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## THE INFLUENZA EPIDEMIC AT THE UNIVERSITY OF OREGON IN THE FALL OF 1928

By FRED N. MILLER, M. D., *University of Oregon Health Service*

The following observations are based upon the study of the records of 250 cases of influenza among the students of the University of Oregon occurring between November 6 and December 16, 1928. Three hundred and nineteen cases were diagnosed—242 from November 6 to 30, and 77 from December 1 to 16—but brief protocols were transcribed of only 250 of these cases, in which the patients were in one of the university infirmaries. Unfortunately, the epidemic necessitated opening, equipping, and staffing three new buildings, and it was found impossible to write a complete history with detailed progress notes in each case. However, it is believed that the histories have been kept in sufficient detail as to make possible some conclusions concerning the source and nature of the epidemic and effect of treatment. These cases were under the care of the three regular staff members of the university health service, and the more serious cases at least were examined by all three of the physicians, frequently at one time, and the findings were compared and discussed.

The source of the epidemic is unusually clear. On November 3, the football game at the University of California, at Berkeley, Calif., drew some few of our students. Since we knew that influenza was prevalent in and around Berkeley, we warned students of the risks attendant upon going to California at that time. On November 6 we had our first two cases of influenza; the next day there was one case, and by the 8th the epidemic had begun. The first cases were in three of five boys in the A fraternity who had driven to California for the game—the other two of the five were admitted with influenza a few days later. These five boys were native Californians, and therefore had many contacts in Berkeley homes. On November 8 five other boys, living at the A fraternity house, who had not been to California, came down with the disease. There were 10 members of this group, therefore, who were sick before any other fraternity was involved, and five of them had gone to California. The first girl who became sick (November 8) also had gone to California, and the second girl (November 12) was a sorority sister and roommate of the first.

It is interesting to note that of the football squad there was no infection traceable directly to the California trip, for it was not until the second week after the game that the first case appeared on the squad. Whether or not this relative immunity was due to the better physical condition of the football men or to the fact that the other students were exhausted from the long, cold drive to Berkeley and return (at least a 24-hour drive each way), it is impossible to say. Probably the deciding factor was the fact that the five boys not restrained by any training rules, and all natives of California, actually had many more contacts.

The disease spread rapidly once it was started, and seemed to spread chiefly within the various living units. Thus there were 12 cases in fraternity A, and of these 10 appeared in the first 5 days and only 2 new cases in the subsequent 5 weeks. The second, or B, fraternity had 10 cases, 7 of which were admitted on the same day. Fraternities C and D, which, with A and B, had more cases than any other fraternities, show the same grouping of cases. Fraternity C had a total of 10 cases from November 6 to December 16, and 9 of these were admitted within 3 days. Fraternity D, which had 9 admissions to the infirmary, had all 9 in a period of 6 days from November 21 to 26, and 5 of these occurred on 1 day. Even in the groups that had fewer cases there was a marked tendency toward grouping. The ratio of boys to girls was almost exactly 2 to 1, though the ratio of male to female students is approximately only 1.2 to 1. That there was much spreading of the infection beyond the confines of a particular living or housing organization is evidenced by the fact that almost every such organization on the campus was involved. It does, however, seem clearly established that the classroom or place of public assembly is not nearly so prolific a source of infection as the living organization, where associations are much more intimate.

This fact is very important in deciding upon measures for control. To curtail public assemblies is bound to cause alarm and, in a university community, would not eliminate gathering in groups but would actually tend to keep students together in those very groups where the danger is greatest. The average population of a fraternity at the University of Oregon is about 35; of the dormitories considerably greater, and it is here that the conditions for the spread of a disease like influenza are the most favorable. If closing the university would stamp it out, then such a step might be considered not too drastic; but the fact that the disease since became prevalent throughout the State is indicative of the probable futility of such a step. Indeed, the closing of schools all too frequently defeats its own ends, in that all supervision is thereby surrendered. That this supervision was effective seems further indicated by the fact that the incidence of new

cases per diem dropped from 10 for November (8 to 30) to 4 for December. Some idea of what might have happened if there had been no isolation of the sick may be had from the fact that 9 of 15 nurses whom we used contracted influenza, whereas if we make due allowance for the students who either were treated at local hospitals or in their own homes it is extremely doubtful whether the morbidity was over 15 per cent—i. e., about 450 out of a student body of approximately 3,000.

The following prophylactic measures were taken:

1. Hospital facilities were provided at once. On the afternoon of November 8, when six new cases were found, an infirmary annex was opened. Graduate nurses, a janitor, and a cook were obtained, and by 7.30 p. m. patients were in bed and treatment had been instituted.

2. Measures were taken to see that the hospital facilities were at least a step ahead of the needs and, what is most important, that these facilities were used.

- (a) The students were informed of the situation through communications in the student daily and were urged to report to the dispensary or infirmary for every ill, no matter how slight. This was urged as being in the best interest of anyone coming down with influenza and as necessary to protect well persons.

- (b) At a called meeting of housemothers and house presidents it was urged that any student who was sick should be seen by a physician. Students who preferred were of course allowed to consult any private physician for treatment at one of the local hospitals. On the whole, cooperation was excellent.

- (c) Hospitalization was insisted upon in all cases seen where there was a fever and in many instances where there was no elevation of temperature but where the symptomatology suggested the onset of influenza.

3. The only instructions that were broadcast as of preventive value were (a) the avoidance of contacts as much as possible; (b) the washing of the hands, at least before each meal; and (c) attention to matters of general hygiene, such as adequate rest, which are always of value. Any reference to the symptoms to be watched for was avoided, but, rather, students were told to report to the dispensary with any ailment, no matter how trivial it seemed. Those measures frequently urged at times like this—such as catharsis, soda to alkalize the system, gargles, forced fluids, vaccines or sera, all of which at best are of doubtful value as preventives—were purposely not mentioned, as it was desired to get away from all self-diagnosis and self-treatment and to concentrate on the idea of consulting a physician at the very first sign of difficulty.

## SYMPTOMATOLOGY

As a rule the onset was relatively sudden. Frequently the patient awoke with a chill or with a sense of feeling sick. "Aching" was the most common symptom. Headache, at times very severe, was present in about half of the cases. The aching in the muscles, present in about 90 per cent of the cases, was either general or often confined to the back, the shoulders, the hips, or the extremities. In at least the majority of cases there were no prodromal symptoms. Rarely there was a case where fatigue was present for as long as four to six days before the onset of the fever. More often fatigue or exhaustion was complained of for the first time after there had been a slight rise in temperature and in a few cases this was the only symptom.

Contrary to the impression that is usually held, at least by the laity, there was not in our cases a well-defined coryza preceding the actual onset. Cases with a marked rhinitis were the exception, and the nose symptoms that were found appeared to be coincidental rather than the forerunner or first manifestation of influenza. Frequently patients, on being informed that they had influenza, would protest, "But I've had no cold." On the other hand, a sore throat or a "cold in the chest" was very frequently either the first or the most noticeable symptom. The cough was at first nonproductive, and even in the later stages the amount of sputum was relatively small. The cough seemed loose, deep-seated, with a metallic sound, and did not respond well to treatment, occasionally persisting for days after the temperature was normal. The soreness in the throat was not localized, and speech and deglutition were not seriously interfered with. Frequently the patient attributed the coughing to the soreness of the throat. Gastrointestinal symptoms were absent, except for occasional nausea (about 5 per cent) secondary to the coughing. Recovery was rapid, though asthenia was a common and often distressing sequela. Occasionally there was despondency, but this was never severe.

Physical findings were confined for the most part to the throat and chest.

There was a characteristic mottled hyperemia of the entire pharynx, especially of the posterior wall, which was usually intensely red, the color extending well up into the nasopharynx. This was easily the most common physical finding; and as it appeared early and was associated with a soreness of which the patient complained, it was of considerable aid in early diagnosis.

In a majority of cases there were definite physical findings in the chest. Inspection, palpation, and percussion were, as a rule, essentially negative. Most noticeable were the wide range and the rapid

change in the auscultatory findings. An extreme example of the rapidity with which the physical findings varied is case I, first examined at about 2.30 p. m., when there was found posteriorly marked increase in breath tones over the entire left lung. On the right there was no change on auscultation, except, perhaps, a very slight increase in the breath tones over the lower lobe. There was, however, such a marked decrease in resonance over the lower lobe to the posterior axillary line that the nurse standing at the foot of the bed remarked the difference. The patient was percussed both on his side and prone in bed. At the time I mistakenly interpreted this dullness as due to consolidation of the lower lobe with compensatory emphysema on the opposite side, although there were no râles and no change in vocal fremitus. Four hours later, when I attempted to demonstrate this dullness to a colleague and expected to find some râles, there was no difference on either side, both sides appearing normal to percussion and auscultation. In this case a temperature of 104° and a bloody sputum helped to mislead me into thinking I was dealing with a beginning lobar pneumonia.

While this is an extreme case, there were very many other cases in which the physical findings changed rapidly. In general, both the expiratory and inspiratory notes were roughened and prolonged, and there was a peculiar harsh tone to inspiration. This, the most common physical finding, was present in almost all cases. Moist râles were present in less than half of the cases (about 25 per cent), and occasional high-pitched râles were heard in about 10 per cent of the chests. The findings were uniformly greatest posteriorly, especially at the bases, and, in our opinion, were due to a bronchitis or hypostatic congestion rather than to change in the parenchyma.

One indication of the severity of this epidemic may be obtained from a study of the fever, even though a liberal use of antipyretic drugs makes it impossible to state the usual form of the temperature curve in this epidemic. Of the 250 cases in the infirmary, 24, or almost 10 per cent, had no temperature above 98.8° at any time. Undoubtedly some of these 24 had a fever preceding their admission, though it is our opinion that occasionally (perhaps in 1 or 2 per cent) one is justified in making a diagnosis of influenza where there is no discoverable fever. We did see a very few patients in the dispensary from the onset of symptoms of sore throat, cough, aching, and with what we considered the typical mottled pharyngitis, who neither before nor after admission to the infirmary had any fever.

The pyrexia was moderate or low in most cases. In 80 (32 per cent) the maximum temperature was 99°–100.9°; in 114 (45.6 per cent) the temperature reached 101°–102.9°; while in only 32 (12.4 per cent) was there a fever of 103° or higher (exclusive of the readmissions). Of the 226 patients who had some fever, the maximum was reached

on the first day in 151 (67 per cent), on the second day in 59 (27 per cent), on the third day in 12 (5 per cent), and subsequently in 3 (1 per cent) cases, one of which developed an otitis media. This does not include the readmissions. It is, perhaps, in the time of appearance of the maximum temperature that the use of the anti-pyretics is most noticeable; but it should be further noted that following their discontinuance, when the symptoms had abated considerably or when the temperature had been lowered to or near normal, there was either no subsequent fever or else the elevation above normal was much less (frequently a fraction of a degree) than in the original rise. In only 27 cases (10.8 per cent) did the temperature rise again above normal (taken here as 98.8°) after it had remained normal for one whole day. The average length of time until the temperature was permanently down to normal was 3.6 days. Sixteen per cent had no fever after the first day, 26 per cent had fever for two days but none after the second day, and 18 per cent had fever for three days but none after the third day.

Of exceptional interest, since so many observers have reported a slow pulse, are our findings which do not substantiate this observation, as seen from the following table:

Number of cases	Range of maximum temperature	Average pulse rate at time of maximum temperature
24	Normal.	78
80	99°-100.9°	86
114	101°-102.9°	97
32	103°+	101

Not only was the pulse rate not low during the height of the disease, but the drop following defervescence was not excessive, usually not getting down to 60, and in only 16 cases (6.4 per cent) dropping below 60. Cardiac symptoms or physical findings of heart involvement were rare. In none of the cases was there any evidence of cardiac decompensation. Marked mitral systolic murmurs were heard at the apex in 2 cases that on previous examination had had none; 1 had extra systoles occasionally for a few days; only 2 had an irregular irregularity, and 4 had a pulse rate in excess of 120. A few cases of chronic valvular disease seemed uninfluenced by influenza. One girl who has had over half a dozen attacks of paroxysmal tachycardia and whom I saw in one attack lasting over two hours, just seven months previous, had throughout the attack of influenza a good pulse which varied from 100 to 68, and made an uneventful recovery.

The blood count, as a rule, was not taken, but in 6 uncomplicated cases the white count varied from 4,700 to 6,600. Since it showed a rise above normal in our cases of otitis media and frank pneumonia, it may be of distinct diagnostic aid.

The average length of hospitalization was 5.6 days, counting both the day of admission and the day of discharge. Ordinarily, patients were not discharged until the chest findings had disappeared and until at least one full day had been spent in the infirmary with a normal temperature. Exceptions to this rule were few and were made almost entirely to allow patients to be moved to their homes for further care.

Complications were rare. There were three cases each of otitis media and frank bronchopneumonia, one case of lobar pneumonia, one of follicular tonsillitis, and one antrum infection. These complications accounted for four of the eight readmissions. There has been one death.

Case II was admitted November 22 with the usual complaint of sore throat, cough, and general malaise. Physical findings were essentially negative, except for pharyngitis and harsh breath tones. The temperature dropped to normal the next morning and remained so until discharge on the fourth day. Eight days later the patient returned, after spending the Thanksgiving holidays at home, with the complaint of a bad cough and pain in chest. Physical examination was essentially negative, but flat plate of chest showed increased hilus markings on both sides, with increased density at the left base and a fine interlobar line on the right. Patient was readmitted to the infirmary with a temperature of 101.6°, which reached normal on the fourth day and remained so until the seventh day, when it rose 1°. On the eighth day the temperature went to 104.6°, and on the ninth day, when the temperature after dropping to 100° again rose to 104°, the boy's parents decided to move him to a local hospital. On the eighth day there was a blood count of 20,800 with 92 per cent polymorphs, but our suspicion of an empyema could not be confirmed by physical examination and the X ray was not available. The cough had persisted, with the production of a heavy greenish sputum with small amount of blood. Codeine was given to allay the worst paroxysms, which had caused nausea and vomiting. The patient perspired freely, although no antipyretics were used after his readmission. Urinalysis was negative and the pulse was regular and of good volume throughout. The course of the case after discharge of the patient from the infirmary is unknown, except that he died two weeks later, as this was being written. This case forcefully illustrates the dangerous possibilities of the disease.

Case III is interesting in that, starting as an otitis media, it developed influenza and lobar pneumonia with typical physical find-

ings in the left lower lobe, but with a septic temperature gradually dropping to normal on the fifth day after admission (eight days after the diagnosis of otitis media for which patient had been referred to an otologist, who did a paracentesis after we called him again on the day of her admission).

It is, of course, too early to consider fully the sequelae. At this early date they seem to be slight. Probably a large majority have had a surprising weakness—surprising in that the patients, kept in bed against their protest for at least a day or two with normal temperature, expected usually to resume their activities without any difficulty, but found that they tired after a very slight exertion. It is impossible to give any more definite data than that many had to curtail their program, and more than is customary for the time of year found it necessary to withdraw from the university. This asthenia is all the more to be noted, since all our patients were young adults, who ordinarily recover from acute infections remarkably quickly and completely.

In considering the symptomatology it is interesting to compare the virulence of the present epidemic with that of preceding epidemics and with sporadic cases of what is more often termed gripe. The writer's experience does not extend to the 1918 pandemic, but from his present experience and reports of the 1918 outbreak the influenza epidemic here reported appears to be much milder both in severity and frequency of complications. On the other hand, the cases seen in this epidemic have been, without question, more severe and have been followed much more frequently with a marked asthenia than the sporadic cases seen in the same practice in the preceding two or three years. That this epidemic, though admittedly mild, has been somewhat more severe generally than among the students seems to be true if we may judge from the nine cases among the nurses and from the statements of local physicians.

#### TREATMENT

Rest in bed with good nursing about summarizes the essential therapeutics. The physician who would keep his patients in bed long enough will have a constant battle, especially if they are young and active. To insist upon bed rest when the patient has recovered from his aches and announces that he is "rarin' to go," to sit down and explain over and over again this necessity, and finally, when conviction does not follow explanation, to demand the continuing of bed rest a little longer, requires all of the patience that a physician can muster; but in no other way can he be of so great service to his patient.

The remainder of the treatment is essentially symptomatic. Although fully aware of the disrepute in which the antipyretics are held by many physicians in the treatment of influenza, we used them freely and, we feel, with no ill results. That they materially altered the course of the disease is doubtful, but that they furnished much relief from the many distressing aches and pains is, we believe, unquestioned. During the fever and while the malaise or aching persisted, amidopyrine, acetylsalicylic acid, and a compound of the latter containing also phenacetin and caffeine were used in 5 and 10 grain doses every four hours. It is the opinion of all three of the staff physicians that the relief was not purchased at the expense of a prolonged or complicated convalescence. There was no evidence of cardiac embarrassment that we could determine, and we see no reason for attributing the postinfluenzal asthenia to the use of these antipyretics rather than to the disease itself.

Expectorant cough mixtures and steam inhalations were of value in allaying the cough, but frequently codeine was necessary in order to secure any relief. The pharyngitis, though almost always present, was, as a rule, not very severe; and hot Dobell's gargle or hot salt solution usually made the throat more comfortable. In the diet, fluids were emphasized. Cathartics were used only when the output was considered relatively inadequate.

#### SUMMARY

A report is given of experience with 319 cases of influenza, 250 of which were given hospital care. The epidemic, apparently brought from California by some students, spread rapidly, chiefly within the living units. Early isolation of all sick persons was stressed as the most important control measure. A typical coryza was the exception at the onset of the disease. The most common symptoms were sore throat, cough, and general or localized aching. The pyrexia was moderate and accompanied with a fairly rapid pulse. There was usually a peculiar mottled pharyngitis, and in the chest the most common finding was a high-pitched, rough, inspiratory note. The usual course of the disease was short and the complications were few, though asthenia was a very frequent sequela. Bed rest was the important desideratum in the treatment which otherwise was symptomatic. The common antipyretics which seemed to give much relief were apparently without deleterious effect in our cases.

RECENT STATE MORTALITY STATISTICS <sup>1</sup>

For the information of public health officials and others interested, the rates in the following tables have been computed from monthly mortality data furnished by the State health departments for the latest month for which records are available. For purposes of comparison, the mortality records for a few preceding years are given, the rates being those for the month corresponding to the latest month for which the 1928 or 1929 rate is available.

