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INFLUENZA PREVALENCE IN THE UNITED STATES

Reports from the health officers of 43 States for the week ended February 9, 1929, again showed a decrease, giving a total of 19,700 cases of influenza (see p. 410), as compared with 25,100 cases reported by the same States for the preceding week.

The general death rate in large cities for the week ended February 9 was 15.9 per thousand population (annual basis). (See p. 408.) For the week ended February 2, 1929, this rate was 16.7 per thousand.

SICKNESS AMONG INDUSTRIAL EMPLOYEES

FREQUENCY OF DISABILITY LASTING LONGER THAN ONE WEEK FROM IMPORTANT CAUSES AMONG 165,000 PERSONS IN INDUSTRY IN 1927, AND A SUMMARY OF THE MORBIDITY EXPERIENCE FROM 1920 TO 1927¹

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There has now been accumulated through periodic reports to the United States Public Health Service from a group of about 35 industrial sick-benefit associations and company relief departments an 8-year record of the disabilities lasting longer than one week on account of sickness and nonindustrial injuries for which sick benefits were paid to members of the reporting associations.² From 1921 to 1927 the average annual frequency of such cases among male employees was 101 cases per 1,000 persons. This rate is undoubtedly an understatement of the frequency of cases of sickness and non-industrial accidents which render employees unable to work for eight consecutive calendar days or longer, because nearly all of the reporting sick-benefit associations refuse payments for disability on account of the venereal diseases, for illness resulting from the violation of any

¹ From the Office of Industrial Hygiene and Sanitation in cooperation with the Office of Statistical Investigations, U. S. Public Health Service.

² Several articles on the frequency of disabling illness as shown by these data have been presented in the Public Health Reports. A summary of the results up to Jan. 1, 1925, is given in Reprint No. 1060 from the Public Health Reports of Jan. 22, 1926.

civil law, for the results of willful or gross negligence, and for certain other causes. Moreover, a number of the associations do not pay for chronic diseases contracted prior to the date of joining the organization, nor for disabilities caused by or growing out of specific physical defects. Investigation has revealed, also, that occasionally a disability is not reported through the ignorance of the patient that any cash benefits are due, and sometimes because the employee is too sick to arrange for the reporting of his case within the time limit set by the organization. These conditions, of course, preclude knowledge of the real magnitude of the incidence rate of the more serious illnesses, but, with all due allowance for their limitations, the data possess considerable value, especially in the absence of any other morbidity material covering as large a sample of the industrially employed population.

With but few exceptions, the reporting establishments are located east of the Mississippi and north of the Ohio and Potomac Rivers. None of the reports include industrial accidents. In calculating the sickness and nonindustrial accident frequency rates the number of persons used as the divisor is the number of employees reported as holding membership in the association, or, in the case of relief or industrial medical department reports, the number on the pay roll at the end of each month.

Relative Importance of Different Groups of Diseases from the Standpoint of the Frequency of Their Occurrence

The relative importance of each of 10 groups of disabilities for which sick benefits were paid, 1921 to 1927, is graphically portrayed in Figure 1. Claims for sickness benefits on account of respiratory diseases constituted 41.8 per cent of total claims; for digestive diseases, 13.7 per cent; and for external causes (nonindustrial injuries), 10 per cent. These three groups added together, therefore, accounted for 65½ per cent of the cases for which sick benefits were paid by associations reporting to the Public Health Service.

The sickness frequency rates from which were computed the percentages shown in Figure 1 appear in Tables 1 to 3. In the respiratory group of diseases the importance of influenza and grippe is indicated in Table 2, nearly 50 per cent of the respiratory cases, 1921 to 1927, being reported as influenza or grippe.

The digestive diseases were the second most important group from the standpoint of the frequency of their occurrence. Within this group, in the order named, the most important numerically were: (1) Diseases of the stomach (not including cancer), (2) appendicitis, (3) diarrhea and enteritis, and (4) hernia.

External causes made up the third largest group, and the fourth was the circulatory-urinary group, followed by rheumatism (acute and chronic). Other groups of importance numerically were diseases of the nervous system, diseases of the skin, diseases of the organs of locomotion, and the epidemic and endemic diseases. The illnesses

**RELATIVE FREQUENCY OF CLAIMS FOR SICK-BENEFITS
ON ACCOUNT OF SPECIFIED GROUPS OF DISEASES
AMONG MALE INDUSTRIAL EMPLOYEES,
1921-1927.**

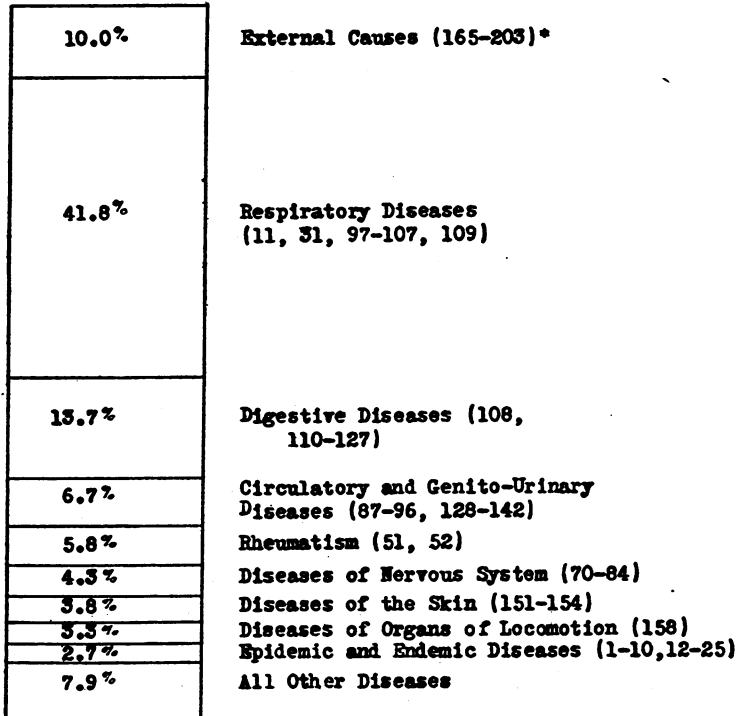


FIG. 1

* Numbers in parentheses are disease title numbers in the International List of Causes of death, 3d revision, Paris, 1920.

not included in the groups mentioned above comprised only 7.9 per cent of total cases.

Any sick-benefit organization with regulations similar to those mentioned above can compare its morbidity experience with the yearly rates presented, by classifying in accordance with the International List of the Causes of Death (1920 revision) the disabilities lasting eight consecutive days or longer among its male members and then dividing the number of cases of each disease and disease group by the average male membership for the year.

TABLE 1.—Frequency of specified disease groups which caused disability for eight consecutive calendar days or longer in a group of male industrial workers employed in different industries, by years, from 1921 to 1927

Year	Average male membership of the reporting companies	Sickness and nonindustrial injuries ¹		Nonindustrial injuries ²		Sickness		Respiratory diseases ³		Nonrespiratory diseases	
		Number of cases per 1,000 men	Number of cases	Number of cases per 1,000 men	Number of cases	Number of cases per 1,000 men	Number of cases	Number of cases per 1,000 men	Number of cases per 1,000 men	Number of cases	Number of cases
1921-1927..	735,507	101.3	74,516	10.1	7,427	91.2	67,089	42.4	31,201	48.8	35,888
1921.....	66,084	90.9	6,004	8.1	539	82.8	5,465	34.1	2,251	48.7	3,214
1922.....	66,466	96.4	6,407	7.8	518	88.6	5,889	44.0	2,918	44.6	2,971
1923.....	89,910	95.1	8,548	9.0	808	86.1	7,740	44.3	3,978	41.8	3,762
1924.....	114,065	96.0	10,948	9.6	1,093	86.4	9,855	38.2	4,349	48.2	5,506
1925.....	114,631	105.9	12,140	10.9	1,248	95.0	10,892	44.1	5,062	50.9	5,830
1926.....	118,886	111.9	13,307	11.2	1,325	100.7	11,982	50.4	5,991	50.3	5,991
1927.....	165,465	103.7	17,162	11.4	1,896	92.3	15,286	40.2	6,652	52.1	8,614

¹ Industrial accidents and certain diseases are not reported, as explained in the text.

² External causes—title Nos. 165-203 in the International List of the Causes of Death, third revision, 1920.

³ Title Nos. 11, 31, 97-107, and 109 in the International List of the Causes of Death, 1920.

⁴ Number of years of life under observation.

TABLE 2.—Frequency of specified respiratory diseases which caused disability for eight consecutive calendar days or longer in a group of male industrial workers employed in different industries, by years, from 1921 to 1927

Year	Respiratory diseases	Influenza and grippé (11)	Tuberculosis of the respiratory system (31)	Bronchitis (99)	Pneumonia, all forms (100, 101)	Diseases of pharynx and tonsils (109)	Other diseases of respiratory system (97, 98, 102-107)
Average 1921-1927.....	42.4	20.1	1.5	5.7	3.3	6.4	5.4
1921.....	34.1	12.9	1.9	5.8	2.6	5.9	5.0
1922.....	44.0	20.9	1.9	5.4	3.8	5.3	6.7
1923.....	44.3	22.7	1.2	5.3	3.8	5.7	5.6
1924.....	38.2	16.9	1.3	5.0	3.1	6.4	5.5
1925.....	44.1	21.3	1.2	5.7	3.5	7.0	5.4
1926.....	50.4	27.1	1.6	6.6	3.1	7.1	4.9
1927.....	40.2	17.7	1.6	6.0	3.3	6.4	5.2

TABLE 3.—Frequency of specified nonrespiratory disease groups which caused disability for eight consecutive calendar days or longer in a group of male industrial workers employed in different industries, by years, from 1921 to 1927

Year	Number of 8-day or longer disabilities per 1,000 men								
	Digestive diseases						Diseases of circulatory and genito-urinary systems		
	Digestive disease, total	Diseases of the stomach ¹ (111, 112)	Diarrhea and enteritis (114)	Appendicitis (117)	Hernia (118a)	Other digestive diseases (108, 110, 115, 116, 118-127)	Circulatory and genito-urinary, total	Diseases of the heart (87-90)	Diseases of the veins (93)
Average 1921-1927.....	13.9	4.7	1.7	3.6	1.6	2.3	6.8	1.7	1.5
1921.....	13.9	4.2	2.2	3.3	2.1	2.1	6.6	1.6	1.7
1922.....	12.2	4.1	1.8	2.9	1.5	1.9	6.4	1.3	1.8
1923.....	11.4	3.9	1.8	2.9	1.2	1.6	5.4	1.2	1.3
1924.....	13.3	4.6	1.9	3.3	1.3	2.2	6.3	1.5	1.3
1925.....	14.8	5.2	1.8	3.9	1.4	2.5	7.1	1.7	1.7
1926.....	14.5	5.2	1.5	3.6	1.6	2.6	7.2	1.9	1.5
1927.....	15.1	5.0	1.4	4.5	1.6	2.6	7.7	2.1	1.5

Year	Diseases of circulatory and genito-urinary systems—continued			Diseases of the nervous system				Rheumatism, acute and chronic (51, 52)	Lumbago and other diseases of organs of locomotion (158)
	Other diseases of the circulatory system (91, 92, 94-96)	Nephritis, acute and chronic (128, 129)	Other diseases of genito-urinary system (130-142)	Nervous system (70-84), total	Neuralgia, neuritis, sciatica (82)	Neurasthenia and the like (part of 84)	Other diseases of the nervous system (70-81, 83, part of 84)		
Average 1921-1927.....	0.9	0.7	2.0	4.4	2.1	1.5	0.8	5.9	3.3
1921.....	.8	.7	1.8	4.1	1.6	2.5	0.0	5.6	3.0
1922.....	.7	.8	1.8	4.6	2.3	1.5	.8	4.6	3.4
1923.....	.6	.8	1.5	3.5	1.6	1.2	.7	4.7	2.7
1924.....	.8	.7	2.0	4.6	2.3	1.6	.7	6.5	3.2
1925.....	1.1	.7	1.9	4.6	2.0	1.8	.8	6.4	3.3
1926.....	.9	.8	2.1	4.5	2.1	1.6	.8	5.8	3.8
1927.....	1.1	.8	2.2	4.7	2.3	1.4	1.0	6.3	3.5

Year	All other diseases								
	Diseases of the skin (151-154)	Epidemic and endemic diseases ² (1-10, 12-25)	All other diseases, total	Diseases of the eye (85)	Diseases of the ear and mastoid process (86)	Cancer (all forms) (43-49)	General diseases not shown separately (26-30, 32-37, 41, 42, 50, 53-69)	Diseases of the bones and joints (155, 156)	Ill-defined and unknown causes of disability (205)
Average 1921-1927.....	3.8	2.7	8.0	1.1	0.6	0.6	2.5	1.0	2.2
1921.....	3.6	2.6	9.3	.8	.6	.6	3.5	2.0	1.8
1922.....	3.6	2.1	7.7	.9	.5	.6	2.2	1.5	2.0
1923.....	3.3	2.4	8.4	.9	.4	.5	2.0	1.5	3.1
1924.....	3.5	3.4	7.4	1.2	.5	.6	2.3	.6	2.2
1925.....	3.5	3.4	7.8	1.0	.8	.6	2.5	.6	2.3
1926.....	3.8	2.5	8.2	1.3	.7	.8	2.5	.6	2.3
1927.....	4.7	2.4	7.7	1.4	.5	.7	2.6	1.0	1.5

¹ Cancer excepted.² Except influenza and grippe.

Is the Frequency of Sickness Increasing?

The incidence rates, by years, shown in Tables 1 to 3 have been plotted in Figures 2 to 4. Both the respiratory and the nonrespiratory groups appear to have increased in frequency during the period under review. As Figure 2 illustrates, the size of the respiratory rate was largely determined by the frequency of influenza and

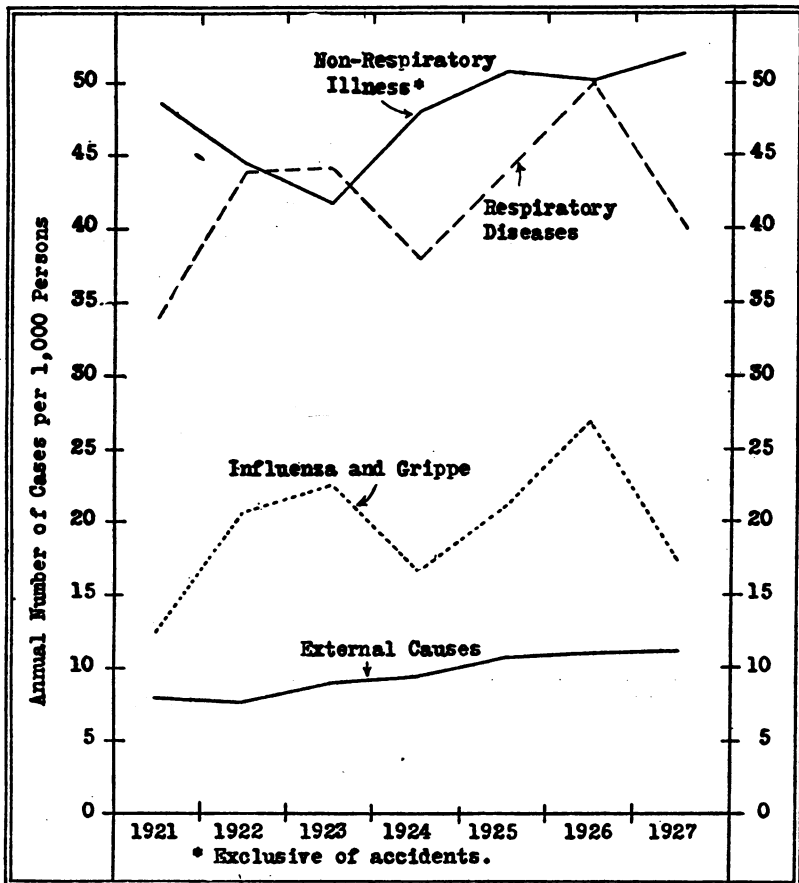


FIG. 2.—Frequency of the principal causes of disability, 1921-1927

grippe, which exhibits no evidence of a waning tendency. The curve for external causes, which is probably largely affected by the number of automobile accidents, shows a steady, relentless advance year by year.

