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HEALTH AND SCHOLASTIC ATTAINMENT¹

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It has been a very generally accepted thesis that the importance of good health to success in occupations dependent upon physical activity is so obvious that, as a natural result, persons physically less robust tend to select vocations in which success depends upon skill, education, and mental activity rather than upon physical fitness. This opinion, however, fails to find confirmation in Jackson's¹ analysis of the physique of college students; in fact, that study shows an actual superiority of physique among college students as compared to a group of persons of corresponding age and sex in the general population. Furthermore, various studies of school children have shown a positive correlation between mental development and physical growth, as well as between retardation in school and certain physical defects, such as loss of hearing and defective vision. Among college students less observation has been made of the relation between health and scholastic attainment, but the subject seems worthy of investigation. This paper presents the first of a series of studies which will attempt to investigate the effect of physique, physical handicaps, and habits of living upon the scholastic attainment of college students.

METHODS UTILIZED IN THE PRESENT INVESTIGATION

Two groups of students markedly different in scholastic attainment were compared as to physique, habits of living, and the incidence of physical defects. The one group of students was on probation because of poor scholarship, while the other group was doing satisfactory scholastic work. The examination of the probation students was made possible by the adoption of a regulation by the college of science, literature, and arts, which required that all students on probation at the end of the fall quarter, 1927, should have a physical examination by the students' health service as a condition of their being permitted to continue in the institution. These examinations were thorough health examinations, with the examiner attempting to discover not only physical defects but also faulty habits of living. Each examination required an hour and a half of the student's time,

¹ From the Students' Health Service and Department of Preventive Medicine and Public Health, University of Minnesota. Aid in this study was provided by a grant from the research fund of the graduate school of the University of Minnesota.

one-half hour being utilized for filling out the history blank and having various tests and physical measurements performed and one hour for the actual examination and conference with the physician. For several years similar examinations have been offered to the students of the university, a special effort being made to have seniors avail themselves of this service. The probation students examined at this time numbered 141, and, for the most part, were members of the freshman class. The control group, used in the study for purposes of comparison, consisted of 496 students of the college of science, literature, and the arts, mostly seniors, who came voluntarily for examinations. Both groups were given identical examinations by the same physicians, appointments for seniors and freshmen being intermingled without distinction. Furthermore, the examining physicians had no knowledge that any comparative studies of the findings were to be undertaken. For control purposes with freshmen, a group of seniors, of course, is not ideal, because of the evident differences between the two groups in college attainment, in age, and probably in mental ability. In addition, the fact that seniors voluntarily sought the examinations would in itself introduce an element of selection. On the other hand, we have here one large group of students who have been doing satisfactory scholastic work and another group of considerable size who have been doing inferior work. Consequently, granting that there are various other factors which may have contributed to the inferior work of the probation group, it seems that we are justified in comparing the physical condition of the two groups, at least for purposes of a preliminary study.

The sex distribution of the two groups was not significantly different, the control group containing 69.3 per cent boys and 30.7 per cent girls, the probation group containing 67.4 per cent boys and 32.6 per cent girls.

After the completion of the examinations the results were tabulated and the percentage incidence of each condition was calculated. The difference between the percentage incidence in the two groups was then determined, and, using the "chi-square test" of independence (2), the possibility of a chance difference equal to or greater than the observed difference was computed.

PHYSICAL DEFECTS

Table 1 shows a comparison of those physical defects which occurred with sufficient frequency in at least one group to justify statistical analysis. Other conditions which were infrequent or considered unimportant were omitted. The following are some of the conditions which were not included in the tabulation: Organic heart disease, which was diagnosed in 0.8 per cent of the control group and 1.4 per cent of the probation group; gastric ulcer, which occurred in

0.8 per cent of the control group and not at all in the probation group; varicocele, which was found in 5.6 per cent of the control and 4.9 per cent of the probationers; cervical adenopathy, in 4.6 per cent of the controls and 6.3 per cent of the probationers; hernia, in 3.7 per cent of the controls and 3.5 per cent of the probationers; and similar conditions.

Brief consideration will now be given to the abnormalities listed in the tables.

Abnormalities of nose.—The conditions included under this heading were nasal obstructions, cause not given; marked deviation of the septum; septal spurs, if sufficiently large to cause partial obstruction; enlarged turbinates, causing obstruction; hypertropic rhinitis; chronic sinus infection; and nasal polyps. The difference in the percentage of incidence of one or more of these abnormalities is 4.1, the higher incidence occurring in the probation students; but, statistically, this difference has little, if any, significance.

Abnormalities of throat.—This term includes such conditions as adenoids, markedly hypertropied tonsils, pathological tonsils, chronic tonsillitis, cryptic tonsils, polyporous tonsils, and infected tonsillar remnants. The difference of 2.7 in the percentage of frequency of occurrence between the two groups is not significant.

Abnormalities of ears.—Included under this heading were impacted cerumen, chronic otitis media, and thickened and retracted drums. The difference in the percentage of frequency of occurrence in the two groups is 4.1 per cent. Statistically there is only one chance in six that this difference is not significant. If considered in relation to the next condition, the significance of this difference seems still more certain.

Defective hearing.—Hearing tests were performed by means of the Western Electric 3-A audiometer. The results are recorded in terms of "sensation units" above or below normal, the interpretation of which is approximately the same as though the hearing loss were expressed in percentage. Since the total number of students who showed defective hearing was so small, no distinction in the tabulation was made between those who exhibited hearing loss in one or both ears. It would seem in the comparison here shown that a moderate hearing loss, from 10 to 19 sensation units, is but little if any handicap in college work, but that an excessive hearing loss, 20 sensation units or more, is likely to be a real handicap.

Defective vision.—The Snellen chart was used for testing vision and inability to read 20/30 or better with one or both eyes was considered a defect. If students had glasses, they were worn during the test. From a comparison of the percentages of visual defects in the two groups it would seem that defective vision has but little to do with students' failure to do good work in college.

Abnormalities of teeth.—The only two dental defects which occurred sufficiently frequently to be tabulated were dental caries and devitalized teeth, and neither of these showed a predominance in either group sufficiently large to be significant.

Overweight.—As an index of nutrition, the relation of the student's weight to the average weight of individuals of corresponding height and age was calculated and expressed in the form of a percentage. For the purposes of this study those who were 10 per cent or more above average were considered overweight. On this basis 14.8 per cent of the probation group and 6.4 per cent of the control group were classed as overweight. This difference of 8.4 in the percentage of incidence between the two groups is statistically almost certainly significant. Of course, this finding does not justify one in drawing conclusions as to cause and effect between these two conditions, but it does suggest either that the condition of overweight interferes with scholastic work or that overweight and poor scholarship are both influenced by some other factor or group of factors which are operative in the student's life.

Underweight.—In this study 10 per cent or more below average weight was classed as underweight. This condition also is found to predominate among the probation students, and the difference is probably significant.

Nutrition as judged by the examiner.—The physician making the examination indicated on the record as to whether in his judgment the student's nutrition was normal or abnormal. A comparison of the percentage of students judged asthenic or adipose shows a predominance of both conditions among the probation students. This adds confirmation to the findings that abnormalities of weight are more prevalent among students low in scholarship.

Muscle tone.—The examining physicians attempted to judge the "tone" of the student's musculature without regard to the size of the muscles. The record of each examination shows whether the physician considered the musculature normal or abnormal, and the most frequent abnormality was "flabby musculature." In general, one would expect to find "flabby musculature" in individuals who take no exercise or who are afflicted with some chronic illness. The difference between the two groups in percentage of incidence of the condition designated "flabby musculature" was 7.9, being higher in the probationers than in the control group, a difference which is almost certainly significant. Further study will be necessary in order to suggest what factors are operative in producing the flabby musculature.

Posture.—The posture of these students was judged "satisfactory" or "poor" by the examiners, no photographs or other more or less objective procedures being utilized. As shown in the table, the

greater incidence of poor posture among the probation students (a difference of 4 in the percentages) probably is statistically significant. Physically, however, this condition of bad posture is probably not independent of but is closely related to flabby musculature, asthenia, and faulty nutrition. In fact, it is entirely possible that one underlying cause or group of causes may be responsible for all these several conditions.²

Anemia.—Hemoglobin determinations were made by means of the Dare hemoglobinometer, and for the purposes of this study a reading of 80 per cent or more was considered as normal and any percentage below 80 per cent was called anemia. The greater frequency of anemia, 9.4 per hundred, among the probation students is almost certainly significant and possibly is the result of the same condition or group of conditions that produced faulty nutrition, asthenia, flabby musculature, and poor posture.

Blood pressure.—Systolic blood pressures below 110 millimeters are slightly more frequent among students in the control group than among the students on probation, but the difference is not statistically great enough to be significant. Systolic pressures above the so-called normal were divided into two grades, 130 millimeters to 139 millimeters, and 140 millimeters or more. In both grades the percentage of incidence was higher among probation students than in the control group, but the difference is hardly significant. Furthermore, a previous study (3) showed that most of the high blood pressure readings among students are transient elevations of blood pressure produced by nervousness and apprehension incidental to the examination, factors which certainly would be more operative among students on probation who were required to have these examinations than among the controls to whom the examinations were given upon request.

HABITS OF LIVING, SOCIAL AND ECONOMIC STATUS

A detailed history of his habits, conditions of living, pleasures, recreations, exercise, past health, and social and economic status was provided by each student and reviewed by the examining physician. A comparison of the replies made by the two groups to certain of these questions is shown in Table 2. In interpreting these findings one must bear in mind the fact that we are dealing here, for the most part, with subjective and not objective data, and that the difference in scholastic status of the two groups, the one being mostly seniors taking these examinations voluntarily, and the other mostly freshmen on probation taking the examinations under compulsion, might account for considerable difference in the replies to

² In a subsequent study the relation or independence of these various conditions will be determined statistically.

some of the questions. Many of the questions which were included in the blank are not shown in the tabulation, either because the nature of the replies made satisfactory comparisons impossible or because the proportion of positive replies was too small to be significant.

Self-support.—The question as to whether a student is partially self-supporting, completely self-supporting, or not at all self-supporting brought out what seems to be an interesting comparison, in that the percentage of partially self-supporting students in the control group exceeds the percentage in the probation group by 16.1, a difference certainly significant; while the percentage of completely self-supporting students in the probation group exceeds the percentage in the control group by 4.5, a difference also certainly significant. Self-support may interfere with the student's work in various ways, such as by leaving an insufficient amount of time for study, by producing in the student more or less chronic fatigue, or by the impairment of health. Bradshaw (4) recently reported that in Oberlin College the health of the students who were completely self-supporting was inferior to those who were not self-supporting. In spite of the various factors that may be operative here, however, we can at least say that these findings suggest that partial self-support is a stimulus to a student to take advantage of the opportunities which are placed before him, while complete self-support is too great a burden for the average student to carry and still do satisfactory scholastic work.

Adequacy of funds.—The question asked was "Are your funds sufficient to support yourself comfortably?" Replies in the negative were tabulated, but no significant difference was found between the two groups.

Types of summer's occupation.—The questions were, "How did you spend last summer's vacation?" and, "If working, what was your occupation?" The summer occupations mentioned in reply to the second of these questions were placed for purposes of comparison into one of the following classifications: Physical work, including house work; salesmen or agents, outdoors; clerical, office, or technical indoor work. As shown in the table, a significantly greater proportion of the probation students than of the control group were employed in physical work or indoor jobs in offices and stores. It does not seem so probable that the type of summer employment affects the student's scholastic work as that the make-up of the individual influences his selection of summer occupation.