*Monthly State mortality statistics*

[All rates are on an annual basis, and, with the exception of mortality from all causes, infant mortality, and congenital malformations and diseases of early infancy, are per 100,000 population]

## ALL CAUSES, ANNUAL RATE PER 1,000 POPULATION

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White.....	9.3	8.7	8.7	8.7	9.3	11.1	17.3	11.2	10.0	10.7	8.4	12.4	-----
Colored.....	16.3	17.1	15.7	14.8	16.6	17.5	26.9	17.2	15.7	17.7	13.6	20.5	-----
California.....	12.8	12.2	12.5	13.2	16.6	-----	16.8	15.7	-----	15.1	-----	-----	-----
Connecticut.....	9.8	9.3	9.4	10.1	10.2	11.4	15.9	14.8	-----	12.0	11.5	12.7	12.7
Hawaii.....	-----	12.0	11.0	12.4	11.0	12.9	13.3	15.2	-----	12.0	-----	-----	-----
Indiana.....	9.9	10.6	11.1	11.2	11.2	16.7	17.7	14.0	-----	11.7	12.3	13.2	13.5
Iowa.....	9.9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	9.0	9.7	10.0	9.8	10.8	18.0	-----	-----	-----	-----	-----	-----	-----
Kentucky.....	-----	11.0	11.5	10.5	10.4	11.7	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	12.7	12.2	11.5	11.5	11.9	15.7	-----	-----	-----	-----	-----	-----	-----
Michigan.....	9.9	9.7	10.6	10.9	11.3	16.2	17.0	12.9	13.2	-----	-----	-----	-----
Minnesota.....	8.1	8.0	8.1	8.6	8.8	12.5	13.6	9.1	-----	9.6	-----	-----	-----
Mississippi.....	13.0	11.9	10.7	10.7	11.4	16.7	23.1	14.0	13.0	-----	-----	-----	-----
Nebraska.....	7.9	8.2	8.0	8.3	8.8	14.8	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	9.9	9.9	9.7	10.6	10.8	13.2	17.3	14.0	13.2	13.3	12.8	11.8	12.6
New York.....	11.4	11.0	11.7	12.1	12.4	13.8	20.3	15.6	-----	14.2	13.5	14.7	14.7
North Carolina.....	11.2	11.2	11.0	10.8	11.1	17.5	16.2	15.7	12.6	12.0	-----	-----	-----
Pennsylvania.....	10.3	10.1	10.4	10.9	11.5	15.8	19.4	14.0	-----	13.3	13.0	14.4	14.3
South Dakota.....	7.6	8.2	7.1	7.5	8.1	14.1	-----	-----	-----	-----	-----	-----	-----
Tennessee.....	12.7	11.6	11.2	10.9	11.3	16.1	19.2	14.4	13.8	12.3	11.9	-----	-----
Virginia.....	-----	-----	-----	-----	-----	13.1	19.1	13.5	12.0	-----	-----	-----	-----
Wisconsin.....	-----	-----	-----	-----	-----	-----	14.5	11.8	11.2	-----	-----	-----	-----

## INFANT MORTALITY, PER 1,000 LIVE BIRTHS

Alabama:													
White.....	65	54	57	62	61	57	100	79	79	78	56	70	-----
Colored.....	93	99	79	82	85	95	171	117	97	108	76	108	-----
California.....	59	53	55	58	69	76	66	73	-----	68	-----	-----	-----
Connecticut.....	43	52	42	59	39	56	74	85	-----	56	65	76	72
Hawaii.....	-----	-----	91	87	80	113	100	120	-----	-----	-----	-----	-----
Indiana.....	52	63	64	60	54	81	97	83	-----	60	67	74	77
Iowa.....	48	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	-----	65	58	55	56	60	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	79	62	69	79	68	73	-----	-----	-----	-----	-----	-----	-----
Michigan.....	49	53	58	66	69	86	112	71	71	-----	-----	-----	-----
Minnesota.....	-----	44	38	50	41	56	83	66	-----	-----	-----	-----	-----
Nebraska.....	37	45	50	62	45	80	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	56	-----	56	56	67	68	93	70	-----	-----	-----	-----	-----
New York.....	52	55	60	62	63	70	87	81	-----	72	76	80	76
Pennsylvania.....	54	58	66	66	65	90	118	95	-----	81	84	77	117
South Dakota.....	48	56	50	53	70	59	-----	-----	-----	-----	-----	-----	-----
Tennessee.....	-----	-----	-----	-----	-----	-----	145	98	87	-----	-----	-----	-----
Virginia.....	-----	-----	-----	-----	56	72	140	91	78	-----	-----	-----	-----
Wisconsin.....	53	47	51	55	59	72	105	68	69	59	-----	-----	-----

\* Exclusive of New York City.

<sup>1</sup> From the Office of Statistical Investigations, United States Public Health Service.

## Monthly State mortality statistics—Continued

CONGENITAL MALFORMATIONS AND DISEASES OF EARLY INFANCY (159-163): PER 1,000 LIVE BIRTHS<sup>1</sup>

State	1923						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1923	1927	1926	1925
Alabama:													
White	26	25	27	29	20	27	39	28	32	31	32	34	
Colored	26	37	29	26	25	18	39	26	28	39	29	28	
California	28	26	29	28	31	24	35	33		32			
Indiana	30	29	30	33	31	42							
Iowa	34												
Kansas	29	28	33	31	34	27							
Louisiana	32	25	30	31	25	25							
Michigan	30	30	32	24	37	39	45	37	34				
Minnesota		30	26	33	25	20	37	35					
Nebraska	28	27	29	27	37	34							
New York <sup>1</sup>	35	36	35	38	39	40	43	43		41	42	42	42
Pennsylvania	31	30	28	33	34	37	41	38		38	37	36	49
South Dakota	13	35	34	32	38	28							
Tennessee							36	28	27				

## TYPHOID FEVER (1)

Alabama:													
White	10.5	12.6	12.3	10.5	8.7	4.2	0.7	2.3	2.1	4.9			
Colored	23.7	33.0	32.7	19.8	10.9	9.2	2.6		2.6	6.6			
California	3.6	2.8	4.8	3.1	1.1	1.0	1.0	2.6		1.7			
Connecticut		2.9					.7			1.6			
Hawaii		11.1	13.9	3.4	3.5			3.7		3.6			
Indiana	1.5	10.4	8.8	9.3	7.7	3.0	1.5	.4		2.0			
Iowa	3.4												
Kansas	5.1	5.8	6.6	3.8	2.0	1.3							
Kentucky	21.7	26.3	28.6	27.7	29.1	13.4							
Louisiana	22.9	12.1	25.0	14.5	12.5	7.8							
Michigan	2.6	1.3	2.4	2.9	1.6	1.3	1.5	.9	.3				
Minnesota		.9	1.0	.4		.4		.4		.5			
Mississippi	21.7	27.6	15.6	12.5	10.9	7.9	6.6	2.9	6.6				
Nebraska	2.5	1.7	3.5	.8	1.7	3.3							
New Jersey	2.5	3.7	2.5	2.5	2.9	.9	.6	1.0	.3				
New York <sup>1</sup>	2.1	2.3	2.4	4.9	3.1	1.7	1.0	.9		2.3			
North Carolina	10.8	15.6	9.9	10.0	5.8	7.2	2.4	1.8	2.4	2.0			
Pennsylvania	2.0	3.3	4.0	3.9	2.1	1.3	1.4	2.0		1.5			
South Carolina	45.5	38.5	28.1	25.9	14.4	12.6	3.2	9.1	3.2	5.1	3.8		
South Dakota	1.7	3.3	8.6	3.3		6.7							
Tennessee	21.2	30.6	30.6	18.4	21.4	8.9	2.4	2.1	2.8	1.4			
Virginia		10.4	6.9	6.1	2.3	2.7		.5		.9			
Wisconsin		.4	1.2	.8	1.2	.8	.4	1.3	2.0	.8			

## MEASLES (7)

Alabama:													
White	7.7	2.8	0.7	2.1	1.4	4.2	5.6	4.7	5.6	29.4			
Colored	9.2	1.3		1.3		1.3	1.3	1.5	1.3	14.5			
California	.5	.3		.3		.8		.6		.3			
Connecticut	6.6	.7	.8		.7	2.2	3.6	4.8		2.4			
Hawaii		3.4	3.5	3.4		3.4	3.4	3.7		7.2			
Indiana	1.5				.8	1.1	3.0	4.9		.4			
Iowa	1.0												
Kansas	1.3	.6											
Kentucky			1.9	4.6	1.4	.9							
Louisiana	7.2	3.6		.6	1.8								
Michigan	3.6	.8	.3	.5	1.1	1.3	1.3	1.1	5.1				
Minnesota	.4			.4		1.3	5.2	2.6					
Mississippi	4.6	4.6	1.4	2.6	4.8	4.6	5.3	12.4	18.4				
Nebraska						.8							
New Jersey	4.6	2.5	.3	.6	1.0	.9	.9	2.4	1.8				
New York <sup>1</sup>	3.4	.6	.4	.6	1.3	1.5	5.8	4.4		5.0			
North Carolina	2.2	3.2	.8	.4	1.2	2.0	1.2	2.7	.4	56.1			
Pennsylvania	2.8	1.3	.4	.9	2.3	2.8	7.4	7.0		5.4			
South Carolina	5.7			1.3	.7				10.7	49.3	0.6		
South Dakota	6.7												
Tennessee	4.2	.6	1.0		.5	.5			.9	22.6			
Virginia					.9	2.7	2.7	1.0	3.2				
Wisconsin	.4				1.2	.4	2.0	2.2	2.4				

<sup>1</sup> Exclusive of New York City.<sup>2</sup> Rates previously published were per 100,000 population.

Monthly State mortality statistics—Continued

SCARLET FEVER (8)

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White				0.7	2.2		2.8	2.3	2.1	0.7			
Colored									2.6				
California	0.5	0.3	0.5	1.0	1.9	3.1	1.0	2.6		.8			
Connecticut	1.5						2.2			.8			
Hawaii		3.4											
Indiana	1.5	.4	.4	2.2	1.9	2.6	6.3	5.7		4.0			
Iowa	1.0												
Kansas	1.3	1.3	1.3	1.9	5.3	2.6							
Kentucky	.5	.5	1.9	5.5	3.3	.9							
Louisiana					3.1	.6							
Michigan	1.8	1.5	.3	1.0	2.7	5.9	4.4	5.4	5.4				
Minnesota	2.2	.9	.4	2.6	1.3	1.7	6.1	2.2		3.7			
Mississippi			.7	2.0									
Nebraska	1.7	.8		3.3	.9	2.5							
New Jersey	1.2	.6	1.0	.9	.6	1.8	1.5	1.4	1.2				
New York <sup>1</sup>	1.1	.2		.4	2.8	1.7	4.5	3.7		3.6			
North Carolina	.8		1.7	.8	1.7	1.6	2.4	1.8	1.2	2.0			
Pennsylvania	.9	.7	.5	2.8	2.0	3.1	4.8	3.3		4.3			
South Carolina	.6	1.3		.6	.7	1.9	1.3						
South Dakota	3.3		1.7	1.7	1.7	3.3							
Tennessee	.9	.5	.5	2.8	1.9	2.8	1.4	4.7	3.3	1.9			
Virginia					2.8	2.3	1.4	1.0	1.8				
Wisconsin	2.0	1.2	.4	1.6	3.3	3.6	2.4	4.4	3.6	3.6			

WHOOPIING COUGH (9)

Alabama:													
White	5.6	1.5	4.3	1.4	5.8	5.6	8.4	5.4	4.2	4.2			
Colored	21.1	14.5	9.5	9.2	6.8	9.2	11.9	20.9	13.2	10.5			
California	9.6	6.7	8.8	5.4	6.4	10.9	7.0	4.3		5.2			
Connecticut	2.9	8.8	3.8	5.8	2.3	2.9	6.5			2.2			
Hawaii		3.4	7.0	6.7		20.2	30.4	37.4		3.6			
Indiana	8.9	6.3	3.4	1.1	.8	5.6	7.0	6.2		6.3			
Iowa	2.4												
Kansas	3.8	7.1	4.0	4.5	3.3	2.6							
Kentucky	5.5	3.7	5.7	4.2	4.8	7.4							
Louisiana	13.3	7.2	7.5	7.8	5.6	7.8							
Michigan	1.8	4.9	4.8	3.3	3.2	10.0	7.2	7.7	4.6				
Minnesota	2.6	5.2	1.3	2.6	3.6	6.5	9.1	6.1		1.8			
Mississippi	17.1	7.9	2.7	3.9	6.8	5.9	11.2	10.2	11.2				
Nebraska	3.3	3.3	1.7	4.2		5.0							
New Jersey	2.5	7.4	4.5	4.0	2.5	4.9	13.3	6.8	6.2				
New York <sup>1</sup>	4.6	3.0	3.9	2.3	2.8	1.7	6.2	5.0		3.8			
North Carolina	5.6	5.2	3.7	4.8	2.9	4.4	9.2	8.4	5.2	8.4			
Pennsylvania	3.7	6.1	6.2	4.9	7.4	12.0	12.4	8.4		4.5			
South Carolina	12.0	8.2	3.3	7.6	2.6	7.6	3.2	9.1	7.6	10.7	9.6		
South Dakota	6.7	8.4	6.9	6.7	3.5								
Tennessee	6.1	3.8	6.3	3.3	3.9	5.2	10.4	6.8	4.2	5.2			
Virginia					.9	6.4	18.3	9.1	6.9				
Wisconsin	2.0	4.0	2.9	2.8	.8	3.2	2.4	3.5	3.2	1.6			

DIPHTHERIA (10)

Alabama:													
White	1.4	6.3	13.0	23.1	30.4	24.5	13.3	5.4	4.9	4.9			
Colored	2.6	2.6	4.1	6.6	10.9	5.3	5.3	1.5	4.0	1.3			
California	5.2	5.9	3.5	4.4	5.1	5.4	4.9	3.7		7.7			
Connecticut	1.5	2.9	5.3	5.1	6.0	8.0	3.6	4.0		14.5			
Hawaii		6.7	10.5	13.5	7.0	6.7	3.4	11.2		10.8			
Indiana	1.9	2.2	4.6	7.8	10.0	10.0	5.9	5.7		5.2			
Iowa	1.9												
Kansas	.6	1.9	2.0	7.1	5.3	7.1							
Kentucky		2.3	14.3	26.3	25.7	17.5							
Louisiana	.6	3.6	4.4	11.5	14.4	16.3							
Michigan	6.2	6.7	7.2	8.7	9.3	12.8	12.1	8.5	12.6				
Minnesota	2.2	1.3	2.2	1.7	3.1	5.2	2.2	2.2		3.2			
Mississippi	3.9	1.3	9.5	11.8	12.9	15.1	6.6	5.8	2.0				
Nebraska	.8	3.3	1.7	5.0	6.1	4.2							
New Jersey	9.6	7.1	6.0	7.1	11.8	14.2	20.6	13.0	10.2				

<sup>1</sup> Exclusive of New York City.

## Monthly State mortality statistics—Continued

## DIPHtheria—Continued

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
New York <sup>1</sup>	3.4	1.3	3.1	2.3	4.6	3.8	4.5	3.4		5.4			
North Carolina	2.4	5.6	11.2	18.4	29.4	26.4	16.8	10.2	4.8	6.0			
Pennsylvania	4.8	3.6	4.2	6.0	10.9	10.8	10.3	7.1		14.2			
South Carolina	.6	4.4	11.1	20.2	22.2	24.6	6.3	4.9	6.9	6.3	3.8		
South Dakota		1.7		1.7	3.5	1.7							
Tennessee	2.4	2.4	12.2	17.4	24.8	18.8	7.5	4.7	4.7	3.3			
Virginia			5.2	10.1	15.6	12.3	8.2	4.6	7.8				
Wisconsin	3.6	1.2	2.5	2.8	3.7	4.8	2.8	3.1	2.0	2.8			

## INFLUENZA (11)

Alabama:													
White	16.8	11.9	12.3	21.0	35.5	152.8	711.4	241.9	110.0	98.8	48.1	239.5	
Colored	29.0	25.1	30.0	33.0	42.2	185.9	973.1	261.3	150.4	124.0	56.6	348.3	
California	12.1	8.3	7.7	29.5	127.1	254.0	91.5	47.2		25.4			
Connecticut	6.6	2.9	6.0	12.4	9.0	34.3	196.6	133.5		25.8	24.7	31.8	52.0
Hawaii		37.1	45.3	37.1	27.9	30.4	23.6	29.9		18.0			
Indiana	13.7	8.2	11.9	16.3	24.1	267.7	341.4	131.3		44.0	46.3	62.6	77.5
Iowa	19.4												
Kansas	14.8	16.7	9.3	23.7	29.2	392.7							
Kentucky	11.5	17.1	11.0	18.5	38.1	142.0							
Louisiana	19.9	29.0	21.8	18.7	34.3	162.4							
Michigan	9.0	5.4	8.7	10.0	13.8	157.2	237.7	76.9	39.5				
Minnesota	13.8	7.8	8.0	16.4	16.1	150.1	231.9	55.4		22.7			
Mississippi	15.8	19.1	11.5	9.2	38.7	213.7	897.9	172.5	118.3				
Nebraska	8.4	11.7	9.5	20.1	30.2	367.9							
New Jersey	3.7	3.4	4.8	7.7	11.5	45.0	104.2	59.4	25.0	24.7	25.1	87.3	19.3
New York <sup>1</sup>	4.4	2.3	4.1	8.8	13.7	37.5	235.5	98.2		20.7	23.2	25.9	20.6
North Carolina	6.8	7.6	6.6	14.0	35.2	195.2	375.5	281.3	116.2	63.7			
Pennsylvania	10.3	7.7	12.1	14.4	21.0	172.3	357.9	95.6		38.2	43.6	51.4	49.6
South Carolina	8.8	12.0	11.1	36.0	60.7	353.7	382.2	172.7	98.5	132.6	28.7		
South Dakota	35.1	15.1	10.4	26.8	27.7	224.1							
Tennessee	16.0	13.2	9.7	17.9	34.5	225.9	644.7	252.2	153.9	88.5	68.2		
Virginia					21.7	155.0	591.2	192.9	83.2				
Wisconsin	11.6	5.2	11.1	10.0	16.5	199.8	269.1	75.9	36.3	30.7			

## POLIOMYELITIS (22)

Alabama:													
White	1.4	1.4		1.4		2.1	0.7	2.3	1.3				
Colored	1.3					1.5		2.9					
California	1.6	1.6	1.6	1.6	1.6	1.3	.3	.9		2.8			
Connecticut		1.5	2.3	1.5		.7				.8			
Hawaii				3.4									
Indiana		.7	.4		1.2	.4							
Iowa													
Kansas			.7	.6	.7	.6							
Kentucky	2.8	1.4	.5	1.4	1.4	.9							
Louisiana	1.2	2.4	1.2	1.2	1.9								
Michigan	1.3	.6	.5	1.3	.8	.8	1.3	.3	.8				
Minnesota	1.3	6.1	9.4	3.9	4.0			.9					
Mississippi	2.0	1.3	2.0	.7	.7			1.5	.7				
Nebraska	.8	1.7	.9										
New Jersey	.9	1.5	.6	1.8	1.0		.3	.3	.6				
New York <sup>1</sup>	.8	.8	7.6	3.6	2.0	.4	.6	.7	.7	.7			
North Carolina			.4	.4	1.7	.4	.4	.4	1.6	.3			
Pennsylvania	.5	1.2	1.5	.9	.6	1.1	.6	.7	.7	.7			
South Carolina	1.9	.6	2.0	.6	.7		.6	.7	.6	1.3			
South Dakota	3.3	8.4	5.2	3.3	1.7	3.3							
Tennessee	.9	1.9	1.9	1.9	1.5	4.2	.9	.5	.9	1.4			
Virginia			1.9	1.4	.5	1.8	.5		1.4				
Wisconsin		.8	.4		.4	.8		.4		.4			

## LETHARGIC ENCEPHALITIS (23)

Alabama:													
White						0.7		2.8	1.6	2.8			
Colored		1.3								1.3			
California	0.5	1.0	1.0	1.3	1.6	1.8	3.4	1.4			0.8		
Connecticut	2.2	.7	.8	.7		.7	.7	3.2			1.6		

<sup>1</sup> Exclusive of New York City.