Respiratory diseases other than influenza and grippe appear not to have increased appreciably in frequency, 1921 to 1927, with the possible exception of diseases of the pharynx and tonsils. (See fig. 3.)

Among the nonrespiratory groups of diseases digestive diseases and the circulatory-genito-urinary group show a rising rate of claims for sickness benefits.

A few associations discontinued their morbidity reports from time to time, while others were added to the reporting group. These changes in sampling may have affected to some extent the year-by-year results for the group as a whole, and hence it appeared desirable to establish what changes, if any, occurred in the sickness rates of

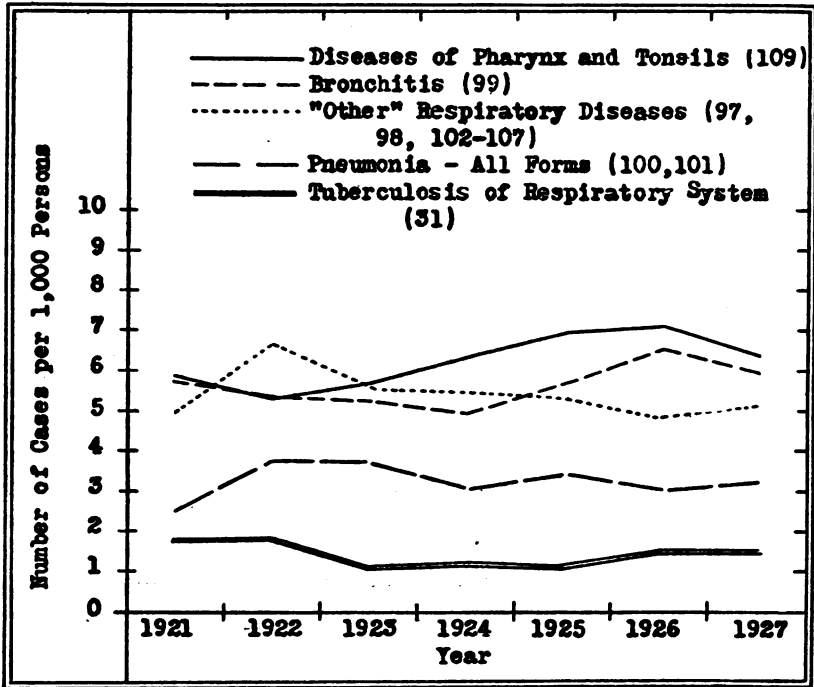


FIG. 3.—Frequency of the principal respiratory disease groups, except influenza and grippe, 1921-1927

the 15 funds which reported continuously throughout the period 1922-1927. For these associations the frequency of cases according to their duration in weeks was ascertained during the three years ending December 31, 1924, compared with the next three years. In the latter period, the results showed, there were fewer cases lasting from 8 to 20 days than in the preceding three years, but more cases lasting 8 weeks or longer. One may say, therefore, that no measurable progress appears to have been made in diminishing the extent of serious sickness among the membership of 15 large sick-benefit associations in 1925, 1926, and 1927 compared with the three years which preceded 1925.

TABLE 4.—*Frequency of cases of sickness (including nonindustrial injuries) of specified duration in 1925-1927 compared with 1922-1924*

[Experience of male members of 15 sick-benefit associations which reported their cases to the United States Public Health Service throughout both periods]

Duration of disability in calendar days	Annual number of cases per 1,000 men		Number of cases	
	1925-1927, inclusive	1922-1924, inclusive	1925-1927, inclusive	1922-1924, inclusive
All durations.....	96.5	98.4	17,496	15,569
8 to 13 calendar days.....	29.0	32.0	5,259	5,061
14 to 20 calendar days.....	20.7	21.3	3,755	3,374
21 to 27 calendar days.....	11.6	11.3	2,103	1,783
28 to 34 calendar days.....	7.2	7.4	1,312	1,173
35 to 41 calendar days.....	5.4	5.4	973	853
42 to 48 calendar days.....	4.1	4.3	751	681
49 to 55 calendar days.....	3.7	3.1	670	497
56 and over.....	14.8	13.6	2,673	2,147
Number of years of life under observation.....			181,238	158,279

Effect of Age Upon the Frequency of Disability

Only a few of the reporting associations have made available the age distribution of their members. We find, however, that the age distribution of the personnel of industrial establishments tends to change rather slowly, largely on account of the turnover of labor, and that the incidence rate of disabilities lasting longer than one week does not vary markedly according to age. The number of days lost per person per year tends to increase much more rapidly with age than does the frequency of cases. The duration of disability is extended considerably as age advances, especially after age 50. Thus the age distribution of the population at risk does not require such careful consideration in discussing sickness frequency as is necessary in presenting sickness severity rates.

TABLE 5.—*Frequency of cases of sickness, including nonindustrial accidents which caused disability for more than one week, and number of days lost from work on account of such cases, by age, among male members of the employees' benefit association of a farm-implement company*

[Experience of employees at 3 plants of the company, 1916 to 1920, inclusive]

Age groups	Number of years of life under observation	Number of cases	Number of days lost from work on account of these cases	Annual number of cases per 1,000 males	Annual number of days lost per person on account of these cases
All ages.....	38,672	6,949	208,081	179.7	5.381
Under 25.....	5,578	1,059	22,946	189.9	4.114
25 to 34.....	14,144	2,463	59,218	174.1	4.187
35 to 44.....	9,945	1,760	48,119	177.0	4.839
45 to 54.....	5,115	957	33,253	187.1	6.501
55 and over.....	2,906	710	44,545	244.3	15.329
Age unknown.....	984	0	0		

Sickness Frequency According to Sex

The female members of reporting sick-benefit associations were disabled oftener than the male members to the extent of 50 per cent in the period 1921-1927. The higher rate among the women is not

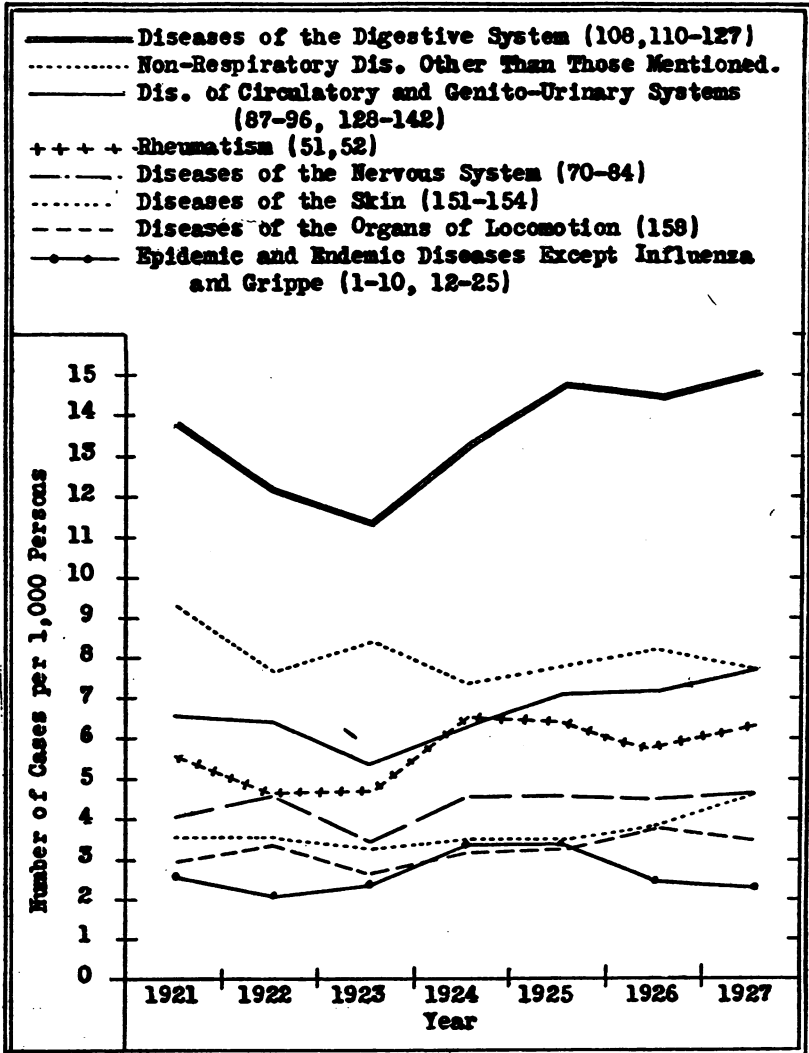


FIG. 4.—Frequency of the principal nonrespiratory disease groups, 1921-1927

attributable primarily to conditions of the puerperal state nor to diseases of the female genital organs, because most of the reporting associations pay benefits only for ailments common to both sexes. Moreover, the age factor is favorable to women in industry, since a much larger proportion of men than of women is usually found in the

older age groups. Only a small percentage of female industrial employees is above age 45.

Comparing the nature of illnesses according to sex, one finds that the frequency of 8-day or longer cases among the women was more than twice that of the male rate for diseases of the nervous system, diseases of the pharynx and tonsils, appendicitis, the genito-urinary group exclusive of nephritis, the general disease group, and for ill-defined and unknown causes. The women, however, experienced a

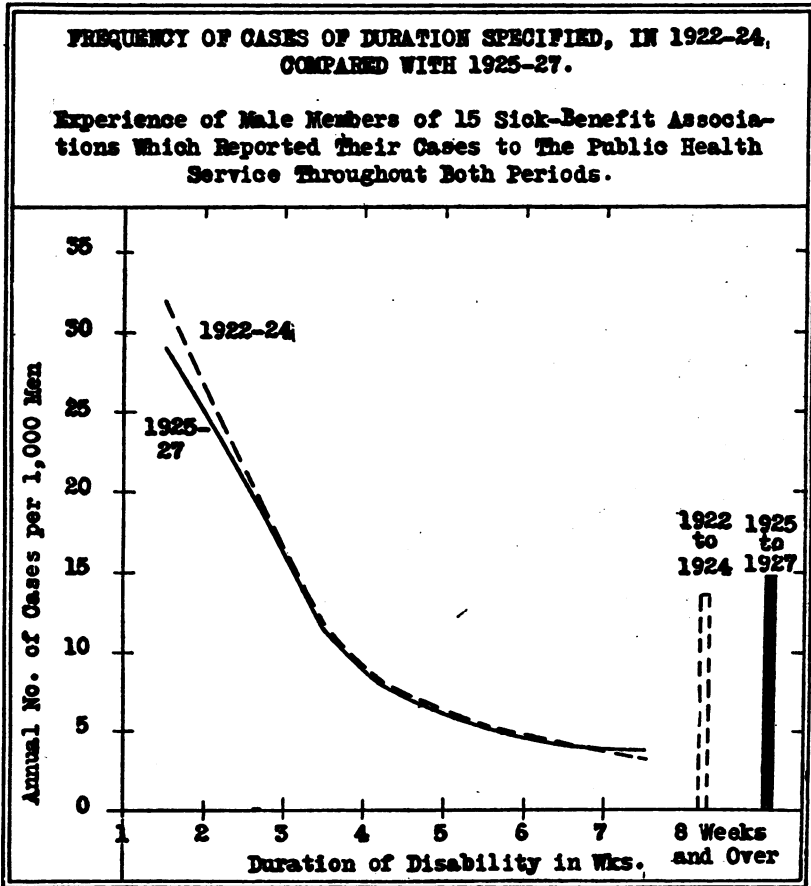


FIG. 5

much lower rate of hernia than the men, pneumonia at less than half the male frequency, less rheumatism, fewer cases of lumbago and other diseases of the organs of locomotion, and a frequency considerably below that prevailing among the men for diseases of the veins and diseases of the bones and joints. For most disease groups, however, the female rate was higher than the male rate. The annual number of nonindustrial injuries per 1,000 persons was about the same for either sex.

TABLE 6.—Frequency of specified causes of disability according to sex, 1921-1927¹

Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Annual number of cases per 1,000		Per cent of male rate	Number of cases	
	Males	Females		Males	Females
Sickness and nonindustrial injuries.....	101.3	151.9	150	74,516	12,232
Sickness (1-104, 205).....	91.2	141.4	155	67,089	11,382
External causes (nonindustrial injuries) (165-203).....	10.1	10.5	104	7,427	850
Respiratory diseases.....	42.4	65.4	154	31,201	5,269
Influenza and grippe (11).....	20.1	25.9	129	14,799	2,069
Tuberculosis of respiratory system (31).....	1.5	1.7	113	1,097	139
Bronchitis—acute and chronic (99).....	5.7	8.8	154	4,230	707
Pneumonia—all forms (100, 101).....	3.3	1.5	45	2,433	122
Diseases of the pharynx and tonsils (109).....	6.4	17.4	272	4,680	1,401
Other respiratory diseases (97, 98, 102-107).....	5.4	10.1	187	3,962	811
Digestive diseases.....	13.9	20.6	148	10,200	1,655
Diseases of the stomach (111, 112).....	4.7	4.5	96	3,463	363
Diarrhea and enteritis (114).....	1.7	1.7	100	1,264	133
Appendicitis (117).....	3.6	9.5	264	2,660	768
Hernia (118a).....	1.6	.3	19	1,118	25
Other digestive diseases (108, 110, 115, 116, 118b-127).....	2.3	4.6	200	1,695	366
Circulatory and genito-urinary diseases.....	6.8	9.9	146	5,017	801
Diseases of the heart (87-90).....	1.7	1.6	94	1,235	129
Diseases of the veins (93).....	1.5	1.0	67	1,121	76
Other diseases of the circulatory system (91, 92, 94-96).....	.9	1.1	122	661	92
Nephritis—acute and chronic (128, 129).....	.7	.7	100	553	58
Other diseases of genito-urinary system and annexa (130-142).....	2.0	5.5	275	1,447	446
Diseases of the nervous system (70-84).....	4.4	12.0	273	3,272	968
Neuralgia, neuritis, sciatica (82).....	2.1	2.6	124	1,526	209
Neurasthenia and the like (part of 84).....	1.5	8.8	587	1,129	708
Other diseases of nervous system (70-81, 83, 84).....	.8	.6	75	617	51
Rheumatism—acute and chronic (51, 52).....	5.9	3.6	61	4,320	286
Lumbago and other diseases of organs of locomotion (158).....	3.3	1.6	48	2,424	126
Diseases of the skin (151-154).....	3.8	3.9	103	2,806	313
Epidemic and endemic diseases (1-10, 12-25).....	2.7	4.0	148	1,987	318
All other diseases.....	8.0	20.4	255	5,862	1,646
Diseases of the eye (85).....	1.1	1.6	145	824	123
Diseases of the ear and mastoid process (86).....	.6	1.0	167	414	81
Cancer—all forms (43-49).....	.6	1.1	183	464	87
General diseases not shown above (26-30, 32-37, 41, 42, 50, 53-60).....	2.5	5.8	232	1,832	469
Diseases of the bones and joints (155, 156).....	1.0	.8	80	755	65
Ill-defined and unknown causes (205).....	2.2	10.1	459	1,573	818

¹ Only those disabilities from sickness and nonindustrial accidents which lasted 8 days or longer are included. Industrial accidents and certain diseases are not reported, as explained in the text.

