderdale	Lake	Lewis	Meigs [4]	Lake
Lewis	Lauderdale	Lincoln	Montgomery	Lauderdale
Lincoln	Lewis	Maury	Obion	Lincoln
Maury	Lincoln	Meigs [2]	Rhea [4]	Maury
Meigs	Maury	Monroe	Roane	Meigs [5]
Monroe	Meigs [2]	Montgomery	Rutherford	Montgomery
Montgomery	Monroe	Obion	Sequatchie [4]	Obion
Obion	Montgomery	Oberton [3]	Sevier	Rhea [5]
Overton	Obion	Pickett [2]	Shelby	Roane
Pickett	Overton [2]	Rhea [2]	Sullivan	Rutherford
Rhea	Pickett [2]	Roane	Sumner	Sequatchie [5]
Roane	Rhea [2]	Rutherford	Tipton	Sevier

[2] Included in 1 district of 3 counties.
[3] Included in 4 districts of 2 counties each.
[4] Included in 3 districts of 2 counties each.
[5] Included in 5 districts of 2 counties each.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

TENNESSEE—Continued

1930	1931	1932	1933	1934
Rutherford	Roane	Sequatchie [2]	Washington	Shelby
Sequatchie	Rutherford	Sevier	Weakley	Sullivan
Sevier	Sequatchie [2]	Shelby	Williamson	Sumner
Shelby	Sevier	Sullivan	Wilson	Tipton
Sullivan	Shelby	Sumner		Unicoi [5]
Sumner	Sullivan	Tipton		Washington
Tipton	Sumner	Unicoi		Weakley
Unicoi	Tipton	Washington		Williamson
Washington	Unicoi	Weakley		Wilson
Weakley	Washington	Williamson		
Williamson	Weakley	Wilson		
Wilson	Williamson			
	Wilson			

[2] Included in 1 district of 3 counties.
[5] Included in 5 districts of 2 counties each.

TEXAS

Cameron	Cameron [6]	Cameron	Dallas	Dallas
Hidalgo	Cass	Gregg	El Paso	El Paso
Jefferson	Hidalgo [6]	Hidalgo	Gregg	Gregg
McLennan	Jefferson	McLennan	Hidalgo	Hidalgo
Nolan	McLennan	Nolan	McLennan	Nolan
Potter	Nolan	Potter	Nolan	Potter
Tarrant	Potter	Starr	Potter	Tarrant
	Starr [6]	Tarrant	Tarrant	
	Willacy [6]			

[6] Included in 1 district of 4 counties.

UTAH

Davis	Davis	Davis	Davis	Davis
Utah	Utah	Utah	Utah	Utah

VIRGINIA

Accomac	Accomac [3]	Accomac [3]	Albemarle	Albemarle
Albemarle	Albemarle	Albemarle	Arlington	Arlington
Amelia [1]	Amelia [1]	Amelia [1]	Augusta	Augusta
Appomattox [1]	Appomattox [1]	Appomattox [1]	Brunswick [3]	Brunswick [3]
Arlington	Arlington	Arlington	Fairfax	Fairfax
Augusta	Augusta	Augusta	Greensville [3]	Greensville [3]
Brunswick	Brunswick [3]	Brunswick [3]	Halifax	Halifax
Buckingham [1]	Buckingham [1]	Buckingham [1]	Henrico	Henrico
Charlotte [1]	Charlotte [1]	Charlotte [1]	Isle of Wight [3]	Isle of Wight [3]
Cumberland [1]	Cumberland [1]	Cumberland [1]	Nansemond [3]	Nansemond [3]
Fairfax	Fairfax	Fairfax	Norfolk [3]	Norfolk [3]
Greensville	Greensville [3]	Greensville [3]	Pittsylvania	Nottoway [3]
Halifax	Halifax	Halifax	Prince Edward	Pittsylvania
Henrico	Henrico	Henrico	Princess Anne [3]	Prince Edward [3]
Isle of Wight	Isle of Wight [3]	Isle of Wight [3]	Rockbridge	Princess Anne [3]
Lunenburg [1]	Lunenburg [1]	Lunenburg [1]	Southampton	Rockbridge
Nansemond	Nansemond [3]	Nansemond [3]		Southampton
Norfolk	Norfolk [3]	Norfolk [3]		
Northampton	Northampton [3]	Nottoway [1]		
Nottoway [1]	Nottoway [1]	Pittsylvania		
Powhatan [1]	Pittsylvania	Powhatan [1]		
Prince Edward [1]	Powhatan [1]	Prince Edward [1]		
Princess Anne	Prince Edward [1]	Princess Anne [3]		
Rockbridge	Princess Anne [3]	Rockbridge		
Southampton	Rockbridge	Southampton		
Wise	Southampton			
	Wise			

[1] Included in 1 district of 9 counties.
[3] Included in 4 districts of 2 counties each.
[3] Included in 3 districts of 2 counties each.

TABLE 1.—*Counties, townships, or districts in the United States in which rural sections were provided with health service under whole-time health officers each year from 1930 to 1934, as of Dec. 31*—Continued

WASHINGTON

1930	1931	1932	1933	1934
Chelan	Chelan	Chelan	Chelan	Chelan
Clark	Clark	Clark	Clark	Clark
King	King	King	King	King
Snohomish	Snohomish	Snohomish	Snohomish	Snohomish
Spokane	Spokane	Spokane	Spokane	Spokane
Walla Walla	Walla Walla	Walla Walla	Walla Walla	Walla Walla
Whitman	Whitman	Whitman	Whitman	Whitman
Yakima	Yakima	Yakima	Yakima	Yakima

WEST VIRGINIA

Berkeley	Berkeley	Berkeley	Berkeley	Berkeley
Boone	Boone	Boone	Boone	Boone
Brooke	Brooke	Brooke	Fayette	Fayette
Fayette	Doddridge[4]	Fayette	Hancock	Hancock
Gilmer	Fayette	Hancock	Harrison	Harrison
Hancock	Hancock	Harrison	Kanawha	Kanawha
Harrison	Harrison	Kanawha	Logan	Logan
Kanawha	Kanawha	Logan	Marshall	Marshall
Logan	Logan	Marion	Monongalia	Monongalia
Marion	Marion	Marshall	Ohio	Ohio
Marshall	Marshall	Monongalia	Preston	Preston
Monongalia	Monongalia	Ohio	Raleigh	Raleigh
Ohio	Ohio	Preston	Wood	Wood
Preston	Pleasants[4]	Raleigh		
Raleigh	Preston	Wood		
Wood	Raleigh			
	Ritchie[4]			
	Tyler[4]			
	Wetzel[4]			
	Wood			

[4] Included in 1 district of 5 counties.