## Monthly State mortality statistics—Continued

## LETHARGIC ENCEPHALITIS—Continued

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Indiana													
Iowa	2.4												
Kansas	1.3	.6	.7	1.3		3.2							
Kentucky		.5	.5	.5	.5								
Louisiana			.6	.6	.6	1.2							
Michigan	1.8	2.1	1.6	2.1	1.1	1.0	1.5	1.1	1.0				
Minnesota	1.3	1.7	3.1	2.2	1.3	3.0	3.5	2.2		.5			
Mississippi		.7	1.4	1.3				.7	.7				
Nebraska	1.7	1.7	1.7		.9	.8							
New Jersey	2.5	1.2	1.9	1.8	1.3	.3	2.2	1.7	1.5				
New York <sup>1</sup>	.6	.8	.7	.6	.4	1.1	1.2	.9		.9			
North Carolina	.4			1.2	.8	.8	.4	1.8	.8	2.0			
Pennsylvania	1.2	1.5	.8	.5	1.5	1.0	1.3	2.0		.7			
South Carolina	1.3	2.5	2.6	.6	2.0	.6	1.3	1.4	5.1	5.1	4.5		
South Dakota	3.3					1.7							
Tennessee	1.9	.5	1.5	.5	.5	.5		1.0		.5			
Virginia					.9		2.3	.5	1.4				
Wisconsin	.8	.8	2.1	2.0	1.2	.8	.4	2.2	2.0	1.6			

## MENINGOCOCCUS MENINGITIS (24)

Alabama:													
White	0.7	0.7					2.1	5.4	4.0				
Colored				1.3				1.5					
California	3.1	1.8	0.8	1.0	2.7	7.2	11.1	10.3		2.8			
Connecticut	.7	1.5	.8	2.2		2.2		2.4					
Hawaii		6.7	3.5		3.5	6.7	10.1	18.7		3.6			
Indiana			.4		.8	1.5							
Iowa	2.4												
Kansas		1.6	.7	.6	2.0	1.3							
Kentucky													
Louisiana	.6					3.0							
Michigan	2.6	2.8	2.9	4.1	3.2	4.6	6.9	12.5	29.8				
Minnesota	3.0	.9	1.3	1.3	.9	3.9	3.0	2.6		.5			
Mississippi	.7				.7	2.0	1.3	.7	.7				
Nebraska	.8				3.5								
New Jersey	2.2	2.2	.3	1.5	1.9	3.1	3.4	2.4	2.5				
New York <sup>1</sup>	.6	.8		1.3	.2	.6	.6	1.8		.9			
North Carolina						.4		.4					
Pennsylvania	.9	.9	.8	.5	1.1	1.3	1.7	2.8		1			
South Carolina	.6	1.3	.7		2.6	2.5	1.3	2.8	3.2	1.9	2.6		
South Dakota		1.7	1.7		1.7								
Tennessee		1.4	.5	2.4	.5	2.8	1.9	1.0	3.9	.5			
Virginia			.5		.9	.9	1.8	1.5	1.8				
Wisconsin	2.0	.4	.8	3.6	3.7	3.6	.4	6.6	10.0	6.4			

## DIABETES (57)

Alabama:													
White	4.2	9.1	15.2	8.4	9.4	11.9	18.9	8.5	4.9	9.8	9.5	8.9	
Colored	10.5	5.3	15.0	4.0	9.5	6.6	15.8	2.9	6.6	18.5	5.3	7.9	
California	18.3	19.4	16.3	16.3	24.8	33.3	28.9	28.9		19.6			
Connecticut	20.4	16.8	15.8	18.2	15.8	14.6	15.8	23.8					
Hawaii		6.7	10.5	13.5	7.0	6.7	13.5	3.7		3.6			
Indiana		14.5	16.1	16.3	10.7	14.8							
Iowa	15.0												
Kansas	16.7	14.8	17.2	10.3	15.3	38.5							
Kentucky	9.7	9.7	9.5	9.2	10.0	10.2							
Louisiana	9.7	13.3	6.9	15.1	11.9	12.7							
Michigan	16.9	16.2	18.3	20.5	19.6	26.4	26.4	21.9	22.8				
Minnesota	13.4	12.5	12.5	13.4	21.9	26.0	28.1	18.6		19.4			
Mississippi	5.9	7.2	5.4	6.6	3.4	14.5	11.8	5.8	10.5				
Nebraska	16.7	13.4	19.0	15.1	22.5	40.1							
New Jersey	16.0	19.4	21.3	21.3	23.9	26.2	33.9	27.0	22.8				
New York <sup>1</sup>	18.5	24.0	21.5	25.0	20.4	28.2	41.6	29.8		27.2	27.0	23.7	27.1
Pennsylvania	18.6	20.0	17.4	20.8	21.3	26.2	31.7	26.2		23.5	20.1	23.1	21.9
South Carolina	3.8	5.1	6.5	5.7	6.5	17.7	7.0	11.2	8.8	11.4	11.5		
South Dakota	10.0	18.4	6.9	25.1	10.4	31.8							
Tennessee	6.1	7.1	10.2	7.5	13.6	8.5	11.8	10.4	12.2				
Virginia					9.0	13.3	19.7	8.6	7.8				

<sup>1</sup> Exclusive of New York City.

Monthly State mortality statistics—Continued

DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE (70-86)

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White.....	75.0	69.4	72.4	72.9	89.1	100.9	80.6	86.9	95.3				
Colored.....	118.7	133.2	132.2	116.0	139.0	125.3	114.7	112.4	110.8				
California.....	129.5	120.3	126.8	187.7	154.1	181.2	161.8	150.8	149.2				
Iowa.....	132.4												
Kansas.....	132.2	111.0	125.3	134.0	161.8	215.0							
Kentucky.....	82.1	97.3	103.4	102.2	117.7	107.5							
Louisiana.....	102.6	103.3	97.3	75.5	106.1	122.6							
Michigan.....	118.5	103.4	126.4	124.1	126.4	161.8	174.1	142.5	151.8				
Minnesota.....		76.6	82.7	85.2	80.9	99.9	109.4	95.6					
Nebraska.....	94.5	97.0	96.8	102.0	102.8	117.9							
New Jersey.....	98.6	98.3	95.8	110.9	113.7	118.9	147.6	131.0	132.2	126.3	142.3	173.1	139.3
New York <sup>1</sup> .....	128.4	120.6	136.1	139.3	136.6	148.4	194.2	175.4		169.8	158.7	189.0	180.3
Pennsylvania.....	109.8	108.1	97.6	115.4	119.8	129.1	153.4	135.5					
South Dakota.....	63.6	103.7	77.8	86.6	82.9	130.5							
Tennessee.....							105.9	104.7	117.2				
Virginia.....					108.8	119.8	155.9	142.8	123.9				

TUBERCULOSIS, ALL FORMS (31-37)

Alabama:													
White.....	50.5	37.8	50.7	38.5	39.1	44.9	54.7	62.9	51.9	57.5	41.5	63.7	
Colored.....	172.7	168.8	128.1	141.1	158.0	125.3	129.2	134.3	146.4	162.2	163.2	182.7	
California.....	133.4	120.7	113.5	118.1	129.0	146.0	137.5	147.9					
Connecticut.....	68.6	55.4	55.8	63.5	53.5	66.4	66.0	77.1		75.1	78.9	86.1	81.0
Hawaii.....		148.4	104.0	121.5	90.6	141.7	108.0	89.6		97.4			
Indiana.....	57.5	58.9	57.5	64.1	56.7	80.5	78.2	76.8		67.4	79.0	88.9	86.8
Iowa.....	38.3												
Kansas.....	38.5	39.8	31.2	37.2	39.1	35.9							
Kentucky.....	73.8	108.8	101.5	97.3	109.1	97.8							
Louisiana.....	93.0	96.0	72.4	55.5	77.4	85.7							
Michigan.....	62.8	60.8	59.1	58.2	64.1	69.2	80.0	72.1	72.3				
Minnesota.....	43.7	54.9	50.1	24.6	47.8	50.2	49.3	48.4		64.7			
Mississippi.....	78.2	82.9	78.1	54.6	80.2	90.1	84.2	72.1	96.0				
Nebraska.....	20.1	28.4	20.7	20.1	21.6	19.2							
New Jersey.....	68.4	76.1	66.9	73.6	63.7	65.9	76.4	84.3	84.7	78.9	92.3	101.1	96.5
New York <sup>1</sup> .....	73.2	71.1	70.0	71.8	67.2	67.1	84.8	82.2		82.1	70.7	81.0	102.9
North Carolina.....	65.7	81.8	77.9	60.9	69.2	84.2	91.0	91.0	89.4	86.6			
Pennsylvania.....	69.0	59.6	62.4	58.0	55.5	67.3	79.6	69.4		78.5	79.1	84.3	85.4
South Carolina.....	87.8	60.3	53.5	74.5	65.9	94.7	64.4	65.0	77.7	87.8	102.1		
South Dakota.....	83.6	95.3	29.4	36.8	43.2	60.2							
Tennessee.....	134.1	112.5	99.7	106.8	118.2	145.9	140.7	145.9	139.3	140.7	138.8		
Virginia.....			69.0	84.1	71.3	82.3	116.1	85.6	84.1				
Wisconsin.....	52.2	52.2	49.0	42.3	47.8	48.6	44.3	47.7	63.8	56.2			

CANCER, ALL FORMS (43-49)

Alabama:													
White.....	49.1	62.4	52.1	54.7	59.4	48.4	38.6	49.7	46.3	44.9	50.3	49.5	
Colored.....	48.8	47.6	46.3	47.5	43.6	54.1	27.7	30.7	38.2	43.8	42.1	36.8	
California.....	127.7	128.2	144.7	143.4	141.5	164.1	151.4	159.6		148.1			
Connecticut.....	99.2	110.2	103.3	132.8	110.1	118.2	98.3	114.4		106.6	97.8	107.9	92.9
Hawaii.....		74.2	33.3	74.2	59.3	50.6	54.0	89.6		61.2			
Indiana.....	87.1	109.7	94.6	90.8	105.0	100.5	101.2	98.5		87.6	103.0	100.1	93.6
Iowa.....	115.9												
Kansas.....	80.8	92.7	103.4	108.4	104.1	117.4							
Kentucky.....	54.4	70.1	72.4	64.1	72.0	57.7							
Louisiana.....	70.6	75.8	69.9	72.1	64.3	77.3							
Michigan.....	92.3	87.8	103.9	92.6	92.0	96.4	100.3	96.0	96.9				
Minnesota.....	107.3	105.1	110.4	104.7	100.1	110.7	109.9	84.8		94.8			
Mississippi.....	39.4	56.6	52.3	49.2	50.9	53.9	37.5	56.8	45.4				
Nebraska.....	87.0	82.0	99.4	93.7	102.0	78.6							
New Jersey.....	97.7	89.8	101.9	112.2	104.4	119.9	100.1	116.7	115.9	107.9	107.1	105.3	99.4
New York <sup>1</sup> .....	123.5	123.5	122.0	123.7	115.5	115.5	138.1	136.0		121.2	119.8	115.7	117.1
Pennsylvania.....	99.4	98.4	97.6	96.0	100.7	94.4	102.1	99.8		102.0	96.2	92.6	102.0
South Carolina.....	46.7	34.1	41.4	30.3	47.0	49.2	34.1	37.8	32.2	51.2	36.4		
South Dakota.....	68.6	80.3	63.9	55.2	76.0	87.0							
Tennessee.....	70.6	55.5	55.0	50.8	54.0	66.4	49.4	59.9	57.4	53.2	63.6		
Virginia.....					61.0	63.6	55.3	63.3	63.6				
Wisconsin.....	111.6	104.1	108.7	103.7	103.0	111.2	98.1	109.0	97.3	113.2			

<sup>1</sup> Exclusive of New York City.

Monthly State mortality statistics—Continued

CEREBRAL HEMORRHAGE, APOPLEXY (74)

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White.....	45.6	35.7	42.7	39.2	51.4	65.9	45.6	52.8	57.5	57.5	51.0	51.7	-----
Colored.....	75.2	75.2	80.4	83.1	72.2	63.2	63.2	65.7	55.4	87.1	78.9	55.2	-----
California.....	89.7	91.7	88.9	94.1	112.2	128.7	113.5	105.6	-----	104.7	-----	-----	-----
Hawaii.....	-----	70.8	13.9	84.3	76.7	67.5	60.7	71.0	-----	43.3	-----	-----	-----
Indiana.....	90.8	93.8	97.3	96.4	109.6	140.1	138.7	126.0	-----	122.5	107.6	121.0	109.5
Iowa.....	91.7	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	98.8	82.8	98.8	106.5	131.3	165.5	-----	-----	-----	-----	-----	-----	-----
Kentucky.....	48.0	66.4	64.3	53.5	66.7	60.9	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	75.5	61.6	61.8	53.1	73.6	84.5	-----	-----	-----	-----	-----	-----	-----
Michigan.....	83.9	77.2	87.5	92.3	87.5	115.2	122.1	99.1	112.1	-----	-----	-----	-----
Minnesota.....	-----	59.3	59.0	67.5	63.0	74.4	81.3	69.6	-----	-----	-----	-----	-----
Mississippi.....	58.5	59.2	67.9	61.8	66.6	73.0	80.9	78.6	69.7	-----	-----	-----	-----
Nebraska.....	67.7	75.3	76.9	81.1	71.7	86.1	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	73.6	70.3	72.0	80.7	86.0	90.3	107.5	98.9	97.4	-----	-----	-----	-----
New York <sup>1</sup> .....	95.5	92.0	104.2	104.4	107.2	113.2	158.2	138.5	-----	131.8	124.5	145.9	139.0
Pennsylvania.....	78.7	76.8	68.4	80.7	92.0	94.9	112.6	98.1	-----	101.0	-----	-----	-----
South Dakota.....	31.8	68.6	43.2	56.9	91.9	78.6	-----	-----	-----	-----	-----	-----	-----
Tennessee.....	-----	-----	-----	-----	70.9	82.8	58.4	60.4	59.8	-----	-----	-----	-----
Virginia.....	-----	-----	-----	-----	-----	-----	108.8	102.3	90.5	-----	-----	-----	-----

DISEASES OF THE CIRCULATORY SYSTEM (87-96)

Alabama:													
White.....	114.9	117.7	106.5	113.5	194.6	128.3	136.0	190.3	110.7	-----	-----	-----	-----
Colored.....	184.6	188.5	183.3	171.4	200.3	195.1	187.2	185.4	174.1	-----	-----	-----	-----
California.....	265.2	256.4	267.3	293.8	387.8	496.7	-----	383.4	-----	343.4	-----	-----	-----
Iowa.....	226.9	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	155.9	173.9	169.7	168.8	193.6	277.2	-----	-----	-----	-----	-----	-----	-----
Kentucky.....	143.0	176.6	126.8	155.4	202.5	192.3	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	186.6	191.4	184.7	193.8	202.2	274.1	-----	-----	-----	-----	-----	-----	-----
Michigan.....	197.5	188.8	222.1	240.3	241.7	345.2	347.3	273.2	276.7	-----	-----	-----	-----
Minnesota.....	-----	145.3	156.0	172.2	194.4	269.5	253.9	185.6	-----	-----	-----	-----	-----
Nebraska.....	151.4	152.2	163.3	178.1	188.4	243.3	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	209.2	213.2	215.9	250.8	254.7	307.2	391.3	344.9	305.4	281.6	272.6	350.7	281.9
New York <sup>1</sup> .....	301.6	276.5	311.4	335.4	358.2	384.7	545.9	441.9	-----	399.7	358.0	388.1	365.4
Pennsylvania.....	209.1	196.9	218.6	236.1	243.2	330.3	369.3	299.7	-----	-----	-----	-----	-----
South Carolina.....	305.1	274.1	283.3	263.4	284.6	384.1	262.1	-----	-----	-----	-----	-----	-----
South Dakota.....	110.4	88.6	129.6	120.4	180.7	224.1	-----	-----	-----	-----	-----	-----	-----
Tennessee.....	-----	-----	-----	-----	-----	-----	162.8	159.4	160.0	-----	-----	-----	-----
Virginia.....	-----	-----	-----	-----	156.4	204.4	242.8	217.7	218.6	-----	-----	-----	-----

DISEASES OF THE HEART (87-90)

Alabama:													
White.....	102.3	104.4	99.2	103.0	115.2	115.6	129.7	108.6	103.0	96.0	80.9	102.7	-----
Colored.....	168.8	180.7	166.2	155.6	182.6	187.2	175.4	175.2	163.5	189.9	126.3	142.0	-----
California.....	225.9	214.0	223.0	245.5	344.5	442.4	372.4	338.2	-----	294.8	-----	-----	-----
Connecticut.....	192.6	164.9	156.0	156.8	198.3	196.3	256.1	219.2	-----	200.3	207.9	204.9	167.0
Hawaii.....	-----	121.5	115.0	114.7	108.1	108.0	114.7	141.9	-----	119.0	-----	-----	-----
Indiana.....	149.4	169.1	182.3	201.7	204.6	269.5	230.6	198.7	-----	158.1	169.7	177.3	155.8
Iowa.....	193.0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas.....	135.4	146.3	153.2	145.0	171.1	249.0	-----	-----	-----	-----	-----	-----	-----
Kentucky.....	128.7	150.4	100.6	144.8	154.4	169.3	-----	-----	-----	-----	-----	-----	-----
Louisiana.....	172.7	178.7	179.1	181.7	187.8	260.2	-----	-----	-----	-----	-----	-----	-----
Michigan.....	173.4	163.9	187.9	215.4	205.7	290.3	347.3	235.7	240.8	-----	-----	-----	-----
Minnesota.....	120.7	128.5	127.4	144.5	157.8	231.4	208.9	150.5	-----	165.5	-----	-----	-----
Mississippi.....	111.1	103.9	99.9	88.7	89.7	99.3	105.9	112.8	99.3	-----	-----	-----	-----
Nebraska.....	132.1	136.3	140.8	153.9	181.5	223.3	-----	-----	-----	-----	-----	-----	-----
New Jersey.....	191.4	196.6	193.3	229.0	233.7	278.6	361.5	324.4	277.6	-----	-----	-----	-----
New York <sup>1</sup> .....	257.8	237.4	237.2	291.3	312.0	297.1	483.7	391.7	-----	345.5	308.4	330.1	314.3
Pennsylvania.....	189.7	176.6	196.9	214.0	222.0	301.8	336.9	273.9	-----	256.0	240.0	249.0	192.0
South Dakota.....	93.7	85.3	112.3	75.3	138.3	204.0	-----	-----	-----	-----	-----	-----	-----
Tennessee.....	124.7	122.4	118.7	126.1	123.5	158.6	149.2	148.0	150.1	101.7	-----	-----	-----
Virginia.....	-----	-----	-----	-----	143.6	188.4	220.4	193.4	202.6	-----	-----	-----	-----

<sup>1</sup> Exclusive of New York City.