Number of years of life under observation: Males, 735,507; females, 80,523.

Nature of the Illnesses in Certain Industries

In Table 7 the frequency of different diseases and groups of diseases is shown for men in iron and steel manufacturing, in public utilities, and in a group of miscellaneous industries which include the manufacture of chemicals, abrasives, plumbing fixtures, electrical equipment, paper, paper novelties, timepieces, hats, underwear, flour, soap, and certain other products.

The disability frequency rates among the men in the iron and steel industry were generally lower than for the other two industrial groups. The rates for neurasthenia, the digestive diseases, bronchitis, influenza, and grippe were especially low in the steel industry. Other studies indicate that the heavy nature of the work in various occupations of the steel industry causes a selective recruitment of persons of above average physical endowment, and probably also a selective

discharge from the industry of those who find themselves physically unfit for heavy work.

There were four disease groups, however, which showed a higher rate in steel than in the other industries. These were pneumonia, the epidemic and endemic diseases, diseases of the heart, and "other" diseases of the nervous system. With the exception of pneumonia,

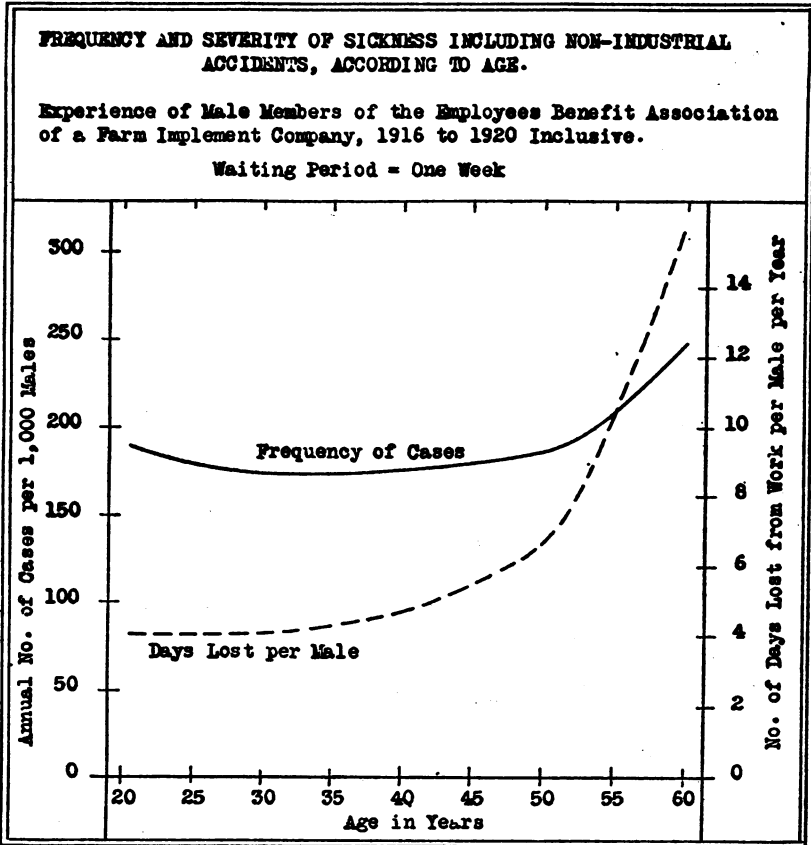


FIG. 6

these disease groups may not occur at *significantly* higher rates in steel than in the other industries represented.

The abnormal frequency of pneumonia, a special detailed study shows, is confined to a relatively small number of occupations in the steel industry. Records and observations are being made by the Public Health Service, in cooperation with a large steel company, of the nature of the exposures involved in these occupations. Tentative results indicate clearly the existence of a pneumonia problem in this industry.

TABLE 7.—Frequency of specified disabilities lasting eight calendar days or longer among male wage earners, 1922-1927, classified according to industry

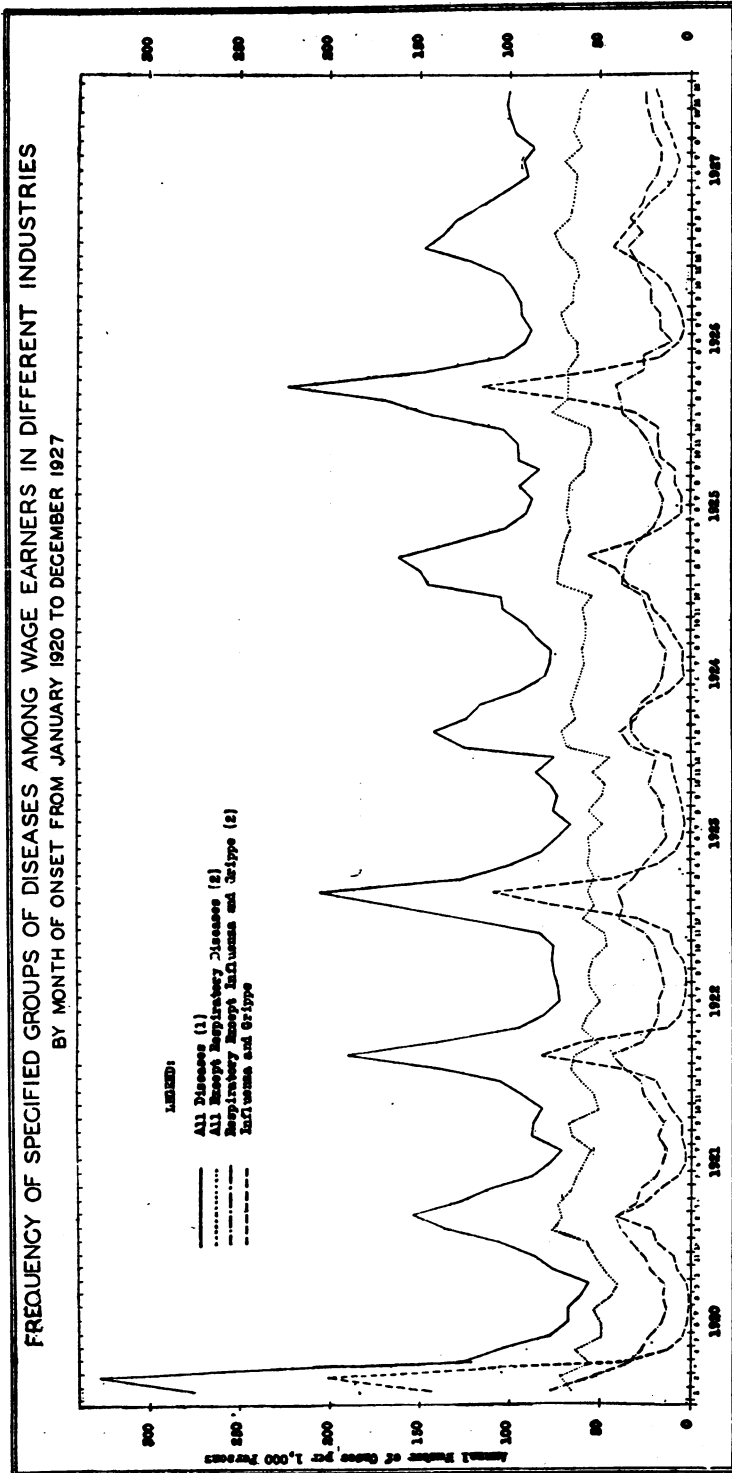
Diseases and conditions causing disability (with corresponding title numbers in parentheses from the International List of the Causes of Death, 1920 revision)	Annual number of cases per 1,000 men			Number of cases		
	Iron and steel	Public utilities	Other industries ¹	Iron and steel	Public utilities	Other industries ¹
Sickness and nonindustrial injuries ²	87.3	113.4	110.1	22,020	18,855	27,637
Sickness (1-184, 205).....	78.2	104.4	97.8	19,723	17,359	24,542
External causes (nonindustrial injuries) (165-203).....	9.1	9.0	12.3	2,297	1,496	3,095
Respiratory diseases.....	35.6	51.1	45.7	8,962	8,503	11,465
Influenza and grippe (11).....	17.6	23.7	22.1	4,442	3,950	5,553
Tuberculosis of respiratory system (31).....	1.5	1.8	1.1	388	297	258
Bronchitis—acute and chronic (99).....	3.8	7.6	6.5	957	1,294	1,627
Pneumonia—all forms (100, 101).....	4.5	2.5	2.9	1,135	411	715
Diseases of the pharynx and tonsils (109).....	4.1	8.5	7.3	1,036	1,423	1,834
Other respiratory diseases (97, 98, 102-107).....	4.1	7.0	5.8	1,024	1,158	1,448
Digestive diseases.....	11.6	16.6	14.4	2,923	2,756	3,600
Diseases of the stomach (111, 112).....	4.2	5.6	4.8	1,068	925	1,193
Diarrhea and enteritis (114).....	1.2	2.0	1.9	295	342	483
Appendicitis (117).....	3.3	4.6	3.4	826	760	856
Hernia (118a).....	1.1	1.9	1.6	268	318	391
Other digestive diseases (106, 110, 115, 116, 118b-127).....	1.8	2.5	2.7	466	411	677
Circulatory and genito-urinary diseases.....	6.4	7.4	6.9	1,609	1,232	1,740
Diseases of the heart (87-90).....	1.8	1.6	1.7	447	261	419
Diseases of the veins (93).....	1.2	2.0	1.5	306	331	371
Other diseases of circulatory system (91, 92, 94-96).....	.8	.9	1.0	209	192	250
Nephritis—acute and chronic (128, 129).....	.8	.8	.7	191	137	182
Other diseases of genito-urinary system and annexa (130-142).....	1.8	2.1	2.0	456	351	518
Diseases of the nervous system (70-84).....	3.6	4.6	5.3	906	768	1,340
Neuralgia, neuritis, sciatica (82).....	1.7	2.3	2.4	441	374	605
Neurasthenia and the like (part of 84).....	.8	1.6	2.2	196	262	564
Other diseases of nervous system (70-81, 83, 84).....	1.1	.7	.7	269	122	171
Rheumatism—acute and chronic (51, 52).....	5.8	5.8	6.0	1,461	974	1,513
Lumbago and other diseases of organs of locomotion (158).....	3.1	3.5	3.4	789	576	860
Diseases of the skin (151-154).....	3.4	3.8	4.3	868	633	1,069
Epidemic and endemic diseases (1-10, 12-25).....	2.9	2.5	2.7	725	417	673
All other diseases.....	5.8	9.1	9.1	1,460	1,510	2,282
Diseases of the eye (85).....	1.0	1.0	1.4	247	172	349
Diseases of the ear and mastoid process (86).....	.4	.7	.6	100	123	154
Cancer—all forms (43-49).....	.6	.9	.5	155	145	126
General diseases not shown above (26-30, 32-37, 41, 42, 50, 53-69).....	2.2	2.8	2.4	548	460	596
Diseases of bones and joints (155, 156).....	.8	1.1	1.0	200	178	248
Ill-defined and unknown causes (205).....	.8	2.6	3.2	210	432	809
Number of years of life under observation.....				252, 124	166, 272	251, 027

¹ Including employees of industries producing chemicals, abrasives, plumbing fixtures, electrical equipment, paper, paper novelties, timepieces, hats, underwear, flour, soap, and certain other products.

² Industrial accidents and certain diseases are not reported, as explained in the text.

Seasonal Variation in the Incidence Rate of Sickness

It is apparent from Table 7 and Figure 7 that the height of the peaks of sickness incidence was largely determined by the frequency of influenza and grippe. The rate for this disease was higher in March, 1926, than at any time since February, 1920, although the influenza epidemic of 1923, which reached its climax in February of that year, was a close second to the influenza experience of 1926. Even in so-called nonepidemic years the influenza wave is of no inconsiderable magnitude. More gradual is the rise and fall of respiratory diseases, exclusive of influenza and grippe, the curve exhibiting little of that explosive tendency so characteristic of the incidence of influenza. The seasonal variation of the nonrespiratory diseases as a group is much less pronounced than that of the respiratory diseases, but even they show a tendency to occur oftener in the winter and spring months than in the summer and fall.



(1) Only those disabilities from sickness and nonindustrial accidents which lasted eight consecutive days or longer are included. Certain diseases are not reported, as explained in the text.
(2) Tuberculosis of the lungs and diseases of the pharynx are included in the respiratory group.

FIG. 7

TABLE 8.—Frequency of specified disease groups, by month of onset, 1920-1927, among a group of wage earners¹

Month of onset of disability	Number of cases per 1,000 persons per year			
	All diseases ¹	Influenza and grippe	Respiratory, except influenza and grippe ²	All, except respiratory
1920				
January.....	275.0	142.9	67.4	64.7
February.....	326.7	201.4	54.4	70.9
March.....	126.0	37.1	34.1	54.8
April.....	103.9	13.2	27.4	63.3
May.....	76.7	4.6	23.2	48.9
June.....	67.3	2.3	15.6	49.4
July.....	67.1	.8	12.9	53.4
August.....	60.1	1.2	15.2	43.7
September.....	56.2	2.0	14.0	40.2
October.....	76.4	7.4	21.8	47.2
November.....	85.7	9.3	24.9	51.5
December.....	106.1	18.1	31.6	56.4
1921				
January.....	134.0	20.7	37.6	75.7
February.....	152.5	40.7	40.5	71.3
March.....	128.5	25.6	30.4	72.5
April.....	110.6	16.7	28.3	65.6
May.....	88.4	6.7	18.5	63.2
June.....	76.6	3.3	14.6	58.7
July.....	70.6	3.1	12.7	54.8
August.....	87.9	4.7	18.0	65.2
September.....	86.7	5.2	14.7	66.8
October.....	81.6	11.1	19.7	50.8
November.....	94.3	15.4	26.0	52.9
December.....	106.2	19.0	28.7	59.5
1922				
January.....	138.4	36.5	36.4	65.5
February.....	189.6	82.2	43.2	64.2
March.....	139.9	61.3	27.4	51.2
April.....	94.7	13.1	21.3	60.3
May.....	80.8	6.4	17.7	56.7
June.....	72.2	3.8	18.2	50.2
July.....	72.7	3.3	14.8	54.6
August.....	74.7	3.0	16.1	55.6
September.....	75.5	4.3	17.6	53.6
October.....	75.1	9.6	19.7	45.8
November.....	83.0	11.4	25.0	46.6
December.....	125.8	28.5	38.7	58.6
1923				
January.....	160.0	70.0	37.4	52.6
February.....	205.1	109.4	39.5	56.2
March.....	126.6	42.5	30.7	53.4
April.....	99.7	18.0	25.4	56.3
May.....	82.0	7.8	19.4	54.8
June.....	72.5	3.5	13.3	55.7
July.....	65.5	2.7	14.8	48.0
August.....	75.3	4.2	15.2	55.9
September.....	72.9	5.9	18.0	49.0
October.....	77.4	7.8	22.6	47.0
November.....	85.0	9.5	21.3	54.2
December.....	74.6	11.3	18.6	44.7
1924				
January.....	125.9	24.8	32.9	68.2
February.....	142.2	32.6	38.5	71.1
March.....	124.6	32.2	29.3	63.1
April.....	116.7	23.8	27.1	65.8
May.....	94.3	11.2	19.3	63.8
June.....	80.2	3.9	15.6	60.7
July.....	77.1	4.2	14.2	58.7
August.....	78.9	4.1	13.5	59.3
September.....	84.9	8.4	18.8	57.7
October.....	91.1	12.9	20.7	57.5
November.....	104.2	20.8	24.2	59.2
December.....	105.0	23.4	26.8	54.8

¹ Annual number of cases per 1,000 persons employed in establishments sending morbidity reports to the Public Health Service. Only those disabilities from sickness and nonindustrial accidents which lasted 8 days or longer are included, except in 1920, when a few 7-day cases were included. Certain diseases are not reported, as explained in the text.