Table 2, a résumé of table 1, indicates the number of whole-time county, township, or district health units in each of 38 States during the years 1930–34, inclusive. There is also shown the increase or decrease from year to year of whole-time units in each of these States. It will be noted that there was a gain of 10 whole-time units in 1934 over 1933.

TABLE 2.—*Résumé of table 1, showing the total number of counties, townships, or districts having whole-time health service for each year from 1930 to 1934 (as of Dec. 31), with increase or decrease in the number of such units during these years*

	Number of counties					Increase or decrease in—			
	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933	Dec. 31, 1934	1931	1932	1933	1934
Alabama	54	54	54	46	50	-------	-------	−8	+4
Arizona	6	5	4	4	4	−1	−1	-------	-------
Arkansas	24	30	27	21	19	+6	−3	−6	−2
California	13	14	14	13	15	+1	-------	−1	+2
Colorado	1	1	-------	-------	-------	-------	−1	-------	-------
Connecticut	1	1	2	2	2	-------	+1	-------	-------
Delaware	3	3	3	3	3	-------	-------	-------	-------
Florida	3	2	3	2	2	−1	+1	−1	-------
Georgia	30	35	31	30	30	+5	−4	−1	-------
Idaho	1	1	1	-------	-------	-------	-------	−1	-------
Illinois	2	1	1	1	1	−1	-------	-------	-------
Iowa	2	3	3	1	1	+1	-------	−2	-------

TABLE 2.—*Résumé of table 1, showing the total number of counties, townships, or districts having whole-time health service for each year from 1930 to 1934 (as of Dec. 31), with increase or decrease in the number of such units during these years*—Continued

	Number of counties					Increase or decrease in—			
	Jan. 1, 1931	Jan. 1, 1932	Dec. 31, 1932	Dec. 31, 1933	Dec. 31, 1934	1931	1932	1933	1934
Kansas	12	10	6	4	3	−2	−4	−2	−1
Kentucky	43	81	79	73	70	+38	−2	−6	−3
Louisiana	31	32	31	31	32	+1	−1		+1
Maine	4	6	5	5	5	+2	−1		
Maryland	14	18	21	22	23	+4	+3	+1	+1
Massachusetts	1	3	3	3	3	+2			
Michigan	24	25	29	30	32	+1	+4	+1	+2
Minnesota	1	1	1	1	1				
Mississippi	28	29	25	24	25	+1	−4	−1	+1
Missouri	13	11	10	9	8	−2	−1	−1	−1
Montana	4	4	4	4	4				
New Mexico	8	6	6	6	6	−2			
New York	4	4	4	5	5			+1	
North Carolina	39	36	35	36	41	−3	−1	+1	+5
Ohio	46	46	45	40	38		−1	−5	−2
Oklahoma	9	9			1		−9		+1
Oregon	8	8	7	6	7		−1	−1	+1
Pennsylvania	3	3	3	3					−3
South Carolina	23	24	24	23	23	+1		−1	
South Dakota	1	1	1	1					−1
Tennessee	42	43	41	34	39	+1	−2	−7	+5
Texas	7	9	8	8	7	+2	−1		−1
Utah	2	2	2	2	2				
Virginia	26	27	25	16	17	+1	−2	−9	+1
Washington	8	8	8	8	8				
West Virginia	16	20	15	13	13	+4	−5	−2	
Total	557	616	581	530	540	+59	−35	−51	+10

The accompanying map shows the location of the counties, townships, or districts in the United States with health service for rural areas, under the direction of whole-time local health officers, on December 31, 1934.

From January 1, 1934, to December 31, 1934, whole-time health service was established in 24 units and was discontinued in 14—a net gain of 10. The greatest gains were in the States of Tennessee and North Carolina, in each of which whole-time health service was established in 5 counties.

Delaware and Maryland lead in the percentage of rural population under whole-time health service, all of their counties having been provided with whole-time local health organizations. The health units in Delaware have been provided by the State, whereas those in Maryland are maintained by the local governments, with or without assistance from the State health department or other sources.

Table 3 presents, by States, the percentage of rural population having health service under the direction of local whole-time health officers at the end of the calendar year 1934.