## Monthly State mortality statistics—Continued

## DISEASES OF THE RESPIRATORY SYSTEM (97-107)

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White.....	34.2	35.7	37.7	50.6	91.3	114.2	226.9	100.9	114.9				
Colored.....	54.7	54.1	81.7	78.5	148.5	192.5	383.7	165.0	145.1				
California.....	67.7	55.8	68.1	92.0	159.2	216.6	143.4	152.2		148.1			
Iowa.....	34.9												
Kansas.....	28.2	28.9	32.5	38.5	61.0	185.4							
Kentucky.....	39.7	51.2	62.9	85.8	130.1	152.7							
Louisiana.....	56.2	62.8	54.9	74.9	102.9	185.4							
Michigan.....	51.3	41.5	49.3	76.2	107.9	219.8	253.9	155.5	147.0				
Minnesota.....		26.4	39.8	56.2	78.2	153.1	163.9	74.8					
Nebraska.....	26.8	27.6	30.2	53.5	83.0	194.8							
New Jersey.....	47.1	45.6	64.0	78.3	95.8	496.9	357.5	203.0	174.1				
New York <sup>1</sup> .....	42.9	44.2	65.2	82.5	104.4	145.8	332.7	185.4		146.2	139.5	189.9	164.8
Pennsylvania.....	58.1	51.9	72.8	88.9	112.7	254.2	316.7	184.2					
South Dakota.....	53.5	56.9	31.1	68.6	66.1	145.5							
Tennessee.....							234.4	157.3	156.7				
Virginia.....					77.5	113.9	145.0	132.6	119.8				

## PNEUMONIA, ALL FORMS (100, 101)

Alabama:													
White.....	30.1	28.0	29.7	46.3	81.1	104.4	227.1	93.9	107.2	162.6	81.6	164.8	
Colored.....	46.1	44.8	72.2	68.6	133.5	180.6	366.5	160.6	133.2	203.1	118.4	286.6	
California.....	54.8	43.9	57.4	78.0	139.9	190.5	123.5	135.6	132.9				
Connecticut.....	34.3	34.3	46.7	73.7	71.6	118.9	254.7	232.0		148.6	119.1	132.1	157.7
Hawaii.....		118.1	118.5	134.9	97.6	141.7	145.1	254.0		202.0			
Indiana.....	30.0	33.7	44.1	61.5	80.1	233.2	270.3	169.5		120.1	113.1	141.5	181.1
Iowa.....	31.0												
Kansas.....	21.8	16.0	25.9	30.2	50.4	159.1							
Kentucky.....	32.7	43.4	52.9	78.4	108.2	132.4							
Louisiana.....	46.5	52.5	41.2	60.4	88.6	170.3							
Michigan.....	37.4	21.3	37.6	61.3	90.1	190.3	224.7	136.5	125.2				
Minnesota.....	30.7	22.9	32.6	51.0	70.2	147.5	156.2	71.4		77.7			
Mississippi.....	25.0	23.0	26.9	28.9	76.8	142.0	191.4	107.0	110.4				
Nebraska.....	15.1	18.4	23.3	43.5	76.0	179.0							
New Jersey.....	39.4	36.4	54.1	68.4	83.7	160.5	326.9	187.3	153.8	111.2	86.1	220.1	101.1
New York <sup>1</sup> .....	36.4	35.1	53.4	65.9	89.4	128.5	297.6	165.8		131.3	117.7	163.9	137.3
North Carolina.....	40.5	24.8	31.5	48.9	78.7	151.9	185.2	177.5	130.2	168.7			
Pennsylvania.....	45.3	40.4	56.2	72.8	97.1	228.6	285.1	162.0		154.0	144.0	203.0	221.0
South Carolina.....	44.2	49.9	56.8	58.7	95.9	164.2	140.2	125.2	130.1	161.7	157.6		
South Dakota.....	43.5	43.5	20.7	45.2	60.5	117.1							
Tennessee.....	38.1	39.5	40.4	59.3	91.9	122.4	215.1	146.4	140.7	162.8	129.8		
Virginia.....					64.3	98.3	131.2	129.5	104.7				
Wisconsin.....	40.7	29.9	38.3	58.2		164.3	161.9	120.5	88.9	83.7			

## DISEASES OF THE DIGESTIVE SYSTEM (108-127)

Alabama:													
White.....	171.0	136.7	109.4	94.6	72.4	66.0	47.7	46.6	141.6				
Colored.....	143.7	147.7	115.8	85.7	57.2	69.9	67.2	59.9	182.0				
California.....	114.0	106.2	96.7	100.8	105.0	103.6	86.3	85.6		84.6			
Hawaii.....		185.6	167.3	124.8	122.0	145.1	222.7	186.8		158.7			
Iowa.....	78.6												
Kansas.....	95.6	138.0	141.2	95.1	76.9	80.2							
Kentucky.....	135.6	180.8	171.6	107.5	89.6	57.2							
Louisiana.....	125.0	112.3	114.2	93.6	87.4	80.3							
Michigan.....	81.3	95.7	110.5	94.6	84.5	90.8	84.4	92.2	82.8				
Minnesota.....		50.2	58.6	64.4	57.7	58.4	56.7	59.3					
Nebraska.....	88.6	107.0	86.4	59.4	65.7	60.2							
New Jersey.....	82.0	101.4	90.7	78.6	68.5	74.6	72.7	61.1	86.3	60.4	62.5	62.4	59.2
New York <sup>1</sup> .....	68.2	79.8	84.6	73.7	72.4	73.0	70.9	71.9		86.2	78.8	75.6	75.3
Pennsylvania.....	79.3	94.7	118.2	86.4	73.8	72.2	73.3	74.8					
South Dakota.....	45.2	46.8	79.3	61.9	70.9	87.0							
Tennessee.....							44.2	60.4	66.8				
Virginia.....					48.7	51.7	35.7	48.1	55.8				

<sup>1</sup> Exclusive of New York City.

Monthly State mortality statistics—Continued

DIARRHEA AND ENTERITIS UNDER 2 YEARS (113)

State	1928						1929			Corresponding month for—			
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	1928	1927	1926	1925
Alabama:													
White	89.7	68.7	62.3	37.1	16.7	13.3	2.8	3.9	10.5	5.6	7.3	6.7	-----
Colored	73.8	58.0	53.1	18.5	8.2	13.2	6.6	10.2	1.3	9.2	7.9	9.2	-----
California	21.2	25.1	19.8	19.6	15.0	18.9	9.6	9.2	-----	10.2	-----	-----	-----
Connecticut	3.6	13.9	12.1	8.8	4.5	3.6	5.0	15.9	-----	4.8	9.0	12.6	12.8
Hawaii	-----	114.7	97.6	74.2	59.3	104.6	145.1	104.6	-----	90.2	-----	-----	-----
Indiana	20.0	50.4	47.1	28.2	12.6	5.2	8.2	6.6	-----	10.7	7.4	7.1	9.3
Iowa	6.3	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas	22.6	52.0	40.4	20.6	12.6	8.3	-----	-----	-----	-----	-----	-----	-----
Kentucky	70.1	65.9	99.1	60.0	34.3	12.6	-----	-----	-----	-----	-----	-----	-----
Louisiana	43.5	30.8	26.8	24.8	23.7	3.0	-----	-----	-----	-----	-----	-----	-----
Michigan	14.6	23.9	38.7	25.9	15.1	13.3	11.8	19.2	9.0	-----	-----	-----	-----
Minnesota	-----	4.3	6.7	6.1	4.9	3.0	2.6	4.3	-----	-----	-----	-----	-----
Mississippi	77.6	35.5	24.5	22.4	12.2	8.3	2.6	4.4	7.2	-----	-----	-----	-----
Nebraska	5.9	23.4	17.3	10.0	2.6	3.3	-----	-----	-----	-----	-----	-----	-----
New Jersey	16.6	29.0	24.5	16.9	14.0	12.6	11.1	7.2	10.2	10.2	11.3	14.1	17.0
New York 1	8.0	14.5	20.9	15.2	10.0	7.4	9.9	9.6	-----	11.5	15.9	9.9	14.7
North Carolina	97.8	70.9	44.7	30.9	26.1	30.1	10.4	10.2	4.0	10.0	-----	-----	-----
Pennsylvania	18.6	32.1	50.7	30.0	15.8	15.9	15.1	14.0	-----	19.0	18.8	17.0	23.1
South Dakota	8.4	6.7	12.1	13.4	12.1	8.4	-----	-----	-----	-----	-----	-----	-----
Tennessee	94.6	80.5	55.9	35.8	19.9	18.4	3.3	3.6	8.9	4.7	6.6	-----	-----
Virginia	-----	42.1	22.9	22.9	9.0	7.3	3.7	5.6	5.8	-----	-----	-----	-----
Wisconsin	12.4	8.8	9.5	8.4	4.5	13.6	8.8	15.9	14.4	13.6	-----	-----	-----

NEPHRITIS (128, 129)

Alabama:													
White (129)	74.3	60.3	73.9	65.2	75.3	91.8	72.2	76.0	73.5	75.7	59.8	73.9	-----
Colored (129)	151.6	156.9	137.6	123.9	147.1	112.1	109.4	103.6	128.6	91.0	101.3	97.3	-----
California	96.7	98.8	100.1	96.1	130.1	142.7	119.4	128.5	-----	122.4	-----	-----	-----
Connecticut	67.8	57.6	63.3	60.5	67.1	61.3	81.1	100.9	-----	-----	-----	-----	-----
Hawaii (129)	-----	-----	60.2	40.5	66.2	54.0	87.7	48.6	-----	57.7	-----	-----	-----
Indiana	71.2	77.1	84.3	75.6	82.7	98.4	81.6	85.4	-----	86.8	84.8	83.0	86.3
Iowa	61.6	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas	75.1	73.7	88.2	93.7	108.7	122.0	-----	-----	-----	-----	-----	-----	-----
Kentucky	71.0	76.6	80.5	96.4	84.5	86.7	-----	-----	-----	-----	-----	-----	-----
Louisiana	120.2	102.6	93.6	117.1	124.2	138.9	-----	-----	-----	-----	-----	-----	-----
Michigan	61.3	68.2	63.5	68.2	74.7	82.3	82.1	75.4	74.9	-----	-----	-----	-----
Minnesota	45.9	45.9	50.5	52.8	39.3	71.4	71.8	59.2	-----	62.4	-----	-----	-----
Mississippi	101.9	108.5	81.5	112.4	95.1	117.7	102.6	115.0	107.8	-----	-----	-----	-----
Nebraska	44.3	44.3	31.1	46.8	53.6	57.7	-----	-----	-----	-----	-----	-----	-----
New Jersey	95.2	84.7	90.4	91.5	101.3	118.9	137.7	125.5	110.6	124.8	107.7	125.7	109.9
New York 1	93.0	94.4	92.6	100.6	99.6	116.6	137.5	129.1	-----	117.6	119.1	125.4	126.2
Pennsylvania	93.3	94.2	50.7	99.9	109.3	125.6	143.3	112.5	-----	122.0	116.0	117.0	116.0
South Dakota	41.8	31.8	41.5	25.1	25.9	63.6	-----	-----	-----	-----	-----	-----	-----
Tennessee	-----	-----	-----	-----	-----	-----	77.2	65.1	78.6	-----	-----	-----	-----
Virginia	-----	-----	-----	-----	94.5	112.0	104.7	107.8	109.3	-----	-----	-----	-----

PUERPERAL STATE (143-150)

Alabama:													
White	14.7	15.4	14.5	19.6	13.0	14.0	14.7	14.0	13.3	20.3	14.6	19.3	-----
Colored	34.3	36.9	24.5	23.7	17.7	21.1	19.8	20.3	17.1	25.1	23.7	39.4	-----
California	9.8	9.3	10.4	8.0	7.7	14.2	10.1	6.0	-----	11.9	-----	-----	-----
Connecticut (143-149)	10.2	8.0	5.3	9.5	6.0	8.8	6.5	16.7	-----	8.9	12.8	10.0	8.5
Hawaii (146)	-----	6.7	17.4	-----	7.0	6.7	6.7	7.5	-----	3.6	-----	-----	-----
Indiana	8.9	11.1	15.3	9.3	10.3	8.9	16.7	9.9	-----	8.7	14.9	15.4	15.6
Iowa	4.8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Kansas	13.5	9.6	9.9	9.6	12.6	13.5	-----	-----	-----	-----	-----	-----	-----
Kentucky	6.0	9.7	10.5	11.5	8.6	11.1	-----	-----	-----	-----	-----	-----	-----
Louisiana	28.6	19.9	19.3	30.5	20.0	24.2	-----	-----	-----	-----	-----	-----	-----
Michigan	10.8	12.6	7.7	9.7	10.6	12.8	11.8	14.2	17.2	-----	-----	-----	-----
Minnesota	7.8	7.8	4.0	5.6	4.0	8.7	9.1	8.7	-----	10.2	-----	-----	-----
Mississippi	22.4	23.0	14.3	18.4	16.3	22.4	13.2	16.0	25.6	-----	-----	-----	-----
Nebraska	13.4	12.5	6.9	10.9	7.8	9.2	-----	-----	-----	-----	-----	-----	-----
New Jersey	9.6	12.0	10.2	12.6	14.5	8.0	10.2	8.9	10.2	-----	-----	-----	-----
New York 1	12.2	9.7	8.9	7.6	8.7	10.1	11.0	11.4	-----	13.3	10.9	12.1	16.3
South Dakota	6.7	10.0	12.1	1.7	12.0	10.0	-----	-----	-----	-----	-----	-----	-----
Tennessee	-----	-----	-----	-----	-----	-----	18.4	12.6	17.4	-----	-----	-----	-----
Virginia	-----	-----	-----	-----	14.2	18.3	15.1	16.2	13.3	-----	-----	-----	-----

1 Exclusive of New York City.

## COURT DECISIONS RELATING TO PUBLIC HEALTH

*Requirement of ordinance that milk be pasteurized in municipality upheld.*—(California First District Court of Appeal, Division 2; Witt et al. v. Klimm et al., Board of Health and Milk Inspection Service, 274 P. 1039; decided February 21, 1929.) One of the provisions of an ordinance of the city and county of San Francisco read as follows:

All milk intended for human consumption, in San Francisco, that comes from cows that have not passed the tuberculin test, except when sold in bulk to the wholesale trade, shall be pasteurized in San Francisco in accordance with the method set forth herein.

The petitioners, who produced, pasteurized, and bottled milk in San Mateo County, applied for a permit to sell grade A pasteurized market milk in the city and county of San Francisco. A permit was refused on the sole ground that the pasteurized milk which petitioners desired to sell was not pasteurized within San Francisco as required by the ordinance. A mandamus proceeding was brought to compel the issuance of a permit, but the court decided against the petitioners, holding the requirement of the ordinance to be a valid exercise of the police power. In the course of its opinion the court of appeal said:

As we have noted above, the legislature has seen fit to enact the "Pure milk law of California," which prescribes certain general rules applicable in all cities and elsewhere in California, regulating the production and sale of milk for human consumption. This law, however, does not prohibit the enactment of additional local regulations by municipalities in keeping with the purpose of said "Pure milk law," so long as the requirements of the municipal ordinance are not in themselves pernicious, as being unreasonable or discriminatory. There may be different regulations without a conflict. \* \* \*

The provisions of the ordinance requiring that the milk be pasteurized within the city and county of San Francisco is simply a new and additional and more stringent regulation than that contained in the State law on the same subject. These requirements of the ordinance are not in themselves unreasonable or discriminatory and do not conflict with the State law, therefore both may stand.

The ordinance is not destructive of petitioners' business. There is nothing in the ordinance to prevent petitioners from selling their milk in San Francisco; they only have to pasteurize their milk within the city and county of San Francisco, the same as all other outside dealers in milk are doing. \* \* \*

If petitioners' contention be sound, and the health department of the city and county of San Francisco be required to go to Colma and there inspect petitioners' pasteurization plant, there would be nothing to prevent all outside dealers in milk from requiring the same thing, and the health department would be called upon to make inspections of pasteurization plants in many of the other counties of the State, such as Alameda, Solano, Contra Costa, and possibly others. It goes without saying that such a requirement of the health department would not only be unreasonable and exceedingly expensive, but it would seriously impair, if not wholly destroy, the efficiency of the entire inspection service.

\* \* \* We think the ordinance in question is a valid exercise of the police power of the city and county of San Francisco, enacted and enforced in the interest of public health, and should be upheld.

*Damages allowed for injuries caused by noxious gases in employment.*—(Washington Supreme Court; *Depre v. Pacific Coast Forge Co.*,<sup>1</sup> 276 P. 89; decided April 4, 1929.) The defendant, in connection with its general business, operated a galvanizing plant, of which the plaintiff was in charge for a period of approximately two years. A part of the plant consisted of a large tank into which was poured a mixture of muriatic acid, sulphuric acid, and water. This mixture gave off noxious gases which were not removed by the ventilation provided. The plaintiff called the defendant's attention to the need for more ventilation and received defendant's promise that the condition would be remedied, but this was not done, although the complaint and promise were subsequently repeated. The gases caused the plaintiff's lungs to become inflamed and otherwise injured and made him susceptible to tuberculosis, which disease he subsequently contracted. In an action for damages the verdict and judgment were in favor of the plaintiff, and on appeal to the Supreme Court the judgment was affirmed.

One of the defendant's contentions before the appellate court was that the plaintiff assumed the risk incident to his employment. The court pointed out, however, that the plaintiff had alleged, and his evidence tended to prove, a violation of the factory act, and stated that the court had held in a number of cases that "the defense of assumption of risk is not available to an employer who fails to comply with the requirements of the act with respect to the place in which he requires his employés to work."

Another of the employer's arguments was that the factory act was repealed by the workmen's compensation act, but the court did not so hold, saying:

\* \* \* Contrary to the contention, the repealing clause to the workmen's compensation act, as we read it, expressly exempts the particular parts of the act on which the respondent relies from repeal (see Laws 1911, p. 373, sec. 30), and we find nothing in the workmen's compensation act so far in conflict with the prior act as to work an implied repeal.

## DEATHS DURING WEEK ENDED MAY 25, 1929

*Summary of information received by telegraph from industrial insurance companies for the week ended May 25, 1929, and corresponding week of 1928. (From the Weekly Health Index, May 29, 1929, issued by the Bureau of the Census, Department of Commerce)*

	Week ended May 25, 1929	Corresponding week, 1928
Policies in force.....	73, 886, 131	71, 266, 788
Number of death claims.....	14, 229	15, 183
Death claims per 1,000 policies in force, annual rate.....	10. 0	11. 1

<sup>1</sup> For prior decision in same cause, see PUBLIC HEALTH REPORTS, November 18, 1927, pp. 2854-2855.