Living conditions.—The records show whether these students were living at home, in a fraternity house, a rooming house, or in a dormitory; but the fact that the students in the one group were freshmen and consequently not yet eligible for fraternity life influences the findings so greatly that the only place of residence tabulated for

comparison was "at home." The difference in the proportion of the two groups who lived at home is not significant. Nor do the other living conditions which were tabulated, such as "congenial," "quiet," "irritating," and "room to self," seem to make any appreciable difference.

Habits of sleep.—The only difference between the groups in habits of sleep which seemed statistically significant is that the probation group seems to go to bed a little earlier than the control group; possibly this indicates that they do not burn sufficient "midnight oil."

Adequacy of diet.—The examining physician discussed with each student his usual diet and indicated as to whether he considered it "adequate" or "inadequate," with reference to the constituents rather than to the amount of the diet. From a comparison of the diet of the two groups we can not conclude that there is any positive relationship in such groups as these between diet and scholastic accomplishment.

The smoking habit.—After reviewing the history and talking with the student the examiner indicated whether or not the student used tobacco, and if he did use it, whether in his opinion it was used to excess. In both the excessive use of tobacco and the total abstinence from tobacco the control group showed a slightly greater percentage than the probationers, although here again the difference is hardly great enough to be statistically significant.

Exercise and extra-curricular activities.—Participation in extra-curricular activities was discussed during the examination, but it seems possible to make a satisfactory comparison only of those students who participated in no extra-curricular activities. The difference in the percentage of these students in the two groups is not significant. The same may be said of the proportion of students who took an inadequate amount of exercise, although the percentages in this case are not really comparable, because all freshmen are required to take gymnasium work while with upper classmen it is elective.

Emotional reactions.—The history blank contains the following questions to which the students replied in the affirmative or in the negative: "Are you subject to worries? Moods? Periods of alternating gloom and cheerfulness? Are you particularly self-conscious? Are you inclined to be secretive or seclusive? Are you ever bothered by a feeling that other people are watching you or talking about you?" In considering the replies to these questions the fact must be considered that the responses represent the student's impression of himself and not the judgment of a skilled observer in this field. Furthermore, while it is entirely possible that the type of emotional make-up which would occasion positive replies to certain of these

questions might make it difficult for a student to do justice to his work, nevertheless, the percentage of positive replies given by our group of probation students may well be disproportionately large, because the very fact that a student was on probation would tend to intensify his feeling of self-consciousness, inferiority, or other similar feeling. From a comparison of the replies shown in Table 2 it will be seen that the proportion of students who stated that they considered themselves "particularly self-conscious," or that they were "bothered by a feeling that others were watching them or talking about them," or who replied affirmatively to four or more of the questions listed, was significantly greater among the probation group than among the controls. Further study will be necessary to justify any suggestions as to cause or effect.

Family history.—The proportion of students whose father or mother was dead at the time of the examination was greater among the control group than among the probationers. The difference, however, is hardly great enough to be of significance.

Student's own opinion concerning state of health.—The last question tabulated was, "Do you consider yourself in good health?" Negative replies were tabulated, and they predominated in the control group. This may be explained, at least in part, by the fact that the students in the control group voluntarily requested physical examinations, and very naturally those students who had some doubt in regard to their health or physical fitness would be most likely to desire this service.

COMMENTS

While it is dangerous on the basis of a preliminary study of this sort to make any generalizations concerning the causal relationship of the conditions noted and scholastic attainment, nevertheless the findings are decidedly suggestive as to the value of further studies along similar lines. As already pointed out, this control group was not an ideal one with which to compare students on probation, because the control group voluntarily made appointments for the examinations and for the most part was made up of seniors. However, the factor of selection thus introduced probably would tend to operate to give not a superior but rather an inferior group physically than would have been obtained had the control group consisted of a corresponding number of students selected at random and then required to have examinations. The greater proportion of students in the control group who answered in the negative to the question as to whether they considered themselves in good health adds weight to this assumption. Hence, with a control group in which selection did not play a part, one would expect to find a still greater excess of physical defects among the students who were doing unsatisfactory scholastic work.

SUMMARY

1. The physical defects, habits of living, social, and economic status of 141 university students who were on probation because of poor scholarship were compared to the same conditions in 496 students in the same college who are doing satisfactory scholastic work.

2. Both the students on probation and those in the control group were examined by the same physicians and received identical examinations.

3. The physical defects which occur with sufficiently greater frequency in the probation group to be almost certainly significant statistically are defective hearing of extreme grade, overweight, flabby musculature, and anemia.

4. Those defects which predominate in the probation group with sufficient frequency to be probably significant are underweight, asthenia, adiposity, and faulty posture.

5. No physical defects occur with sufficiently greater frequency in the control group to be significant.

6. In the following history items the probation group gave significant replies with so much greater frequency than the control group that the difference is almost certainly significant: Students completely self-supporting; employment at physical labor or clerical work during the summer; student considers himself particularly self-conscious; student bothered by a feeling that others are watching him or talking about him; and four or more affirmative replies to questions relative to the emotional make-up of the individual.

7. The reply given to questions on the history blank by the probation students with sufficiently greater frequency to be probably significant is, "retiring hour before 11."

8. The control group predominated significantly only in being partially self-supporting, and in not considering themselves in good health.

REFERENCES

- (1) Jackson, C. M.: The physique of male students at the University of Minnesota: A study in constitutional anatomy and physiology. *Am. Jour. Anat.*, 5 (Sept. 15, 1927), p. 59-126.
- (2) Fisher, R. A.: *Statistical methods for research workers.* Oliver and Boyd, London. 1925. Pp. 84-100.
- (3) Diehl, H. S., and Sutherland, K. H.: Systolic blood pressures of young men. *Arch. Int. Med.*, 36 (Aug., 1925), pp. 151-173.
- (4) Bradshaw, R. W.: Health of self-supporting college students. *J. A. M. A.* 90 (June 2, 1928), pp. 1775-1776.

TABLE 1.—Physical defects

Physical defect	Number having defect in—		Percentage of incidence in—		Difference in percentage		Possibilities of chance difference equal to or greater than that observed
	Probation group (total in group 141)	Control group (total in group 496)	Probation group	Control group	Greater incidence in probation group	Greater incidence in control group	
Abnormalities of nose.....	32	92	22.7	18.6	4.1	-----	1 in 4.
Abnormalities of throat.....	31	96	22.0	19.3	2.7	-----	1 in 2.
Abnormalities of ears.....	19	46	13.4	9.3	4.1	-----	1 in 6.
Hearing loss:							
1 to 19 "sensation units".....	4	7	2.8	1.4	1.4	-----	1 in 5.
20 or more "sensation units".....	4	2	2.8	.2	2.6	-----	1 in 1,100.
Visual defects:							
20/30 or more.....	19	46	13.4	9.2	4.2	-----	1 in 6.
Teeth:							
Caries.....	9	20	6.3	4.0	2.3	-----	1 in 4.
Devitalized.....	8	28	5.6	5.6	-----	-----	No difference.
Overweight, 10 per cent or more.....	21	32	14.8	6.4	8.4	-----	1 in 1,800.
Underweight, 10 per cent or more.....	30	69	21.2	13.8	7.4	-----	1 in 25.
Adipose.....	7	9	4.9	1.8	3.1	-----	Do.
Asthenic.....	17	34	12.0	6.8	5.2	-----	1 in 20.
Musculature flabby.....	13	6	9.1	1.2	7.9	-----	1 in 4,000.
Posture faulty.....	10	15	7.0	3.0	4.0	-----	1 in 25.
Anemia, hemoglobin less than 80 per cent.....	21	28	14.8	5.4	9.4	-----	1 in 2,000.
Blood pressure:							
Less than 110 millimeters.....	25	94	13.4	18.9	-----	5.5	2 in 3.
130 to 139 millimeters.....	30	79	21.2	15.9	5.3	-----	1 in 7.
140 millimeters or more.....	11	29	7.8	5.6	2.2	-----	1 in 2.

TABLE 2.—Defective health habits, social and economic status

Defective health habits, social and economic status	Number in—		Percentage of incidence in—		Difference in percentage		Possibilities of chance difference equal to or greater than that observed
	Probation group (total in group 141)	Control group (total in group 496)	Probation group	Control group	Greater incidence in probation group	Greater incidence in control group	
Self-support:			<i>Per cent</i>	<i>Per cent</i>			
Partial.....	39	217	27.6	43.7	-----	16.1	1 in 1,900.
Complete.....	9	9	6.3	1.8	4.5	-----	1 in 1,400.
Funds inadequate.....	12	60	8.5	12.0	-----	3.5	1 in 4.
Vacation:							
Physical work.....	31	57	22.0	11.4	10.6	-----	1 in 1,800.
Salesman.....	32	115	22.6	23.1	-----	.5	9 in 10.
Clerk.....	48	106	34.0	21.3	12.7	-----	1 in 1,600.
Living conditions:							
At home.....	78	244	55.3	49.1	6.2	-----	1 in 2.
Congenial.....	60	228	42.5	45.9	-----	3.4	1 in 2.
Quiet.....	57	167	40.4	33.8	6.6	-----	1 in 2.5.
Irritating.....	4	18	2.8	3.6	-----	.8	2 in 3.
Room to self.....	68	225	48.2	45.3	2.9	-----	1 in 2.
Sleeping hours:							
Less than 7.....	6	20	4.2	4.0	.2	-----	9 in 10.
More than 8.....	30	78	21.2	15.7	5.5	-----	1 in 14.
Retiring hour:							
11 or before.....	97	284	68.7	57.2	11.2	-----	1 in 33.
Diet inadequate (examiner's judgment).....	50	146	35.4	29.4	6.0	-----	1 in 5.
Tobacco:							
No use of.....	52	226	36.8	45.5	-----	8.7	1 in 14.
Excessive use of.....	12	59	8.5	11.9	-----	3.4	1 in 4.
Participation in no extra-curricular activities.....	61	195	43.2	39.5	3.7	-----	1 in 2.
Exercise inadequate.....	22	87	15.6	17.5	-----	1.9	2 in 3.
Emotional reactions:							
Subject to worries.....	37	125	26.2	25.2	1.0	-----	3 in 4.
Subject to moods.....	32	87	22.6	17.5	5.1	-----	1 in 5.
Particularly selfconscious.....	44	81	31.2	16.1	15.1	-----	1 in 2,500.
Subject to period of gloom.....	32	120	22.6	24.1	-----	1.5	3 in 4.
Bothered by a feeling people are watching or talking about them.....	28	39	19.8	7.8	12.0	-----	1 in 2,800.
Inclined to be secretive and seclusive.....	18	42	12.7	8.4	4.3	-----	1 in 7.
Affirmative replies to four or more of above.....	21	37	14.8	7.4	7.4	-----	1 in 1,200.
Status of family:							
Father dead.....	16	83	11.3	16.7	-----	5.4	1 in 8.
Mother dead.....	5	39	3.5	7.8	-----	4.3	1 in 12.
Did not consider themselves in good health.....	2	30	1.4	6.0	-----	4.6	1 in 20.

WHOLE-TIME COUNTY HEALTH OFFICERS, 1929

The following directory has been compiled from data furnished as of January 1, 1929, by State health officers. Similar directories for the years 1922 to 1928, inclusive, have been published in the PUBLIC HEALTH REPORTS. The directory for 1928 was issued as Reprint No. 1226.

In the questionnaire sent for the purpose of obtaining the necessary information, a "whole-time" county health officer was defined as "one who does not engage in the practice of medicine or in any other business, but devotes all his time to official duties."

Directories of State health departments have been published annually by the Public Health Service for the years 1912 to 1929, inclusive. The directory for 1928 was issued as Reprint No. 1254 from the PUBLIC HEALTH REPORTS.