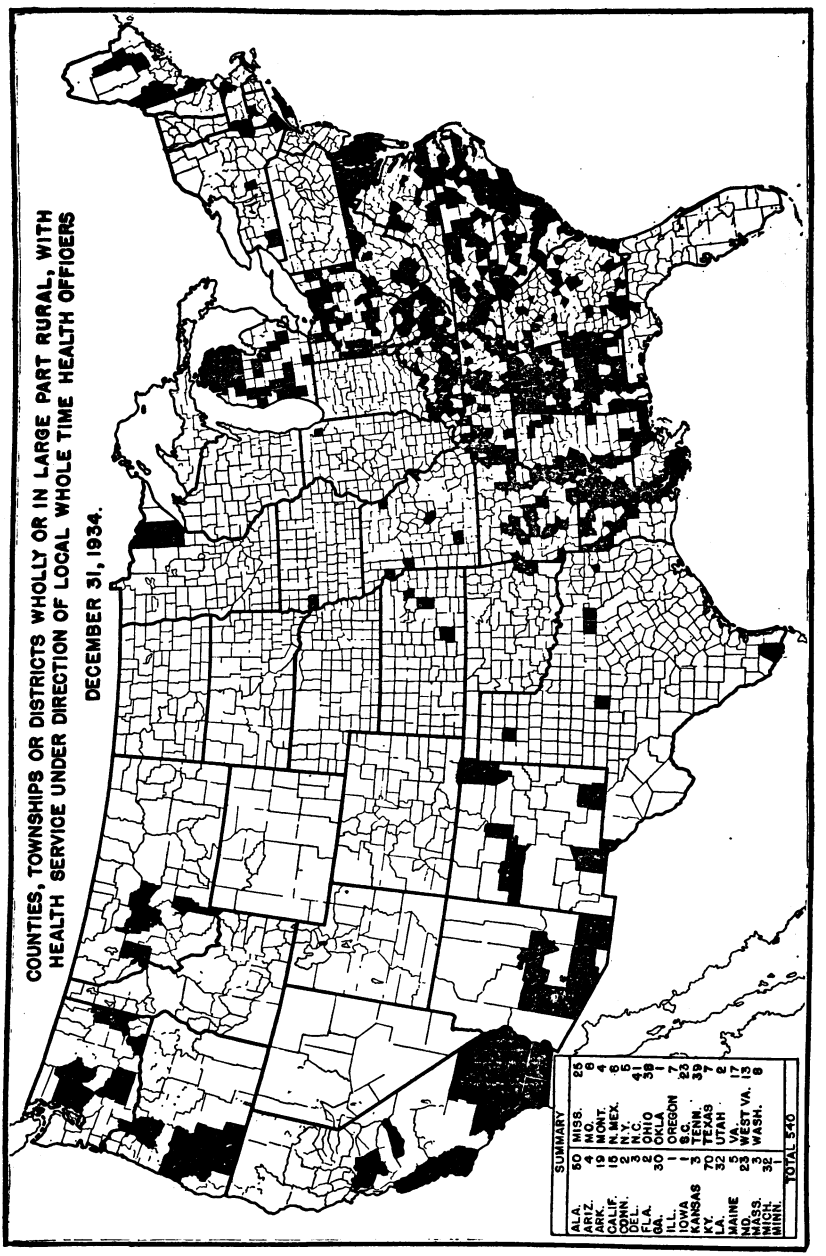

FIGURE 1.—Rural areas having whole-time health officers on December 31, 1934.

TABLE 3.—*Percentage of rural population having on Dec. 31, 1934, health service under whole-time local health officers*

State	Rural population as of Dec. 31, 1934 (estimate from 1930 census)	Rural population with local health service under direction of whole-time health officers	Percentage of rural population with local health service under direction of whole-time health officers
Alabama	1,931,224	1,543,141	79.9
Arizona	317,729	180,913	56.9
Arkansas	1,476,190	500,492	33.9
California	1,711,989	1,452,917	84.9
Colorado	529,597	0	0.0
Connecticut	489,424	52,276	10.7
Delaware	121,258	121,258	100.0
Florida	752,822	36,653	4.9
Georgia	[1] 2,013,016	251,251	12.5
Idaho	316,774	0	0.0
Illinois	[1] 1,994,927	27,105	1.4
Indiana	[1] 1,442,611	0	0.0
Iowa	[1] 1,491,647	23,200	1.6
Kansas	[1] 1,151,165	64,919	5.6
Kentucky	1,830,613	1,154,785	63.1
Louisiana	1,313,343	746,543	56.8
Maine	479,380	59,520	12.4
Maryland	692,069	692,069	100.0
Massachusetts	518,319	70,587	13.6
Michigan	1,592,799	585,603	36.8
Minnesota	[1] 1,306,337	48,313	3.7
Mississippi	1,726,798	685,701	39.7
Missouri	[1] 1,770,248	340,256	19.2
Montana	[1] 356,570	35,139	9.9
Nebraska	892,223	0	0.0
Nevada	[1] 56,594	0	0.0
New Hampshire	205,603	0	0.0
New Jersey	711,881	0	0.0
New Mexico	326,284	90,864	27.8
New York	2,191,571	323,358	14.8
North Carolina	2,495,592	1,372,794	55.0
North Dakota	571,667	0	0.0
Ohio	2,165,772	1,130,376	52.2
Oklahoma	1,614,005	49,676	3.1
Oregon	497,252	225,542	45.4
Pennsylvania	[1] 3,097,139	0	0.0
Rhode Island	69,145	0	0.0
South Carolina	[1] 1,367,685	836,254	61.1
South Dakota	574,578	0	0.0
Tennessee	[1] 1,720,018	893,232	51.9
Texas	3,567,356	181,845	5.1
Utah	245,184	30,838	12.6
Vermont	[1] 240,845	0	0.0
Virginia	1,636,829	426,736	26.1
Washington	711,745	318,932	44.8
West Virginia	1,303,971	530,735	40.7
Wisconsin	[1] 1,385,163	0	0.0
Wyoming	164,002	0	0.0
Total	55,138,953	15,083,823	27.4

[1] 1930 census; no estimate made for Dec. 31, 1934.

Of the 540 counties, townships, or districts with health service under whole-time local health officers at the end of the present calendar year, 507, or 93.9 percent, were receiving financial assistance for the support of their health service from one or more of the following agencies: The State board of health, the United States Public Health Service, the Rockefeller Foundation, the American Red Cross, the American Women's Hospital Fund, the Rosenwald Fund, the Commonwealth Fund, and the Milbank Memorial Fund.

The accompanying chart shows, by States, the number of counties, townships, or districts with health service under the direction of whole-time local health officers from 1930–34, and the percentage of the rural population of each State receiving such service at the close of the calendar year 1934. There also is shown the total number of