Deaths from all causes in certain large cities of the United States during the week ended May 25, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, May 29, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended May 29, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended May 25, 1929 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended May 25, 1929	Corresponding week, 1928	
Total (66 cities).....	7,137	12.5	13.9	742	783	63
Akron.....	41			9	3	93
Albany.....	41	17.8	16.1	4	5	79
Atlanta.....	65	13.3	14.8	9	7	93
White.....	32			1	1	
Colored.....	33	( <sup>9</sup> )	( <sup>9</sup> )	8	6	
Baltimore.....	191	12.0	13.7	25	26	80
White.....	141			14	19	56
Colored.....	50	( <sup>9</sup> )	( <sup>9</sup> )	11	7	174
Birmingham.....	62	14.6	19.3	8	10	72
White.....	30			3	1	45
Colored.....	32	( <sup>9</sup> )	( <sup>9</sup> )	5	9	115
Boston.....	209	13.7	16.4	27	38	75
Bridgeport.....	30			4	4	69
Buffalo.....	144	13.5	14.5	14	24	60
Cambridge.....	17	7.1	17.0	0	2	0
Camden.....	32	12.4	14.3	5	2	86
Canton.....	21	9.4	10.7	4	2	95
Chicago.....	745	12.3	12.4	114	71	102
Cincinnati.....	118			10	18	58
Cleveland.....	222	11.5	12.4	13	16	38
Columbus.....	71	12.4	14.7	10	6	94
Dallas.....	45	10.8	11.0	5	5	
White.....	33			3	5	
Colored.....	12	( <sup>9</sup> )	( <sup>9</sup> )	2	0	
Dayton.....	34	9.6	12.5	5	6	79
Denver.....	68	12.1	15.8	4	9	39
Des Moines.....	38	13.1	13.1	2	2	36
Detroit.....	328	12.4	12.1	44	37	71
Duluth.....	12	5.4	14.3	0	2	0
El Paso.....	34	15.1	15.5	3	10	
Erie.....	21			1	4	20
Fall River.....	27	10.5	14.8	1	0	19
Flint.....	35	12.3	11.6	4	8	49
Fort Worth.....	28	8.6	8.0	3	3	
White.....	20			0	1	
Colored.....	8	( <sup>9</sup> )	( <sup>9</sup> )	3	2	
Grand Rapids.....	42	13.4	8.6	5	0	76
Houston.....	63			6	12	
White.....	45			4	6	
Colored.....	18	( <sup>9</sup> )	( <sup>9</sup> )	2	6	
Indianapolis.....	99	13.5	13.1	8	9	64
White.....	83			7	7	65
Colored.....	16	( <sup>9</sup> )	( <sup>9</sup> )	1	2	60
Jersey City.....	70	11.3	14.8	6	10	46
Kansas City, Kans.....	31	13.7	11.5	4	1	88
White.....	21			2	1	50
Colored.....	10	( <sup>9</sup> )	( <sup>9</sup> )	2	0	358
Kansas City, Mo.....	104	13.9	13.4	8	9	67
Knoxville.....	26	12.9	18.9	5	5	109
White.....	23			5	5	122
Colored.....	3	( <sup>9</sup> )	( <sup>9</sup> )	0	0	
Los Angeles.....	245			17	21	50
Louisville.....	78	12.4	23.0	2	7	16
White.....	60			2	5	19
Colored.....	18	( <sup>9</sup> )	( <sup>9</sup> )	0	2	0
Lowell.....	36			4	5	91
Lynn.....	27	13.4	15.9	4	2	110
Memphis.....	66	18.1	20.1	7	9	83
White.....	23			3	7	57
Colored.....	43	( <sup>9</sup> )	( <sup>9</sup> )	4	2	125
Milwaukee.....	126	12.1	11.7	23	21	101
Minneapolis.....	83	9.5	10.6	5	13	31
Nashville.....	40	15.0	15.4	6	2	97
White.....	34			6	1	130
Colored.....	6	( <sup>9</sup> )	( <sup>9</sup> )	0	1	0
New Bedford.....	27			2	4	43
New Haven.....	32	8.9	13.4	0	3	0

Footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended May 25, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, May 29, 1929, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended May 29, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended May 25, 1929 <sup>1</sup>
	Total deaths	Death rate <sup>1</sup>		Week ended May 25, 1929	Corresponding week, 1928	
New Orleans.....	136	10.6	20.5	13	17	65
White.....	82			6	11	42
Colored.....	54	( <sup>2</sup> )	( <sup>2</sup> )	7	6	118
New York.....	1,442	12.5	14.5	148	174	61
Bronx Borough.....	202	11.1	11.0	17	21	50
Brooklyn Borough.....	491	11.1	13.1	63	53	64
Manhattan Borough.....	588	17.5	19.8	58	85	71
Queens Borough.....	112	6.9	10.5	7	9	29
Richmond Borough.....	49	17.0	19.1	3	6	54
Newark, N. J.....	100	11.0	12.6	8	7	42
Oakland.....	54	10.3	13.4	1	5	11
Oklahoma City.....	37			1	1	20
Omaha.....	55	12.9	15.3	4	5	47
Paterson.....	26	9.4	10.8	1	4	18
Philadelphia.....	469	11.9	13.2	29	49	41
Pittsburgh.....	180	14.0	16.9	25	27	86
Portland, Oreg.....	80			2	3	23
Providence.....	53	9.7	14.4	8	7	70
Richmond.....	48	12.9	11.8	6	5	84
White.....	28			1	2	21
Colored.....	20	( <sup>2</sup> )	( <sup>2</sup> )	5	3	205
Rochester.....	81	12.9	13.5	5	5	42
St. Louis.....	228	14.1	14.1	19	13	64
St. Paul.....	54			7	6	72
Salt Lake City <sup>4</sup> .....	38	14.4	9.5	8	4	123
San Antonio.....	82	19.7	20.9	19	19	
San Diego.....	43	18.8	16.2	2	1	28
San Francisco.....	156	13.9	13.4	8	9	51
Schenectady.....	21	11.8	10.6	2	2	64
Seattle.....	63	8.6	8.2	3	3	32
Somerville.....	12	6.1	14.8	1	2	36
Spokane.....	23	11.0	14.9	0	1	0
Springfield, Mass.....	46	16.1	15.7	3	4	50
Syracuse.....	60	15.7	13.6	6	3	72
Tacoma.....	21	9.9	7.6	1	1	26
Toledo.....	33	13.9	14.9	5	7	47
Trenton.....	36	13.5	21.1	2	8	36
Utica.....	34	17.1	12.5	6	0	153
Washington, D. C.....	136	12.9	13.6	12	10	70
White.....	86			8	5	68
Colored.....	50	( <sup>2</sup> )	( <sup>2</sup> )	4	5	76
Waterbury.....	29			3	2	76
Wilmington, Del.....	25	10.2	12.6	1	4	26
Worcester.....	49	13.0	18.0	1	3	13
Yonkers.....	16	6.9	9.9	4	0	93
Youngstown.....	28	8.4	7.5	4	2	87

<sup>1</sup> Annual rate per 1,000 population.

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

<sup>3</sup> Data for 73 cities.

<sup>4</sup> Deaths for week ended Friday.

<sup>5</sup> 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, 28; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

# 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 May 25, 1929, and May 26, 1928

*Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended May 25, 1929, and May 26, 1928*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928
<b>New England States:</b>								
Maine.....	2	2	3	22	77	35	0	0
New Hampshire.....	1	1			63	16	0	0
Vermont.....					1	45	0	0
Massachusetts.....	87	61	7	52	573	937	6	4
Rhode Island.....	8	1			79	234	0	0
Connecticut.....	39	26	12	27	335	354	2	2
<b>Middle Atlantic States:</b>								
New York.....	317	369	13	78	1,123	4,024	27	38
New Jersey.....	133	145	6	21	306	1,894	8	5
Pennsylvania.....	150	177			1,801	2,767	11	12
<b>East North Central States:</b>								
Ohio.....	31	42	4	204	631	1,089	10	2
Indiana.....	3	13		32	600	447	1	0
Illinois.....	220	111	72	157	2,222	244	18	12
Michigan.....	218	72	11	5	921	941	62	5
Wisconsin.....	23	26	10	820	1,423	61	6	3
<b>West North Central States:</b>								
Minnesota.....	15	11		5	649	111	0	4
Iowa.....	1	10			96		2	1
Missouri.....	52	30	4	13	163	496	15	14
North Dakota.....	19	1		28	88	25	0	1
South Dakota.....	1	1		2	88	12	0	0
Nebraska.....	13	3		20	317	44	1	1
Kansas.....	5	5		1	807	150	3	7
<b>South Atlantic States:</b>								
Delaware.....	2				8	20	0	0
Maryland.....	13	31	17	38	58	568	1	0
District of Columbia.....	10	27		1	39	191	0	0
West Virginia.....	12	12	13	243	275	56	0	1
North Carolina.....	20	10			20	904	2	1
South Carolina.....	12	14	234	460	6	211	0	0
Georgia.....	1	6	21	102	11	128	1	1
Florida.....	3	9		7	85	133	0	1

<sup>1</sup> New York City only.

<sup>2</sup> Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended May 25, 1929, and May 26, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928
<b>East South Central States:</b>								
Kentucky.....	4	8	—	3	44	160	0	0
Tennessee.....	5	10	21	110	30	140	1	0
Alabama.....	15	8	15	219	123	361	2	1
Mississippi.....	3	7	—	—	—	—	0	1
<b>West South Central States:</b>								
Arkansas.....	2	5	25	170	12	178	1	3
Louisiana.....	10	7	7	29	72	118	6	2
Oklahoma <sup>1</sup> .....	4	12	40	200	22	256	2	4
Texas.....	18	11	37	33	281	116	0	0
<b>Mountain States:</b>								
Montana.....	—	8	—	1	101	36	2	1
Idaho.....	—	—	—	—	3	1	3	0
Wyoming.....	1	—	—	2	76	21	2	0
Colorado.....	8	8	—	—	22	126	4	0
New Mexico.....	5	1	2	—	4	50	1	1
Arizona.....	—	8	—	—	1	9	4	0
Utah <sup>1</sup> .....	1	2	4	7	3	—	5	1
<b>Pacific States:</b>								
Washington.....	15	12	—	—	308	78	3	5
Oregon.....	3	9	20	20	150	43	1	1
California.....	50	85	28	52	129	89	18	3

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928
<b>New England States:</b>								
Maine.....	0	0	16	19	0	0	2	3
New Hampshire.....	0	0	13	9	1	0	1	0
Vermont.....	0	0	9	6	0	1	2	1
Massachusetts.....	2	1	245	244	24	4	8	5
Rhode Island.....	0	0	7	27	0	0	1	2
Connecticut.....	0	0	58	78	4	2	4	1
<b>Middle Atlantic States:</b>								
New York.....	1	2	438	558	5	16	16	21
New Jersey.....	0	1	140	240	0	0	6	5
Pennsylvania.....	0	1	420	443	0	1	17	18
<b>East North Central States:</b>								
Ohio.....	0	1	152	151	82	38	5	6
Indiana.....	0	0	230	67	77	89	2	3
Illinois.....	3	0	400	243	123	47	13	11
Michigan.....	1	1	478	255	52	13	4	3
Wisconsin.....	1	0	153	218	21	15	6	36
<b>West North Central States:</b>								
Minnesota.....	1	2	97	136	6	1	2	0
Iowa.....	0	0	135	51	47	52	0	0
Missouri.....	0	0	53	63	35	22	16	7
North Dakota.....	1	0	37	23	13	6	2	0
South Dakota.....	0	0	17	25	38	2	0	0
Nebraska.....	0	0	70	36	120	39	12	0
Kansas.....	0	0	111	103	70	60	3	1
<b>South Atlantic States:</b>								
Delaware.....	0	0	4	0	1	0	0	1
Maryland <sup>1</sup> .....	0	0	99	63	0	1	6	6
District of Columbia.....	0	0	10	46	0	4	0	0
West Virginia.....	0	1	10	32	11	54	7	3
North Carolina.....	1	1	17	22	4	73	7	5
South Carolina.....	1	6	5	11	4	6	29	29
Georgia.....	0	0	9	11	0	0	28	18
Florida.....	1	0	5	1	1	1	3	6

<sup>1</sup> Week ended Friday.

<sup>2</sup> 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 May 25, 1929, and May 26, 1928—Continued

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928	Week ended May 25, 1929	Week ended May 26, 1928
<b>East South Central States:</b>								
Kentucky.....	0	0	73	43	9	40	3	4
Tennessee.....	0	0	21	11	7	32	14	12
Alabama.....	1	0	8	11	2	25	19	11
Mississippi.....	0	1	3	7	2	4	9	5
<b>West South Central States:</b>								
Arkansas.....	0	1	8	26	2	17	6	18
Louisiana.....	0	0	25	15	3	19	7	11
Oklahoma <sup>1</sup> .....	0	0	16	47	36	88	4	3
Texas.....	0	1	55	55	57	47	7	2
<b>Mountain States:</b>								
Montana.....	0	0	14	13	9	19	0	1
Idaho.....	1	0	4	6	4	7	1	0
Wyoming.....	0	0	14	22	7	1	0	0
Colorado.....	0	0	15	34	23	10	1	1
New Mexico.....	0	0	3	14	6	1	0	3
Arizona.....	0	2	5	0	3	12	6	2
Utah <sup>2</sup> .....	0	0	9	5	1	6	0	0
<b>Pacific States:</b>								
Washington.....	0	2	42	18	64	33	1	6
Oregon.....	0	1	15	20	20	39	1	5
California.....	3	3	409	154	66	12	7	17

<sup>1</sup> Week ended Friday.

<sup>2</sup> 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- cus menin- gitis	Diph- theria	Infl- uenza	Ma- laria	Meas- les	Pellag- ra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>March, 1929</i>										
Hawaii Territory.....	68	18	147		66		0	12	0	11
<i>April, 1929</i>										
Alabama.....	10	49	196	162	636	64	4	61	24	33
California.....	97	203	266	3	333	8	3	1,947	321	23
Idaho.....	32	2	14		29		3	60	145	
Illinois.....	69	659	316	4	8,025		1	1,857	355	26
Iowa.....	5	27	1		291		2	583	180	22
Massachusetts.....	25	360	78	3	1,922	1	5	1,198	7	18
Michigan.....	316	348	31	4	3,671		3	2,200	277	28
Mississippi.....	2		1,851	5,626	2,534	1,476	3	41	5	49
Missouri.....	96	149	39	26	1,498	1	0	395	164	54
Montana.....	18	21	2		703		0	92	89	5
North Carolina.....	1	89			179		1	120	85	16
Oklahoma <sup>1</sup> .....	21	41	274	221	229	32	0	142	351	31
Oregon.....	9	24	210		965		2	114	132	4
Pennsylvania.....	46	629			7,757		2	1,689	0	67
Rhode Island.....	1	49	4		448		0	91	0	1
Washington.....	55	33	113		760		1	179	219	28
West Virginia.....	3	41	60		1,860		2	68	54	39
Wisconsin.....	18	58	77		5,030		2	612	22	7

<sup>1</sup> Exclusive of Oklahoma City and Tulsa.

March, 1929	
	Cases
<b>Hawaii Territory:</b>	
Chicken pox.....	37
Conjunctivitis (follicular).....	3
Dysentery (amebic).....	1
Hookworm disease.....	5
Impetigo contagiosa.....	7
Leprosy.....	4
Mumps.....	19
Tetanus.....	1
Trachoma.....	1
Whooping cough.....	169
April, 1929	
<b>Actinomycosis:</b>	
Illinois.....	2
Massachusetts.....	1
<b>Anthrax:</b>	
Pennsylvania.....	1
<b>Chicken pox:</b>	
Alabama.....	185
California.....	2,906
Idaho.....	32
Illinois.....	1,168
Iowa.....	107
Massachusetts.....	822
Michigan.....	765
Mississippi.....	918
Missouri.....	279
Montana.....	108
North Carolina.....	579
Oklahoma <sup>1</sup> .....	62
Oregon.....	209
Pennsylvania.....	2,040
Rhode Island.....	56
Washington.....	527
West Virginia.....	103
Wisconsin.....	865
<b>Dengue:</b>	
Alabama.....	3
Mississippi.....	5
<b>Dysentery:</b>	
California (amebic).....	2
California (bacillary).....	17
Illinois.....	14
Massachusetts.....	5
Mississippi (amebic).....	47
Mississippi (bacillary).....	401
Oklahoma <sup>1</sup> .....	1
Washington.....	1
<b>German measles:</b>	
California.....	149
Illinois.....	200
Iowa.....	13
Massachusetts.....	148
Montana.....	1
North Carolina.....	377
Pennsylvania.....	275
Rhode Island.....	4
Washington.....	27
Wisconsin.....	29
<b>Granuloma (coccioidial):</b>	
California.....	3
<b>Hookworm disease:</b>	
Mississippi.....	337

	Cases
<b>Impetigo contagiosa:</b>	
Oregon.....	11
Washington.....	1
<b>Lead poisoning:</b>	
Illinois.....	2
Massachusetts.....	4
<b>Leprosy:</b>	
California.....	4
<b>Lethargic encephalitis:</b>	
Alabama.....	3
California.....	4
Illinois.....	6
Massachusetts.....	3
Michigan.....	5
Pennsylvania.....	8
Washington.....	8
Wisconsin.....	5
<b>Mumps:</b>	
Alabama.....	49
California.....	2,196
Idaho.....	76
Illinois.....	528
Iowa.....	445
Massachusetts.....	447
Michigan.....	752
Mississippi.....	486
Missouri.....	207
Montana.....	30
Oklahoma <sup>1</sup> .....	69
Oregon.....	127
Pennsylvania.....	1,572
Rhode Island.....	8
Washington.....	294
Wisconsin.....	323
<b>Ophthalmia neonatorum:</b>	
California.....	3
Illinois.....	47
Massachusetts.....	86
Mississippi.....	13
Missouri.....	3
North Carolina.....	1
Oklahoma <sup>1</sup> .....	1
Pennsylvania.....	17
Rhode Island.....	1
Washington.....	1
<b>Paratyphoid fever:</b>	
California.....	2
Illinois.....	2
Washington.....	1
<b>Puerperal septicemia:</b>	
Illinois.....	8
Mississippi.....	32
Oregon.....	1
Pennsylvania.....	14
Washington.....	6
<b>Rabies in animals:</b>	
California.....	85
Illinois.....	18
Iowa.....	23
Mississippi.....	8
Missouri.....	1
Oregon.....	2
Rhode Island.....	9
Washington.....	2

<sup>1</sup> Exclusive of Oklahoma City and Tulsa.

	Cases	Trichinosis:	Cases
<b>Rabies in man:</b>		California.....	1
Michigan.....	2	Massachusetts.....	2
Mississippi.....	1	<b>Tularaemia:</b>	
<b>Rocky Mountain spotted or tick fever:</b>		Alabama.....	2
Idaho.....	3	Oregon.....	2
Montana.....	6	<b>Typhus fever:</b>	
Oregon.....	15	Alabama.....	5
<b>Scabies:</b>		<b>Undulant fever:</b>	
Oregon.....	16	California.....	5
Washington.....	2	Illinois.....	2
<b>Septic sore throat:</b>		Iowa.....	21
Illinois.....	9	Montana.....	1
Iowa.....	4	Washington.....	1
Massachusetts.....	31	<b>Vincent's angina:</b>	
Michigan.....	17	Illinois.....	1
Missouri.....	14	Oklahoma <sup>1</sup> .....	1
North Carolina.....	5	<b>Whooping cough:</b>	
Oklahoma <sup>1</sup> .....	28	Alabama.....	177
Oregon.....	2	California.....	1,217
Rhode Island.....	2	Idaho.....	5
<b>Tetanus:</b>		Illinois.....	697
California.....	8	Iowa.....	111
Massachusetts.....	4	Massachusetts.....	710
Missouri.....	1	Michigan.....	1,261
Oklahoma <sup>1</sup> .....	1	Mississippi.....	1,706
Pennsylvania.....	4	Missouri.....	389
<b>Trachoma:</b>		Montana.....	34
California.....	21	North Carolina.....	1,418
Illinois.....	4	Oklahoma <sup>1</sup> .....	120
Massachusetts.....	4	Oregon.....	37
Mississippi.....	19	Pennsylvania.....	1,872
Missouri.....	25	Rhode Island.....	17
Oklahoma <sup>1</sup> .....	5	Washington.....	537
Pennsylvania.....	2	West Virginia.....	256
		Wisconsin.....	989

<sup>1</sup> Exclusive of Oklahoma City and Tulsa.