² Tuberculosis of the lungs and diseases of the pharynx and tonsils are included in the respiratory group.

TABLE 8.—Frequency of specified disease groups, by month of onset, 1920-1927, among a group of wage earners—Continued

Month of onset of disability	Number of cases per 1,000 persons per year			
	All diseases	Influenza and grippe	Respiratory, except influenza and grippe	All, except respiratory
1925				
January.....	145.9	34.9	36.7	74.3
February.....	150.3	41.4	35.8	73.1
March.....	162.4	56.7	35.3	70.4
April.....	130.9	32.2	29.0	69.7
May.....	102.5	15.8	20.2	66.5
June.....	90.8	5.1	16.5	69.2
July.....	87.8	5.2	15.1	67.5
August.....	94.6	8.5	19.1	67.0
September.....	84.1	8.5	16.4	59.2
October.....	95.2	17.4	19.9	57.9
November.....	96.1	17.8	23.3	55.0
December.....	103.7	18.2	29.3	56.2
1926				
January.....	145.3	31.0	37.4	76.9
February.....	168.9	62.7	37.7	68.5
March.....	223.3	115.6	40.9	66.8
April.....	149.5	55.1	26.1	68.3
May.....	104.3	16.7	25.5	62.1
June.....	91.2	7.2	21.2	62.8
July.....	87.0	3.5	16.7	66.8
August.....	92.8	5.5	16.5	70.8
September.....	94.2	8.5	20.6	65.1
October.....	98.4	13.1	20.8	64.5
November.....	104.2	17.5	26.1	60.6
December.....	121.5	28.6	28.7	64.2
1927				
January.....	147.4	42.1	34.2	71.1
February.....	137.7	35.9	26.8	75.0
March.....	130.0	29.4	33.5	67.1
April.....	115.0	23.2	26.6	65.2
May.....	101.6	13.7	24.2	63.7
June.....	90.3	8.7	18.9	62.7
July.....	92.1	6.1	16.4	69.6
August.....	86.2	9.0	16.5	60.7
September.....	96.8	11.5	20.8	64.5
October.....	99.5	15.1	22.8	61.6
November.....	101.3	16.2	24.6	60.5
December.....	100.1	19.1	24.5	56.5

Summary

1. Although statistics of sickness frequency based upon the claims for sickness benefits of members of industrial mutual associations do not for various reasons actually measure the incidence of disability which lasts more than one week, they do afford some knowledge of the sickness experience of a sample of the industrial population.

2. Respiratory diseases were reported as the cause of 41.8 per cent of the claims for illness benefits; digestive diseases, 13.7 per cent; and external causes (nonindustrial accidents), 10 per cent. These three groups, accordingly, accounted for virtually two-thirds of the cases for which sick benefits were paid by associations reporting to the United States Public Health Service.

3. In the respiratory group influenza and grippe were of outstanding importance, accounting for nearly one-half of all the respiratory cases recorded during the seven years ending December 31, 1927.

4. In the digestive group diseases of the stomach (not including cancer), appendicitis, diarrhea and enteritis, and hernia were the most important numerically, in the order named, 1921-1927.

5. Next to the digestive diseases the circulatory-urinary group showed the largest number of cases, followed by rheumatism (acute and chronic). Diseases of the nervous system, diseases of the skin, diseases of the organs of locomotion, and the epidemic and endemic diseases constituted the remaining groups of importance numerically.

6. The incidence rates by years, 1921-1927, showed an upward trend both for the respiratory and the nonrespiratory group of diseases. Each year since 1922 the frequency of external causes (non-industrial accidents) has been larger than in the preceding year. Influenza and grippe principally accounted for the upward trend in the respiratory incidence rates. Among the nonrespiratory diseases digestive diseases and the circulatory-urinary group showed the most perceptible increases.

7. The frequency of cases according to their duration in weeks was ascertained for 1922-1924 and for 1925-1927 in the 15 associations which reported continuously throughout both periods. In 1925-1927 there was a lower rate of cases lasting 8 to 20 days than during the preceding three years, but a higher rate of cases lasting 8 weeks or longer.

8. The frequency of 8-day or longer disabilities was 50 per cent higher among female than among male industrial employees, 1921-1927, although the comparison excluded nearly all diseases which were not common to both sexes.

9. A low sickness rate was found among employees of the iron and steel industry. The rates were especially low for neurasthenia, the digestive diseases, bronchitis, influenza, and grippe among steel workers. The incidence rate of pneumonia, however, was found to be considerably higher in steel than in the other industries represented, and a special study is in progress to determine the causes of predisposition to pneumonia in this industry.

10. The seasonal peaks of sickness incidence were determined largely by the frequency of respiratory diseases, and especially by influenza and grippe. The nonrespiratory diseases as a group also showed a tendency toward greater prevalence in winter and early spring than in the summer and autumn months.

RELATION OF ILLUMINATION TO OCULAR EFFICIENCY AND OCULAR FATIGUE

Report on Studies Made in the Chicago Post Office

Continuing the studies in illumination described in Public Health Bulletin No. 140 and in the PUBLIC HEALTH REPORTS for November 14, 1924 (Reprint No. 973), by the Office of Industrial Hygiene and Sanitation of the United States Public Health Service, a study of the relationship of illumination to ocular efficiency and ocular fatigue among the letter separators in the Chicago post office will shortly be issued as Public Health Bulletin No. 181.

This study was made in the main post office in Chicago from 1924 to 1926 in one of the sections of the mailing division. The purposes of the study were (1) to determine the degree of illumination under which the distribution of mail might be made with the greatest ease and efficiency; (2) to demonstrate ocular fatigue, if possible, and to determine its relation to different degrees of illumination; (3) to obtain any information that might add to the present knowledge of the relation of illumination to the conservation of vision.

Seventy-eight men were employed in the Wisconsin section in sorting mail, some working as day clerks and some as night clerks. General lighting was installed in the section, the intensity of the illumination under which the men worked was varied by steps from 2.74 to 10.72 foot candles, and an investigation was made on the effect of the degree of illumination upon the speed of sorting mail. This was facilitated by the record kept by the post office of the amount of mail sorted daily by each man. Early in the investigation, however, it was found that not only the intensity of illumination but also the amount of mail to be sorted and the mental attitude of the worker affected the speed of sorting. Probably, as a result of the influence of these other factors, it was found that only for the sorting of small letter mail by the night shift, where there was a continuous and heavy supply of mail, could a marked relation be detected between degree of illumination and rate of sorting. In this case, in going from an illumination of 2.7 to 10.7 foot candles there was found to be an increase of about 8 per cent in the speed of sorting.

On account of the difficulty in obtaining definite results for the routine sorting of mail, it was decided early in the investigation to parallel the routine sorting of mail with tests on the sorting of 1,000 specially prepared cards under varying degrees of illumination, from 2.41 to 17.67 foot candles. These tests showed a marked relation of speed of sorting to degree of illumination, the "looking time," or the approximate time required to read the addresses on the cards, decreasing about 8 per cent when the illumination was increased from 2.5 to 10 foot candles.

In an attempt to find the effect of the degree of illumination upon ocular fatigue, a special piece of apparatus was designed in which a broken circle was exposed as a test object for 0.011 of a second, and the subject being examined was required to tell the direction of the break in the circle. This is believed to involve a special form of visual acuity, which might by analogy be called "snap acuity," since the time of exposure is so short that accommodation and fixation in this case are negligible. The subject was tested shortly after beginning work in the morning and again shortly before stopping work in the afternoon. Snap acuity was found to be slightly lower at the close of the day's work than at the beginning, but no relation was observed between snap acuity and the degree of illumination under which the subject had been working. It was found, however, that snap acuity improved after the subjects had worked under high illumination for a sufficient length of time, and correspondingly decreased after working under low illumination. This phenomenon has never been observed before and is very important if it can be confirmed.

Periodical examinations were made of the eyes of the men. They showed that the percentage of refractive errors among the clerks examined was rather large. Fifty per cent of them wore glasses. The percentages of other ocular defects found during the examinations seem to agree with those previously found by the United States Public Health Service and other investigators.

CENSUS OF LEPERS IN MEXICO¹

The first census of leprosy in Mexico was published in the Official Bulletin of the Department of Public Health, No. 3, 1927. Of the 2,272 municipalities in the country, only 435 could complete the statistical study, since 1,333 lack doctors, and the doctors of 81 towns did not answer, nor did the municipal presidents of the towns lacking doctors. Of the 285 hospitals, sanitariums, and health resorts, only 186 answered. The census registered 1,450 lepers: 734 of tubercular form, 262 nervous, 253 mixed, and 201 not stated. If the 15,151,695 inhabitants which the Republic had in 1910 are considered, there is 1 leper for each 10,449 persons; but if only the number which the census covered is considered, which is 6,956,657, there is then 1 leper for each 4,797. As to distribution per unit area, there is 1 leper per 1,370 square kilometers [1 to 528 square miles]. The greatest incidence is in the Territory of Quintana Roo, in which there is 1 leper for each 836 inhabitants; Sinaloa follows with 1 per 1,377; Jalisco with 1 per 2,152; Lower California with 1 per 2,395; Yucatan with 1 per 2,413; Morelas with 1 per 2,562; the Federal District with 1 per 2,970; Queretaro with 1 per 3,262; Guerrero with 1 per 3,370; Micho-

¹ From the Boletín de la Oficina Sanitaria Panamericana, for February, 1929, p. 109.

acán with 1 per 3,376; Colima with 1 per 3,398, these jurisdictions being the ones most affected by the scourge. On the other hand, the State of Tlaxcala is free; Hidalgo has 1 per 62,912; Tabasco, 1 per 59,805; Mexico, 1 per 42,816; Puebla, 1 per 18,532; San Luis Potosi, 1 per 17,706; and Vera Cruz, 1 per 12,353. As to place of origin, 202 are from Jalisco, 176 from Guanajuato, 156 from Michoacán, and 140 from Sinaloa; 22 are foreign lepers, 15 of them Asiatic—Chinese and Japanese; in 244 cases the place of origin is unknown. Nineteen persons are known to have contracted the disease in a foreign country; 9 in the United States; 4 in China; 3 in Spain; and 3 in Central America, Habana, and Korea. The age distribution is as follows: Up to 9 years, 18; from 10 to 19, 65; from 20 to 29, 352; from 30 to 39, 214; from 40 to 49, 312; over 50, 118; and 251 of unknown age. Of these victims, 795 are males, 456 females, and 199 whose sex was not given. As regards their marital status, 407 are single, 428 married, 116 widowed, and 499 whose condition is not known. The statistics show that 158 lepers are rural dwellers, 87 of domestic occupation, 77 day laborers, and 63 farmers. The data referring to the age at which the disease appeared show that in only 24 cases did it occur under the age of 9 years, compared with the largest number, 216 occurring in the age group 20 to 29 years. Above 50 years it is even more rare than under 9, since only 23 individuals contracted it after that age. In the 652 cases in which it was possible to ascertain the form of transmission of the disease, it is shown that in 359 cases it was acquired by contact, not so acquired in 197 cases, and attributed to heredity in 96. Of the 1,450 lepers, 503 have open lesions, 484 do not have them, and this information concerning 463 is unknown. In the Republic there are 571 lepers living in crowded, filthy, and miserable conditions, a constant menace to society; only 344 have good hygienic conditions; and the living conditions of the others are not known.

COURT DECISIONS RELATING TO PUBLIC HEALTH

State narcotic law upheld.—(Kansas Supreme Court; *State v. Lovell*, 272 p. 666; decided December 8, 1928.) The defendant, convicted of the possession and sale of morphine in violation of chapter 241 of the laws of 1927, on appeal asserted that the said statute was unconstitutional. The basis for this claim and the supreme court's rejection thereof are shown by the following paragraphs from the opinion:

It is argued that the narcotic law (Laws 1927, c. 241) is unconstitutional, because it discriminates against physicians and others, in that it does not protect them, as does the Federal law, and that it discriminates against and fails to protect common carriers and others who are exempted by the Federal law; that under its provisions any of those mentioned are subject to arrest and prosecution; also, that the punishment thereunder is cruel because it is unscientific; that practically

all possessors of narcotics are users, and that the legislature should provide for treatment and cure, instead of punishment.

The contention of the defendant can not be sustained. The State is not forbidden to enact such a law as that under consideration, nor is it limited by the fact that the provisions of the Federal act differ in some respects from our statute. Then, too, it is a matter of general knowledge that penal institutions of this State are equipped with hospital wards for the cure of those afflicted with such ailments. Moreover, the contention of the defendant that most of the possessors of narcotics are users carries no weight, so far as he is concerned, because he testified that he was not a user of narcotics.

Statutory provision relative to suspension of physician's or pharmacist's license when convicted of violation of Federal narcotic statutes held void.—(Iowa Supreme Court; In re Breen, 222 N. W. 426; decided December 14, 1928.) A physician's license was suspended upon his conviction in the Federal court for violation of the Federal statutes and regulations relating to narcotics. Such suspension was provided for by section 2110, Code 1927, which reads as follows:

When a physician or pharmacist, licensed under the laws of this State, is convicted in any Federal court of this State of a violation of the Federal statutes or regulations relating to intoxicating liquors, or to narcotics, and said judgment has become final, the county attorney of the county where said physician or pharmacist resides shall forthwith file in the office of the clerk of the district court of said county a duly certified copy of said judgment and thereupon said district court, or a judge thereof, shall, on such notice to the defendant in said judgment as the court or judge may prescribe, enter an order suspending for a period of not less than one year nor more than five years the license of such physician or pharmacist to practice his profession in this State. * * *

The act (senate file 283, 40th general assembly, extra session), in which section 2110 originated and was contained, was entitled "An act to amend, revise, and codify sections 920 to 951, inclusive, of the compiled code of Iowa, relating to the sale and transportation of intoxicating liquors under permits." Section 2110 was not in the bill as introduced, but was inserted by committee amendment without change of title.