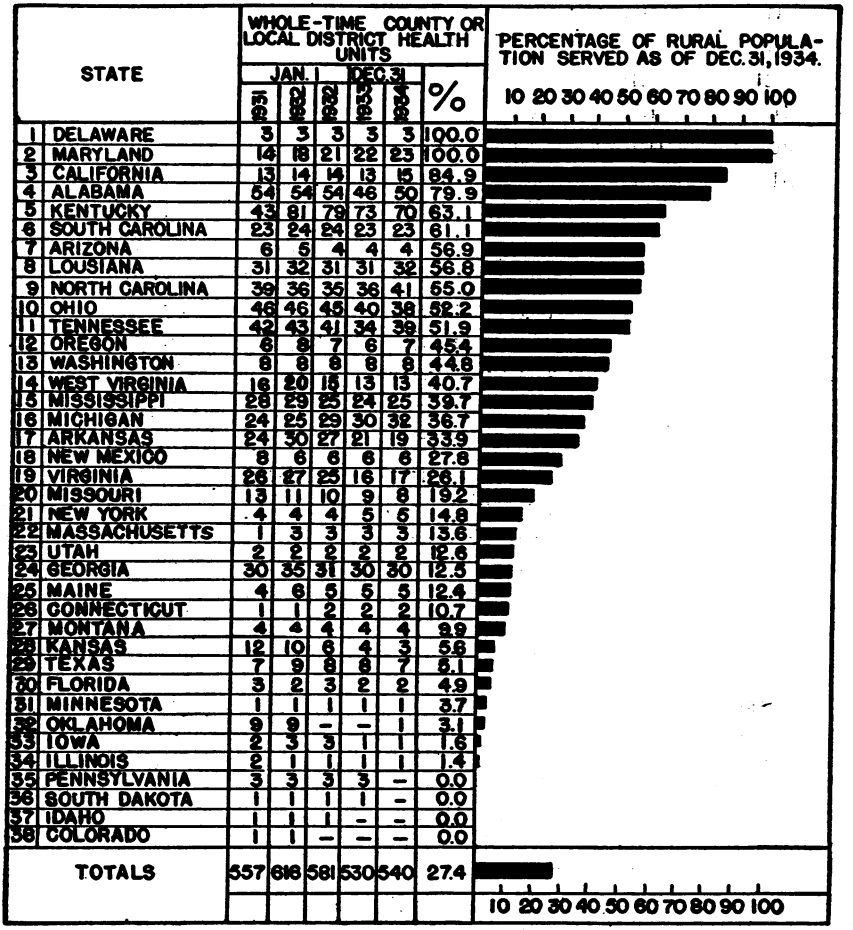

FIGURE 2.—Number of whole-time county or local health units, by States, 1931–34, and percentage of rural population served on December 31, 1934.

counties, townships, or districts in the United States having whole-time local health service, together with the percentage of the rural population of the entire United States served by whole-time local health organizations.

It will be noted that 72.6 percent of our rural population is as yet not provided with the form of health organization which is believed to be adapted to rural areas.

COURT DECISION ON PUBLIC HEALTH

Ordinance requiring sewer connections and declaring privy vaults, etc., to be nuisances upheld.—(Kentucky Court of Appeals; *Nourse* v. *City of Russellville et al.*, 78 S. W. (2d) 761; decided Jan. 29, 1935.) The city of Russellville, after contracting for the construction of a sewer system, passed an ordinance premised upon the declaration that the construction of the sewer system and the abolition of privy vaults, etc., were necessary in order to protect the public health and promote the general welfare. The ordinance, among other things, required connection with the sewerage system where the premises abutted upon any street, etc., in which there was a line of the system, made unlawful the maintenance of privy vaults, etc., on premises abutting the sewer, and declared such vaults, etc., to be nuisances. The plaintiff sued to enjoin the city and its officers from enforcing the ordinance and for a declaration of rights.

The court of appeals, after reviewing pertinent statutory provisions, stated that they "clearly and expressly empower the city to abate nuisances and to build sewers and charge the cost of the latter to those who use them." "The particular questions, however," said the court, "are whether the city has the charter right or the inherent power (*a*) to declare these structures and their use to be nuisances without affording the respective owners a hearing, and (*b*) to compel attachment to the sewer system." The conclusion was reached that the ordinance was valid. In the course of the opinion it was said:

> The science of sanitation has developed and taught much in recent years. It has demonstrated that nothing contributes more to secure the preservation of public health than a sanitary system of sewerage disposal, whether it be the modern sewers or septic closets. The benefits of such system are largely lost, unless the inhabitants can be compelled to abandon the menacing structures and to connect their facilities with the system. The community is to be considered as a whole in the matter of preservation of the health of all inhabitants, for a failure by a few to conform to sanitary measures may inflict ill health and death upon many. A spark of contamination may become a conflagration of disease. So the courts pretty generally hold that a legislative body may declare privy vaults and such unsanitary facilities in thickly settled communities to be nuisances and require their abatement without challenging each one or giving the owner notice and an opportunity to show that it is not in fact a nuisance. Owners are not heard to say that these things are not injurious to health and comfort and that they only become so when not properly cared for, or that their abuse or carelessness alone make them subject to police regulation and repression, for the same might be said of the storage of gunpowder, fire traps, and many other activities and conditions recognized as per se inimical or dangerous in thickly settled communities. * * *

DEATHS DURING WEEK ENDED OCT. 12, 1935

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

	Week ended Oct. 12, 1935	Corresponding week, 1934
Data from 86 large cities of the United States:		
Total deaths	7,548	7,348
Deaths per 1,000 population, annual basis	10.5	10.2
Deaths under 1 year of age	468	544
Deaths under 1 year of age per 1,000 estimated live births	43	51
Deaths per 1,000 population, annual basis, first 41 weeks of year	11.4	11.4
Data from industrial insurance companies:		
Policies in force	67,711,405	67,018,610
Number of death claims	11,077	9,445
Death claims per 1,000 policies in force, annual rate	8.5	7.3
Death claims per 1,000 policies, first 41 weeks of year, annual rate	9.7	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

CURRENT WEEKLY STATE REPORTS

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

Reports for Weeks Ended Oct. 19, 1935, and Oct. 20, 1934

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 19, 1935, and Oct. 20, 1934

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934
New England States:								
Maine	1	1	----	----	31	1	0	0
New Hampshire	----	1	----	----	----	1	0	0
Vermont	----	----	----	----	30	1	0	0
Massachusetts	10	26	----	----	38	27	1	1
Rhode Island	----	2	----	----	8	2	1	0
Connecticut	5	1	2	1	30	46	0	0
Middle Atlantic States:								
New York	30	24	[1] 10	[1] 3	144	146	12	1
New Jersey	13	26	9	37	15	19	0	1
Pennsylvania	54	68	----	----	45	338	5	3
East North Central States:								
Ohio	65	94	20	4	31	61	7	4
Indiana	89	87	17	18	5	41	1	2
Illinois	66	61	9	11	15	70	6	8
Michigan	13	8	4	----	36	35	1	2
Wisconsin	5	11	30	12	40	103	1	1
West North Central States:								
Minnesota	17	6	1	1	8	78	0	0
Iowa	8	16	----	----	----	15	0	0
Missouri	64	88	56	24	9	53	4	3
North Dakota	4	5	----	----	9	19	1	1
South Dakota	11	3	1	----	8	7	0	1
Nebraska	15	14	----	----	3	22	0	0
Kansas	23	18	----	----	2	35	2	1
South Atlantic States:								
Delaware	1	2	----	----	7	2	0	0
Maryland [2]	18	16	10	4	10	10	4	0
District of Columbia	6	7	1	----	----	2	2	0
Virginia	66	114	----	----	9	44	4	0
West Virginia	53	91	15	18	5	37	1	2
North Carolina [2]	119	104	8	4	3	10	4	0
South Carolina [2]	26	25	169	172	3	3	1	0
Georgia [2]	33	81	----	----	----	----	1	0
Florida [2]	18	13	2	1	9	1	0	0

See footnotes at end of table.