**Number of Cases of Certain Communicable Diseases Reported for the Month of March, 1929, by State Health Officers**

	Chicken pox	Diph- theria	Measles	Mumps	Scarlet fever	Small- pox	Tuber- culo- sis	Ty- phoid fever	Whoop- ing cough
Maine.....	113	20	1,359	88	234	35	42	4	108
New Hampshire.....		7			105	0		0	
Vermont.....	41	11	154	274	74	5	15		162
Massachusetts.....	761	344	1,542	440	1,375	7	580	18	699
Rhode Island.....	51	51	349	11	136	0	57	4	20
Connecticut.....	368	90	2,122	431	279	21	114	3	115
New York.....	2,908	1,281	4,626	2,096	2,652	10	1,920	58	1,463
New Jersey.....	1,235	462	1,214		809	0	433	11	820
Pennsylvania.....	2,338	702	8,711	2,280	2,116	6	820	56	1,715
Ohio.....	1,313	306	7,648	395	1,439	210	674	35	1,913
Indiana.....	470	142	2,337	53	1,456	380	211	36	481
Illinois.....	1,279	620	6,198	495	2,218	515	1,700	27	650
Michigan.....	1,006	418	2,314	722	1,981	249	414	22	1,058
Wisconsin.....	1,097	75	3,386	505	833	24	145	7	827
Minnesota.....	582	112	2,629		619	9	250	14	559
Iowa.....	165	42	167	531	865	191	59	10	155
Missouri.....	426	318	2,327	293	574	229	307	22	401
North Dakota.....	13	33	321	182	246	15	25	4	53
South Dakota.....	38	25	189	19	125	66	5	1	11
Nebraska.....	116	73	189	145	510	256	115	3	64
Kansas.....	509	55	1,350	772	817	262	177	11	302
Delaware <sup>1</sup> .....									
Maryland.....	379	84	515	819	324	1	318	17	628
District of Columbia.....	182	56	84		110	0	144	1	120
Virginia.....	617	94	807		136	14	1157	8	702
West Virginia.....	226	51	1,304		137	69	77	47	223
North Carolina.....	872	114	346		152	114		17	1,123
South Carolina.....	435	126	37	174	74	9	197	28	628

<sup>1</sup> Pulmonary.

<sup>1</sup> Report not received at time of going to press.

**Number of Cases of Certain Communicable Diseases Reported for the Month of March, 1929, by State Health Officers—Continued**

	Chicken pox	Diph- theria	Measles	Mumps	Scarlet fever	Small- pox	Tuber- culo- sis	Ty- phoid fever	Whoop- ing cough
Georgia.....	98	33	191	91	77	57	107	29	281
Florida.....	100	34	183	33	39	0	128	19	253
Kentucky <sup>1</sup> .....									
Tennessee.....	294	71	63	331	284	9	322	22	200
Alabama.....	268	77	643	41	70	42	359	29	90
Mississippi.....	1,097		2,997	562	59	2	406	46	1,386
Arkansas.....	222	30	446	110	66	69	141	12	102
Louisiana.....	79	84	435		238	27	118	25	93
Oklahoma <sup>4</sup> .....	74	57	242	104	194	432	49	22	121
Texas <sup>1</sup> .....									
Montana.....	94	24	454	26	96	25	17	16	33
Idaho.....	18	4	30	92	48	116	3	4	4
Wyoming.....	54	8	135	126	56	11	3	0	6
Colorado.....	434	34	74	176	140	86	71	4	45
New Mexico <sup>1</sup> .....									
Arizona.....	59	14	58	12	27	74	72	7	21
Utah <sup>1</sup> .....									
Nevada <sup>1</sup> .....									
Washington.....	444	45	459	347	134	228	189	15	289
Oregon.....	264	50	954	170	249	185	52	8	15
California.....	2,512	200	261	2,113	1,987	273	1,001	41	973

**Case Rates per 1,000 Population (Annual Basis) for the Month of March, 1929**

Maine.....	1.67	0.30	20.08	1.30	3.46	0.52	0.62	0.06	1.60
New Hampshire.....		.18			2.71	.00		.00	
Vermont.....	1.37	.37	5.14	9.15	2.47	.17	.50		5.41
Massachusetts.....	2.07	.93	4.18	1.19	3.73	.02	1.57	.05	1.90
Rhode Island.....	2.82	.82	5.64	.18	2.20	.00	.92	.06	.32
Connecticut.....	2.48	.62	14.71	2.99	1.93	.15	.79	.02	8.80
New York.....	2.93	1.29	4.67	2.11	2.67	.02	1.94	.06	1.47
New Jersey.....	3.73	1.40	3.67		2.45	.00	1.31	.03	2.51
Pennsylvania.....	2.76	.83	10.28	2.67	2.50	.01	.97	.07	2.02
Ohio.....	2.23	.62	12.97	.67	2.44	.36	1.14	.06	3.24
Indiana.....	1.73	.52	8.89	.19	5.35	1.40	.78	.13	1.77
Illinois.....	2.01	.97	9.69	.78	3.48	.81	2.67	.04	1.02
Michigan.....	2.52	1.05	5.81	1.81	4.97	.62	1.04	.06	2.65
Wisconsin.....	4.32	.30	13.34	1.99	3.28	.09	.57	.03	3.30
Minnesota.....	2.48	.48	11.22		2.64	.04	1.07	.06	2.39
Iowa.....	.80	.20	.81	2.57	4.19	.93	.29	.05	.75
Missouri.....	1.42	1.06	7.75	.98	1.91	.76	1.02	.08	1.34
North Dakota.....	.24	.61	5.89	2.42	4.52	.28	.46	.07	1.52
South Dakota.....	.63	.41	3.13	.31	2.07	1.12	.08	.02	.18
Nebraska.....	.96	.61	1.57	1.23	4.23	2.12	1.12	.02	.53
Kansas.....	3.83	.35	8.63	4.93	5.22	1.67	1.13	.07	1.93
Delaware <sup>2</sup> .....									
Maryland.....	2.73	.60	3.71	5.90	2.33	.01	2.29	.12	4.52
District of Columbia.....	3.17	1.17	1.75		2.30	.00	3.01	.02	2.51
Virginia.....	2.79	.43	3.65		.61	.06	1.71	.04	3.17
West Virginia.....	1.52	.34	8.76		.92	.46	.52	.32	1.50
North Carolina.....	3.45	.45	1.37		.60	.45		.07	4.46
South Carolina.....	2.72	.79	.23	1.09	.46	.06	1.23	.18	3.93
Georgia.....	.36	.12	.70	.33	.28	.21	.39	.11	1.02
Florida.....	.81	.27	1.48	.27	.31	.00	1.03	.15	2.04
Kentucky <sup>1</sup> .....									
Tennessee.....	1.37	.33	.29	1.55	1.33	.04	1.51	.10	.93
Alabama.....	1.22	.35	2.92	.19	.32	.19	1.63	.13	.41
Mississippi.....	7.21		19.71	3.70	.39	.01	2.67	.30	9.11
Arkansas.....	1.33	.18	2.67	.66	.40	.41	1.25	.07	.61
Louisiana.....	.47	.50	2.61		1.43	.16	1.71	.15	.56
Oklahoma <sup>4</sup> .....	.40	.31	1.31	.56	1.05	2.34	.27	.12	.66
Texas <sup>1</sup> .....									
Montana.....	2.02	.51	9.74	.56	2.06	.54	.36	.34	.71
Idaho.....	.38	.08	.63	1.94	1.01	2.45	.06	.08	.08
Wyoming.....	2.51	.37	6.28	5.86	2.61	.51	.14	.00	.28
Colorado.....	4.62	.36	.79	1.87	1.49	.92	.76	.04	.48
New Mexico <sup>1</sup> .....									
Arizona.....	1.42	.34	1.40	.29	.65	1.78	1.73	.17	.51
Utah <sup>1</sup> .....									
Nevada <sup>1</sup> .....									
Washington.....	3.24	.33	3.95	2.63	.98	1.67	1.38	.11	2.11
Oregon.....	3.40	.64	12.20	2.19	3.21	2.38	.67	.10	.19
California.....	6.32	.50	.66	5.32	5.00	.69	2.52	.10	2.45

<sup>1</sup> Pulmonary.

<sup>2</sup> Report not received at time of going to press.

<sup>3</sup> Reports received weekly.

<sup>4</sup> Exclusive of Oklahoma City and Tulsa.

<sup>5</sup> Reports received annually.

## GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 97 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 31,535,000. The estimated population of the 90 cities reporting deaths is more than 29,965,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics:

*Weeks ended May 18, 1929, and May 19, 1928*

	1929	1928	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
44 States.....	1,263	1,315	
97 cities.....	751	826	831
Measles:			
43 States.....	14,319	18,967	
97 cities.....	5,377	8,026	
Meningococcus meningitis:			
44 States.....	298	137	
97 cities.....	163	81	
Poliomyelitis: 44 States.....	33	22	
Scarlet fever:			
44 States.....	4,251	3,845	
97 cities.....	1,760	1,502	1,199
Smallpox:			
44 States.....	929	1,086	
97 cities.....	69	144	94
Typhoid fever:			
44 States.....	258	217	
97 cities.....	53	33	46
<i>Deaths reported</i>			
Influenza and pneumonia: 90 cities.....	657	1,278	
Smallpox: 90 cities.....	0	0	

*City reports for week ended May 18, 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			
<b>NEW ENGLAND</b>									
<b>Maine:</b>									
Portland.....	78,600	4	1	3		0	14	2	0
<b>New Hampshire:</b>									
Concord.....	(1)	0	0	0		0	24	0	0
Manchester.....	85,700	0	2	0		0	0	0	1
Nashua.....	(1)	0	1	0		0	0	0	1
<b>Vermont:</b>									
Barre.....	(9)	0	0	0		0	0	0	0

City reports for week ended May 18, 1929—Continued

Division, State, and city	Population July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- sles, 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			
<b>NEW ENGLAND—CON- tinued</b>									
<b>Massachusetts:</b>									
Boston.....	799,200	42	40	25	1	0	31	47	12
Fall River.....	134,300	0	3	2	0	0	1	0	3
Springfield.....	149,800	10	2	2	0	0	0	0	2
Worcester.....	197,600	26	3	0	0	0	22	0	1
<b>Rhode Island:</b>									
Pawtucket.....	73,100	5	0	0	0	0	7	0	0
Providence.....	286,300	2	8	4	0	0	56	0	7
<b>Connecticut:</b>									
Bridgeport.....	(1)	1	5	4	1	1	11	0	3
Hartford.....	172,300	5	5	2	0	0	7	15	7
New Haven.....	187,900	21	1	0	0	0	19	2	4
<b>MIDDLE ATLANTIC</b>									
<b>New York:</b>									
Buffalo.....	555,800	16	11	12	0	0	74	1	21
New York.....	6,017,500	286	258	239	7	8	117	0	136
Rochester.....	328,200	11	10	2	0	0	19	8	5
Syracuse.....	199,300	39	6	0	1	1	2	7	4
<b>New Jersey:</b>									
Camden.....	135,400	4	6	11	0	0	10	3	5
Newark.....	473,600	61	14	31	1	0	8	64	11
Trenton.....	139,000	6	3	1	0	0	18	0	2
<b>Pennsylvania:</b>									
Philadelphia.....	2,064,200	139	60	28	3	4	85	31	39
Pittsburgh.....	673,800	50	18	3	0	3	69	4	10
Reading.....	115,400	7	2	2	0	0	4	0	3
<b>EAST NORTH CENTRAL</b>									
<b>Ohio:</b>									
Cincinnati.....	413,700	15	7	5	0	1	8	0	10
Cleveland.....	1,010,300	107	22	13	4	0	569	7	19
Columbus.....	299,000	6	3	0	0	0	49	0	1
Toledo.....	313,200	13	4	0	1	1	43	19	3
<b>Indiana:</b>									
Fort Wayne.....	105,300	5	2	2	0	0	35	0	2
Indianapolis.....	382,100	36	3	1	0	0	269	2	6
South Bend.....	86,100	6	1	0	0	0	16	2	3
Terre Haute.....	73,500	1	0	2	0	0	17	0	1
<b>Illinois:</b>									
Chicago.....	3,157,400	84	64	128	8	4	1,050	14	87
Springfield.....	67,200	1	0	1	0	0	14	0	0
<b>Michigan:</b>									
Detroit.....	1,378,900	83	44	55	6	4	174	57	32
Flint.....	148,800	20	4	2	2	0	13	3	6
Grand Rapids.....	164,200	3	2	1	0	1	42	1	1
<b>Wisconsin:</b>									
Kenosha.....	56,500	14	1	0	0	0	61	3	1
Milwaukee.....	544,200	97	12	14	2	1	1,006	19	8
Racine.....	74,400	23	2	0	0	0	32	0	2
Superior.....	(1)	2	1	0	0	0	5	12	1
<b>WEST NORTH CENTRAL</b>									
<b>Minnesota:</b>									
Duluth.....	116,800	11	0	0	0	0	2	39	2
Minneapolis.....	455,900	61	15	6	0	0	217	76	4
St. Paul.....	(1)	18	10	0	0	0	269	43	3
<b>Iowa:</b>									
Davenport.....	(1)	1	0	0	0	0	0	0	0
Des Moines.....	151,900	1	1	0	0	0	1	2	0
Sioux City.....	80,000	41	1	0	0	0	6	2	2
Waterloo.....	37,100	5	0	0	0	0	3	20	0
<b>Missouri:</b>									
Kansas City.....	391,000	23	4	5	0	0	34	2	12
St. Joseph.....	78,500	1	0	1	0	0	55	0	0
St. Louis.....	848,100	19	40	45	1	0	42	8	0
<b>North Dakota:</b>									
Fargo.....	(1)	0	0	0	0	0	0	0	0
Grand Forks.....	(1)	3	0	0	0	0	2	0	0

1 No estimate of population made.

## City reports for week ended May 18, 1929—Continued

Division, State, and city	Population July 1, 1928, estimated	Chick-on pox, cases reported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expec-tancy	Cases re-ported	Cases re-ported	Deaths re-ported			
<b>WEST NORTH CENTRAL—continued</b>									
South Dakota:									
Aberdeen.....	( <sup>1</sup> )	0	0	0			1	9	
Nebraska:									
Lincoln.....	71, 100	5	1	1		0	6	0	0
Omaha.....	222, 800	6	2	7		0	87	0	2
Kansas:									
Topeka.....	62, 800	7	1	0		0	1	3	1
Wichita.....	99, 300	13	1	0		0	166	16	0
<b>SOUTH ATLANTIC</b>									
Delaware:									
Wilmington.....	128, 500	0	2	0		0	10	2	5
Maryland:									
Baltimore.....	830, 400	53	21	10	8	2	4	188	30
Cumberland.....	( <sup>1</sup> )	1	0	2		0	0	0	3
Frederick.....	( <sup>1</sup> )	0	0	0		0	0	0	0
District of Columbia:									
Washington.....	552, 000	30	11	7	2	0	32	0	11
Virginia:									
Lynchburg.....	38, 600	15	0	0		0	0	65	0
Norfolk.....	184, 200	25	1	1		0	1	67	2
Richmond.....	194, 400	5	1	1		0	22	4	2
Roanoke.....	64, 600	4	1	0		0	0	3	0
West Virginia:									
Charleston.....	55, 200	8	0	1		0	77	0	1
Wheeling.....	( <sup>1</sup> )	5	1	0		0	69	0	1
North Carolina:									
Raleigh.....	( <sup>1</sup> )	8	0	1		0	0	0	1
Wilmington.....	39, 100	7	0	0		0	0	0	1
Winston-Salem.....	80, 000	5	0	2		0	0	0	3
South Carolina:									
Charleston.....	75, 900	0	0	1	16	0	0	0	0
Columbia.....	50, 600	10	1	2		0	1	2	1
Greenville.....	( <sup>1</sup> )	5	0	0		0	0	0	1
Georgia:									
Atlanta.....	255, 100	7	1	3	6	1	18	1	2
Brunswick.....	( <sup>1</sup> )	1	0	0		0	0	0	1
Savannah.....	99, 900	0	0	2	2	0	0	0	1
Florida:									
Miami.....	156, 700	5	1	0		0	45	0	1
St. Petersburg.....	53, 300		0			0			0
Tampa.....	113, 400	0	0	1		1	20	2	1
<b>EAST SOUTH CENTRAL</b>									
Kentucky:									
Covington.....	59, 000	0	0	0		0	0	0	2
Tennessee:									
Memphis.....	190, 200	9	1	0		1	0	0	2
Nashville.....	139, 680	0	0	2		0	1	0	3
Alabama:									
Birmingham.....	222, 400	5	1	2	3	3	1	1	5
Mobile.....	69, 600	0	0	0		0	4	0	0
Montgomery.....	63, 100	30	0	0			4	0	
<b>WEST SOUTH CENTRAL</b>									
Arkansas:									
Fort Smith.....	( <sup>1</sup> )	0	0	1			0	0	
Little Rock.....	79, 200	4	0	0		0	0	0	1
Louisiana:									
New Orleans.....	429, 400	3	6	16	2	1	15	0	12
Shreveport.....	81, 300	2	0	0		0	3	1	1
Oklahoma:									
Tulsa.....	170, 500	12	1	0			11	1	
Texas:									
Dallas.....	217, 800	3	3	6		0	64	0	3
Fort Worth.....	170, 600	1	1	3		3	10	0	5
Galveston.....	50, 600	0	0	0		0	0	0	0
Houston.....	( <sup>1</sup> )	1	3	5		0	5	0	5
San Antonio.....	218, 100	0	0	1		0	0	0	6

<sup>1</sup> No estimate of population made.

City reports for week ended May 18, 1929—Continued

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			
<b>MOUNTAIN</b>									
Montana:									
Billings.....	(1)	6	0	0	-----	0	0	0	0
Great Falls.....	(1)	5	1	0	-----	0	8	0	0
Helena.....	(1)	0	0	0	-----	0	3	0	0
Missoula.....	(1)	0	0	0	-----	0	0	0	1
Idaho:									
Boise.....	(1)	0	1	0	-----	0	4	0	1
Colorado:									
Denver.....	294,200	47	10	3	-----	2	3	32	6
Pueblo.....	44,200	30	1	0	-----	0	0	1	1
New Mexico:									
Albuquerque.....	(1)	0	0	0	-----	0	0	2	1
Utah:									
Salt Lake City.....	138,000	10	3	0	-----	0	2	122	4
Nevada:									
Reno.....	(1)	0	0	0	-----	0	1	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	383,200	27	4	0	-----	-----	3	13	-----
Spokane.....	109,100	8	2	0	-----	-----	122	0	-----
Tacoma.....	110,500	18	1	3	-----	0	15	3	0
Oregon:									
Portland.....	(1)	4	5	0	-----	1	3	93	4
Salem.....	(1)	4	0	0	-----	-----	0	4	1
California:									
Los Angeles.....	(1)	107	38	15	-----	24	7	18	42
Sacramento.....	75,700	8	2	0	-----	2	0	11	12
San Francisco.....	585,300	37	17	5	-----	1	0	7	42

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		
<b>NEW ENGLAND</b>											
Maine:											
Portland.....	2	11	0	0	0	0	0	0	1	6	14
New Hampshire:											
Concord.....	0	3	0	0	0	1	0	1	0	0	13
Manchester.....	2	0	0	0	0	3	0	0	0	0	16
Nashua.....	0	0	0	0	0	0	0	0	0	0	8
Vermont:											
Barre.....	0	0	0	0	0	0	0	0	0	0	-----
Massachusetts:											
Boston.....	66	47	0	0	0	13	2	3	1	32	203
Fall River.....	4	2	0	0	0	0	1	0	0	0	31
Springfield.....	7	11	0	0	0	2	0	0	0	2	31
Worcester.....	8	9	0	0	0	2	0	0	0	23	43
Rhode Island:											
Pawtucket.....	1	2	0	0	0	0	0	0	0	0	-----
Providence.....	10	11	0	0	0	2	0	0	1	13	59
Connecticut:											
Bridgeport.....	10	6	0	0	0	3	0	0	0	0	32
Hartford.....	4	5	0	0	0	1	0	0	0	1	33
New Haven.....	6	3	0	0	0	2	0	0	0	3	41
<b>MIDDLE ATLANTIC</b>											
New York:											
Buffalo.....	22	39	0	0	0	13	1	0	0	22	220
New York.....	264	269	0	0	0	97	9	7	1	66	1,511
Rochester.....	13	3	0	0	0	1	0	0	0	23	87
Syracuse.....	9	6	0	0	0	5	0	0	0	23	51

<sup>1</sup>No estimate of population made.