Directories of city health officers have been published annually for the years 1916 to 1929, inclusive, the directory for 1928 being Reprint No. 1257.

Directories of State and city health officers for 1929 were published in PUBLIC HEALTH REPORTS of November 15, 1929.

State and county	Name of health officer	Post-office address	Official title
Alabama:			
Baldwin.....	J. A. Norris, jr., M. D.....	Bay Minette.....	County health officer.
Barbour.....	E. M. Moore, M. D.....	Clayton.....	Do.
Blount.....	C. V. Hendrix, M. D.....	Oneonta.....	Do.
Bullock.....	V. A. Deason, M. D.....	Union Springs.....	Do.
Calhoun.....	G. A. Cryer, M. D.....	Anniston.....	Do.
Chambers.....	C. W. McDonald, M. D.....	Lafayette.....	Do.
Cherokee.....	S. C. Tatum, M. D.....	Centre.....	Do.
Clarke.....	M. O. Park, M. D.....	Grove Hill.....	Do.
Cleburne.....	F. R. Wood, M. D.....	Heflin.....	Do.
Coffee.....	R. A. Berry, M. D.....	Elba.....	Do.
Colbert.....	W. T. Burkett, M. D.....	Tuscumbia.....	Do.
Conecuh.....	E. L. Kelly, M. D.....	Evergreen.....	Do.
Covington.....	R. B. Archibald, M. D.....	Andalusia.....	Do.
Crenshaw.....	J. O. Foster, M. D.....	Luverne.....	Do.
Cullman.....	V. P. Hughes, M. D.....	Cullman.....	Do.
Dale.....	G. B. Baylis, M. D.....	Ozark.....	Do.
Dallas.....	L. T. Lee, M. D.....	Selma.....	Do.
De Kalb.....	W. A. Black, M. D.....	Fort Payne.....	Do.
Elmore.....	L. Roy Poole, M. D.....	Wetumpka.....	Do.
Escambia.....	H. E. Leming, M. D.....	Brewton.....	Do.
Etowah.....	W. H. Harper, M. D.....	Gadsden.....	Do.
Franklin.....	L. J. Graves, M. D.....	Russellville.....	Do.
Houston.....	R. E. Neff, M. D.....	Dothan.....	Do.
Jackson.....	A. C. Bradham, M. D.....	Scottsboro.....	Do.
Jefferson.....	J. D. Dowling, M. D.....	Birmingham.....	Do.
Lamar.....	T. E. Cato, M. D.....	Vernon.....	Do.
Lauderdale.....	W. D. Hubbard, M. D.....	Florence.....	Do.
Lawrence.....	R. E. Harper, M. D.....	Moulton.....	Do.
Lee.....	C. M. Moore, M. D.....	Opelika.....	Do.
Limestone.....	L. R. Murphree, M. D.....	Athens.....	Do.
Lowndes.....	E. F. Leatherwood, M. D.....	Hayneville.....	Do.
Macon.....	E. S. Miller, M. D.....	Tuskegee.....	Do.
Madison.....	W. C. Hatchett, M. D.....	Huntsville.....	Do.
Marengo.....	J. R. Long, M. D.....	Linden.....	Do.
Marshall.....	D. C. Jordan, M. D.....	Guntersville.....	Do.
Mobile.....	C. A. Mohr, M. D.....	Mobile.....	Do.
Monroe.....	T. E. Tucker, M. D.....	Monroeville.....	Do.
Montgomery.....	J. L. Bowman, M. D.....	Montgomery.....	Do.
Morgan.....	H. C. McRee, M. D.....	Albany.....	Do.
Pickens.....	J. L. Conyers, M. D.....	Carrollton.....	Do.
Pike.....	W. H. Abernethy, M. D.....	Troy.....	Do.
Shelby.....	A. Wilson Ball, M. D.....	Columbiana.....	Do.
Sumter.....	J. S. Hough, M. D.....	Livingston.....	Do.
Talladega.....	J. H. Hill, M. D.....	Talladega.....	Do.
Tallapoosa.....	W. E. Wilson, M. D.....	Dadeville.....	Do.

State and county	Name of health officer	Post-office address	Official title
Alabama—Continued.			
Tuscaloosa.....	A. A. Kirk, M. D.....	Tuscaloosa.....	County health officer.*
Walker.....	A. M. Waldrop, M. D.....	Jasper.....	Do.
Washington.....	O. L. Chason, M. D.....	Chatom.....	Do.
Wilcox.....	E. L. McIntosh, M. D.....	Camden.....	Do.
Winston.....	C. A. Darnell, M. D.....	Double Springs.....	Do.
Arizona:			
Cochise.....	R. B. Durfee, M. D.....	Bisbee.....	County superintendent of public health.
Coconino.....	G. F. Manning, M. D.....	Flagstaff.....	Do.
Yuma.....	Harry A. Reese, M. D.....	Yuma.....	Do.
Arkansas:			
Arkansas.....	C. A. Henry, M. D.....	De Witt.....	Medical director.
Ashley.....	M. F. Houston, M. D.....	Hamburg.....	Do.
Chicot.....	W. D. Easterling, M. D.....	Lake Village.....	Do.
Conway.....	W. H. Bruce, M. D.....	Morrilton.....	Do.
Crittenden.....	J. T. Irby, M. D.....	Marion.....	Do.
Cross.....	J. D. McKie, M. D.....	Wynne.....	Do.
Desha.....	J. C. Miller, M. D.....	McGehee.....	Do.
Drew.....	R. R. King, M. D.....	Monticello.....	Do.
Faulkner.....	T. C. Watson, M. D.....	Conway.....	Do.
Garland.....	J. F. Merritt, M. D.....	Hot Springs.....	Do.
Jackson.....	W. P. Moore, M. D.....	Newport.....	Do.
Jefferson.....	George A. Hays, M. D.....	Pine Bluff.....	Do.
Little River.....	J. W. Ringgold, M. D.....	Ashdown.....	Do.
Mississippi.....	A. M. Washburn, M. D.....	Blytheville.....	Do.
Monroe.....	A. J. Dunklin, M. D.....	Clarendon.....	Do.
Phillips.....	W. B. Bruce, M. D.....	Helena.....	Do.
Pope.....	A. B. Tate, M. D.....	Russellville.....	Do.
Pulaski.....	V. T. Webb, M. D.....	Little Rock.....	Do.
Saline.....	T. F. Ballard, M. D.....	Benton.....	Do.
Sebastian.....	J. E. Johnson, M. D.....	Fort Smith.....	District health officer.
Union.....	Gordon Hastings, M. D.....	El Dorado.....	Medical director.
White.....	Orlie Parker, M. D.....	Searcy.....	Do.
Woodruff.....	J. F. Hays, M. D.....	McCrory.....	Do.
Yell.....	T. J. Pool, M. D.....	Ola.....	Do.
California:			
Contra Costa.....	I. O. Church, M. D.....	Martinez.....	Health officer.
Los Angeles.....	J. L. Pomeroy, M. D.....	Los Angeles.....	Do.
Madera.....	H. K. Naegle, M. D.....	Madera.....	Do.
Monterey.....			Do.
Orange.....	K. H. Sutherland, M. D.....	Santa Ana.....	Do.
Riverside.....	W. B. Wells, M. D.....	Riverside.....	Do.
San Diego.....	A. M. Lesem, M. D.....	San Diego.....	Do.
San Joaquin.....	J. J. Sippy, M. D.....	Stockton.....	Do.
San Luis Obispo.....	Allen F. Gillihan, M. D.....	San Luis Obispo.....	Do.
Santa Barbara.....	R. C. Main, M. D.....	Santa Barbara.....	Do.
Yolo.....	H. D. Lawhead, M. D.....	Woodland.....	Do.
Colorado:			
Otero.....	Guy A. Ashbaugh, M. D.....	Rocky Ford.....	Do.
Connecticut:			
Fairfield ¹	Lawrence E. Poole, M. D.....	Fairfield.....	Health officer and school physician.
Florida:			
Manatee.....	J. W. Henegan, D. V. M.....	Bradenton.....	County health officer.
Polk.....			
Sarasota.....	J. R. Scully, D. V. M.....	Sarasota.....	Do.
Georgia:			
Baldwin.....	Samuel A. Anderson, M. D.....	Milledgeville.....	Commissioner of health.
Bartow.....	H. C. Pearson, M. D.....	Cartersville.....	Do.
Bibb.....	J. D. Applewhite, M. D.....	Macon.....	Health officer.
Brooks.....	R. E. McClure, M. D.....	Quitman.....	Commissioner of health.
Chatham.....	V. H. Bassett, M. D.....	Savannah.....	Health officer.
Clarke.....	B. B. Bagby, M. D.....	Athens.....	Commissioner of health.
Cobb.....	J. E. Lester, M. D.....	Marietta.....	Do.
Coffee.....	T. H. Johnston, M. D.....	Douglas.....	Do.
Colquitt.....	T. H. Chesnut, M. D.....	Moultrie.....	Do.
Crisp.....	Guy G. Lunsford, M. D.....	Cordele.....	Do.
Decatur.....	M. A. Fort, M. D.....	Bainbridge.....	Do.
De Kalb.....	J. R. Evans, M. D.....	Decatur.....	Do.
Dougherty.....	Hugo Robinson, M. D.....	Albany.....	Do.
Emanuel.....	Charles E. Duffin, M. D.....	Swainsboro.....	Do.
Floyd.....	B. V. Elmore, M. D.....	Rome.....	Do.
Glynn.....	H. L. Akridge, M. D.....	Brunswick.....	Do.
Grady.....	J. R. Dykes, M. D.....	Cairo.....	Do.
Hall.....	C. J. Wellborn, M. D.....	Gainesville.....	Do.
Laurens.....	O. H. Cheek, M. D.....	Dublin.....	Do.
Lowndes.....	G. T. Crozier, M. D.....	Valdosta.....	Do.
Mitchell.....	C. O. Rainey, M. D.....	Camilla.....	Do.
Richmond.....	J. Victor Roule, M. D.....	Angusta.....	Do.
Spalding.....	W. C. Humphries, M. D.....	Griffin.....	Do.
Sumter.....	W. H. Houston, M. D.....	Americus.....	Do.
Thomas.....	J. W. Wallace, M. D.....	Thomasville.....	Do.
Troup.....	S. C. Rutland, M. D.....	Lagrange.....	Do.

¹ Town.