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Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 19, 1935, and Oct. 20, 1934—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934
East South Central States:								
Kentucky	59	82	10	12	51	35	1	2
Tennessee	88	91	4	19	-------	15	1	1
Alabama [3]	43	78	25	11	3	25	1	0
Mississippi [2]	25	30	-------	-------	-------	-------	0	3
West South Central States:								
Arkansas	17	19	10	5	1	-------	0	0
Louisiana [3]	26	32	8	5	3	12	3	0
Oklahoma [4]	9	18	37	11	2	1	0	3
Texas [3]	130	47	130	116	3	11	1	0
Mountain States:								
Montana	1	-------	-------	1	27	47	0	0
Idaho	-------	1	1	1	1	1	0	0
Wyoming	1	1	-------	-------	20	-------	3	0
Colorado	13	11	-------	-------	3	18	0	2
New Mexico	14	3	-------	2	13	60	0	0
Arizona	1	4	20	3	-------	7	0	0
Utah [2]	-------	-------	-------	-------	1	5	0	0
Pacific States:								
Washington	2	-------	-------	-------	53	162	0	1
Oregon	1	5	15	20	162	2	0	0
California	65	32	30	14	116	144	3	3
Total	1,328	1,467	654	530	1,012	1,774	72	46
First 42 weeks of year	26,026	28,206	108,230	53,443	701,383	676,125	4,727	1,899

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934
New England States:								
Maine	8	1	14	29	0	0	2	2
New Hampshire	2	0	3	-------	0	0	0	1
Vermont	2	0	7	8	0	0	0	0
Massachusetts	47	1	149	136	0	0	4	4
Rhode Island	9	0	5	14	0	0	0	0
Connecticut	17	0	24	24	0	0	5	1
Middle Atlantic States:								
New York	84	6	321	206	0	0	20	25
New Jersey	26	1	75	96	0	0	3	10
Pennsylvania	13	5	297	308	0	0	42	18
East North Central States:								
Ohio	3	18	303	388	0	1	24	19
Indiana	3	3	125	145	1	1	7	6
Illinois	7	10	399	336	2	1	17	43
Michigan	16	13	135	184	0	0	10	22
Wisconsin	1	16	383	399	9	2	7	3
West North Central States:								
Minnesota	3	4	176	53	0	73	4	4
Iowa	7	1	93	65	2	0	7	13
Missouri	1	0	132	76	6	0	11	24
North Dakota	1	1	32	16	0	0	1	0
South Dakota	0	0	34	15	2	0	1	0
Nebraska	0	1	57	18	6	2	1	1
Kansas	0	1	80	52	0	1	8	5
South Atlantic States:								
Delaware	0	0	5	7	0	0	6	1
Maryland [3]	3	1	63	93	0	0	18	11
District of Columbia	1	0	14	31	0	0	2	0
Virginia	7	2	60	103	0	0	6	33
West Virginia	1	3	137	121	0	0	12	26
North Carolina [3]	8	1	95	132	0	1	5	11
South Carolina [3]	1	1	17	6	0	0	6	11
Georgia [3]	0	2	25	22	0	0	8	29
Florida [3]	0	0	3	1	0	0	3	1

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 19, 1935, and Oct. 20, 1934—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934	Week ended Oct. 19, 1935	Week ended Oct. 20, 1934
East South Central States:								
Kentucky	13	4	104	62	0	3	19	25
Tennessee	0	3	83	78	0	0	23	12
Alabama [2]	1	1	20	35	0	0	4	11
Mississippi [2]	1	0	28	28	0	0	8	3
West South Central States:								
Arkansas	2	0	12	5	0	0	5	7
Louisiana [2]	3	1	10	16	0	0	13	10
Oklahoma [4]	0	0	11	10	0	0	11	22
Texas [2]	3	13	62	38	5	2	38	31
Mountain States:								
Montana	1	6	77	9	2	1	3	4
Idaho	0	2	21	3	0	1	0	4
Wyoming	0	0	32	10	0	0	0	0
Colorado	0	1	89	71	0	0	3	5
New Mexico	0	0	16	14	0	0	35	18
Arizona	1	2	8	15	0	0	2	9
Utah [2]	1	1	56	29	0	0	0	2
Pacific States:								
Washington	2	25	51	41	4	23	4	7
Oregon	5	4	50	48	0	0	2	0
California	20	38	154	178	2	0	12	14
Total	324	193	4,147	3,774	41	112	422	508
First 42 weeks of year	9,616	6,487	198,862	166,278	5,606	4,073	14,931	17,531

[1] New York City only.
[2] Week ended earlier than Saturday.
[3] Typhus fever, week ended Oct. 19, 1935, 39 cases, as follows: North Carolina, 2; South Carolina, 1; Georgia, 10; Florida, 1; Alabama, 11; Louisiana, 1; Texas, 13.
[4] Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
September 1935										
Alabama	5	178	80	1,617	20	36	4	53	0	74
Idaho	-------	3	14	-------	16	-------	0	76	1	21
Illinois	14	193	29	47	73	-------	67	791	1	133
Maryland	1	36	11	8	18	-------	35	104	0	78
Michigan	8	61	8	17	89	-------	225	265	0	73
Minnesota	5	33	4	3	143	-------	32	257	1	36
Missouri	5	184	205	357	90	-------	10	248	0	90
New Jersey	9	43	18	75	43	-------	223	124	0	36
North Carolina	4	211	17	-------	33	48	50	220	2	99
North Dakota	1	13	1	-------	19	-------	3	44	6	8
Ohio	9	142	79	17	66	-------	21	588	2	161
South Dakota	1	5	5	-------	1	-------	2	51	12	8
West Virginia	4	191	108	1	19	-------	11	262	0	84