## City reports for week ended May 18, 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		
<b>MIDDLE ATLANTIC—continued</b>											
<b>New Jersey:</b>											
Camden.....	6	6	0	0	0	1	0	1	0	1	32
Newark.....	27	16	0	0	0	15	0	0	0	28	115
Trenton.....	2	2	0	0	0	4	0	0	0	0	33
<b>Pennsylvania:</b>											
Philadelphia.....	90	68	0	0	0	30	3	4	0	62	498
Pittsburgh.....	31	33	0	0	0	12	0	0	0	30	155
Reading.....	3	13	0	0	0	1	0	0	0	3	35
<b>EAST NORTH CENTRAL</b>											
<b>Ohio:</b>											
Cincinnati.....	17	69	2	6	0	11	0	0	0	3	130
Cleveland.....	33	50	0	0	0	21	2	1	1	55	333
Columbus.....	8	7	2	3	0	6	0	0	0	48	73
Toledo.....	11	8	1	0	0	3	0	0	0	45	68
<b>Indiana:</b>											
Fort Wayne.....	4	8	2	0	0	1	0	4	0	2	4
Indianapolis.....	13	70	13	0	0	4	1	0	0	35	100
South Bend.....	3	3	0	0	0	1	0	0	0	0	18
Terre Haute.....	3	1	0	0	0	1	0	0	0	2	32
<b>Illinois:</b>											
Chicago.....	109	209	2	1	0	49	3	0	0	53	775
Springfield.....	4	3	0	1	0	0	1	0	0	5	11
<b>Michigan:</b>											
Detroit.....	96	238	1	1	0	20	2	0	0	107	353
Flint.....	6	27	2	10	0	1	1	0	0	9	32
Grand Rapids.....	5	8	1	0	0	0	0	0	0	19	27
<b>Wisconsin:</b>											
Kenosha.....	2	2	0	0	0	0	0	0	0	3	6
Milwaukee.....	24	45	1	0	0	11	0	0	0	89	119
Racine.....	4	0	0	0	0	1	0	0	0	1	10
Superior.....	2	0	1	0	0	0	0	0	0	13	9
<b>WEST NORTH CENTRAL</b>											
<b>Minnesota:</b>											
Duluth.....	7	6	1	0	0	1	0	0	0	4	31
Minneapolis.....	37	25	1	0	0	4	0	1	0	40	96
St. Paul.....	22	6	0	0	0	1	0	0	0	22	49
<b>Iowa:</b>											
Davenport.....	1	0	2	0	0	0	0	0	0	0	31
Des Moines.....	4	39	2	0	0	0	0	0	0	0	0
Sioux City.....	2	1	1	0	0	0	0	0	0	5	5
Waterloo.....	2	17	0	1	0	0	0	0	0	7	7
<b>Missouri:</b>											
Kansas City.....	11	28	4	2	0	11	1	2	0	10	127
St. Joseph.....	3	0	2	0	0	2	0	0	11	5	32
St. Louis.....	32	20	2	2	0	6	1	0	0	52	220
<b>North Dakota:</b>											
Fargo.....	1	0	0	0	0	0	0	0	0	0	0
Grand Forks.....	2	3	0	1	0	0	1	0	0	0	0
<b>South Dakota:</b>											
Aberdeen.....	1	0	0	0	0	0	0	0	0	0	0
<b>Nebraska:</b>											
Lincoln.....	1	22	1	1	0	0	0	2	0	6	52
Omaha.....	3	18	5	2	0	1	0	0	0	7	0
<b>Kansas:</b>											
Topeka.....	2	3	0	0	0	1	0	0	0	1	15
Wichita.....	3	22	1	1	0	0	0	0	0	10	13
<b>SOUTH ATLANTIC</b>											
<b>Delaware:</b>											
Wilmington.....	4	0	0	0	0	1	0	0	0	4	32
<b>Maryland:</b>											
Baltimore.....	29	84	0	0	0	14	2	1	0	111	230
Cumberland.....	0	1	0	0	0	0	0	0	0	0	8
Frederick.....	1	0	0	0	0	0	0	0	0	0	0

¹ Nonresident.



## City reports for week ended May 18, 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		
<b>MOUNTAIN—con.</b>											
New Mexico:											
Albuquerque.....	0	0	0	0	0	13	0	0	0	2	19
Utah:											
Salt Lake City.....	2	3	2	2	0	1	0	0	0	12	45
Nevada:											
Reno.....	0	4	0	1	0	0	0	0	0	0	3
<b>PACIFIC</b>											
Washington:											
Seattle.....	8	3	2	1	-----	-----	2	1	-----	53	-----
Spokane.....	4	3	6	1	-----	-----	0	0	-----	9	-----
Tacoma.....	2	6	3	4	0	0	0	0	0	3	24
Oregon:											
Portland.....	5	1	8	13	1	2	0	0	0	0	73
Salem.....	0	1	1	1	0	0	1	0	0	0	-----
California:											
Los Angeles....	27	49	7	0	0	30	1	1	1	23	269
Sacramento....	1	14	0	0	0	1	1	1	0	7	26
San Francisco..	16	48	1	0	0	15	1	0	0	61	165

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)			
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	
<b>NEW ENGLAND</b>										
Massachusetts:										
Boston.....	4	2	1	1	0	0	0	0	0	0
Worcester.....	1	0	0	0	0	0	0	0	0	0
Rhode Island:										
Providence.....	0	0	1	0	0	0	0	1	0	0
Connecticut:										
Bridgeport.....	0	0	1	0	0	0	0	0	0	0
New Haven.....	0	1	0	0	0	0	0	0	0	0
<b>MIDDLE ATLANTIC</b>										
New York:										
Buffalo.....	2	0	0	0	0	0	0	0	0	0
New York.....	34	14	1	3	0	0	1	1	1	1
New Jersey:										
Newark.....	3	0	0	0	0	0	0	0	0	0
Pennsylvania:										
Philadelphia....	6	5	1	1	0	0	1	0	0	0
Pittsburgh.....	4	4	1	1	0	0	0	0	0	0
<b>EAST NORTH CENTRAL</b>										
Ohio:										
Cincinnati.....	1	1	0	0	0	0	0	0	0	0
Cleveland.....	5	4	1	0	0	0	0	0	0	0
Columbus.....	2	0	0	0	0	0	0	0	0	0
Toledo.....	3	1	0	0	0	0	0	0	0	0
Indiana:										
Indianapolis....	0	2	0	0	0	0	0	0	0	0
Illinois:										
Chicago <sup>1</sup> .....	9	6	0	0	0	0	0	0	0	0
Michigan:										
Detroit.....	27	21	0	0	0	0	0	0	0	0
Flint.....	5	2	0	0	0	0	0	0	0	0
Wisconsin:										
Milwaukee.....	3	2	0	0	0	0	0	0	0	0

<sup>1</sup> Rabies (human): 1 case and 1 death at Chicago, Ill.

City reports for week ended May 18, 1929—Continued

Division, State, and city	Meningo-coccus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
<b>WEST NORTH CENTRAL</b>									
Minnesota:									
Duluth.....	2	1	0	0	0	0	0	0	0
Minneapolis.....	2	1	0	0	0	0	0	0	0
Iowa:									
Sioux City.....	2		0		0		0		
Missouri:									
Kansas City.....	6	5	0	0	0	0	0	0	0
St. Joseph.....	1	0	0	0	0	0	0	0	0
St. Louis.....	7	3	0	0	0	0	0	0	0
<b>SOUTH ATLANTIC</b>									
Maryland:									
Baltimore.....	1	1	0	0	0	0	0	0	0
Virginia:									
Richmond.....	4	2	0	0	0	0	0	0	0
North Carolina:									
Wilmington.....	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	0	3	0	0	0
Georgia:									
Atlanta.....	5	2	0	0	0	0	0	0	0
Savannah <sup>1</sup> .....	0	0	0	0	1	2	0	0	0
Florida:									
Miami.....	0	0	0	0	1	0	0	0	0
<b>EAST SOUTH CENTRAL</b>									
Tennessee:									
Memphis.....	1	0	1	0	0	0	0	0	0
Nashville.....	1	0	0	0	2	0	0	0	0
Alabama:									
Birmingham.....	1	1	0	0	1	2	0	0	0
<b>WEST SOUTH CENTRAL</b>									
Arkansas:									
Little Rock.....	1	0	0	0	0	0	0	0	0
Louisiana:									
New Orleans.....	1	1	0	0	2	0	0	0	0
Oklahoma:									
Tulsa.....	1		0		0		0	0	
Texas:									
San Antonio.....	0	0	0	0	0	1	0	0	0
<b>MOUNTAIN</b>									
Montana:									
Billings.....	0	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	2	4	0	0	0	0	0	0	0
Utah:									
Salt Lake City.....	6	2	0	0	0	0	0	0	0
Nevada:									
Reno.....	2	0	0	0	0	0	0	0	0
<b>PACIFIC</b>									
Washington:									
Seattle.....	8		0		0		0	0	
Tacoma.....	0	1	0	0	0	0	0	0	0
California:									
Los Angeles.....	0	0	0	0	1	1	0	0	0
Sacramento.....	2	1	0	0	0	0	0	0	0
San Francisco.....	2	1	0	1	0	0	0	0	0

<sup>1</sup> Includes 1 nonresident.

<sup>2</sup> Typhus fever: 1 case at Savannah, Ga.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended May 18, 1929, compared with those for a like period ended May 19, 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 have estimated aggregate populations of more than 31,000,000. The 91 cities reporting deaths have 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, April 14 to May 18, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928<sup>1</sup>*

## DIPHTHERIA CASE RATES

	Week ended—									
	Apr. 20, 1929	Apr. 21, 1928	Apr. 27, 1929	Apr. 28, 1928	May 4, 1929	May 5, 1928	May 11, 1929	May 12, 1928	May 18, 1929	May 19, 1928
98 cities.....	135	139	136	130	136	125	140	123	124	139
New England.....	143	131	111	133	81	133	119	113	95	110
Middle Atlantic.....	198	204	194	172	190	171	205	178	159	205
East North Central.....	122	116	143	131	159	107	151	109	143	114
West North Central.....	112	80	85	84	77	78	104	55	124	96
South Atlantic.....	66	88	68	94	69	96	64	90	62	111
East South Central.....	7	42	54	56	20	35	27	42	27	21
West South Central.....	103	126	130	101	103	81	91	93	115	65
Mountain.....	70	80	78	133	65	80	62	71	26	97
Pacific.....	60	102	60	56	75	125	40	102	57	120

## MEASLES CASE RATES

	900	1,361	842	1,284	932	1,421	869	1,379	680	1,351
98 cities.....	900	1,361	842	1,284	932	1,421	869	1,379	680	1,351
New England.....	502	1,743	566	1,593	500	1,322	491	1,130	434	1,159
Middle Atlantic.....	146	1,829	153	1,868	165	2,273	185	2,261	196	2,281
East North Central.....	2,025	816	1,062	727	2,319	793	2,140	787	2,135	690
West North Central.....	2,123	990	1,711	1,021	1,775	882	1,548	941	1,714	1,121
South Atlantic.....	701	2,455	536	1,810	435	2,235	521	1,781	474	1,536
East South Central.....	54	1,480	20	1,297	129	610	41	814	68	968
West South Central.....	182	385	289	401	356	397	379	340	344	272
Mountain.....	209	762	366	842	473	753	296	1,143	183	1,152
Pacific.....	389	394	389	386	297	266	436	328	439	264

## SCARLET FEVER CASE RATES

	269	252	296	267	301	255	285	254	291	253
98 cities.....	269	252	296	267	301	255	285	254	291	253
New England.....	244	264	294	329	280	345	264	347	249	292
Middle Atlantic.....	224	298	246	313	245	303	211	285	219	279
East North Central.....	417	271	451	281	467	254	437	265	472	272
West North Central.....	215	289	281	276	261	219	277	243	284	280
South Atlantic.....	90	168	97	222	114	186	244	172	210	207
East South Central.....	143	112	109	161	224	147	129	126	102	77
West South Central.....	233	166	226	109	285	150	320	186	186	219
Mountain.....	70	213	122	204	83	275	52	115	104	133
Pacific.....	384	151	407	110	357	154	292	205	307	143

## SMALLPOX CASE RATES

	9	22	13	25	12	14	11	18	11	24
98 cities.....	9	22	13	25	12	14	11	18	11	24
New England.....	0	0	0	0	0	0	2	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	11	31	17	28	15	15	18	20	14	22
West North Central.....	10	61	13	68	13	31	27	43	16	65
South Atlantic.....	2	11	2	33	0	15	0	17	2	33
East South Central.....	0	21	0	98	20	14	27	63	14	42
West South Central.....	12	8	24	28	43	36	8	8	51	61
Mountain.....	44	168	26	151	120	106	26	159	148	159
Pacific.....	62	59	82	43	40	31	40	36	15	54

<sup>1</sup> 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.

<sup>2</sup> Helena, Mont., and Boise, Idaho, not included.

<sup>3</sup> Pawtucket, R. I., Camden, N. J., Indianapolis, Ind., and Racine, Wis., not included.

<sup>4</sup> Fargo, N. Dak., not included.

<sup>5</sup> Pawtucket, R. I., not included.

<sup>6</sup> Camden, N. J., not included.

<sup>7</sup> Indianapolis, Ind., and Racine, Wis., not included.

Summary of weekly reports from cities, April 14 to May 18, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Apr. 20, 1929	Apr. 21, 1928	Apr. 27, 1929	Apr. 28, 1928	May 4, 1929	May 5, 1928	May 11, 1929	May 12, 1928	May 18, 1929	May 19, 1928
98 cities.....	10	6	8	4	8	6	11	8	9	6
New England.....	7	7	5	5	7	2	12	5	9	7
Middle Atlantic.....	8	6	4	2	5	4	3	2	6	4
East North Central.....	4	3	4	2	3	3	7	3	3	2
West North Central.....	10	6	12	6	10	2	31	8	6	2
South Atlantic.....	24	10	17	6	11	15	15	21	17	6
East South Central.....	7	21	20	7	27	0	27	28	0	28
West South Central.....	43	20	36	24	32	28	55	16	67	4
Mountain.....	0	0	0	0	9	0	0	18	0	0
Pacific.....	10	3	7	0	10	15	7	31	7	23

INFLUENZA DEATH RATES

91 cities.....	15	29	13	33	8	33	10	34	8	30
New England.....	9	7	7	14	2	21	2	16	2	41
Middle Atlantic.....	11	26	12	34	6	28	8	31	8	28
East North Central.....	14	28	6	35	5	36	7	42	7	36
West North Central.....	18	61	12	46	18	80	3	64	0	28
South Atlantic.....	21	17	13	33	11	23	17	10	7	17
East South Central.....	15	92	30	54	30	115	37	107	30	84
West South Central.....	53	46	45	37	8	25	38	37	4	17
Mountain.....	9	53	52	44	19	35	26	27	17	27
Pacific.....	13	13	13	17	16	7	13	17	23	16

PNEUMONIA DEATH RATES

91 cities.....	127	204	118	204	124	213	108	219	106	196
New England.....	115	166	145	138	106	189	91	258	88	207
Middle Atlantic.....	134	243	130	246	136	265	123	268	114	219
East North Central.....	119	191	99	214	125	211	95	232	115	222
West North Central.....	108	233	111	135	126	193	105	181	73	132
South Atlantic.....	146	187	127	178	109	189	109	86	120	155
East South Central.....	155	238	96	222	170	230	148	245	89	261
West South Central.....	81	200	93	191	98	92	97	166	114	125
Mountain.....	122	106	87	106	167	159	87	133	113	97
Pacific.....	157	81	125	125	75	74	96	96	49	104

<sup>1</sup> Helena, Mont., and Boise, Idaho, not included.

<sup>2</sup> Pawtucket, R. I., Camden, N. J., Indianapolis, Ind., and Racine, Wis., not included.

<sup>3</sup> Fargo, N. Dak., not included.

<sup>4</sup> Pawtucket, R. I., not included.

<sup>5</sup> Camden, N. J., not included.

<sup>6</sup> Indianapolis, Ind., and Racine, Wis., 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	29,495,600
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	2,673,900	1,736,900	1,708,100
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 May 11, 1929.*—During the week ended May 11, 1929, cases of certain communicable diseases were reported from seven Provinces of Canada as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	Total
Cerebrospinal fever.....						1		1
Influenza.....	12		5	3				20
Lethargic encephalitis.....					1			1
Poliomyelitis.....						2	1	3
Smallpox.....			3	9		1	10	23
Typhoid fever.....	3	1	8	15	1			28

*Quebec Province—Communicable diseases—Week ended May 18, 1929.*—The Bureau of Health of the Province of Quebec reports cases of certain communicable diseases for the week ended May 18, 1929, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	5	Mumps.....	62
Chicken pox.....	63	Scarlet fever.....	90
Diphtheria.....	31	Smallpox.....	3
German measles.....	21	Tuberculosis.....	53
Influenza.....	34	Typhoid fever.....	19
Measles.....	131	Whooping cough.....	30

### CHINA

*Meningitis.*—During the week ended May 18, 1929, two cases of meningitis were reported at Hong Kong, China. At Shanghai, during the week ended May 25, there were 10 admissions to the hospital and 11 deaths from meningitis.