State and county	Name of health officer	Post-office address	Official title
Georgia—Continued.			
Walker	J. H. Hammond, M. D.	La Fayette	Commissioner of health.
Ware	George E. Atwood, M. D.	Waycross	Do.
Washington	H. B. Jenkins, M. D.	Sandersville	Do.
Wayne	F. C. Story, M. D.	Jesup	Do.
Worth	W. C. Tipton, M. D.	Sylvestor	Do.
Illinois:			
Cook	Herbert L. Wright, Ph. G., M. D., Dr. P. H.	Chicago, 737 South Lincoln Avenue.	Health director.
Du Page	W. V. Hopf, D. D. S.	Wheaton	Health officer.
Moragan	W. A. Claxton, M. D.	Jacksonville	Do.
Pulaski	R. M. Hathaway, M. D.	Mound City	Health director.
Kansas:			
Brown	R. B. Stafford, M. D.	Hiawatha	Health officer.
Butler	R. J. Cabean, M. D.	Eldorado	County health officer.
Cherokee	C. C. Fuller, M. D.	Columbus	Health officer.
Geary	H. R. Ross, M. D.	Junction City	County health officer.
Greenwood	C. L. Miller, M. D.	Eureka	Health officer.
Jefferson	C. H. Munger, M. D.	Oskaloosa	Do.
Lyon	J. S. Fulton, M. D.	Emporia	Do.
Marion	J. H. Saylor, M. D.	Marion	County health officer.
Ottawa	C. R. Hepler, M. D.	Minneapolis	Health officer.
Shawnee	F. E. McCord, M. D.	Topeka	County health officer.
Kentucky:			
Ballard	G. L. Thompson, M. D.	Wickliffe	Health officer.
Bell	M. D. Hoskins, M. D.	Pineville	Do.
Boyd	R. D. Higgins, M. D.	Ashland	Do.
Breathitt	L. E. Smith, M. D.	Jackson	Do.
Bullitt	Russell B. Howard, M. D.	Shepherdsville	Do.
Carlisle	R. K. Galloway, M. D.	Bardwell	Do.
Carter	G. E. Cecil, M. D.	Grayson	Do.
Daviess	S. E. Hainline, M. D.	Owensboro	Do.
Elliot	W. H. Wheeler, M. D.	West Liberty	Do.
Estill	S. T. Scrivner, M. D.	Irvine	Do.
Fayette	F. P. Allen, M. D.	Lexington	Do.
Floyd	Marvin Ransdell, M. D.	Frestonsburg	Do.
Fulton	Hugh E. Prather, M. D.	Hickman	Do.
Henderson	F. C. Campbell, M. D.	Henderson	Do.
Hickman	Charles Hunt, M. D.	Clinton	Do.
Hopkins	Garland Weidner, M. D.	Madisonville	Do.
Jefferson	E. P. Whistler, M. D.	Louisville	Do.
Johnson	C. F. Holtegel, M. D.	Paintsville	Do.
Knott	J. W. Duke	Hindman	Do.
Knox	M. W. Steele, M. D.	Corbin	Do.
Lawrence	W. L. Orr, M. D.	Louis	Do.
Lee	Edwin Cameron, M. D.	Beattyville	Do.
Leslie	H. C. Capps, M. D.	Hyden	Do.
Letcher	R. E. May, M. D.	Whitesburg	Do.
Magoffin	T. F. Long, M. D.	Salyersville	Do.
Martin	William N. Keith, M. D.	Inez	Do.
Mason	J. H. Hutchings, M. D.	Maysville	Do.
McLean	J. W. Scudder, M. D.	Calhoun	Do.
Menifee	E. T. Riley, M. D.	Frenchburg	Do.
Monroe	George W. Bushong, M. D.	Tompkinsville	Do.
Morgan	W. H. Wheeler, M. D.	West Liberty	Do.
Ohio	H. W. Terrell, M. D.	Hartford	Do.
Owsley	O. M. Goodloe, M. D.	Booneville	Do.
Perry	John O. Salyers, M. D.	Hazard	Do.
Pike	F. W. Forge, M. D.	Pikeville	Do.
Scott	A. Stewart, M. D.	Georgetown	Do.
Trigg	H. H. Bishop, M. D.	Cadiz	Do.
Webster	Roy Orsburn, M. D.	Dixon	Do.
Whitley	M. W. Steele, M. D.	Corbin	Do.
Wolfe	John L. Cox, M. D.	Campton	Do.
Louisiana:			
Assumption	T. G. Scott, M. D.	Napoleonville	Director of health.
Avoyelles	R. W. Todd, M. D.	Marksville	Do.
Caddo	W. J. Sandidge, M. D.	Shreveport	Do.
Caldwell	Thomas Burk, M. D.	Columbia	Do.
Catahoula	John R. C. Carter, M. D.	Harrisonburg	Do.
Claiborne	R. C. Farrier, M. D.	Homer	Do.
Concordia	John Schreiber, M. D.	Vidalia	Do.
De Soto	Roger A. Tharp, M. D.	Mansfield	Do.
East Carroll	P. M. Payne, M. D.	Lake Providence	Do.
Franklin	R. E. Applewhite, M. D.	Winnsboro	Do.
Iberia	B. L. Stinson, M. D.	New Iberia	Do.
Iberville	I. D. Boyett, M. D.	Plaquemine	Do.
Lafayette	D. C. Johnson, M. D.	Lafayette	Do.
La Fourche	H. S. Smith, M. D.	Thibodaux	Do.
La Salle	R. S. Hernandez, M. D.	Jena	Do.
Madison	M. H. Jensen, M. D.	Tallulah	Do.
Morhouse	N. P. Liles, M. D.	Bastrop	Do.
Natchitoches	W. W. Knipmeyer, M. D.	Natchitoches	Do.
Ouachita	John W. Williams, M. D.	Monroe	Do.
Pointe Coupee	F. F. Rougon, M. D.	New Roads	Do.

State and county	Name of health officer	Post-office address	Official title
Louisiana—Continued.			
Rapides.....	Edmond Klamke, M. D.	Alexandria.....	Director of health.
Richland.....	Lucien Treadway, M. D.	Rayville.....	Do.
St. Landry.....	W. W. Knowlton, M. D.	Opelousas.....	Do.
St. Martin.....	R. J. Gillespie, M. D.	St. Martinville.....	Do.
St. Mary.....	L. R. Craig, M. D.	Franklin.....	Do.
Tensas.....	G. D. Williams, M. D.	St. Joseph.....	Do.
Terrebonne.....	L. L. Williams, M. D.	Houma.....	Do.
Webster.....	E. B. Godfrey, M. D.	Minden.....	Do.
West Carroll.....	R. H. Allen, M. D.	Oak Grove.....	Do.
Maine: ³			
Motbov Union.....	H. L. Jackson, M. D.	Old Town.....	
Rumford.....	Thomas S. Burr, M. D.	Rumford.....	
Sanford.....	W. H. Kelly, M. D.	Sanford.....	
Vassalboro.....	A. R. Daviau, M. D.	Vassalboro.....	
Maryland:			
Allegany.....	J. P. Franklin, M. D.	Cumberland.....	County health officer.
Baltimore.....	J. S. Bowen, M. D.	Towson.....	Do.
Calvert.....	I. N. King, M. D.	Prince Frederick.....	Do.
Carroll.....	W. C. Stone, M. D.	Westminster.....	Do.
Frederick.....	E. C. Kefauver, M. D.	Frederick.....	Do.
Harford.....	T. A. Callahan, M. D.	Bel Air.....	Do.
Montgomery.....	W. T. Pratt, M. D.	Rockville.....	Do.
Prince Georges.....	W. S. Keister, M. D.	Upper Marlboro.....	Do.
Talbot.....	A. L. Oilar, M. D.	Easton.....	Do.
Massachusetts:			
Barnstable.....	A. P. Goff, M. D.	Hyannis.....	Do.
Michigan:			
Oakland.....	John D. Monroe, M. D.	Pontiac.....	County commissioner of health.
Saginaw.....	F. L. Rose, M. D.	Saginaw.....	County health officer.
Wexford.....	S. C. Moore, M. D.	Cadillac.....	Do.
Minnesota:			
St. Louis.....	G. J. Ferreira, M. D.	Duluth.....	Health officer.
Mississippi:			
Adams.....	B. D. Blackwelder, M. D.	Natchez.....	Director of health.
Bolivar.....	R. D. Dedwylder, M. D.	Cleveland.....	Do.
Clarke.....	D. S. Johnson, M. D.	Quitman.....	Do.
Coahoma.....	D. V. Galloway, M. D.	Clarksdale.....	Do.
Copiah.....	J. A. Milne, M. D.	Hazlehurst.....	Do.
Forrest.....	W. D. Beacham, M. D.	Hattiesburg.....	Do.
Hancock.....	C. M. Shipp, M. D.	Bay St. Louis.....	Do.
Harrison.....	D. J. Williams, M. D.	Gulfport.....	Health officer.
Hinds.....	W. E. Noblin, M. D.	Jackson.....	Director of health.
Holmes.....	T. Paul Haney, M. D.	Lexington.....	Do.
Humphreys.....	Paul S. Carley, M. D.	Belzoni.....	Do.
Issaquena.....	A. K. Barrier, M. D.	Rolling Fork.....	Do.
Jackson.....	R. G. Lauder, M. D.	Pascagoula.....	Do.
Jones.....	Hardie R. Hays, M. D.	Laurel.....	Do.
Lamar.....	W. H. Cleveland, M. D.	Purvis.....	Do.
Lauderdale.....	J. T. Googe, M. D.	Meridian.....	Do.
Lee.....	C. St. C. Guild, M. D.	Tupelo.....	Do.
Leflore.....	C. P. Coogle, M. D.	Greenwood.....	Do.
Lincoln.....	W. R. May, M. D.	Brookhaven.....	Do.
Monroe.....	C. H. Love, M. D.	Aberdeen.....	Do.
Pearl River.....	J. W. Shackelford, M. D.	Poplarville.....	Do.
Perry.....	B. T. Robinson, M. D.	New Augusta.....	Do.
Sharkey.....	A. K. Barrier, M. D.	Rolling Fork.....	Do.
Sunflower.....	J. H. Janney, M. D.	Indianola.....	Do.
Tishomingo.....			
Union.....	L. A. Barnett, M. D.	New Albany.....	Do.
Warren.....	F. Michael Smith, M. D.	Vicksburg.....	Do.
Washington.....	H. P. Rankin, M. D.	Greenville.....	Do.
Yazoo.....	H. L. McCalip, M. D.	Yazoo City.....	Do.
Missouri:			
Boone.....	Finis Suggett, M. D.	Columbia.....	County health officer.
Dunklin.....	E. L. Spence, M. D.	Kennett.....	Health officer.
Greene.....	J. W. Williams, jr., M. D.	Springfield.....	Do.
Jackson.....	J. T. Brennan, M. D.	Independence.....	Do.
Marion.....	E. M. Lucke, M. D.	Hannibal.....	Do.
Mississippi.....	James R. Lee, M. D.	Charleston.....	Do.
New Madrid.....	William N. O'Bannon, M. D.	New Madrid.....	Do.
Nodaway.....	C. P. Fryer, M. D., C. P. H.	Maryville.....	Do.
Pemiscot.....	W. S. Petty, M. D.	Caruthersville.....	Do.
St. Francois.....	W. W. Johnston, M. D.	Flat River.....	Do.
St. Louis.....	A. E. Walters, M. D.	Clayton.....	Do.
Scott.....	U. P. Haw, M. D.	Benton.....	Do.
Montana:			
Cascade.....	Thomas F. Walker, M. D.	Great Falls.....	Do.
Lewis and Clark.....	Arthur Jordon, M. D.	Helena.....	Do.
Missoula.....	F. D. Pease, M. D.	Missoula.....	Do.
New Mexico:			
Bernalillo.....	J. R. Scott, M. D.	Albuquerque.....	County health officer.
Chaves.....			
Dona Ana.....	C. W. Gerber, M. D.	Las Cruces.....	Do.

³ Towns.