September 1935

	Cases
Anthrax:	
New Jersey	1
South Dakota	1
Chicken pox:	
Alabama	7
Idaho	5
Illinois	118
Maryland	22
Michigan	122
Minnesota	75
Missouri	29
New Jersey	110
North Carolina	17
North Dakota	11
Ohio	159
South Dakota	24
West Virginia	19
Conjunctivitis:	
Maryland	1
Dengue:	
Alabama	1
Diarrhea:	
Maryland	76
Ohio (and enteritis) (under 2 years)	26
Dysentery:	
Illinois (amoebic)	10
Illinois (bacillary)	15
Illinois (amoebic carriers)	22
Maryland	28
Michigan (amoebic)	1
Michigan (bacillary)	4
Minnesota (bacillary)	3
Missouri	11
New Jersey (bacillary)	2
Ohio (amoebic)	2
Ohio (bacillary)	3
Epidemic encephalitis:	
Alabama	5
Illinois	13
Maryland	2
Michigan	1
Minnesota	1
Missouri	9
New Jersey	4
North Dakota	1
Ohio	1
Food poisoning:	
Ohio	13
German measles:	
Alabama	2
Illinois	26
Maryland	10
Michigan	31
New Jersey	26
North Carolina	9
Ohio	16

September 1935—Continued

	Cases
Impetigo contagiosa:	
Illinois	6
Maryland	42
South Dakota	2
Lead poisoning:	
Michigan	3
Ohio	4
Mumps:	
Alabama	19
Idaho	4
Illinois	145
Maryland	22
Michigan	57
Missouri	55
New Jersey	96
North Dakota	122
Ohio	219
South Dakota	43
West Virginia	8
Ophthalmia neonatorum:	
Alabama	4
Illinois	8
Maryland	4
Missouri	1
North Carolina	1
Ohio	81
Paratyphoid fever:	
Illinois	5
Michigan	2
New Jersey	3
North Carolina	4
Ohio	4
Puerperal septicemia:	
Illinois	3
Ohio	2
Rabies in animals:	
Illinois	18
Michigan	1
Missouri	3
New Jersey	8
Rabies in man:	
Alabama	1
West Virginia	1
Rocky Mountain spotted fever:	
Idaho	2
Maryland	1
North Carolina	5
Septic sore throat:	
Idaho	5
Illinois	2
Maryland	9
Michigan	15
Minnesota	4
Missouri	29
North Carolina	13
Ohio	81
West Virginia	1

September 1935—Continued

	Cases
Tetanus:	
Alabama	7
Illinois	3
Maryland	2
Michigan	2
Minnesota	2
Missouri	2
New Jersey	2
Ohio	3
Trachoma:	
Illinois	39
Missouri	130
New Jersey	2
North Carolina	2
Ohio	4
South Dakota	7
Trichinosis:	
Maryland	2
Ohio	1
Tularaemia:	
Illinois	1
Minnesota	5
North Carolina	3
Typhus fever:	
Alabama	27
Illinois	1
Maryland	3
New Jersey	1
North Carolina	7
West Virginia	1
Undulant fever:	
Alabama	6
Illinois	16
Maryland	1
Michigan	7
Minnesota	6
Missouri	7
New Jersey	6
North Carolina	8
Ohio	5
West Virginia	1
Vincent's infection:	
Maryland	13
Michigan	17
North Dakota	7
West Virginia	6
Whooping cough:	
Alabama	51
Idaho	1
Illinois	769
Maryland	91
Michigan	896
Minnesota	83
Missouri	77
New Jersey	481
North Carolina	251
North Dakota	20
Ohio	480
South Dakota	50
West Virginia	63

WEEKLY REPORT FROM CITIES

City reports for week ended Oct. 12, 1935

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0		0	0	1	5	0	1	0	4	23
New Hampshire:											
Concord	2		0	0	1	1	0	3	0	0	11
Nashua	0			0		0	0		0	0	
Vermont:											
Barre	0		0	0	0	2	0	0	0	0	
Burlington	0		0	0	0	1	0	0	0	0	8
Rutland	0		0	0	1	0	0	0	0	1	5
Massachusetts:											
Boston	1		0	3	18	12	0	7	2	5	187
Fall River	0		0	0	0	1	0	0	0	1	27
Springfield	0		0	0	1	2	0	1	1	5	34
Worcester	0		0	0	1	15	0	0	0	0	37
Rhode Island:											
Pawtucket											
Providence	0		0	1	3	2	0	4	0	[1] 16	56
Connecticut:											
Bridgeport	1		0	0	0	0	0	1	0	0	26
Hartford	0		0	1	0	2	0	2	0	2	44
New Haven	0		0	0	3	0	0	0	0	2	49
New York:											
Buffalo	0		0	1	7	22	0	8	1	0	110
New York	16	6	3	15	105	43	0	83	4	92	1,312
Rochester	0		0	1	4	1	0	0	1	7	56
Syracuse	0		0	3	2	0	0	1	0	5	46
New Jersey:											
Camden	1		0	0	5	1	0	0	3	0	21
Newark	0		0	1	4	13	0	6	0	29	74
Trenton	0		0	0	0	2	0	3	0	2	37
Pennsylvania:											
Philadelphia	3	1	0	9	19	45	0	22	5	44	446
Pittsburgh	3		0	2	16	22	0	11	0	15	153
Reading	0		1	2	1	1	0	0	0	0	23
Scranton	0			0		1	0		0	0	
Ohio:											
Cincinnati	15		0	1	3	14	0	6	0	3	124
Cleveland	3	17	1	0	10	13	0	17	3	18	179
Columbus	6	1	1	2	2	7	0	3	2	2	68
Toledo	0		0	0	2	3	0	2	2	4	70
Indiana:											
Anderson	1		0	0	0	2	0	0	0	1	6
Fort Wayne	8		0	0	1	6	0	1	1	0	18
Indianapolis	6		0	1	6	17	0	4	1	13	102
Muncie	0		0	0	2	2	0	1	0	0	9
South Bend	0		0	1	1	1	0	0	0	1	20
Terre Haute	0		0	0	0	2	0	0	0	0	28
Illinois:											
Alton	10		0	1	0	5	0	0	0	0	12
Chicago	6	5	3	7	22	92	0	42	0	58	662
Elgin	0		0	0	1	7	0	0	0	0	9
Moline	0		0	0	1	0	0	0	0	0	7
Springfield	0		0	1	0	3	0	0	0	2	18
Michigan:											
Detroit	10	3	0	7	15	27	0	10	1	98	234
Flint	0		0	0	0	6	0	0	0	0	28
Grand Rapids	0		1	2	2	8	0	1	0	2	25
Wisconsin:											
Kenosha	0		0	1	1	21	0	0	0	4	5
Milwaukee	0	2	1	4	5	29	0	5	0	40	95
Racine	0		0	0	0	12	0	0	0	4	17
Superior	1		0	0	0	3	0	0	0	0	8
Minnesota:											
Duluth	0		0	0	2	2	0	2	0	1	19
Minneapolis	8		0	3	5	36	0	0	1	12	82
St. Paul	0		0	0	6	14	0	2	0	9	62
Iowa:											
Cedar Rapids	0		0	0	0	3	0	0	0	2	
Davenport	0		0	0	0	2	0	0	0	0	
Des Moines	3			0		3	0		1	1	31
Sioux City	0			0		11	0		0	0	
Waterloo	3			0		3	0		0	0	