On appeal by the physician, the supreme court reversed the suspension on the ground that the statutory provision concerning suspension was void because in violation of the constitutional provision requiring that an act shall embrace but one subject and that the subject shall be expressed in the title. In concluding its opinion, the court said:

* * * Whether read in connection with antecedent and contemporaneous legislation, State and Federal, or whether interpreted by popular understanding of the language used, the title to senate file 283, 40th Ex. G. A., was after the amendment in question as to the matter thereof misleading and deceptive. Moreover, the subject of physician's liability to revocation of his professional license because of conviction in the Federal court of violation of the Federal statutes or regulations relating to narcotics is so alien to the subject matter, purpose, and scope of that act as indicated or suggested by its title that the provision therefor as contained in section 25a7 (2110; Code 1927), enacted under that title, must be held to be in violation of section 29, art. 3, of the constitution and void.

DEATHS DURING WEEK ENDED FEBRUARY 9, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended February 9, 1929, and corresponding week of 1928. (From the Weekly Health Index, February 13, 1929, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 9, 1929	Corresponding week, 1928
Policies in force.....	72, 857, 493	70, 240, 787
Number of death claims.....	19, 472	13, 626
Death claims per 1,000 policies in force, annual rate...	13. 9	10. 1

Deaths from all causes in certain large cities of the United States during the week ended February 9, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, February 13, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Feb. 9, 1929		Annual death rate per 1,000 corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Feb. 9, 1929 ¹
	Total deaths	Death rate ¹		Week ended Feb. 9, 1929	Corresponding week, 1928	
Total (63 cities).....	8, 969	15. 9	13. 6	902	808	* 77
Akron.....	45			6	5	62
Albany ⁴	60	26. 1	17. 8	6	8	119
Atlanta.....	116	23. 8	17. 0	10	9	104
White.....	68			5	6	
Colored.....	48	(9)	(9)	5	3	
Baltimore ⁴	305	19. 2	15. 0	28	28	90
White.....	230			14	17	56
Colored.....	75	(9)	(9)	14	11	222
Birmingham.....	66	15. 5	17. 4	10	17	91
White.....	33			6	8	90
Colored.....	33	(9)	(9)	4	9	92
Boston.....	340	22. 2	15. 8	28	22	77
Bridgeport.....	58			7	3	121
Buffalo.....	193	18. 2	16. 7	17	15	73
Cambridge.....	37	15. 4	14. 1	1	3	18
Camden.....	30	11. 6	17. 0	3	8	52
Canton.....	20	9. 0	8. 1	4	5	95
Chicago ⁴	763	12. 6	11. 6	65	68	58
Cincinnati.....	158			15	11	87
Cleveland.....	224	11. 6	9. 0	30	18	88
Columbus.....	85	14. 9	12. 2	14	3	131
Dallas.....	57	13. 7	10. 3	8	7	
White.....	48			5	5	
Colored.....	9	(9)	(9)	3	2	
Dayton.....	48	13. 6	11. 9	3	4	48
Denver.....	113	20. 1	15. 8	9	9	87
Des Moines.....	30	10. 3	10. 3	1	1	18
Detroit.....	291	11. 0	11. 3	38	50	61
Duluth.....	29	13. 0	5. 8	1	1	24
El Paso.....	52	23. 1	17. 3	14	7	
Erie.....	36			1	1	20
Fall River ⁴	64	24. 9	9. 0	8	3	150
Flint.....	26	9. 1	7. 7	5	3	61
Fort Worth.....	34	10. 4	8. 6	3	3	
White.....	25			2	1	
Colored.....	9	(9)	(9)	1	2	
Grand Rapids.....	35	11. 1	14. 0	4	2	60
Houston.....	52			4	11	
White.....	39			3	8	
Colored.....	13	(9)	(9)	1	3	
Indianapolis.....	93	12. 7	14. 8	11	11	88
White.....	81			11	4	102
Colored.....	12	(9)	(9)	0	7	0

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.

³ Data for 70 cities.

⁴ Deaths for week ended Friday.

⁵ In the cities for which deaths are shown by color the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

Deaths from all causes in certain large cities of the United States during the week ended February 9, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928—Continued

City	Week ended Feb. 9, 1929		Annual death rate per 1,000 corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Feb. 9, 1929
	Total deaths	Death rate		Week ended Feb. 9, 1929	Corresponding week, 1928	
Jersey City.....	102	16.4	16.3	9	17	70
Kansas City, Kans.....	43	19.0	13.3	2	1	44
White.....	39			1	1	25
Colored.....	4	(⁹)	(⁹)	1	0	179
Kansas City, Mo.....	136	18.2	14.6	16	12	135
Knoxville.....	29	14.4	17.9	3	6	66
White.....	24			3	4	73
Colored.....	5	(⁹)	(⁹)	0	2	0
Los Angeles.....	284			19	27	56
Louisville.....	108	17.1	10.6	5	3	41
White.....	94			3	2	28
Colored.....	14	(⁹)	(⁹)	2	1	126
Lowell.....	56			5	1	113
Lynn.....	32	15.9	11.9	3	3	82
Memphis.....	80	22.0	23.4	6	18	71
White.....	49			2	7	38
Colored.....	31	(⁹)	(⁹)	4	11	125
Millwaukee.....	144	13.8	13.1	27	17	119
Minneapolis.....	93	10.7	11.2	11	8	68
Nashville.....	62	23.2	16.9	7	5	113
White.....	36			5	3	109
Colored.....	26	(⁹)	(⁹)	2	2	126
New Bedford.....	46			4	8	86
New Haven.....	71	19.8	17.5	7	6	107
New Orleans.....	148	18.0	17.4	8	10	40
White.....	83			3	6	21
Colored.....	65	(⁹)	(⁹)	5	4	84
New York.....	2,042	17.7	14.4	213	183	87
Bronx borough.....	251	13.8	10.7	19	17	56
Brooklyn borough.....	709	16.1	11.6	89	70	90
Manhattan borough.....	798	23.8	21.5	86	70	105
Queens borough.....	211	12.9	11.1	15	21	61
Richmond borough.....	73	25.3	16.3	4	5	72
Newark, N. J.....	121	13.4	13.4	17	15	90
Oakland.....	57	10.9	12.6	4	1	44
Oklahoma City.....	37			2	2	40
Omaha.....	66	15.5	14.1	6	9	70
Paterson.....	45	16.2	15.9	1	8	18
Philadelphia.....	611	15.5	13.5	61	43	86
Pittsburgh.....	255	19.8	16.3	33	28	113
Portland, Oreg.....	79			3	8	34
Providence.....	121	22.1	13.7	8	5	70
Richmond.....	60	16.1	14.0	5	5	70
White.....	36			3	4	64
Colored.....	24	(⁹)	(⁹)	2	1	82
Rochester.....	110	17.5	13.1	8	9	68
St. Louis.....	263	17.4	13.9	20	20	67
St. Paul.....	63			6	3	62
Salt Lake City.....	37	14.0	14.0	3	8	46
San Antonio.....	79	18.9	14.9	20	8	—
San Diego.....	61	26.6	20.1	4	1	77
San Francisco.....	178	15.9	13.9	15	7	96
Schenectady.....	22	12.3	15.7	2	1	64
Seattle.....	82	11.2	9.4	5	3	53
Somerville.....	32	16.3	17.8	3	2	108
Spokane.....	32	15.3	13.4	4	2	104
Springfield, Mass.....	40	14.0	12.2	6	4	99
Syracuse.....	54	14.2	13.1	2	3	24
Toledo.....	75	12.5	13.5	7	11	65
Trenton.....	43	16.2	14.3	8	5	145
Washington, D. C.....	190	18.0	13.5	10	14	59
White.....	128			6	4	51
Colored.....	62	(⁹)	(⁹)	4	10	76
Waterbury.....	25			5	3	127
Wilmington, Del.....	32	13.0	14.6	4	0	104
Worcester.....	51	13.5	13.5	2	3	25
Yonkers.....	31	13.4	11.6	6	1	140

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 February 9, 1929, and February 11, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 9, 1929, and February 11, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928
New England States:								
Maine.....	1	5	621	4	282	44	0	0
New Hampshire.....	1	2	123	20	95	73	0	0
Vermont.....		1	111		11	4	0	0
Massachusetts.....	91	117	593	14	442	1,598	5	2
Rhode Island.....	10	13	84		54	5	0	0
Connecticut.....	27	43	656	3	374	280	2	1
Middle Atlantic States:								
New York.....	257	401	1,413	140	984	1,461	32	11
New Jersey.....	125	145	148	31	254	423	14	1
Pennsylvania.....	156	238			1,378	1,129	9	2
East North Central States:								
Ohio.....	40	193	150	32	346	352	2	2
Indiana.....	39	49	149	30	266	162	0	0
Illinois.....	130	191	215	40	597	101	17	7
Michigan.....	76	78	146	4	189	191	18	2
Wisconsin.....	22	38	270	75	461	95	6	3
West North Central States:								
Minnesota.....	24	29	9		386	2	3	1
Iowa.....	15	24				65	1	0
Missouri.....	53	51	199	8	411	97	18	4
North Dakota.....	3	3	13		39	17	6	0
South Dakota.....		9	4		29	14	0	2
Nebraska.....	23	21	10	10	24	3	4	1
Kansas.....	9	45	48	39	58	22	0	0
South Atlantic States:								
Delaware.....			5	4	11	8	0	1
Maryland ¹	32	23	1,136	35	96	563	1	1
Dist-ict of Columbia.....	8	31	36	1	3	36	0	0
Virginia.....							1	
West Virginia.....	18	13	1,321	24	65	85	2	0
North Carolina.....	36	46			27	4,734	1	1
South Carolina.....	27	19	2,107	1,246		1,428	0	0
Georgia.....	4	12	723	220	56	196	1	0
Florida.....	23	19	105	15	5	24	0	0

¹ New York City only.

² Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 9, 1929, and February 11, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928
East South Central States:								
Kentucky.....	15	5	229	11		296	0	0
Tennessee.....	10	14	845	115	15	329	2	2
Alabama.....	27	33	1,108	287	43	192	4	0
Mississippi.....	11	27					1	
West South Central States:								
Arkansas.....	11	13	771	189	7	491	1	0
Louisiana.....	24	23	739	71	30	197	2	0
Oklahoma ¹	16	23	885	221	5	134	13	2
Texas.....	77	48	5,319	146	47	195	4	1
Mountain States:								
Montana.....	2	11	55				6	7
Idaho.....					5		2	0
Wyoming.....		2	26		3	23	1	1
Colorado.....	15	41	28	3	4	82	5	16
New Mexico.....	10	3	10	47	12	151	1	0
Arizona.....	11	24	24	1		27	12	6
Utah ²	2		4	3	2	3	8	1
Pacific States:								
Washington.....	9	7	110			275	4	6
Oregon.....	18	16	56	29	127	46	2	0
California.....	63	113	112	56	49	149	15	10

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928
New England States:								
Maine.....	0	0	10	27	9	0	1	2
New Hampshire.....	0	0	35	40	0	0	0	0
Vermont.....	0	0	0	12	4	0	1	0
Massachusetts.....	1	2	278	356	0	0	1	6
Rhode Island.....	0	0	21	44	0	0	0	1
Connecticut.....	1	0	43	114	0	6	0	2
Middle Atlantic States:								
New York.....	4	3	440	828	0	16	9	14
New Jersey.....	1	0	166	306	0	1	1	6
Pennsylvania.....	0	4	444	605	0	0	12	16
East North Central States:								
Ohio.....	0	3	210	415	37	27	15	7
Indiana.....	0	0	248	143	109	101	1	5
Illinois.....	0	2	417	366	103	42	2	19
Michigan.....	1	3	349	363	35	32	1	7
Wisconsin.....	0	4	141	196	17	14	1	2
West North Central States:								
Minnesota.....	0	0	185	159	2	1	5	3
Iowa.....	0	0	118	102	85	66	1	2
Missouri.....	0	0	92	109	25	62	0	0
North Dakota.....	1	0	42	47	0	3	0	4
South Dakota.....	0	2	38	90	12	9	0	0
Nebraska.....	1	1	101	101	69	53	1	3
Kansas.....	0	0	127	128	33	109	1	0
South Atlantic States:								
Delaware.....	0	0	2	2	0	0	0	0
Maryland ³	1	0	77	62	0	0	1	5
District of Columbia.....	0	0	22	42	0	0	0	0
Virginia.....		1						
West Virginia.....	0	0	34	56	6	41	5	14
North Carolina.....	0	0	47	46	17	142	0	2
South Carolina.....	0	1	20	6	0	15	1	4
Georgia.....	0	0	15	11	0	0	2	4
Florida.....	0	0	10	18	0	10	13	2

² Week ended Friday.

³ Figures for 1929 are exclusive of Oklahoma City and Tulsa and for 1928 are exclusive of Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended February 9, 1929, and February 11, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928	Week ended Feb. 9, 1929	Week ended Feb. 11, 1928
East South Central States:								
Kentucky.....	0	0	75	38	14	13	3	3
Tennessee.....	0	1	41	26	1	10	3	5
Alabama.....	0	0	31	14	4	10	1	8
Mississippi.....	0	0	15	20	2	11	4	4
West South Central States:								
Arkansas.....	0	0	36	66	5	10	3	7
Louisiana.....	0	0	36	17	7	23	8	10
Oklahoma ¹	0	1	27	46	29	135	5	18
Texas.....	0	0	76	110	82	120	3	6
Mountain States:								
Montana.....	0	0	16	20	12	27	0	0
Idaho.....	0	0	15	3	29	2	0	0
Wyoming.....	0	0	19	24	0	2	0	0
Colorado.....	0	1	21	137	14	14	2	2
New Mexico.....	1	0	10	31	0	0	1	3
Arizona.....	0	0	3	13	3	16	1	2
Utah ¹	0	1	10	5	3	4	0	1
Pacific States:								
Washington.....	0	1	41	48	45	70	2	4
Oregon.....	0	2	35	22	42	44	0	0
California.....	2	12	303	188	88	20	6	5

¹ Figures for 1929 are exclusive of Oklahoma City and Tulsa and for 1928 are exclusive of Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Menin- gococ- menin- gitis	Diph- theria	Influ- enza	Ma- laria	Mea- sles	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>November, 1928</i>										
South Dakota.....	1	14	4		6		7	78	75	8
<i>December, 1928</i>										
Arkansas.....	9	106	4,572	389	135	31	0	134	9	31
Colorado.....		35	6,516		28		0	91	42	4
Florida.....	1	57	884	24	16	1	1	59	3	9
South Carolina.....	0	336	34,501	1,026	37	366	11	101	14	186
South Dakota.....	4	7	710		131		2	96	58	7
<i>January, 1929</i>										
Arizona.....	45	34	493		18		0	31	32	0
Connecticut.....	8	144	9,741		1,545		1	242	0	0
Tennessee.....	7	103	48,565	12	117	3	0	164	6	15