State and county	Name of health officer	Post-office address	Official title
New Mexico—Contd.			
Eddy	O. E. Puckett, M. D.	Carlsbad	County health officer.
Santa Fe	H. P. Mera, M. D.	Santa Fe	Do.
Union	C. H. Douthirt, M. D.	Clayton	Do.
Valencia	P. H. McNellis, M. D.	Los Lunas	Do.
New York:			
Cattaraugus	R. M. Atwater, M. D.	Olean	Do.
Suffolk	Arthur T. Davis, M. D.	Riverhead	Do.
North Carolina:			
Beaufort	R. E. Windley, M. D.	Washington	Do.
Bertie	J. E. Smith, M. D.	Windsor	Do.
Bladen	R. S. Cromartie, M. D.	Elizabethtown	Do.
Brunswick	R. E. Broadway, M. D.	Southport	Do.
Buncombe	G. A. Morgan, M. D.	Asheville	Do.
Cabarrus	D. G. Caldwell, M. D.	Concord	Do.
Columbus	Floyd Johnson, M. D.	Whiteville	Do.
Craven	D. E. Ford, M. D.	New Bern	Do.
Cumberland	J. W. McNeill, M. D.	Fayetteville	Do.
Davidson	G. C. Gambrell, M. D.	Lexington	Do.
Durham	J. H. Epperson, Ph. D.	Durham	Do.
Edgecombe	A. C. Norfleet, M. D.	Tarboro	Do.
Forsyth	J. R. Hege, M. D.	Winston-Salem	Do.
Gaston	C. J. McCombs, M. D.	Gastonia	Do.
Granville	J. A. Morris, M. D.	Oxford	Do.
Guilford	R. M. Buie, M. D.	Greensboro	Do.
Halifax	Z. P. Mitchell, M. D.	Weldon	Do.
Henderson	J. H. Woodcock, M. D.	Hendersonville	Do.
Johnston	C. C. Massey, M. D.	Smithfield	Do.
Lenoir	R. S. McGeachy, M. D.	Kinston	Do.
Mecklenburg	W. A. McPhaul, M. D.	Charlotte	Do.
Moore	J. Symington, M. D.	Carthage	Do.
Nash	G. F. Reeves, M. D.	Nashville	Do.
New Hanover	John H. Hamilton, M. D.	Wilmington	Do.
Northampton	M. H. Seawell, M. D.	Jackson	Do.
Pamlico	D. A. Dees, M. D.	Bayboro	Do.
Pitt	W. E. Futrelle, M. D.	Greenville	Do.
Randolph	G. H. Sumner, M. D.	Asheboro	Do.
Richmond	A. B. McCreary, M. D.	Rockingham	Do.
Robeson	E. R. Hardin, M. D.	Lumberton	Do.
Rowan	C. W. Armstrong, M. D.	Salisbury	Do.
Rutherford	J. C. Twitty, M. D.	Rutherfordton	Do.
Sampson	John D. Kerr, M. D.	Clinton	Do.
Surry	W. A. Johnson, M. D.	Mount Airy	Do.
Vance	F. R. Harris, M. D.	Henderson	Do.
Wake	A. C. Buls, M. D.	Raleigh	Do.
Wayne	L. W. Corbett, M. D.	Goldsboro	Do.
Wilkes	J. W. White, M. D.	Wilkesboro	Do.
Wilson	L. J. Smith, M. D.	Wilson	Do.
Ohio:			
Allen	J. J. Sutter, M. D.	Lima	Health commissioner.
Ashtabula	W. S. Weiss, M. D.	Jefferson	Do.
Belmont	F. R. Dew, M. D.	St. Clairsville	Do.
Butler	C. J. Baldrige, M. D.	Hamilton	Do.
Clinton	W. K. Ruble, M. D.	Wilmington	Do.
Columbiana	T. T. Church, M. D.	Lisbon	Do.
Coshocton	D. M. Criswell, M. D.	Coshocton	Do.
Crawford	G. T. Wasson, M. D.	Bucyrus	Do.
Cuyahoga	Robert Lockhart, M. D.	Cleveland	Do.
Darke	Milford E. Barnes, M. D.	Greenville	Do.
Delaware	B. B. Barber, M. D.	Delaware	Do.
Erie	F. M. Houghtaling, M. D.	Sandusky	Do.
Fayette	James F. Wilson, M. D.	Washington C. H.	Do.
Franklin	P. B. Wiltberger, M. D.	Columbus	Do.
Geauga	Walter Corey, M. D.	Chardon	Do.
Hamilton	C. A. Neal, M. D.	Cincinnati	Do.
Hancock	S. F. Whisler, M. D.	Findlay	Do.
Hooking	Morton W. Bland, M. D.	Logan	Do.
Huron	B. C. Pilkey, M. D.	Norwalk	Do.
Jefferson	J. P. Young, M. D.	Steubenville	Do.
Lake	Walter Corey, M. D.	Painesville	Do.
Lorain	C. D. Barrett, M. D.	Oberlin	Do.
Lucas	F. F. DeVore, M. D.	Toledo	Do.
Mahoning	J. F. Elder, M. D.	Youngstown	Do.
Marion	N. Sifritt, M. D.	Marion	Do.
Meigs	Jane Nye Gilliford	Pomeroy	Do.
Mercer	F. E. Ayers, M. D.	Celina	Do.
Miami	E. R. Hiatt, M. D.	Troy	Do.
Montgomery	H. H. Fansing, M. D.	Dayton	Do.
Morrow	R. L. Pierce, M. D.	Mount Gilead	Do.
Perry	F. J. Crosbie, M. D.	New Lexington	Do.
Preble	H. Z. Silver, M. D.	Eaton	Do.
Richland	Theodore R. Meyer, M. D.	Mansfield	Do.
Ross	R. E. Bower, M. D.	Chillicothe	Do.
Sandusky	O. H. Thomas, M. D.	Fremont	Do.
Scioto	R. W. De Crow, M. D.	Portsmouth	Do.
Seneca	J. J. Heaton, M. D.	Tiffin	Do.

State and county	Name of health officer	Post-office address	Official title
Ohio—Continued.			
Shelby	B. S. Stephenson, M. D.	Sidney	Health commissioner.
Stark	Chester M. Peters, M. D.	Canton	Do.
Summit	R. H. Markwith, M. D.	Akron	Do.
Trumbull	L. A. Connell, M. D.	Warren	Do.
Tuscarawas	J. Blickensderfer, M. D.	New Philadelphia	Do.
Washington	Alfred G. Sturgiss, M. D.	Marietta	Do.
Wayne	W. G. Rhoten, M. D.	Wooster	Do.
Wood	H. J. Powell, M. D.	Bowling Green	Do.
Oklahoma:			
Carter	John L. Dorough, M. D.	Ardmore	County superintendent of health.
Kay	D. M. Cowgill, M. D.	Newkirk	Do.
Le Flore	W. F. Lunsford, M. D.	Poteau	Do.
McCurtain	R. D. Williams, M. D.	Idabel	Do.
Muskogee	G. S. Atkinson, M. D.	Muskogee	Do.
Okmulgee	J. O. Wails, M. D.	Okmulgee	Do.
Osage	A. R. Chisholm, M. D.	Pawhuska	Do.
Ottawa	F. P. Helm, M. D.	Miami	Do.
Pittsburg	C. M. Pearce, M. D.	McAlester	Do.
Seminole	George Hunter, M. D.	Wewoka	Do.
Oregon:			
Clackamas	W. H. Miller, M. D.	Oregon City	Health officer.
Coos	P. M. Drake, M. D.	Coquille	Do.
Douglas	DeWalt Payne, M. D.	Roseburg	Do.
Jackson	Emily F. Bolcom, M. D.	Medford	Do.
Klamath	G. S. Newsom, M. D.	Klamath Falls	Do.
Marion	Vernon Douglas, M. D.	Salem	Do.
Multnomah	H. R. Cliff, M. D.	Portland	Do.
South Carolina:			
Aiken	W. G. Bodie, M. D.	Aiken	Do.
Anderson	E. E. Epting, M. D.	Anderson	Do.
Beaufort	H. B. Senn, M. D.	Beaufort	Do.
Berkeley	T. B. Harper, M. D.	Moncks Corner	Do.
Charleston	Leon Banov, M. D.	Charleston	Do.
Cherokee	E. P. White, M. D.	Gaffney	Do.
Darlington	A. B. Hooton, M. D.	Darlington	Do.
Dillon	John B. Setzler, M. D.	Dillon	Do.
Dorchester	A. R. Johnston, M. D.	St. George	Do.
Fairfield	J. L. Bryson, M. D.	Winnsboro	Do.
Georgetown	Clem Ham, M. D.	Georgetown	Do.
Greenville	Baylis Earle, M. D.	Greenville	Do.
Greenwood	J. E. Brodie, M. D.	Greenwood	Do.
Horry	H. F. Wilson, M. D.	Conway	Do.
Marion	C. H. Tennant, M. D.	Marion	Do.
Newberry	H. G. Callison, M. D.	Newberry	Do.
Oconee	L. H. Jennings, M. D.	Walhalla	Do.
Orangeburg	G. C. Bolin, M. D.	Orangeburg	Do.
Richland	H. T. Kennedy, M. D.	Columbia	Do.
Spartanburg	J. Moss Beeler, M. D.	Spartanburg	Do.
South Dakota:			
Pennington	A. N. Crain, M. D.	Rapid City	County health officer.
Tennessee:			
Blount	K. A. Bryant, M. D.	Maryville	Director of health.
Bradley	H. M. Roberson, M. D.	Cleveland	Health officer.
Carter	J. N. Shell, M. D.	Elizabethton	Do.
Davidson	J. J. Lentz, M. D.	Nashville	County health officer.
Dyer	O. F. Agee, M. D.	Dyersburg	Health officer.
Gibson	F. L. Roberts, M. D.	Trenton	Do.
Greene	R. S. Cowles, M. D.	Greenville	Do.
Hamilton	J. C. Eldridge, M. D.	Chattanooga	Do.
Knox	A. F. Richards, M. D.	Knoxville	Do.
Lake	J. P. Moon, M. D.	Tiptonville	Do.
Lauderdale	R. B. Griffin, M. D.	Ripley	Do.
Monroe	H. M. Kelso, M. D.	Madisonville	Do.
Montgomery	F. J. Malone, M. D.	Clarksville	Do.
Obion	C. B. A. Turner, M. D.	Union City	Do.
Roane	J. C. Fly, M. D.	Kingston	Do.
Rutherford	H. S. Mustard, M. D.	Murfreesboro	Do.
Sevier	C. S. Kinzer, M. D.	Sevierville	Director of health.
Shelby	W. B. Harrison, M. D.	Memphis	Health officer.
Sullivan	F. L. Moore, M. D.	Blountville	Do.
Washington	S. S. Moody, M. D.	Jonesboro	Do.
Weakley	M. D. Ingram, M. D.	Dresden	Do.
Williamson	W. C. Williams, M. D.	Franklin	Do.
Wilson	W. D. Cagle, M. D.	Lebanon	Do.
Texas:			
Cameron	Robert J. Gillespie, M. D.		Do.
Hidalgo	J. R. Mahome	Edinburg	Do.
McLennan	W. F. Curran, M. D.	Waco	Do.
Tarrant	T. C. Colley	Fort Worth	Do.
Utah:			
Box Elder	R. H. Wilson, M. D.	Brigham City	County health officer.
Davis	S. Gleason, M. D.	Kaysville	Do.
Utah	E. F. Oldham, M. D.	Provo	Do.