## ITALY

*Communicable diseases—Four weeks ended February 10, 1929.*—During the four weeks ended February 10, 1929, communicable diseases were reported in the Kingdom of Italy as follows:

Disease	Jan. 14-20		Jan. 21-27		Jan. 28-Feb. 3		Feb. 4-10	
	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected
Anthrax.....	33	25	22	19	19	17	28	23
Cerebrospinal meningitis.....	6	6	11	10	10	10	10	10
Chicken pox.....	238	90	275	89	219	71	231	66
Diphtheria.....	508	277	421	255	415	218	390	237
Dysentery.....	2	2	1	1	2	2	2	2
Lethargic encephalitis.....	1	1	1	1	9	9	2	2
Measles.....	1,832	242	1,637	240	1,947	241	1,614	206
Poliomyltitis.....	4	4	5	5	7	7	5	5
Scarlet fever.....	327	141	291	125	249	109	225	108
Smallpox.....					2	2		
Typhoid fever.....	316	191	252	136	306	163	176	101

## MEXICO

*Vera Cruz—Communicable diseases—Six weeks ended May 18, 1929.*—During the six weeks ended May 18, 1929, deaths from certain communicable diseases were reported in Vera Cruz, Mexico, as follows:

Disease	Week ended—					
	Apr. 13	Apr. 20	Apr. 27	May 4	May 11	May 18
Bronchitis.....	1		2			
Cancer.....	1	1		2		
Cerebrospinal meningitis.....	1	2				
Dysentery.....	1			1		1
Gastro-intestinal disorders.....	12	9	10	9	4	10
Hookworm disease.....		1	1			1
Influenza.....		2	1	1	1	
Jaundice.....						1
Malaria.....		4				1
Pneumonia.....	2	1	2	2	2	5
Syphilis.....	1		1	2	1	1
Tetanus.....		1				
Tuberculosis.....	9	7	5	16	8	6
Typhoid fever.....			1			1
Whooping cough.....	1					

## PORTO RICO

*San Juan—Communicable diseases—Five weeks ended May 11, 1929.*—During the five weeks ended May 11, 1929, cases of certain communicable diseases were reported in San Jaun, Porto Rico, as follows:

Disease	Week ended—				
	Apr. 13	Apr. 20	Apr. 27	May 4	May 11
Diphtheria.....	4	1			
Filariasis.....	1				
Malaria.....				1	
Measles.....	22	11	3	6	7
Pellagra.....				2	
Syphilis.....	3	5			2
Tetanus.....				8	5
Tuberculosis.....	5	15	22	6	15

### VIRGIN ISLANDS

*Communicable diseases—April, 1929.*—During the month of April, 1929, communicable diseases were reported in the Virgin Islands, as follows:

St. Thomas and St. John:	Cases	St. Croix:	Cases
Chancroid.....	2	Gonorrhoea.....	3
Dysentery.....	2	Leprosy.....	1
Gonorrhoea.....	4	Syphilis.....	12
Sprue.....	1	Tuberculosis.....	1
Syphilis.....	5	Uncinariasis.....	1
Tuberculosis.....	1		
Uncinariasis.....	1		

### YUGOSLAVIA

*Communicable diseases—April, 1929.*—During the month of April, 1929, communicable diseases were reported in Yugoslavia, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	18	1	Measles.....	1,645	35
Cerebrospinal meningitis.....	20	11	Scarlet fever.....	901	118
Diphtheria.....	207	33	Tetanus.....	25	10
Dysentery.....	21	2	Typhoid fever.....	93	19
Glanders.....	1		Typhus fever.....	16	1
Lethargic encephalitis.....	3	1			



Indo-China (see also table below):	Novem-ber, 1928		January, 1929		February, 1929		March, 1929		April, 1929	
	1	2	6	7	12	1	2	3	1	3
Prompenh.....	1	6	1	2	1	1	1	1	1	1
Saigon.....	1	6	6	5	10	1	1	1	1	1
Kwangchow-Wan (see table below).	104	224	195	39	41	42	50	74	117	156
Siam.....	68	150	188	26	22	37	33	59	73	104
Anthoeng.....	4	4	1	2	4	1	1	1	1	1
Ayudhya.....	2	10	4	4	4	4	4	4	4	4
Bangkok.....	16	22	50	17	10	13	10	14	3	11
Charoenso.....	12	6	43	12	7	12	7	9	1	4
Dhannapuri.....	6	16	9	1	1	1	1	1	1	1
Lobpur.....	5	10	2	1	1	1	1	1	1	1
Negara Pathom.....	74	61	61	2	1	1	1	1	1	1
Nondpur.....	1	4	1	1	1	1	1	1	1	1
Pradhundham.....	1	2	1	1	1	1	1	1	1	1
Singhapuri.....	17	17	6	1	1	1	1	1	1	1
Smud Prakar.....	37	30	10	1	1	1	1	1	1	1
Smud Sagara.....	28	10	8	1	1	1	1	1	1	1
On vessel:	84	16	16	1	1	1	1	1	1	1
S. S. Ekma at Penang from Singapore.....						P				
S. S. Media, at Colombo from Calcutta.....							P			
S. S. Tilawa at Penang from Singapore.....								P		
S. S. Elephanta at Penang from Calcutta.....									P	

Place	Novem-ber, 1928		January, 1929		February, 1929		March, 1929		April, 1929	
	5	21	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20
Indo-China (French) (see also table above):										
Annam.....	5	25	26	25	28	40	26	8	13	7
Cambodia.....	21	687	232	202	226	107	115	13	40	44
Cochin-China.....	156	687	232	202	226	107	115	170	51	37
Kwangchow-Wan.....	1									

1 The heading "Plague" should have been inserted before the last section of the table on page 1339 of the Public Health Reports of May 31, 1929. The disease reported from Argentina, Azores, and the Belgian Congo, which appear on the page cited, was plague, not cholera.



Java—																				
Batavia and West Java.....	C	43	54	74	70	21	17	13	1											
Plague-infected rats.....	D	42	53	73	69	21	16	14	3	5	3									
East Java and Madura.....		1			4	1	1													
Surabaya.....		1		6		1	1													
Kediri Residency.....				P																
Ecuador (see table below).																				
Egypt:																				
Alexandria.....	O			3																1
Beni-Suef.....	D	4	9	1	4	2														
Daqahliya.....	D	1	2	3	1	1	1													
Giza.....	C	1																		3
Kena Province.....	C	4																		
Port Said.....	C																			
Suez.....	C																			
Greece (see also table below):																				
Corfu.....	C	1			1		1	1												1
India.....																				
Bassein.....	O	7,767	7,841	12,600	10,570	4,259	3,682	3,833												
Bombay.....	D	4,363	5,234	9,815	12,094	3,021	2,747	2,835												
Cochin.....	D		1	2	3	1	3	2												
Madras Presidency.....	D	4	6	4	4	1	3	2												
Rangoon.....	D	6	35	38	38	9	17	18												
Plague-infected rats.....		32	10																	
Cochin.....	D	685	500	434	333	50	43	32												
Madras Presidency.....	D	307	231	233	189	32	27	18												
Rangoon.....	D	1	1	1	4	4	3	5												
Plague-infected rats.....		1	2	5	11	2	2	6												
Indo-China (see also table below):																				
Pnompenh.....	C	4	8	10	5	3	2	4												
Saigon.....	C	4	6	9	3	3	2	4												
Tourane.....	C				1															
Iraq:																				
Baghdad.....	C	10	9	6	10	4	5	2												
Plague-infected rats.....	D	5	8	3	3		2	1												
Naudham.....	D			2	22	3	2	2												
Plague-infected rats.....	D			1																

1 The heading "Plague" should have been inserted before the last section of the table on page 1339 of the Public Health Reports of May 31, 1929. The disease reported from Argentina, Azores, and the Belgian Congo, which appear on the page cited, was plague, not cholera.

2 During the period from Nov. 10 to Dec. 11, 1928, 13 cases of plague were reported at El Mohlar, Tucuman Province, Argentina.

3 18 plague-infected rats were reported at Buenos Aires, Argentina, from July 1 to Dec. 31, 1928.

4 Unofficial report.



Place	No- vem- ber, 1925	De- cem- ber, 1925	Jan- u- ary, 1926	Feb- ru- ary, 1926	March, 1926	April, 1926	Place	No- vem- ber, 1925	De- cem- ber, 1925	Jan- u- ary, 1926	Feb- ru- ary, 1926	March, 1926	April, 1926
S. S. Halydan, at Bangkok, from Singapore.....					1								
S. S. Selyomaru, at Osaka, from Bombay—Plague- infected rats.....											1		
S. S. Soudades, at Hamburg, from Rosario, Argentina— Plague-infected rats.....								2					
S. S. Sjomard, at Alexandria, from Batoum.....						1							
S. S. Sumatra, at Osaka, from Bombay.....								1					
British East Africa (see also table above):													
Kenya.....	C 16	15	7	4	10	1	Madagascar—Continued.						
Uganda.....	D 21	20	26	64	121		Tanamarive Province.....	C 189	158	268	146		
Ecuador: Guayaquil.....	C 8	7	12	22	4		Peru.....	D 141	144	182	136		
Plague-infected rats.....	D 29	75	20	27	14		Senegal:	D 6	6	9			
Greece (see also table above):	C 1	1	3				Baol.....	C 18	4	2		6	
Indo-China (see also table above):	D 1	1	1				Cayor.....	D 6	2	2		3	
Madagascar (see also table above):	C 263	263	233	348	196	13	Dakar.....	D 14	10	10			
Amboitra Province.....	D 14	79	169	164			Longa.....	D 2					5
Antsairabe Province.....	C 6	4	15	21			Rufisque.....	D 8					4
Itasy Province.....	C 6	4	16	21			Tbles.....	D 4			8	4	20
Moramanga Province.....	C 6	11	3	10			Tivouane.....	D 11			7	3	29
Tamatave.....	C 32	26	22	7			Syria: Beirut.....	D 3			12	2	
	D 32	27	21	4									
	D 2	2	4										
	D 2	2	4										

1 Reports incomplete.



Saskatchewan.....	52	14	35	70	13	-----	-----	-----	9	3	1
Moose Jaw.....	1	-----	-----	-----	1	-----	-----	-----	-----	-----	-----
Regina.....	2	1	6	-----	-----	-----	-----	-----	-----	-----	-----
Saskatoon.....	-----	-----	4	-----	1	-----	-----	-----	-----	-----	-----
China:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Amoy.....	2	5	P	5	1	-----	1	-----	-----	-----	-----
Canton.....	14	18	87	86	22	42	38	33	29	21	10
Chefoo.....	P	2	2	15	3	4	4	4	2	2	2
Foochow.....	P	-----	-----	-----	-----	-----	-----	P	-----	-----	-----
Hong Kong.....	202	319	307	180	26	31	22	13	21	16	5
Manchuria--	78	152	288	246	51	47	29	10	39	36	7
Changshun.....	-----	-----	-----	2	-----	-----	-----	-----	1	-----	-----
Fushun.....	-----	-----	3	-----	-----	-----	-----	-----	-----	-----	-----
Harbin.....	4	2	5	-----	-----	-----	-----	-----	-----	-----	-----
Kwantung--Dairen.....	5	-----	2	-----	-----	-----	-----	1	-----	-----	8
Mukden.....	6	-----	2	-----	9	-----	-----	1	0	2	2
-----	-----	-----	-----	3	3	-----	-----	-----	3	1	-----
-----	-----	1	-----	-----	-----	-----	-----	1	-----	-----	-----
Shanghai--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Foreigners only.....	6	23	23	11	1	1	1	1	1	-----	-----
Including natives.....	32	64	60	41	3	8	5	9	7	2	5
Swatow.....	-----	-----	-----	9	12	7	6	8	22	32	20
Tientsin.....	2	6	3	-----	2	-----	2	4	2	-----	-----
Tsingtao.....	-----	-----	-----	P	P	-----	P	P	P	P	-----
Yunnanfu.....	7	-----	-----	7	P	P	P	P	P	-----	-----
Colombie; Cartagena.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Curaçao (albatrim).....	-----	-----	1	-----	-----	-----	-----	-----	-----	-----	-----
Dominican Republic.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Dutch East Indies:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Balikpapan.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Belawan Dell.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Borneo.....	6	7	26	9	2	2	2	1	1	-----	3
-----	2	3	6	6	1	1	-----	-----	-----	-----	3
Samarinda.....	-----	-----	30	26	-----	-----	-----	-----	-----	-----	-----
-----	27	11	4	47	1	-----	-----	1	-----	-----	-----
-----	4	3	-----	4	-----	-----	-----	-----	-----	-----	-----
Celebes--Makassar.....	1	-----	-----	-----	3	-----	4	2	6	9	10
-----	-----	-----	-----	-----	-----	-----	-----	2	5	4	7
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	9
Java--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Batavia and West Java.....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Surabaya.....	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Palembang.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	9	-----	-----	-----	-----	-----	-----	-----
Sumatra--	-----	-----	-----	2	-----	-----	-----	-----	-----	-----	-----
Baros.....	-----	98	106	36	-----	9	-----	7	-----	-----	-----
-----	-----	30	28	5	-----	5	-----	2	-----	-----	-----
Medan.....	3	9	11	9	2	2	2	1	1	-----	-----
-----	1	5	5	6	1	1	1	-----	-----	-----	-----



Karachi.....	0	5	147	43	57	68	48	29	57	33	25	
Madras.....	233	14	14	13	10	33	8	8	22	17	12	
Moulmein.....	64	280	98	98	104	104	107	107	87	70	63	
Meulmein.....	2	6	11	28	23	28	20	20	20	22	16	
Nagapatam.....	3	14	5	3	6	6			1	3	3	
Nepapatam.....	8	4	4	4	3	1	2	1	1	3	2	
Rangoon.....	1	26	5	4	3	2	1	1		8	3	
Rangoon.....	1	6	17	3	2	4	3	3	2	1		
Tuticorin.....	1	8	17	1	2	4	1	1		1		
Tuticorin.....	2	1	0	1	2	3	1	1		1		
Visagapatam.....	2	2	1	8	3	15	9	9	4	11	4	
India (French):		8	9	1	2	2	1	1	4	11	4	
Karikal.....				1	1		1		4		3	
Pondicherry Province.....				1	1		1			1		
Indo-China (see also table below):				6	1		20			12		
Pnompenh.....	75	89	79	6	21	23	20	21	11	11		
Salgon.....	62	51	61	6	17	18	19	19	8	11		
Salgon.....	38	77	62	13	19	27	9	9	10	9	6	
Salgon.....	20	21	42	36	5	10	14	4	5	13	4	
Salgon.....	12	5	2	1	1	1	1	1		4	1	
Salgon.....	6	1										
Iraq:												
Baghdad.....	20	17	7	2	3		1	2	1	1	2	
Basra.....	45	29	5	5	1							
Basra.....	35	11	18	7	1	1	5	2	1		2	
Hillah Liwa.....	26	7	10	5		1	1		1		2	
Kirkuk Liwa.....	54	20									1	
Kirkuk Liwa.....	14	9										
Mossoul.....	173	86	18									
Mossoul.....	38	17	4									
Mossoul.....	284	28	55									
Sinjar.....	110	39	17	4								
Sinjar.....	53	61										
Sinjar.....	5	15										
Italy:												
Palermo.....	3	3										
Rome and vicinity.....	1	2										
Turin.....			1									
Ivory Coast (see table below).												
Jamaica (outside Kingston) (alastrim)												
Kingston (alastrim)	1								1		1	
Japan:												
Kobe.....			1									
Nagasaki.....												
Osaka.....		3										
Shimane Province.....		2										
Macao.....	9	24	75	6	3	14	9	9	6	3	2	

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

## SMALLPOX—Continued

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

Place	March, 1920					April, 1920					May, 1920				
	1920		1920			1920		1920			1920		1920		
	Nov. 18-15, 1920	Dec. 16-12, 1920	Jan. 13-9, 1920	Feb. 10-6, 1920	Mar. 10-6, 1920	16	23	30	6	13	20	27	4	11	18
Mexico:															
Aguascalientes.....	2	1	3	3	3		2		6	1	6			2	
Chiapas Province.....															
Chihuahua.....			1					P							
Jalisco (State): Guadalaajara.....	4	1	8	1	8		2	4	7	3	1				
Juarez.....		6	1	1	1										
Mexico City and surrounding territory.....		7	2	2	2		1				P				
Oaxaca—Zacatepec.....															
Palomas.....				1	1										
Tampico.....				1	1		2								
Vera Cruz.....							2								
Morocco (see table below).....															
Nicaragua: Managua.....										P					
Nigeria.....															
Lagos.....			162				1								
Southern Provinces.....			31												
Norway: Stavanger.....															
Panama Canal Zone.....								P							
Poland.....	3	1	41							2				4	
Portugal (see also table below).....			3												
Liben.....		2	4				3			2				2	1
Opretz.....												1			
Senegal (see table below).....	8	19	2	4	4									47	6
Siam.....	1	2													
Bangkok.....							4	1							
Spain: Valencia.....			6	2	2										
Straits Settlements: Singapore.....	220	491	285	188	188		30	22	166	177	188	12	100	162	264
Sudan (Anglo-Egyptian).....	42	57	34	54	54		6	2	15	17	23	3	3	5	45





Place	No- vem- ber, 1928	De- cem- ber, 1928	Janu- ary, 1929	Feb- ru- ary, 1929	March, 1929	April, 1929	Place	No- vem- ber, 1928	De- cem- ber, 1928	Janu- ary, 1929	Feb- ru- ary, 1929	March, 1929	April, 1929
Dublin.....	C					1							
Kerry County— Killarney.....	D					1							
Dingle.....	C					1							
Killarney.....	C					1							
Lithuania (see table below).													
Mexico (see also table below): Agascalientes.....	D												
Chihuahua.....	D												
Mexico City, including municipalities in Federal Dis- trict.....	D												
San Luis Potosi.....	D												
Morocco.....	D												
Morocco.....	D												
Palestine.....	D												
Palestine.....	C												
Peru (see table below). Poland.....	C												
Poland.....	C												
Portugal: Oporto.....	C												
Portugal: Oporto.....	D												
Rumania.....	C												
Rumania.....	C												
Rumania.....	C												
Rumania.....	C												
Tunisia.....	C												
Tunisia.....	D												
Turkey (see table below). Union of South Africa: Cape Province.....	C												
Cape Province.....	C												
Natal.....	C												
Natal.....	C												
Orange Free State.....	C												
Orange Free State.....	C												
Transvaal.....	C												
Transvaal.....	C												
Yugoslavia (see table below).	C												
Yugoslavia (see table below).	C												

Place	No- vem- ber, 1928	De- cem- ber, 1928	Janu- ary, 1929	Feb- ru- ary, 1929	March, 1929	April, 1929	Place	No- vem- ber, 1928	De- cem- ber, 1928	Janu- ary, 1929	Feb- ru- ary, 1929	March, 1929	April, 1929
Chosen:													
Chernulpo.....	C						Lithuania.....	C	4	11	32	24	62
Seoul.....	C	1	3	4			Mexico: Sonora (see also table above).	D			3	3	1
Czechoslovakia.....	C						Peru.....	D			1		
Czechoslovakia.....	C						Turkey.....	C	3		1		
Greece: Athens.....	D						Yugoslavia.....	D	19	19	1	3	11
Greece: Athens.....	D	4	1	13	4			D	7	15	13	7	
Indo-China; Tonkin.....	C					2		D			2		

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

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

Place	Nov. 18-19, 1928	Dec. 16, 1928- Jan. 12, 1929	Jan. 13- Feb. 9, 1929	Week ended—													
				February, 1929		March, 1929			April, 1929				May, 1929				
				16	23	2	9	16	23	30	6	13	20	27	4	11	18
Belgian Congo: Tumba.....																	
Brazil:																	
Bahia.....		2															
Guaratangueta.....		1															1
Para.....		2															
Pernambuco.....		2	16	11	21	47	69	61	60	57	51	39	33	24	22		
Rio de Janeiro 1.....		2	17	9	6	18	27	30	38	34	23	20	17	15	11		
Soe Paulo.....			1														
Dahomey: Ouidah Military Camp.....	1																
Gambia: Bathurst.....	3																
Liberia: Monrovia.....	2				4	3	1	3	3	3	2						
On vessel:					2	2	1	2	1								
S. E. Victoria, at Manaus, from Para, Brazil.....		1															

1 20 cases of yellow fever with 14 deaths were reported at Rio de Janeiro during January, 1929, mostly suburban.

1 Imported. 2 Suspected cases.