<i>November, 1928</i>		Cases			Cases
South Dakota:			Undulant fever:		
Chicken pox.....	54		South Carolina.....		1
Mumps.....	28		Vincent's angina:		
Whooping cough.....	30		Colorado.....		3
			Whooping cough:		
			Arkansas.....		104
			Colorado.....		16
			Florida.....		26
			South Carolina.....		142
			South Dakota.....		14
			<i>January, 1929</i>		
<i>December, 1928</i>			Chicken pox:		
Chicken pox:			Arizona.....		73
Arkansas.....	178		Connecticut.....		567
Colorado.....	298		Tennessee.....		249
Florida.....	62		Conjunctivitis:		
South Carolina.....	226		Connecticut.....		1
South Dakota.....	62		German measles:		
Dengue:			Connecticut.....		179
South Carolina.....	41		Lethargic encephalitis:		
Dysentery:			Tennessee.....		2
Florida.....	1		Mumps:		
German measles:			Arizona.....		4
Colorado.....	13		Connecticut.....		446
Hookworm disease:			Tennessee.....		30
South Carolina.....	105		Rabies in animals:		
Impetigo contagiosa:			Connecticut.....		4
Colorado.....	3		Septic sore throat:		
Mumps:			Connecticut.....		13
Arkansas.....	51		Tetanus:		
Colorado.....	103		Connecticut.....		1
Florida.....	10		Trachoma:		
South Carolina.....	21		Arizona.....		27
South Dakota.....	9		Connecticut.....		1
Ophthalmia neonatorum:			Tennessee.....		7
South Carolina.....	11		Trichinosis:		
Paratyphoid fever:			Connecticut.....		9
Florida.....	1		Tularaemia:		
South Carolina.....	3		Tennessee.....		1
Rabies in animals:			Undulant fever:		
South Carolina.....	20		Arizona.....		3
Rabies in man:			Whooping cough:		
Florida.....	1		Arizona.....		16
Scabies:			Connecticut.....		149
Colorado.....	3		Tennessee.....		58
Septic sore throat:					
South Carolina.....	10				
Tularaemia:					
South Carolina.....	2				
Typhus fever:					
Florida.....	1				

ADMISSIONS TO HOSPITALS FOR THE INSANE, JULY, 1928

Reports for the month of July, 1928, showing new admissions to hospitals for the care and treatment of the insane, have been received by the Public Health Service from 104 institutions located in 35 States, the District of Columbia, and the Territory of Hawaii. These hospitals reported a total of 157,374 patients on July 31, 1928, including those on parole.

The following table shows the number of new admissions for the month of July, 1928, by psychoses:

Psychoses	Number of first admissions		
	Male	Female	Total
1. Traumatic psychoses.....	10	1	11
2. Senile psychoses.....	158	120	278
3. Psychoses with cerebral arteriosclerosis.....	145	94	239
4. General paralysis.....	217	50	267
5. Psychoses with cerebral syphilis.....	30	23	53
6. Psychoses with Huntington's chorea.....	2	2	4
7. Psychoses with brain tumor.....	0	1	1
8. Psychoses with other brain or nervous disease.....	29	22	51
9. Alcoholic psychoses.....	134	23	157
10. Psychoses due to drugs and other exogenous toxins.....	26	7	33
11. Psychoses with pellagra.....	15	25	40
12. Psychoses with other somatic diseases.....	35	38	73
13. Manic-depressive psychoses.....	164	240	404
14. Involution melancholia.....	19	33	52
15. Dementia praecox (schizophrenia).....	345	278	623
16. Paranoia and paranoid conditions.....	34	49	83
17. Epileptic psychoses.....	57	21	78
18. Psychoneuroses and neuroses.....	21	27	48
19. Psychoses with psychopathic personality.....	17	6	23
20. Psychoses with mental deficiency.....	47	35	82
21. Undiagnosed psychoses.....	126	93	219
22. Without psychosis.....	126	33	159
Total.....	1,757	1,221	2,978

The 104 institutions, on July 31, had 83,862 male patients and 73,512 female patients, giving a ratio of 114 males per 100 females.

At the end of the month 8.7 per cent of the total patients were on parole—9 per cent of the male patients, and 8.4 per cent of the female patients.

Fifty-nine per cent of the new admissions were males and 41 per cent were females, giving a ratio of 144 males per 100 females.

Cases of dementia praecox constituted 20.9 per cent of the first admissions; manic-depressive psychoses, 13.6 per cent; senile psychoses, 9.3 per cent; general paralysis, 9 per cent; psychoses with cerebral arteriosclerosis, 8 per cent; undiagnosed psychoses, 7.4 per cent; and 5.3 per cent were recorded as without psychosis.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 96 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,285,000. The estimated population of the 89 cities reporting deaths is more than 29,710,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended February 2, 1929, and February 4, 1928

	1920	1928	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,596	2,376	
96 cities.....	657	1,147	1,084
Measles:			
45 States.....	6,965	14,660	
96 cities.....	1,663	4,094	
Poliomyelitis:			
46 States.....	14	61	
Scarlet fever:			
46 States.....	4,693	5,635	
96 cities.....	1,402	1,603	1,607
Smallpox:			
46 States.....	1,061	1,437	
96 cities.....	45	126	84
Typhoid fever:			
46 States.....	125	247	
96 cities.....	24	42	32
<i>Deaths reported</i>			
Influenza and pneumonia:			
89 cities.....	2,033	970	
Smallpox:			
89 cities.....	1	1	
Raleigh, N. C.....	1	0	
Terra Haute, Ind.....	0	1	

City reports for week ended February 2, 1929

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

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1920 is included. In obtaining the estimated expectancy the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population, July 1, 1928, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland.....	78,600	2	2	0	29	4	35	0	9
New Hampshire:									
Concord.....	(¹)	0	0	0		4	0	0	3
Manchester.....	85,700	0	1	0		7	0	0	5
Nashua.....	(¹)	0	0	0		2	0	0	1
Vermont:									
Barre.....	(¹)	0	0	0		1	0	5	0
Burlington.....	(¹)	3	1	0		0	0	12	3
Massachusetts:									
Boston.....	799,200	36	50	20	164	16	8	16	111
Fall River.....	134,300	4	4	2	6	7	11	0	13
Springfield.....	149,880	6	3	6	2	1	117	0	10
Worcester.....	197,600	5	5	2	12	1	11	0	5
Rhode Island:									
Pawtucket.....	73,100	3	1	0		0	4	0	10
Providence.....	286,300	4	11	2	61	9	25	2	28
Connecticut:									
Bridgeport.....	(¹)	2	8	4	78	10	10	0	10
Hartford.....	172,300	4	9	7	12	7	3	3	18
New Haven.....	187,900	22	2	5	22	3	5	0	9
MIDDLE ATLANTIC									
New York:									
Buffalo.....	555,800	17	18	15	8	3	3	5	50
New York.....	6,017,500	191	234	189	778	124	67	81	492
Rochester.....	328,200	13	14	1	60	3	21	13	20
Syracuse.....	199,300	8	5	1		0	2	4	7

¹ No estimate of population made.

City reports for week ended February 2, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chick-en por, cases re-ported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expect-ancy	Cases re-ported	Cases re-ported	Deaths re-ported			
MIDDLE ATLANTIC—con.									
New Jersey:									
Camden.....	135,400	6	8	4		2	1	0	5
Newark.....	473,600	19	19	31	63	3	6	45	30
Trenton.....	139,000	1	5	1	3	3	0	0	7
Pennsylvania:									
Philadelphia.....	2,064,200	90	79	25	45	16	32	4	94
Pittsburgh.....	673,800	29	29	5		13	13	6	38
Reading.....	115,400	2	3	3		4	48	0	4
Scranton.....	144,700	1	5	0		0	8	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	413,700	11	11	4	35	6	0	0	24
Cleveland.....	1,010,300	65	39	18	45	16	159	5	32
Columbus.....	299,000	0	5	1		7	8	0	8
Toledo.....	313,200	28	8	2	8	7	3	8	8
Indiana:									
Fort Wayne.....	105,300	2	4	3		0	0	0	0
Indianapolis.....	382,100	44	9	2		3	33	7	19
South Bend.....	86,100	0	1	1		0	4	0	4
Terre Haute.....	73,500	3	1	2		1	10	1	6
Illinois:									
Chicago.....	3,157,400	91	89	84	26	11	127	8	90
Springfield.....	67,200	5	1	0	9	5	1	0	1
Michigan:									
Detroit.....	1,378,900	64	59	38	37	20	13	19	50
Flint.....	148,800	8	6	2	1	1	0	1	3
Grand Rapids.....	164,200	5	3	2		1	23	3	5
Wisconsin:									
Kenosha.....	56,500	7	1	0	1	0	8	0	1
Milwaukee.....	544,200	69	22	8	6	5	159	19	19
Racine.....	74,400	24	2	1	1	0	110	0	2
Superior.....	(¹)	0	0	0	0	0	0	1	2
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	116,800	2	1	1		3	1	33	0
Minneapolis.....	455,900	85	21	5	29	4	142	26	9
St. Paul.....	(¹)	19	12	0		1	33	20	8
Iowa:									
Davenport.....	(¹)	1	1	0			0	0	
Des Moines.....	151,900	0	3	2			0	0	
Sioux City.....	80,000	11	1	0			2	1	
Waterloo.....	37,100	0	1	0			1	31	
Missouri:									
Kansas City.....	391,000	16	8	6		2	157	0	21
St. Joseph.....	78,500	8	2	0		1	11	0	4
St. Louis.....	848,100	22	51	27	14	4	6	4	
North Dakota:									
Fargo.....	(¹)	1	0	0		0	1	1	3
Grand Forks.....	(¹)	0	0	0			1	1	
South Dakota:									
Aberdeen.....	(¹)	1	0	0			4	0	
Sioux Falls.....	(¹)	0	0	0			244	0	
Nebraska:									
Omaha.....	222,800	3	4	6		0	0	0	11
Kansas:									
Topeka.....	62,800	21	2	1	6	3	46	0	5
Wichita.....	99,300	8	4	1		1	0	1	2
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	128,500	1	3	1		0	19	0	10
Maryland:									
Baltimore.....	830,400	80	34	19	419	19	4	92	49
Cumberland.....	(¹)	0	0	0	4	1	6	1	0
Frederick.....	(¹)	0	0	0	6	0	0	0	0
District of Columbia:									
Washington.....	552,000	32	22	9	87	12	3	0	36
Virginia:									
Lynchburg.....	38,600	3	2	3		1	0	11	4
Norfolk.....	184,200	4	1	0	2	1	0	23	10
Richmond.....	194,400	0	5	8	7	5	0	2	7
Roanoke.....	64,600	2	1	2		1	2	1	0
West Virginia:									
Charleston.....	55,200	2	0	0	5	1	5	0	3
Wheeling.....	(¹)	1	0	1	44	4	14	28	1

¹ No estimate of population made.

City reports for week ended February 2, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
SOUTH ATLANTIC—con.									
North Carolina:									
Raleigh.....	(¹)	4	0	0	-----	0	0	0	0
Wilmington.....	39,100	7	1	1	-----	1	0	0	1
Winston-Salem.....	80,000	6	0	4	-----	0	0	1	2
South Carolina:									
Charleston.....	75,900	0	1	1	61	6	0	0	4
Columbia.....	50,600	0	0	-----	-----	-----	-----	-----	-----
Greenville.....	(¹)	0	0	1	-----	0	0	2	0
Georgia:									
Atlanta.....	255,100	2	3	2	75	4	2	2	12
Brunswick.....	(¹)	1	0	0	-----	0	0	0	1
Savannah.....	99,900	0	1	2	38	3	0	0	5
Florida:									
Miami.....	156,700	5	3	2	6	0	0	2	1
Tampa.....	113,400	2	1	2	5	3	0	0	3
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	59,000	0	0	0	-----	1	0	0	5
Louisville.....	329,400	2	5	3	44	2	1	0	28
Tennessee:									
Memphis.....	190,200	7	4	3	315	11	0	0	6
Nashville.....	139,600	1	1	0	-----	9	0	0	7
Alabama:									
Birmingham.....	222,400	-----	3	-----	-----	-----	-----	-----	-----
Mobile.....	69,600	2	0	0	7	2	0	0	0
Montgomery.....	63,100	1	1	3	5	0	1	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	(¹)	0	0	1	0	-----	0	1	-----
Little Rock.....	79,200	2	1	0	13	0	2	2	2
Louisiana:									
New Orleans.....	429,400	6	13	6	13	14	6	0	17
Shreveport.....	81,300	3	2	1	-----	2	0	0	3
Oklahoma:									
Oklahoma City.....	(¹)	0	1	0	20	5	0	0	5
Tulsa.....	170,500	6	3	2	-----	-----	0	4	-----
Texas:									
Dallas.....	217,800	6	7	2	9	10	0	0	11
Fort Worth.....	170,600	6	3	15	-----	3	3	2	7
Galveston.....	50,600	1	1	2	-----	1	0	0	3
Houston.....	(¹)	2	6	10	-----	1	0	0	9
San Antonio.....	218,100	0	2	3	-----	15	1	0	4
MOUNTAIN									
Montana:									
Billings.....	(¹)	5	0	0	-----	0	1	0	0
Great Falls.....	(¹)	4	1	0	-----	0	61	0	0
Helena.....	(¹)	0	1	0	4	0	0	0	0
Missoula.....	(¹)	0	0	0	17	0	13	0	0
Idaho:									
Boise.....	(¹)	2	1	0	-----	0	0	0	0
Colorado:									
Denver.....	294,200	21	12	4	12	1	4	17	12
Pueblo.....	44,200	6	2	0	-----	0	0	1	1
New Mexico:									
Albuquerque.....	(¹)	0	0	1	2	1	0	0	2
Utah:									
Salt Lake City.....	138,000	31	3	4	-----	3	1	68	4
Nevada:									
Reno.....	(¹)	0	0	0	-----	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	383,200	25	5	3	-----	-----	0	3	-----
Spokane.....	109,100	3	3	0	-----	-----	20	0	-----
Tacoma.....	110,500	4	3	0	-----	0	1	16	2
Oregon:									
Portland.....	(¹)	15	0	10	11	2	33	6	10
Salem.....	(¹)	2	0	0	10	0	5	1	1
California:									
Los Angeles.....	(¹)	55	46	10	72	7	14	22	26
Sacramento.....	75,700	11	3	1	-----	1	1	11	5
San Francisco.....	585,300	40	23	13	20	5	5	2	3

¹ No estimate of population made.