State and county	Name of health officer	Post-office address	Official title
Virginia:			
Accomac.....	D. St. C. Campbell, M. D.	Accomac.....	Health officer.
Albemarle.....	G. B. Young, M. D.	Charlottesville.....	Do.
Arlington.....	P. M. Chichester, M. D.	Clarendon.....	Do.
Augusta.....	H. M. Wallace, M. D.	Staunton.....	Do.
Brunswick.....	T. H. Valentine, M. D.	Lawrenceville.....	Do.
Greensville.....	do.	do.	Do.
Halifax.....	Kolbe Curtice.....	South Boston.....	Do.
Henrico.....	E. L. McQuade, M. D.	Richmond.....	Do.
Isle of Wight.....	J. B. Woods, M. D.	Smithfield.....	Do.
Nansemond.....	C. H. Dawson, M. D.	Suffolk.....	Do.
Norfolk.....	W. H. Pott, M. D.	Portsmouth.....	Do.
Northampton.....	D. St. C. Campbell, M. D.	Accomac.....	Do.
Princess Anne.....	W. H. Pott, M. D.	Portsmouth.....	Do.
Rockbridge.....	R. P. Cooke, M. D.	Lexington.....	Do.
Southampton.....	Harry Walker, M. D.	Courtland.....	Do.
Wise.....	W. R. Culbertson, M. D.	Norton.....	Do.
Washington:			
Chelan.....	Paul L. West, M. D.	Wenatchee.....	Do.
King.....	C. L. Dixon, M. D.	Seattle.....	Do.
Snohomish.....	H. M. Berge, M. D.	Everett.....	Do.
Spokane.....	W. L. Newman, M. D.	Spokane.....	Do.
Walla Walla.....	George H. T. Sparling, M. D.	Walla Walla.....	Do.
Whitman.....	R. J. Skaffe, M. D.	Colfax.....	Do.
Yakima.....	H. Storgaard, M. D.	Yakima.....	Do.
West Virginia:			
Berkeley.....	W. Ross Cameron, M. D.	Martinsburg.....	Do.
Boone.....	A. M. Price, M. D.	Madison.....	Do.
Brooke.....	W. J. MacDonald, M. D.	Wellsburg.....	Do.
Fayette.....	H. H. Puckett, M. D.	Fayetteville.....	Do.
Gilmer.....	Arthur L. Oilor, M. D.	Glenville.....	Do.
Hancock.....	J. E. Fisher, M. D.	New Cumberland.....	Do.
Harrison.....	V. A. Selby, M. D., D. P. H.	Clarksburg.....	Do.
Kanawha.....	John Thames, M. D.	Charleston.....	Do.
Logan.....	P. B. Wingfield, M. D., D. P. H.	Logan.....	Do.
Marion.....	H. M. Batson, M. D.	Fairmont.....	Do.
Ohio.....	W. H. McLain, M. D.	Wheeling.....	Do.
Preston.....	L. H. Lewis, M. D.	Kingwood.....	Do.
Raleigh.....	G. W. Luckey, M. D.	Beckley.....	Do.
Wood.....	Arthur D. Knott, M. D.	Parkersburg.....	Do.
Wyoming:			
Natrona.....	H. Garst, M. D.	Casper.....	Director of health.

COURT DECISIONS RELATING TO PUBLIC HEALTH

Removal of local sanitation and quarantine officer.—(Iowa Supreme Court; *Young v. Huff, Mayor, et al.*, 227 N. W. 122; decided October 22, 1929.) Section 2232 of the 1927 Code provided as follows:

Upon request of the local board [of health], the mayor in every city or town shall appoint a member of the police force to be a permanent sanitation and quarantine officer who shall be subject to the orders and directions of the local board and its health officer in the execution of health and quarantine regulations.

In construing this section the supreme court held that an appointment thereunder was subject to the provisions of section 5638 of the code which provided that "All persons appointed to office in any city or town may be removed by the officer or body making the appointment, but every such removal shall be by written order, which shall give the reasons therefor and be filed with the city clerk."

Parent's opposition to vaccination held no excuse for failure to send children to school.—(Massachusetts Supreme Judicial Court; *Commonwealth v. Green*, 168 N. E. 101; decided October 2, 1929.) The defendant was convicted of failing to send his two children to school as required by statute. The statute also provided that an unvacci-

nated child should not be admitted to a public school except upon presentation of a physician's certificate. The defendant admitted that he refused to have his children vaccinated and that he knew that the authorities would not allow them to attend school unless vaccinated. No physician's certificate was obtained and, upon the defendant's testimony, the physical condition of the children was such that a certificate could not properly have been given. The conviction was upheld by the supreme court, which in its opinion stated:

The requirement for vaccination has been held to be constitutional. * * * The defendant's views can not affect the validity of the statute nor entitle him to be excepted from its provisions. * * * By statute vaccination is made a condition precedent to the right of a child to attend a public school. * * * The defendant's sole defense to the complaint so far as it is disclosed by the record seems to be that because of his religious belief and conscientious scruples concerning vaccination he should not be held to have incurred the penalty of the statute for failing to send his children to school. But he can not thus avoid this penalty, even if their failure to attend school was based upon this ground alone. * * * It was his own act which kept the children in the class ineligible for school attendance.

DEATHS DURING WEEK ENDED NOVEMBER 30, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended November 30, 1929, and corresponding week of 1928. (From the Weekly Health Index, December 4, 1929, issued by the Bureau of the Census, Department of Commerce)

	Week ended Nov. 30, 1929	Corresponding week, 1928
Policies in force.....	75, 202, 228	72, 286, 055
Number of death claims.....	11, 704	11, 503
Death claims per 1,000 policies in force, annual rate.....	8. 1	8. 3

Deaths from all causes in certain large cities of the United States during the week ended November 30, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, December 4, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Nov. 30, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Nov. 30, 1929 ¹
	Total deaths	Death rate ¹		Week ended Nov. 30, 1929	Corresponding week, 1928	
Total (64 cities).....	7, 006	12. 3	12. 6	604	678	53
Akron.....	48			8	8	83
Albany ⁴	43	18. 7	16. 1	2	6	40
Atlanta.....	72	14. 8	14. 3	10	10	104
White.....	35			8	5	
Colored.....	37	(⁵)	(⁵)	2	5	
Baltimore ⁴	250	15. 7	14. 0	18	18	58
White.....	199			14	13	56
Colored.....	51	(⁵)	(⁵)	4	5	63
Birmingham.....	73	17. 2	17. 2	9	6	81
White.....	30			3	4	45
Colored.....	43	(⁵)	(⁵)	6	2	137
Boston.....	203	13. 3	13. 6	18	19	50
Bridgeport.....	33			6	2	104

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended November 30, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928—Continued

City	Week ended Nov. 30, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Nov. 30, 1929
	Total deaths	Death rate		Week ended Nov. 30, 1929	Corresponding week, 1928	
Buffalo.....	154	14.5	14.6	14	19	60
Cambridge.....	38	15.8	15.0	2	3	36
Camden.....	21	8.1	9.3	2	2	35
Canton.....	27	12.1	16.1	1	6	24
Chicago 4.....	698	11.6	11.3	89	62	79
Cincinnati.....	138			12	10	70
Cleveland.....	185	9.6	9.9	22	15	65
Columbus.....	69	12.1	11.9	7	9	66
Dallas.....	58	13.9	12.5	4	7	
White.....	41			2	6	
Colored.....	17	(⁵)	(⁵)	2	1	
Dayton.....	31	8.8	9.1	3	3	48
Denver.....	79	14.0	16.2	8	9	77
Des Moines.....	35	12.0	14.1	7	2	126
Detroit.....	265	10.0	11.6	33	45	53
Duluth.....	19	8.5	12.1	1	2	24
El Paso.....	44	19.5	12.9	10	4	
Erie.....	21			4	2	82
Fall River 4.....	24	9.3	9.0	2	1	38
Flint.....	34	11.9	10.2	7	8	85
Fort Worth.....	38	11.6	7.7	2	2	
White.....	35			2	1	
Colored.....	3	(⁵)	(⁵)	0	1	
Grand Rapids.....	37	11.8	10.2	5	2	76
Houston.....	86			5	6	
White.....	47			3	5	
Colored.....	39	(⁵)	(⁵)	2	1	
Indianapolis.....	90	12.3	16.3	0	2	0
White.....	74			0	2	0
Colored.....	16	(⁵)	(⁵)	0	0	0
Jersey City.....	77	12.4	10.1	7	7	54
Kansas City, Kans.....	25	11.0	11.0	2	4	44
White.....	18			1	4	25
Colored.....	7	(⁵)	(⁵)	1	0	179
Kansas City, Mo.....	113	15.1	15.4	6	10	51
Knoxville.....	27	13.4	15.4	3	5	66
White.....	22			3	4	73
Colored.....	5	(⁵)	(⁵)	0	1	0
Los Angeles.....	263			17	16	50
Louisville.....	88	14.0	11.9	5	6	41
White.....	68			4	3	37
Colored.....	20	(⁵)	(⁵)	1	3	63
Lowell.....	18			1	3	23
Lynn.....	28	13.9	11.9	1	2	27
Memphis.....	97	26.7	15.1	9	6	106
White.....	44			5	3	95
Colored.....	53	(⁵)	(⁵)	4	3	125
Milwaukee.....	86	8.3	10.1	11	14	48
Minneapolis.....	94	10.8	10.3	5	9	31
Nashville.....	47	17.6	14.2	4	2	65
White.....	30			2	0	43
Colored.....	17	(⁵)	(⁵)	2	2	126
New Bedford.....	19			6	7	129
New Haven.....	42	11.7	12.5	1	3	15
New Orleans.....	169	20.6	23.6	15	17	74
White.....	90			6	7	42
Colored.....	79	(⁵)	(⁵)	9	10	151
New York.....	1,297	11.3	12.2	105	131	43
Bronx Borough.....	162	8.9	9.1	12	17	35
Brooklyn Borough.....	444	10.1	11.3	41	54	42
Manhattan Borough.....	505	15.1	16.8	38	50	46
Queens Borough.....	146	8.9	7.8	13	10	53
Richmond Borough.....	40	13.9	14.6	1	0	18
Newark, N. J.....	112	12.4	10.5	13	11	69
Oakland.....	72	13.7	14.9	1	2	11
Oklahoma City.....	33			3	3	60
Omaha.....	58	13.6	13.1	2	7	23
Paterson.....	42	15.2	7.6	5	2	88
Philadelphia.....	419	10.6	11.3	28	42	40
Pittsburgh.....	181	14.0	14.4	10	20	34
Portland, Oreg.....	67			6	4	69
Providence.....	68	12.4	13.3	4	7	35

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended November 30, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928—Continued

City	Week ended Nov. 30, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Nov. 30, 1929
	Total deaths	Death rate		Week ended Nov. 30, 1929	Corresponding week, 1928	
Richmond.....	49	13.2	12.1	7	8	98
White.....	32			3	2	64
Colored.....	17	(⁵)	(⁵)	4	6	164
Rochester.....	78	12.4	13.2	7	7	59
St. Louis.....	215	13.3	13.4	6	17	20
St. Paul.....	69			3	2	31
Salt Lake City ⁴	35	13.3	22.7	3	5	46
San Antonio.....	90	21.6	12.7	13	9	-----
San Diego.....	43			1	3	19
San Francisco.....	147	13.1	18.0	5	6	32
Schenectady.....	15	8.4	11.8	0	5	0
Seattle.....	64	8.7	11.7	5	4	53
Somerville.....	20	10.2	6.1	0	1	0
Spokane.....	31	14.9	17.3	3	3	78
Springfield, Mass.....	34	11.9	12.2	3	3	50
Syracuse.....	65	17.1	12.1	3	4	26
Tacoma.....	28	13.2	6.2	1	2	26
Toledo.....	77	12.9	13.2	9	9	84
Trenton.....	26	9.8	15.8	1	5	18
Washington, D. C.....	151	14.3	12.7	14	10	82
White.....	90			6	4	51
Colored.....	61	(⁵)	(⁵)	8	6	152
Waterbury.....	15			4	1	102
Wilmington, Del.....	35	14.2	7.3	3	0	78
Worcester.....	51	13.5	15.3	3	6	38
Yonkers.....	22	9.5	11.6	3	0	70
Youngstown.....	44	13.2	10.8	2	5	29

¹ Annual rate per 1,000 population.

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

³ Data for 72 cities.