[1] Including delayed reports.

City reports for week ended Oct. 12, 1935—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Missouri:											
St. Joseph	4	------	0	0	3	0	0	3	0	1	32
St. Louis	11	------	-------	1	6	15	0	13	0	2	189
North Dakota:											
Fargo	1	------	0	0	0	1	0	0	0	3	7
Grand Forks	0	------	-------	0	-------	0	0	-------	0	0	-------
South Dakota:											
Aberdeen	0	------	-------	0	-------	0	0	-------	0	0	-------
Nebraska:											
Omaha	4	------	0	1	8	9	0	1	0	1	53
Kansas:											
Lawrence	0	------	0	0	0	0	0	0	0	1	5
Topeka	0	------	0	1	0	7	0	0	0	1	7
Wichita	0	------	0	0	2	1	0	0	0	5	38
Delaware:											
Wilmington	0	------	0	0	4	2	0	0	0	2	17
Maryland:											
Baltimore	3	1	1	0	16	19	0	12	2	15	200
Cumberland	1	------	0	0	1	3	0	0	0	0	16
Frederick	0	------	0	0	0	1	0	0	0	0	2
Dist. of Columbia:											
Washington	20	------	0	1	10	11	0	7	3	1	165
Virginia:											
Lynchburg	3	------	0	0	2	1	0	0	0	0	11
Norfolk	0	------	0	0	5	1	0	6	0	4	30
Richmond	0	------	1	0	5	1	0	4	0	0	60
Roanoke	3	------	0	0	0	3	0	1	1	0	12
West Virginia:											
Charleston	3	------	0	0	1	3	0	0	0	0	10
Huntington	2	------	-------	0	-------	11	0	-------	0	0	-------
Wheeling	1	------	0	0	1	3	0	0	2	0	22
North Carolina:											
Gastonia	1	------	0	0	1	2	0	0	0	0	2
Raleigh	1	------	0	0	0	0	0	2	0	0	15
Wilmington	0	------	0	0	0	0	0	1	0	3	12
Winston-Salem	0	------	0	0	2	6	0	0	1	0	15
South Carolina:											
Charleston	0	11	0	0	1	0	0	0	0	0	12
Columbia	0	------	0	0	0	0	0	0	0	0	6
Florence	1	------	0	0	1	0	0	0	0	0	11
Greenville	0	------	0	0	3	0	1	0	0	0	13
Georgia:											
Atlanta	4	4	0	0	5	9	0	5	0	3	74
Brunswick	0	------	0	0	0	0	0	0	0	0	2
Savannah	9	7	0	0	3	0	0	2	2	2	35
Florida:											
Miami	0	2	-------	0	0	1	0	4	0	0	20
Tampa	1	------	0	0	3	1	0	2	0	0	22
Kentucky:											
Ashland	1	------	-------	0	-------	3	0	-------	0	0	-------
Covington	3	------	0	0	0	3	0	0	0	1	19
Lexington	6	------	0	0	2	0	0	0	0	0	21
Louisville	6	------	0	1	2	8	0	1	2	3	78
Tennessee:											
Knoxville	8	------	0	0	0	1	0	2	2	0	27
Memphis	3	------	0	0	5	8	0	2	2	4	82
Nashville	0	------	1	0	6	2	0	3	0	1	59
Alabama:											
Birmingham	1	1	1	0	5	5	0	5	0	0	72
Mobile	-------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Montgomery	1	------	-------	0	-------	1	0	-------	0	2	-------
Arkansas:											
Fort Smith	0	------	-------	0	-------	4	0	-------	0	0	-------
Little Rock	1	------	0	0	2	3	0	3	0	0	7
Louisiana:											
Lake Charles	2	------	0	0	1	0	0	0	0	0	5
New Orleans	4	------	2	3	9	4	0	10	5	0	147
Shreveport	3	------	0	0	6	0	0	1	1	0	45
Oklahoma:											
Oklahoma City	1	6	1	0	1	4	0	0	1	0	30
Texas:											
Dallas	5	------	0	0	6	13	0	1	0	2	52
Fort Worth	4	------	0	0	6	4	0	0	2	0	28
Galveston	2	------	0	0	1	0	0	1	0	0	17
Houston	5	------	0	1	4	1	0	3	2	0	54
San Antonio	1	------	2	0	4	0	0	2	0	0	46