City reports for week ended February 2, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland.....	4	2	0	0	0	1	1	1	1	0	30
New Hampshire:											
Concord.....	0	0	0	0	0	3	0	0	0	0	22
Manchester.....	3	3	0	0	0	0	0	0	0	0	24
Nashua.....	1	0	0	0	0	0	0	0	0	0	11
Vermont:											
Barre.....	1	1	0	0	0	1	0	0	0	0	4
Burlington.....	1	0	0	1	0	0	0	0	0	2	9
Massachusetts:											
Boston.....	87	75	0	0	0	25	1	0	0	28	410
Fall River.....	4	3	0	0	0	5	0	0	0	2	64
Springfield.....	10	10	0	0	0	1	0	0	0	4	47
Worcester.....	10	10	0	0	0	3	1	0	0	15	46
Rhode Island:											
Pawtucket.....	2	6	0	0	0	0	0	0	0	0	29
Providence.....	12	21	0	0	0	0	1	0	0	3	116
Connecticut:											
Bridgeport.....	13	3	0	0	0	0	0	0	0	0	54
Hartford.....	6	3	0	0	0	1	0	0	0	3	77
New Haven.....	10	1	0	0	0	2	0	0	0	6	67
MIDDLE ATLANTIC											
New York:											
Buffalo.....	30	40	0	0	0	19	1	0	0	34	188
New York.....	319	215	0	0	0	129	8	7	0	55	2,199
Rochester.....	14	5	0	0	0	3	1	1	0	27	116
Syracuse.....	17	8	0	0	0	1	0	0	0	34	49
New Jersey:											
Camden.....	7	13	0	0	0	0	0	0	0	6	38
Newark.....	35	10	0	0	0	10	1	0	0	13	135
Trenton.....	6	3	0	0	0	4	0	0	0	0	52
Pennsylvania:											
Philadelphia.....	106	69	0	0	0	43	2	1	0	78	613
Pittsburgh.....	44	25	0	0	0	8	0	0	1	26	213
Reading.....	4	5	0	0	0	3	0	0	0	2	45
Scranton.....	5	0	0	0	0	0	0	0	0	1	
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	21	31	1	5	0	11	0	0	0	34	165
Cleveland.....	49	11	0	0	0	13	0	0	0	73	229
Columbus.....	14	6	1	0	0	7	0	0	0	13	108
Toledo.....	14	17	1	6	0	8	0	1	0	83	85
Indiana:											
Fort Wayne.....	7	2	0	1	0	1	0	0	0	0	18
Indianapolis.....	13	26	12	0	0	5	0	0	0	15	132
South Bend.....	3	0	1	1	0	0	0	0	0	0	21
Terre Haute.....	4	0	0	0	0	0	0	0	0	1	31
Illinois:											
Chicago.....	151	112	3	3	0	56	3	2	0	53	761
Springfield.....	3	25	0	0	0	1	0	0	0	4	25
Michigan:											
Detroit.....	103	143	3	3	0	26	1	0	0	34	352
Flint.....	11	16	1	1	0	0	0	0	0	8	23
Grand Rapids.....	13	7	0	1	0	3	0	0	0	9	40
Wisconsin:											
Kenosha.....	2	3	0	0	0	0	0	0	0	5	7
Milwaukee.....	39	54	0	0	0	3	0	0	0	81	155
Racine.....	7	3	0	0	0	2	0	0	0	4	15
Superior.....	4	0	3	0	0	1	0	0	0	0	17

City reports for week ended February 2, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	10	7	1	0	0	2	0	0	0	6	32
Minneapolis.....	62	28	3	0	0	1	0	0	0	16	97
St. Paul.....	37	23	1	0	0	4	0	0	0	16	51
Iowa:											
Davenport.....	1	2	2	0	0	0	0	0	0	2	0
Des Moines.....	7	20	2	0	0	0	0	0	0	0	0
Sioux City.....	2	0	1	0	0	0	0	0	0	2	0
Waterloo.....	2	35	0	0	0	0	0	0	0	26	0
Missouri:											
Kansas City.....	14	17	3	1	0	6	0	0	0	10	136
St. Joseph.....	3	2	0	0	0	0	0	1	0	5	29
St. Louis.....	50	20	2	0	0	11	0	0	0	44	305
North Dakota:											
Fargo.....	2	1	0	0	0	0	0	0	1	4	8
Grand Forks.....	2	2	1	0	0	0	0	0	0	0	0
South Dakota:											
Aberdeen.....	1	1	0	0	0	0	0	0	0	0	0
Sioux Falls.....	3	0	0	0	0	0	0	0	0	0	13
Nebraska:											
Omaha.....	7	10	4	0	0	4	1	1	1	2	66
Kansas:											
Topeka.....	2	5	0	0	0	1	0	0	0	6	28
Wichita.....	5	11	1	3	0	1	0	1	0	14	38
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	6	0	0	0	0	1	0	0	0	3	33
Maryland:											
Baltimore.....	40	26	0	0	0	16	2	0	0	64	267
Cumberland.....	1	0	0	0	0	1	0	0	0	0	11
Frederick.....	1	0	0	0	0	0	0	0	0	0	4
District of Columbia:											
Washington.....	26	21	1	0	0	12	1	1	0	20	204
Virginia:											
Lynchburg.....	1	1	0	0	0	0	0	0	0	2	14
Norfolk.....	3	0	1	0	0	0	0	0	0	1	0
Richmond.....	4	3	0	0	0	6	0	1	0	1	86
Roanoke.....	1	6	0	0	0	2	0	0	0	0	11
West Virginia:											
Charleston.....	2	0	0	0	0	3	1	0	0	4	17
Wheeling.....	2	2	0	0	0	1	0	0	1	6	24
North Carolina:											
Raleigh.....	1	1	0	0	1	0	0	0	0	4	12
Wilmington.....	0	0	0	3	0	0	0	0	0	0	16
Winston-Salem.....	1	1	1	0	0	4	0	0	0	16	18
South Carolina:											
Charleston.....	0	0	0	1	0	2	1	0	0	0	33
Columbia.....	0	0	0	0	0	0	0	0	0	0	0
Greenville.....	0	0	0	0	0	2	0	0	0	9	9
Georgia:											
Atlanta.....	5	8	3	2	0	6	0	0	0	0	101
Brunswick.....	0	0	0	0	0	0	0	0	0	1	7
Savannah.....	1	0	1	0	0	5	0	1	0	3	45
Florida:											
Miami.....	2	2	1	0	0	3	0	0	0	6	27
Tampa.....	1	0	0	0	0	0	1	1	0	6	28
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	4	0	1	0	0	0	0	0	0	26
Louisville.....	6	34	0	0	0	6	0	0	0	2	101
Tennessee:											
Memphis.....	7	9	2	0	0	9	0	0	0	1	78
Nashville.....	3	1	0	0	0	1	0	0	0	0	52
Alabama:											
Birmingham.....	3	1	5	0	0	0	1	0	0	0	0
Mobile.....	0	1	0	0	0	2	0	0	0	0	16
Montgomery.....	0	2	0	0	0	0	0	0	0	3	0

City reports for week ended February 2, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	0	1	0	0	0	0	0	0	0	0	0
Little Rock.....	1	4	0	1	0	0	0	0	0	5	0
Louisiana:											
New Orleans.....	7	21	1	0	0	26	2	1	0	2	162
Shreveport.....	1	0	0	0	0	1	0	1	0	0	25
Oklahoma:											
City.....	2	4	3	1	0	0	0	1	0	0	26
Tulsa.....	2	5	1	1	0	0	0	0	0	3	0
Texas:											
Dallas.....	4	5	2	6	0	6	0	0	0	1	67
Fort Worth.....	1	13	1	26	0	0	0	0	0	0	42
Galveston.....	0	1	0	0	0	2	0	0	1	0	19
Houston.....	3	2	3	0	0	8	0	0	0	0	71
San Antonio.....	2	4	0	0	0	4	0	0	0	0	89
MOUNTAIN											
Montana:											
Billings.....	1	0	0	0	0	0	0	0	0	0	6
Great Falls.....	3	0	1	0	0	1	0	0	0	1	13
Helena.....	1	0	0	0	0	0	0	0	0	0	5
Missoula.....	1	1	0	0	0	0	0	0	0	0	0
Idaho:											
Boise.....	1	0	0	1	0	0	0	0	0	0	14
Colorado:											
Denver.....	14	3	2	0	0	11	0	0	0	9	115
Pueblo.....	2	0	0	0	0	0	0	0	0	0	2
New Mexico:											
Albuquerque.....	2	0	0	0	0	5	0	1	0	38	16
Utah:											
Salt Lake City.....	3	3	2	8	0	3	0	0	0	0	43
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle.....	12	3	3	0	0	0	0	0	0	10	0
Spokane.....	7	4	7	0	0	0	0	0	0	0	0
Tacoma.....	3	7	3	2	0	0	0	0	0	1	33
Oregon:											
Portland.....	6	5	10	22	0	2	1	0	0	0	85
Salem.....	0	0	1	0	0	0	0	0	0	0	0
California:											
Los Angeles.....	34	74	6	1	0	20	1	2	0	20	279
Sacramento.....	2	14	1	0	0	1	0	0	0	3	31
San Francisco.....	19	43	3	0	0	13	1	1	0	35	181

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Deaths
NEW ENGLAND								
Massachusetts:								
Boston.....	0	0	0	0	1	0	1	0
Worcester.....	0	0	0	1	0	0	0	0
Connecticut:								
Hartford.....	1	0	0	0	0	0	0	0
MIDDLE ATLANTIC								
New York:								
New York.....	40	17	5	1	0	0	1	1
Rochester.....	1	0	0	0	0	0	0	0
New Jersey:								
Newark.....	1	0	1	0	0	0	0	0
Trenton.....	1	0	0	0	0	0	0	0
Pennsylvania:								
Philadelphia.....	8	4	1	0	0	0	0	1
Pittsburgh.....	1	0	0	0	0	0	0	1

City reports for week ended February 2, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	3	1	0	0	0	0	0	1	0
Columbus.....	0	0	1	1	0	0	0	0	0
Indiana:									
Indianapolis.....	0	1	0	0	0	0	0	0	0
Illinois:									
Chicago.....	5	5	1	0	0	0	0	0	0
Michigan:									
Detroit.....	14	7	1	2	0	0	0	1	0
Wisconsin:									
Milwaukee.....	4	5	1	1	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	0	1	0	0	0	0	0	0	0
Minneapolis.....	1	1	0	0	0	0	0	0	0
St. Paul.....	1	1	0	0	0	0	0	0	0
Missouri:									
Kansas City.....	3	2	0	0	1	1	1	0	0
St. Louis.....	2	1	0	0	0	0	0	0	0
North Dakota:									
Fargo.....	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	1	1	0	0	0	0	1	0	0
South Carolina:									
Charleston.....	0	0	0	0	1	0	0	0	0
Greenville.....	0	0	0	0	0	1	0	0	0
Georgia:									
Atlanta ¹	0	1	0	0	0	0	0	0	0
Savannah ¹	0	0	1	0	0	0	0	0	0
Florida:									
Miami.....	0	0	0	0	1	1	0	0	0
Tampa.....	1	1	0	0	0	0	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville.....	0	1	0	0	0	1	0	0	0
Tennessee:									
Memphis.....	0	2	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	0	0	0	0	3	0	0	0	0
Shreveport.....	0	0	0	1	0	0	0	0	0
Texas:									
San Antonio.....	0	0	0	0	0	0	0	1	0
MOUNTAIN									
Montana:									
Great Falls.....	1	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	3	0	0	1	0	0	0	0	0
Utah:									
Salt Lake City.....	5	2	0	0	0	0	0	0	0
Nevada:									
Reno.....	1	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1	0	0	0	0	0	0	0	0
Oregon:									
Portland.....	2	1	0	0	0	0	0	0	0
California:									
Los Angeles.....	4	2	0	0	0	0	0	0	0
Sacramento.....	1	2	0	0	0	0	0	0	0
San Francisco.....	2	8	0	0	0	0	0	0	0

¹ Typhus fever: 2 cases; 1 case at Atlanta, Ga., and 1 case at Savannah, Ga.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended February 2, 1929, compared with those for a like period ended February 4, 1928. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases had estimated aggregate populations of more than 31,000,000. The 91 cities reporting deaths had nearly 30,000,000 estimated population. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, December 30, 1928, to February 2, 1929—
Annual rates per 100,000 population compared with rates for the corresponding period of 1928¹

DIPHTHERIA CASE RATES

	Week ended—									
	Jan. 5, 1929	Jan. 7, 1928	Jan. 12, 1929	Jan. 14, 1928	Jan. 19, 1929	Jan. 21, 1928	Jan. 26, 1929	Jan. 28, 1928	Feb. 2, 1929	Feb. 4, 1928
98 cities.....	148	170	139	204	132	193	125	194	109	194
New England.....	163	149	183	200	179	168	201	172	109	193
Middle Atlantic.....	178	202	157	254	158	253	136	252	133	279
East North Central.....	153	176	124	220	107	192	122	186	106	145
West North Central.....	161	96	158	111	146	139	115	131	90	113
South Atlantic.....	111	160	118	155	99	155	77	149	105	180
East South Central.....	88	105	190	56	170	105	136	84	58	77
West South Central.....	111	243	119	207	79	154	119	166	99	154
Mountain.....	70	71	87	115	61	168	52	124	70	106
Pacific.....	60	123	67	143	107	125	95	161	67	186

MEASLES CASE RATES

98 cities.....	196	510	235	551	218	611	262	571	277	718
New England.....	964	917	873	1,021	706	1,249	672	1,078	518	1,506
Middle Atlantic.....	80	468	94	501	70	480	86	484	93	620
East North Central.....	230	265	315	300	302	325	380	368	417	358
West North Central.....	198	135	394	110	423	260	627	139	769	223
South Atlantic.....	114	403	66	1,366	84	1,624	71	1,469	105	1,823
East South Central.....	14	2,118	7	2,020	34	1,845	27	1,564	710	1,459
West South Central.....	24	203	43	272	12	567	36	507	36	928
Mountain.....	383	62	427	106	853	97	871	89	697	115
Pacific.....	40	384	115	527	57	532	77	435	102	709

SCARLET FEVER CASE RATES

98 cities.....	195	206	221	260	225	268	231	278	234	270
New England.....	296	340	317	398	296	508	319	372	305	359
Middle Atlantic.....	148	196	190	266	183	269	217	289	190	296
East North Central.....	239	233	251	285	258	286	262	301	280	289
West North Central.....	258	203	283	262	248	225	296	274	306	248
South Atlantic.....	154	158	124	182	122	210	116	191	132	201
East South Central.....	197	63	156	63	231	91	231	112	165	70
West South Central.....	142	101	182	126	190	89	103	130	150	134
Mountain.....	113	195	157	301	183	266	104	301	61	381
Pacific.....	185	184	282	220	389	241	267	297	362	217

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1929 and 1928, respectively.

² Atlanta, Ga., not included.

³ South Bend, Ind., not included.

⁴ Wilmington, Del., not included.

⁵ Columbia, S. C., and Birmingham, Ala., not included.

⁶ Columbia, S. C., not included.

⁷ Birmingham, Ala., not included.