⁴ Deaths for week ended Friday.

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

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 November 30, 1929, and December 1, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended November 30, 1929, and December 1, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928
New England States:								
Maine.....	6	6	7	3	6	137	1	1
New Hampshire.....	4	3	5	11	71	13	0	0
Vermont.....	3	-----	-----	-----	5	5	0	0
Massachusetts.....	131	96	3	13	91	482	2	4
Rhode Island.....	17	35	-----	-----	2	27	0	0
Connecticut.....	25	15	1	5	2	80	0	0
Middle Atlantic States:								
New York.....	173	218	111	20	164	421	21	20
New Jersey.....	182	97	4	9	31	60	4	3
Pennsylvania.....	171	233	-----	-----	302	890	2	2
East North Central States:								
Ohio.....	89	155	15	22	361	236	10	5
Indiana.....	39	63	-----	261	12	62	0	0
Illinois.....	231	260	16	92	325	213	9	9
Michigan.....	194	98	6	4	179	22	7	10
Wisconsin.....	36	12	13	22	508	147	3	4
West North Central States:								
Minnesota.....	22	21	-----	-----	57	24	5	2
Iowa.....	8	26	-----	-----	78	-----	1	0
Missouri.....	45	74	16	37	12	21	7	1
North Dakota.....	4	15	-----	-----	10	3	0	0
South Dakota.....	2	1	-----	-----	6	2	0	0
Nebraska.....	19	29	5	17	49	-----	1	1
Kansas.....	46	32	3	7	50	10	3	0
South Atlantic States:								
Delaware.....	7	1	-----	-----	-----	3	0	0
Maryland ¹	32	37	32	15	30	28	2	1
District of Columbia.....	21	17	-----	4	-----	1	1	0
West Virginia.....	39	26	35	16	23	69	0	1
North Carolina.....	112	146	6	-----	-----	14	1	0
South Carolina.....	35	66	547	2,718	-----	4	0	0
Georgia.....	22	48	53	344	16	26	0	2
Florida.....	19	15	1	25	5	3	0	1
East South Central States:								
Kentucky.....	27	16	-----	-----	135	-----	1	3
Tennessee.....	34	28	82	107	1	3	5	2
Alabama.....	51	94	67	158	2	18	1	0
Mississippi.....	41	23	-----	-----	-----	-----	0	0
West South Central States:								
Arkansas.....	20	21	65	90	1	38	2	1
Louisiana.....	41	34	28	17	10	31	2	0
Oklahoma ²	68	86	123	53	12	6	2	1
Texas.....	115	86	10	31	2	31	1	2
Mountain States:								
Montana.....	4	2	-----	3,372	56	83	2	4
Idaho.....	1	4	-----	11	20	3	1	6
Wyoming.....	7	3	-----	6	-----	3	1	1
Colorado.....	6	11	-----	37	7	10	0	3
New Mexico.....	8	3	3	66	15	1	1	0
Arizona.....	20	7	5	18	-----	1	10	0
Utah ³	2	3	1	258	18	1	3	1

¹ New York City only.

² Week ended Friday.

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

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended November 30, 1929, and December 1, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928
Pacific States:								
Washington.....	8	28	-----	8	18	25	5	3
Oregon.....	10	14	22	296	13	48	4	1
California.....	73	76	65	8,213	132	25	7	6
Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928	Week ended Nov. 30, 1929	Week ended Dec. 1, 1928
New England States:								
Maine.....	0	1	42	24	0	28	3	4
New Hampshire.....	0	0	21	26	0	0	0	1
Vermont.....	0	0	11	10	1	1	0	0
Massachusetts.....	2	4	193	173	0	0	2	5
Rhode Island.....	0	0	17	17	0	0	0	0
Connecticut.....	0	2	52	31	0	7	3	3
Middle Atlantic States:								
New York.....	0	5	266	259	16	0	13	21
New Jersey.....	1	1	121	76	0	0	5	7
Pennsylvania.....	9	4	347	276	4	0	22	27
East North Central States:								
Ohio.....	4	4	346	253	176	20	22	11
Indiana.....	1	0	111	99	113	50	2	4
Illinois.....	1	2	478	295	82	32	10	21
Michigan.....	2	1	256	342	36	15	5	16
Wisconsin.....	0	0	67	114	21	21	52	3
West North Central States:								
Minnesota.....	0	5	94	89	2	1	5	1
Iowa.....	1	0	50	99	48	103	7	3
Missouri.....	0	1	95	77	11	14	2	9
North Dakota.....	0	1	20	38	11	0	0	2
South Dakota.....	0	0	9	23	22	17	1	2
Nebraska.....	0	0	50	66	33	18	0	3
Kansas.....	0	1	111	161	35	13	3	7
South Atlantic States:								
Delaware.....	0	0	4	3	0	0	0	0
Maryland.....	1	3	41	40	0	0	8	9
District of Columbia.....	0	0	8	10	0	0	0	0
West Virginia.....	0	0	84	64	9	9	25	10
North Carolina.....	5	2	94	133	6	7	7	10
South Carolina.....	0	1	27	31	0	0	8	17
Georgia.....	3	1	39	48	0	0	1	16
Florida.....	0	2	10	18	1	0	0	12
East South Central States:								
Kentucky.....	1	0	73	36	12	6	5	7
Tennessee.....	2	1	53	25	0	9	19	14
Alabama.....	0	0	39	31	0	9	4	8
Mississippi.....	0	0	19	20	0	1	5	7
West South Central States:								
Arkansas.....	0	0	42	18	3	0	13	6
Louisiana.....	3	0	16	32	2	6	11	14
Oklahoma.....	0	1	40	73	22	38	24	25
Texas.....	0	0	34	41	16	13	3	42
Mountain States:								
Montana.....	0	0	43	49	17	45	3	1
Idaho.....	0	0	10	7	1	37	0	3
Wyoming.....	0	0	1	18	15	1	0	0
Colorado.....	0	1	30	25	31	3	0	0
New Mexico.....	0	1	6	10	1	0	5	3
Arizona.....	0	0	15	7	0	14	2	0
Utah.....	0	0	15	5	1	4	1	1
Pacific States:								
Washington.....	0	4	40	44	62	25	1	5
Oregon.....	1	0	42	32	10	51	2	3
California.....	2	5	281	161	27	13	5	4

¹ Week ended Friday.

² Figures for 1929 are exclusive of Oklahoma City and Tulsa and for 1928 are exclusive of Tulsa only.

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	Influ- enza	Malaria	Measles	Pella- gra	Polio- myelitis	Scarlet fever	Small- pox	Ty- phoid fever
<i>September, 1929</i>										
Colorado.....	3	33		1	18		2	35	37	37
West Virginia.....	3	80	36		65		17	146	20	156
<i>October, 1929</i>										
Colorado.....	4	31			15		0	68	33	21
Kansas.....	2	182	2	1	200		6	341	51	18
Missouri.....	22	242	40	59	74		2	282	48	58
North Carolina.....	10	1,192	23		10	135	19	602	28	83
Wisconsin.....	10	106	95		825		1	325	63	53

September, 1929

Chicken pox:	Cases
Colorado.....	41
West Virginia.....	11
Dysentery:	
Colorado.....	1
German measles:	
Colorado.....	1
Lethargic encephalitis:	
Colorado.....	1
Mumps:	
Colorado.....	25
Paratyphoid fever:	
Colorado.....	1
Tularæmia:	
Colorado.....	1
Whooping cough:	
Colorado.....	48
West Virginia.....	116

October, 1929

Chicken pox:	
Colorado.....	179
Kansas.....	231
Missouri.....	169
North Carolina.....	156
Wisconsin.....	1,013
Conjunctivitis:	
Kansas.....	1
German measles:	
Colorado.....	2
Kansas.....	5
North Carolina.....	6
Wisconsin.....	8
Impetigo contagiosa:	
Colorado.....	7
Kansas.....	1
Lethargic encephalitis:	
Kansas.....	3
Missouri.....	1
Wisconsin.....	3
Mumps:	
Colorado.....	19
Kansas.....	120

October, 1919—Continued

Mumps—Continued.	Cases
Missouri.....	14
Wisconsin.....	146
Ophthalmia neonatorum:	
North Carolina.....	2
Paratyphoid fever:	
Kansas.....	2
North Carolina.....	1
Rabies in animals:	
Missouri.....	8
Rabies in man:	
Colorado.....	1
Scabies:	
Colorado.....	1
Kansas.....	9
Septic sore throat:	
Kansas.....	3
Missouri.....	9
North Dakota.....	21
Tetanus:	
Kansas.....	2
Missouri.....	1
Trachoma:	
Colorado.....	1
Missouri.....	16
Trench mouth:	
Kansas.....	1
Tularæmia:	
North Carolina.....	1
Undulant fever:	
Colorado.....	2
Kansas.....	8
Missouri.....	12
Wisconsin.....	1
Vincent's angina:	
Colorado.....	5
Kansas.....	3
Whooping cough:	
Colorado.....	60
Kansas.....	123
Missouri.....	163
North Carolina.....	560
Wisconsin.....	637

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

State	Chick- en pox	Diph- theria	Measles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid and para- typhoid fever	Whoop- ing cough
Maine.....	20	10	34	17	69	0	19	9	30
New Hampshire.....		9			24			2	
Vermont.....	21	6	17		14	1	17	5	78
Massachusetts.....	127	223	106	67	278	0	394	39	415
Rhode Island.....	3	32	3		11	0	38	8	20
Connecticut.....	38	58	18	19	47	0	119	35	87
New York.....	200	345	358	263	280	7	1,559	199	1,354
New Jersey.....	54	268	42		132	0	387	58	508
Pennsylvania.....	200	464	230	163	405	3	536	196	1,362
Ohio.....	188	174	137	57	443	80	533	178	692
Indiana.....	23	85	18	4	132	61	211	44	72
Illinois.....	214	475	165	110	590	64	910	119	972
Michigan.....	115	271	231	87	319	79	456	47	524
Wisconsin.....	132	72	206	73	180	24	171	53	733
Minnesota.....	81	68	14		226	16	242	25	147
Iowa.....		20			86	31		29	
Missouri.....	38	97	43	17	134	48	184	66	162
North Dakota.....	21	30	32	23	30	10	20	5	32
South Dakota.....	11	16	9	7	31	39	10	14	54
Nebraska.....	19	47	22	13	46	21	20	11	51
Kansas.....	45	90	100	75	196	24	124	49	95
Delaware.....	1	2	1		1	0	114	13	3
Maryland.....	23	54	10	13	98	0	221	82	147
District of Columbia.....	4	48	4		22	0	84	7	22
Virginia.....	81	330	72		181	2	1104	124	537
West Virginia.....	11	90	65		146	20	43	156	116
North Carolina.....	74	829	12		409	20		152	746
South Carolina.....	17	366	4	7	44	0	44	27	97
Georgia.....	4	101	16	26	102	9	61	119	135
Florida.....	4	69	5	11	14	0	19	4	21
Kentucky ¹									
Tennessee.....	6	202	10	4	157	5	299	273	101
Alabama.....	7	240	13	5	155	0	284	103	75
Mississippi.....	147	261	33	96	109	0	276	148	733
Arkansas.....	8	27	9	25	33	0	110	91	28
Louisiana.....		111	23	2	57	4	1134	95	24
Oklahoma ²	2	162	46	3	105	7	63	172	32
Texas ²									
Montana.....	25	7	263	68	46	30	11	132	15
Idaho.....	31	8	32	35	35	41	7	8	31
Wyoming.....	4	1	12	6	10	9		9	3
Colorado.....	41	33	18	25	35	37	146	38	48
New Mexico ²									
Arizona.....	1	14	5	9	10	5	56	11	20
Utah ²									
Nevada.....		2			1	0	10	1	1
Washington.....	121	55	25	120	102	56	154	40	205
Oregon.....	25	15	15	48	22	23	42	21	35
California.....	268	133	112	580	301	88	667	47	429

¹ Pulmonary.