City reports for week ended Oct. 12, 1935—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Montana:											
Billings	1	------	0	1	0	0	0	0	0	1	5
Great Falls	0	------	0	0	0	1	0	0	0	0	6
Helena	0	------	0	1	1	0	0	0	0	0	3
Missoula	0	------	0	14	1	14	0	0	1	0	5
Idaho:											
Boise	0	------	0	0	1	2	0	0	0	0	10
Colorado:											
Colorado Springs	0	------	0	2	1	5	0	0	0	14	15
Denver	11	------	0	1	5	14	0	5	5	1	63
Pueblo	0	------	0	0	0	10	0	0	1	0	4
New Mexico:											
Albuquerque	5	------	0	0	1	3	0	5	1	0	12
Utah:											
Salt Lake City	0	------	0	2	4	30	0	1	0	12	27
Nevada:											
Reno	0	------	0	0	1	0	0	0	0	0	1
Washington:											
Seattle	0	------	2	2	2	10	0	4	0	2	74
Spokane	0	------	0	0	2	3	1	0	0	1	27
Tacoma	0	------	0	1	3	4	0	0	0	0	21
Oregon:											
Portland	0	------	0	3	0	11	0	3	1	0	66
Salem	0	------	--------	0	-------	0	0	-------	0	0	--------
California:											
Los Angeles	16	11	0	20	9	27	0	15	3	10	332
Sacramento	1	------	0	3	3	3	0	2	1	0	26
San Francisco	1	1	1	27	5	9	0	7	1	14	141

State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths	
Maine:			
Portland	0	0	1
New Hampshire:			
Concord	0	0	1
Vermont:			
Barre	0	0	1
Massachusetts:			
Boston	1	1	36
Fall River	0	0	1
Worcester	0	0	1
Rhode Island:			
Providence	0	0	5
Connecticut:			
Bridgeport	0	0	3
Hartford	1	0	1
New Haven	0	0	1
New York:			
Buffalo	1	0	0
New York	6	3	34
Syracuse	0	0	5
New Jersey:			
Newark	0	0	1
Pennsylvania:			
Philadelphia	2	2	4
Ohio:			
Cincinnati	2	1	0
Columbus	3	0	0
Indiana:			
Muncie	1	1	0
Illinois:			
Chicago	4	1	4
Michigan:			
Detroit	1	0	8
Flint	0	0	1
Minnesota:			
Minneapolis	2	0	0
Iowa:			
Waterloo	0	0	1
South Dakota:			
Aberdeen	0	0	2
Kansas:			
Wichita	1	1	0
Kentucky:			
Louisville	0	0	2
Tennessee:			
Nashville	2	0	0
Delaware:			
Wilmington	1	0	0
Maryland:			
Baltimore	5	1	4
District of Columbia:			
Washington	3	2	4
Virginia:			
Lynchburg	0	0	1
Norfolk	0	1	0
Richmond	0	0	1
West Virginia:			
Wheeling	1	0	0
Georgia:			
Atlanta	3	2	0
Louisiana:			
Shreveport	0	2	0
Texas:			
San Antonio	0	0	1
Utah:			
Salt Lake City	0	0	1
Nevada:			
Reno	0	0	1
California:			
Los Angeles	1	2	3

Epidemic encephalitis.—Cases: Pittsburgh, 1; Detroit, 1; St. Joseph, 1; Sacramento, 1.
Pellagra.—Cases: Louisville, Ky., 1; Winston-Salem, 1; Charleston, S. C., 1; Atlanta, 3; Savannah, 1; New Orleans, 3; Dallas, 1; Los Angeles, 5; San Francisco, 1.
Typhus fever.—Cases: Charleston, S. C., 3; Savannah, 1; Fort Worth, 2.

FOREIGN AND INSULAR

ITALY

Communicable diseases—4 weeks ended August 18, 1935.—During the 4 weeks ended August 18, 1935, cases of certain communicable diseases were reported in Italy as follows:

	July 22–28		July 29–Aug. 4		Aug. 5–11		Aug. 12–18	
	Cases	Communes affected	Cases	Communes affected	Cases	Communes affected	Cases	Communes affected
Anthrax	27	24	46	38	34	26	42	34
Cerebrospinal meningitis	7	4	6	5	8	6	5	5
Chicken pox	103	70	116	74	96	63	99	60
Diphtheria and croup	300	168	289	177	306	210	340	201
Dysentery	54	26	42	22	41	22	53	27
Hookworm disease	21	11	26	9	10	4	33	13
Lethargic encephalitis	3	3			2	2	1	1
Measles	896	254	852	262	628	216	681	197
Paratyphoid fever	145	99	178	135	164	117	169	113
Poliomyelitis	16	14	26	21	16	16	17	15
Puerperal fever	32	28	31	28	38	33	27	25
Scarlet fever	274	98	240	112	216	116	222	105
Typhoid fever	1,167	462	1,196	509	1,267	529	1,258	566
Undulant fever	66	50	61	48	59	47	43	35
Whooping cough	386	136	455	126	336	125	324	110

MEXICO

Malaria and typhoid fever.—According to information dated October 14, 1935, health conditions in a number of isolated villages and rural districts near Matamoros, Mexico, particularly in the village of Rio Rico, were seriously affected by the September floods of the Rio Grande. Malaria was general throughout the flooded areas and was rapidly spreading. Numerous cases of typhoid fever were also present. The report stated that 48 rural settlements along the lower Rio Grande in Mexico had been inundated during the September floods and as a result many of the inhabitants of these settlements were suffering from malaria, typhoid fever, and other diseases. Stagnant pools were being treated with oil, quinine had been distributed, and general vaccination of the populace was in progress.

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

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for October 25, 1935, pages 1512–1526. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued November 29, 1935, and thereafter, at least for the time being, in the issue published on the last Friday of each month.

Cholera

Siam.—During the week ended October 12, 1935, cholera was reported in Siam, as follows: Sarapuri Province, 3 cases, 3 deaths; Singhapuri Province, 1 case.

Plague

Brazil—Bahia State.—During the month of September 1935, 7 cases of plague were reported near Bomfim, in the interior of Bahia State, Brazil.

Ecuador—Guayaquil.—During the week ended October 12, 1935, 14 cases of plague were reported at Guayaquil, Ecuador.

Egypt—Qena.—During the week ended October 12, 1935, 1 case of plague was reported at Qena, Egypt.

Hawaii Territory—Hawaii Island—Hamakua District—Kukaiau.—A rat found October 6, 1935, at Kukaiau, Hamakua District, Island of Hawaii, has been found to be plague-infected.

Smallpox

Syria—Tripoli.—During the week ended October 12, 1935, 1 case of smallpox was reported at Tripoli, Syria.