Summary of weekly reports from cities, December 30, 1928, to February 2, 1929—
Annual rates per 100,000 population compared with rates for the corresponding
period of 1928—Continued

SMALLPOX CASE RATES

	Week ended—									
	Jan. 5, 1929	Jan. 7, 1928	Jan. 12, 1929	Jan. 14, 1928	Jan. 19, 1929	Jan. 21, 1928	Jan. 26, 1929	Jan. 28, 1928	Feb. 2, 1929	Feb. 4, 1928
98 cities.....	3	17	5	23	7	22	8	23	7	21
New England.....	0	0	2	0	0	0	0	0	0	0
Middle Atlantic.....	1	0	0	0	0	0	0	0	0	0
East North Central.....	6	9	3	7	6	9	8	12	10	9
West North Central.....	2	106	6	147	13	121	2	121	8	117
South Atlantic.....	0	13	2	29	6	15	8	15	11	19
East South Central.....	7	7	41	7	7	70	14	28	7	28
West South Central.....	4	16	16	28	47	4	47	20	28	12
Mountain.....	35	106	78	142	17	106	61	133	78	115
Pacific.....	5	26	7	31	17	64	20	59	7	59

TYPHOID FEVER CASE RATES

	4	5	4	8	4	6	4	8	4	7
98 cities.....										
New England.....	5	7	2	14	5	9	2	21	2	14
Middle Atlantic.....	2	3	4	5	4	3	2	5	4	5
East North Central.....	3	3	1	3	3	6	4	5	1	3
West North Central.....	0	2	0	8	2	2	4	8	6	2
South Atlantic.....	9	17	4	2	6	6	2	8	8	6
East South Central.....	0	28	7	77	20	42	7	28	7	21
West South Central.....	4	0	28	20	8	12	24	41	8	41
Mountain.....	9	9	0	0	0	9	0	0	0	9
Pacific.....	7	5	0	10	2	8	10	0	7	10

INFLUENZA DEATH RATES

	234	20	241	25	183	26	131	20	83	20
91 cities.....										
New England.....	48	16	100	7	143	18	206	7	143	9
Middle Atlantic.....	165	13	161	21	152	19	134	16	82	14
East North Central.....	238	10	236	13	148	17	70	12	48	13
West North Central.....	240	6	165	21	123	28	69	15	57	15
South Atlantic.....	343	23	395	40	289	29	189	11	116	25
East South Central.....	970	130	1,592	115	940	153	615	100	253	100
West South Central.....	596	83	467	67	333	67	207	79	174	46
Mountain.....	218	53	165	62	157	71	70	80	35	53
Pacific.....	134	24	79	37	79	17	46	20	43	34

PNEUMONIA DEATH RATES

	383	175	408	196	366	182	329	164	274	155
91 cities.....										
New England.....	201	103	323	179	446	156	502	126	511	126
Middle Atlantic.....	395	186	443	214	446	193	454	183	360	178
East North Central.....	466	140	414	158	280	137	184	121	170	129
West North Central.....	216	187	285	168	240	205	189	147	189	73
South Atlantic.....	360	238	485	243	474	230	385	214	263	207
East South Central.....	533	268	659	253	452	207	355	169	198	146
West South Central.....	670	241	528	291	398	312	308	271	199	212
Mountain.....	174	195	200	168	200	186	157	177	148	204
Pacific.....	148	175	134	142	125	142	128	145	118	128

¹ Atlanta, Ga., not included.

² South Bend, Ind., not included.

³ Wilmington, Del., not included.

⁴ Columbia, S. C., and Birmingham, Ala., not included.

⁵ Columbia, S. C., not included.

⁶ Birmingham, Ala., not included.

⁷ Hartford, Conn., and Wilmington, Del., not included.

⁸ Hartford, Conn., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities of each group, approximated as of July 1, 1929 and 1928, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total.....	98	91	31,568,400	31,052,700	29,995,100	29,498,600
New England.....	12	12	2,305,100	2,273,900	2,305,100	2,273,900
Middle Atlantic.....	10	10	10,809,700	10,702,200	10,809,700	10,702,200
East North Central.....	16	16	8,181,900	8,001,300	8,181,900	8,001,300
West North Central.....	12	9	2,712,100	2,673,300	1,736,900	1,788,100
South Atlantic.....	19	19	2,783,200	2,732,900	2,783,200	2,732,900
East South Central.....	6	5	767,900	745,500	704,200	682,400
West South Central.....	8	7	1,319,100	1,289,900	1,285,000	1,256,400
Mountain.....	9	9	598,800	590,200	598,800	590,200
Pacific.....	6	4	2,090,600	2,043,500	1,590,300	1,551,200

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended January 26, 1929.—The Department of Pensions and National Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended January 26, 1929, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever.....	2			5		1		8
Influenza.....	135			224	1			360
Lethargic encephalitis.....					2			2
Poliomyelitis.....				1				1
Smallpox.....			5	4		2		11
Typhoid fever.....		1	7	4				12

Ontario Province—Communicable diseases—Comparative—December 30, 1928—January 26, 1929.—The following table shows the number of cases of communicable diseases, with deaths, reported in the Province of Ontario for the four weeks ended January 26, 1929, as compared with the corresponding period of 1928.

Disease	1929		1928	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	5	4	2	3
Chancroid.....	7		2	
Chicken pox.....	773	1	1,141	
Conjunctivitis.....	1		1	
Diphtheria.....	300	23	325	14
German measles.....	19		33	
Goiter.....	1			2
Gonorrhoea.....	99		142	
Influenza.....	7,495	323	15	11
Measles.....	2,418	12	1,149	1
Mumps.....	369		3,596	
Pneumonia.....		490		188
Poliomyelitis.....	2		2	
Puerperal septicemia.....	1			1
Scarlet fever.....	391		533	
Septic sore throat.....			4	1
Smallpox.....	38		288	1
Syphilis.....	90		124	
Tetanus.....			1	
Tuberculosis.....	96	46	101	58
Typhoid fever.....	21	1	50	6
Whooping cough.....	274		342	

The following municipalities reported cases of smallpox for the period: South Dumfries, 16; Tudor and Cashel, 6; Port Arthur, 3; St. Catherines, 2; Strathroy, 2; Trout Creek, 2; Essex Border, 1; Field, 1; London, 1; Madoc Township, 1; Oshawa, 1; Shuniah, 1; Turnbury, 1.

CUBA

Habana—Communicable diseases—January, 1929.—During the month of January, 1929, communicable diseases were reported from Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Cerebrospinal meningitis.....	1	1	Measles.....	291	6
Chicken pox.....	5		Scarlet fever.....	7	
Diphtheria.....	11	2	Typhoid fever ¹	14	4
Malaria ¹	24				

¹ Many of these cases from the interior.

PERSIA

Teheran—Deaths during year ended November 21, 1928.—The following table shows the numbers of deaths reported from certain diseases in Teheran, Persia, during the year ended November 21, 1928:

Cause	Deaths	Cause	Deaths
All causes.....	3,716	Scarlet fever.....	4
Cerebrospinal meningitis.....	5	Smallpox.....	291
Diphtheria.....	15	Tuberculosis.....	375
Measles.....	131	Typhoid fever.....	77
Poliomyelitis.....	29	Typhus fever.....	4

Estimated population—250,000.

Place	Au- gust, 1928	October, 1928			November, 1928			December, 1928			Jan. 1-10, 1929
		1-10	11-31		1-10	11-20		1-10	11-20		
			4	5		2	4		5	21	
Indo-China (French) (see also table above):											
Annam.....	11	4	5	2			5				26
Cambodia.....	38	16	19				17				4
Cochin-China.....	28	6	26	20	27	48	81			361	233
Tonkin.....	2										
Kwangchow-Wan.....	1					1					

PLAGUE

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

Place	Aug. 26- Sept. 23, 1928	Sept. 23- Oct. 20, 1928	Week ended—													
			November, 1928				December, 1928				January, 1929				February, 1929	
			3	10	17	24	1	8	15	22	29	5	12	19	26	2
Algeria:																
Algiers.....			2													
Oran.....		1														
Philippine:		2														
Argentina: ¹																
Buenos Aires:																
Catamarca Province: Retreo.....			P													
Cordoba Province—																
Yanada Honda.....			14													
Leorde.....																
July Province: Perico.....																
Rosario.....																
Santiago del Estero.....		7														
Tucuman Province: El Mollar.....																
Azores: St. Michaels Island.....		2	1													
Belgian Congo:																
Diugu.....																
Lena.....			2													

¹ During the period from Nov. 10 to Dec. 11, 1928, 13 cases of plague were reported at El Mollar, Tucuman Province, Argentina. During the same period 1 case of plague was reported at Chiriquin and 1 at Usache, both in Cordoba Province, Argentina.

² 18 plague-infected rats were reported at Buenos Aires, Argentina, from July 1 to Dec. 31, 1928.

Union of Socialist Soviet Republics:		Place		No. ven- em- ber, 1928		De- cem- ber, 1928	
Aut- gust, 1928	Sep- tem- ber, 1928	Place	No. ven- em- ber, 1928	De- cem- ber, 1928	Aut- gust, 1928	Sep- tem- ber, 1928	No. ven- em- ber, 1928
64							
D		Astrakan—					
D		Kirghiz District.....					
D		Krasnoarsk District.....					
D		Chita District.....					
D		Kalmouks District.....	10				
D		Kassaka.....	7				
D		Ural Government.....	7				
D		Uruguay: Rivers.....	7				
D		On vessel:					
	P	S. S. Automedon, at Penang, Straits Settle- ments.....					1
		S. S. Holytan, at Bangkok, from Singapore.....					
		S. S. Stomand, at Alexandria, from Batoum.....					
British East Africa (see also table above):		Place		No. ven- em- ber, 1928		De- cem- ber, 1928	
		Kenya.....	144	15	37	16	15
		Uganda.....	84	2		2	
		Ecuador: Guayaquil.....	128	134	108		
		Plague-infected rats	141	3	8	21	20
		Greece (see also table above).....		2	2	8	7
		Indo-China (see also table above).....	27	21	21	29	75
		Madagascar (see also table above).....		1	1	1	2
		Ambositra Province.....	2	6	2	1	1
		Antsirabe Province.....	65	59	88		
		Itasy Province.....	61	51	84		
		Majunga.....	3	3	8	14	14
		Moramanga Province.....	3	10	2	6	6
		Tananarive Province.....	3	10	2	6	6
		Toliara.....	2	2	5	6	6
		Trompsburg.....	2	2	2	2	2
		Tsiroanomandid.....	2	2	2	2	2
		Vakinankaratra.....	11	20	36	32	32
		Vakinankaratra.....	10	18	35	32	32
Madagascar—Continued.		Place		No. ven- em- ber, 1928		De- cem- ber, 1928	
		Tamatave.....	12	18	9	18	9
		Tananarive Provinces.....	7	10	7	10	7
		Peru.....	51	75	100	159	159
		Baol I.....	51	62	95	141	141
		Cayor I.....	4	3	10	18	18
		Fatick I.....	1	1	4	6	6
		Louga I.....	43	109	127	127	127
		Rufisque I.....	32	32	32	32	32
		Thies I.....	68	73	39	18	4
		Tivaouane I.....	38	40	14	6	2
		Syria: Beirut.....	46	20	17	6	14
		Tananarive Provinces.....	15	8	35	10	10
		Tananarive Provinces.....	20	20	14	2	1
		Tananarive Provinces.....	2	1	5	1	1
		Tananarive Provinces.....	2	1	49	8	4
		Tananarive Provinces.....	151	106	51	11	11
		Tananarive Provinces.....	119	78	20	20	20
		Tananarive Provinces.....	9	1	1	3	3

1 Reports incomplete.

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

SMALLPOX

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

Place	Aug. 26-28, 1928	Sept. 20, 1928	Week ended—						January, 1929				February, 1929				
			Oct. 27, 1928	November, 1928			December, 1928			5	12	19		26			
			3	10	17	24	1	8	15	22	29	5	12	19	26	2	9
Algeria:																	
Algers.....	C	4		1	1		1	7					1	1			
Oran.....	C	21			1	1											
Arabia: Aden.....	C																
Brazil (see table below).																	
British East Africa (see also table below), Kenya—																	
Mombasa.....	C	1								3							
Northern Rhodesia.....	C	392	195	270	15				67	173							
Southern Rhodesia.....	D	22	7	5	7				8	23							
Tanganyiki.....	C	5	9	1			2		3								
Canada:							1										
Alberia:																	
Edmonton.....	C	6	4	1		3	7	1	13				1	1	3		
British Columbia—Vancouver	C	6	16		12	9	6	4	9	8			0	17	1	2	
Manitoba.....	C		1		14	16	16	5	1	7			4	4	3		2
Winnipeg and vicinity	C						13	2	1	1			1	1			
Nova Scotia.....	C																
Ontario:																	
Kingston.....	C	3	15	5		4	4	4	2	5			14	17	7		
North Bay.....	C	1															
Ottawa.....	C	0	2	2	1	2	1										
Sarnia.....	C																
Toronto.....	C																
Quebec.....																	
Montreal.....	C	28	75	20	9	40	25	72	20	8	10	8	7	12	9	5	1
Quebec.....	C	12	4	7	1	2	1	1	1	1	2	1	2	3	5	2	2
Saskatchewan.....	C	13	12	3	1	3	5	3	1	1	1	1	4	4	4	2	2
Acroese Jaw.....	C	2	1	6			4	11	12	11	18	1	6	7	3	2	
Regina.....	C	1			2	2	1						1		2	4	

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

SMALLPOX—Continued

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

Place	Week ended—																					
	Aug. 28-30, 1928		Sept. 20-22, 1928		Oct. 27, 1928			November, 1928			December, 1928			January, 1929			February, 1929					
	1-10	11-20	21-30	1-10	11-20	21-31	3	10	17	24	1	8	15	22	29	5	12	19	26	2	9	
Tunisia: Tunis.....	C	1																				
Union of South Africa:																						
Cape Province.....	C	P	P	P	P	P	P	P	P	P	P			1								
Natal.....	C	P	P	P	P	P									1							
Orange Free State.....	D																					
Transvaal.....	C	P	P	P	P	P																
Upper Volta.....	C	P	P	P	P	P																
On vessel; S. S. Ballarat, en route to Cape Town, South Africa.....	C	P	5	1																		

Place	August, 1928		September, 1928		October, 1928		November, 1928		December, 1928		January, 1929	
	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31
	1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31
Indo-China (see also table above).....	71	27	17	38	19	43	55	57	32	23	100	120
Ivory Coast.....	2	2			1							74
Senegal.....	55	4		2								
Sudan (French).....	33			P	32	2				2		
Syria: Aleppo.....	4											
Beirut.....							1					1

Place	Aug- 1928	Sep- 1928	Oct- 1928	Nov- 1928	Dec- 1928	Jan- 1929
Chosen.....	41	36				
.....	6	2				
Chemulpo.....	C	D				
.....	C	D				
Seoul.....	C	C	1	1		
.....	1	2	3			
.....	D	1				
Greece: Athens.....	C	1	1	4	1	

YELLOW FEVER

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

Place	Week ended—																
	July 20-Aug. 25, 1928			Aug. 20-Sept. 23, 1928			Sept. 20-Oct. 27, 1928			November, 1928			December, 1928			January, 1929	
	20-25	26-31	1-6	7-12	13-18	19-24	25-30	31	1-6	7-12	13-18	19-24	25-30	31	1-5	6-12	
Brazil:																	
Bahia.....	C	D	1	1				1									
.....	D	D	1	2													
Para.....	D	D	14	9	6	1	1										
Rio de Janeiro.....	C	D	4	8	4	1											
Dahomey: Ouidah Military Camp.....	D	D															
.....	D	D															
Gambia: Bathurst.....	D	D															
.....	D	D															
Ivory Coast: Ferkes-Sedougou.....	D	D															
On vessel:																	
S. S. Berini, at Santos, Brazil.....	C	D															
.....	C	D															
S. S. Victoria, at Manaus from Para, Brazil.....	C	D															
.....	C	D															

123 cases of yellow fever with 14 deaths were reported at Rio de Janeiro during January, 1929, mostly suburban.

X