² Reports received weekly.

³ Exclusive of Oklahoma City and Tulsa.

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

State	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Small-pox	Tuberculosis	Typhoid and paratyphoid fever	Whooping cough
Maine.....	0.31	0.15	0.52	0.26	1.05	0	0.29	0.14	0.46
New Hampshire.....		.24			.64			.05	
Vermont.....	.72	.21	.59		.48	.03	.59	.17	2.69
Massachusetts.....	.96	.63	.30	.19	.78	0	1.11	.11	1.16
Rhode Island.....	.05	.53	.05		.18	0	.64	.13	.33
Connecticut.....	.27	.42	.13	.14	.34	0	.85	.25	.62
New York.....	.21	.36	.37	.27	.29	.01	1.62	.21	1.41
New Jersey.....	.17	.84	.13		.41	0	1.21	.18	1.59
Pennsylvania.....	.24	.57	.28	.20	.49	0	.65	.24	1.65
Ohio.....	.33	.31	.24	.10	.78	.14	.93	.31	1.21
Indiana.....	.09	.32	.07	.02	.50	.23	.80	.17	.27
Illinois.....	.35	.77	.27	.18	.96	.10	1.43	.19	1.58
Michigan.....	.30	.70	.60	.23	.83	.20	1.13	.12	1.36
Wisconsin.....	.54	.29	.84	.90	.73	.10	.70	.22	2.98
Minnesota.....	.36	.30	.06		1.00	.07	1.07	.11	.65
Iowa.....	.10	.10			.43	.16		.15	
Missouri.....	.13	.33	.15	.06	.46	.17	.63	.23	.56
North Dakota.....	.40	.57	.61	.44	.57	.19	.38	.09	.61
South Dakota.....	.19	.27	.15	.12	.53	.67	.17	.24	.92
Nebraska.....	.16	.40	.19	.11	.39	.18	.17	.09	.44
Kansas.....	.30	.59	.66	.60	1.29	.16	.82	.32	.63
Delaware.....	.05	.10	.05		.05	0	1.70	.65	.15
Maryland.....	.17	.40	.07	.10	.73	0	1.64	.61	1.09
District of Columbia.....	.09	1.04	.09		.47	0	1.51	.15	.47
Virginia.....	.38	1.54	.34		.85	.01	1.49	.58	2.51
West Virginia.....	.08	.56	.45		1.01	.14	.30	1.08	.81
North Carolina.....	.30	3.39	.05		1.67	.08		.62	3.05
South Carolina.....	.11	2.49	.03	.05	.28	0	.28	.17	.63
Georgia.....	.02	.38	.06	.10	.88	.03	.23	.45	.51
Florida.....	.03	.58	.04	.09	.12	0	.16	.03	.18
Kentucky ¹									
Tennessee.....	.03	.98	.05	.02	.76	.02	1.44	1.32	.49
Alabama.....	.03	1.12	.06	.02	.73	0	1.33	.48	.35
Mississippi.....	1.00	1.77	.22	.65	.74	0	1.88	1.01	4.98
Arkansas.....	.05	.17	.06	.15	.20	0	1.06	.56	.17
Louisiana.....		.69	.14	.01	.35	.02	1.83	.59	.15
Oklahoma ²01	.91	.26	.02	.59	.04	.35	.96	.18
Texas ²									
Montana.....	.55	.16	5.83	1.51	1.02	.66	.24	2.93	.33
Idaho.....	.68	.17	.70	.76	.76	.89	.15	.17	.68
Wyoming.....	.19	.05	.58	.29	.48	.43		.43	.14
Colorado.....	.45	.36	.20	.28	.39	.41	1.61	.42	.53
New Mexico ²									
Arizona.....	.02	.35	.12	.22	.25	.12	1.39	.27	.60
Utah ²									
Nevada.....		.31			.16	0	1.67	.16	.16
Washington.....	.91	.42	.19	.91	.77	.42	1.16	.30	1.55
Oregon.....	.33	.20	.20	.64	.29	.31	.56	.28	.47
California.....	.70	.35	.29	1.51	.78	.23	1.73	.12	1.12

¹ Pulmonary.² Reports received weekly.³ Exclusive of Oklahoma City and Tulsa.

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of October, 1929, by departments of health of certain States to other State health departments

Disease	California	Connecticut	Illinois	Kansas	Massachusetts	Minnesota	New York	Ohio
Gonorrhoea.....						4		
Malaria.....	1							
Paratyphoid fever.....			1					
Scarlet fever.....							2	
Smallpox.....			8					
Syphilis.....				21		5		
Tuberculosis.....	2		8			14		1
Typhoid fever.....	7	1	5		3	13	9	

11 carrier included.

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 31,550,000. The estimated population of the 90 cities reporting deaths is more than 29,980,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended November 23, 1929, and November 24, 1928

	1929	1928	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	2,333	2,616	
97 cities.....	1,127	979	1,245
Measles:			
45 States.....	2,681	3,466	
97 cities.....	436	656	
Meningococcus meningitis:			
45 States.....	138	91	
97 cities.....	68	46	
Pollomyelitis:			
46 States.....	55	48	
Scarlet fever:			
46 States.....	3,826	3,645	
97 cities.....	1,324	1,048	1,035
Smallpox:			
46 States.....	1,088	541	
97 cities.....	143	44	24
Typhoid fever:			
46 States.....	378	405	
97 cities.....	76	57	60
<i>Deaths reported</i>			
Influenza and pneumonia:			
90 cities.....	638	805	
Smallpox:			
90 cities.....	0	0	

City reports for week ended November 23, 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 nonepidemic 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, 1923, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
NEW ENGLAND									
Maine:									
Portland.....	78,600	35	2	1		0	0	9	3
New Hampshire:									
Concord.....	(1)	0	0	0		0	9	0	2
Manchester.....	85,700	0	3	0		0	0	0	3
Nashua.....	(1)	0	0	0		0	0	0	0
Vermont:									
Barre.....	(1)	0	1	0		0	0	0	0
Massachusetts:									
Boston.....	799,200	62	40	22	2	1	14	50	15
Fall River.....	134,300	9	4	0		0	0	0	0
Springfield.....	149,800	36	5	9		0	0	0	2
Worcester.....	197,600	39	6	3		0	2	0	1
Rhode Island:									
Pawtucket.....	73,100	7	2	3		0	0	0	1
Providence.....	286,300	1	11	12	1	0	0	0	7
Connecticut:									
Bridgeport.....	(1)	6	9	0		1	0	0	2
Hartford.....	172,300	14	8	2		0	0	0	4
New Haven.....	187,900	27	2	0		0	0	1	2
MIDDLE ATLANTIC									
New York:									
Buffalo.....	555,800	44	19	31		0	1	6	9
New York.....	6,017,500	125	191	117	12	7	11	53	128
Rochester.....	328,200	4	6	1		0	1	2	3
Syracuse.....	199,300	50	9	0		0	0	35	0
New Jersey:									
Camden.....	135,400	3	8	5		0	0	0	0
Newark.....	473,600	50	18	52	4	0	17	12	6
Trenton.....	139,000	0	5	1		0	5	0	0
Pennsylvania:									
Philadelphia.....	2,064,200	114	77	14	7	8	19	34	36
Pittsburgh.....	673,800	132	31	32		3	17	3	36
Reading.....	115,400	34	4	2		0	0	0	2
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	413,700	5	18	8		1	1	0	12
Cleveland.....	1,010,300	152	57	10	3	0	19	7	14
Columbus.....	299,000	35	15	2		0	1	0	0
Toledo.....	313,200	152	15	2		0	114	4	5
Indiana:									
Fort Wayne.....	105,300	0	4	1		0	0	0	4
Indianapolis.....	382,100	70	14	7		0	3	8	21
South Bend.....	86,100	2	3	3		0	0	0	0
Terre Haute.....	73,500	6	2	2		0	0	0	1
Illinois:									
Chicago.....	3,157,400	164	110	158	11	4	16	26	64
Springfield.....	67,200	8	2	4		0	0	1	1
Michigan:									
Detroit.....	1,378,900	133	72	88	6	3	76	30	20
Flint.....	148,800	60	7	1		1	3	1	3
Grand Rapids.....	164,200	7	4	3		0	0	2	0

1 No estimate of population made.

City reports for week ended November 23, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, es- timated ex- pectancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST NORTH CENTRAL— continued									
Wisconsin:									
Kenosha	56,500	8	2	0	0	0	0	0	1
Madison	50,500	2	2	0	15	0	0	2	0
Milwaukee	544,200	0	24	186	0	0	0	21	9
Racine	74,400	14	3	0	0	0	1	1	0
Superior	(1)	1	1	0	0	0	28	1	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	116,800	17	1	2	0	9	1	1	1
Minneapolis	455,900	173	34	15	2	20	14	6	6
St. Paul	(1)	42	18	1	0	0	6	4	4
Iowa:									
Davenport	(1)	5	0	0	0	1	0	0	0
Des Moines	151,900	0	4	0	0	0	0	0	0
Sioux City	80,000	11	3	0	0	1	0	0	0
Waterloo	37,100	31	0	0	0	2	0	0	0
Missouri:									
Kansas City	391,000	62	11	4	0	3	1	10	10
St. Joseph	78,500	3	1	1	0	0	0	0	0
St. Louis	848,100	17	49	43	2	2	7	0	0
North Dakota:									
Fargo	(1)	11	0	0	0	0	0	0	0
Grand Forks	(1)	28	0	0	0	0	0	0	0
South Dakota:									
Aberdeen	(1)	15	0	0	0	1	0	0	0
Sioux Falls	(1)	0	1	0	0	0	0	0	0
Nebraska:									
Omaha	222,800	8	13	17	0	5	0	10	10
Kansas:									
Topeka	62,800	12	3	0	0	0	1	0	0
Wichita	99,300	11	4	5	0	0	0	3	3
SOUTH ATLANTIC									
Delaware:									
Wilmington	128,500	10	3	1	0	0	0	0	0
Maryland:									
Baltimore	830,400	60	34	20	3	2	8	2	15
Cumberland	(1)	0	1	0	0	0	0	0	1
Frederick	(1)	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	552,000	18	24	10	1	0	2	0	7
Virginia:									
Lynchburg	38,600	11	4	1	0	0	6	4	4
Norfolk	184,200	6	4	3	0	0	5	4	4
Richmond	194,400	0	20	16	0	0	5	2	2
Roanoke	64,600	0	7	3	0	0	0	2	2
West Virginia:									
Charleston	55,200	9	2	4	1	0	1	0	0
Wheeling	(1)	11	3	0	0	0	0	3	3
North Carolina:									
Raleigh	(1)	0	3	3	0	1	0	2	2
Wilmington	39,100	0	1	1	0	0	0	1	1
Winston-Salem	80,000	1	5	3	0	2	1	2	2
South Carolina:									
Charleston	75,900	1	1	0	12	0	2	1	1
Columbia	50,600	2	1	0	0	0	0	1	1
Georgia:									
Atlanta	255,100	2	7	4	15	0	3	5	5
Brunswick	(1)	1	0	0	0	0	0	2	2
Savannah	99,900	1	3	3	0	0	0	2	2
Florida:									
Miami	156,700	0	2	0	0	0	0	5	5
St. Petersburg	53,300	0	1	0	0	0	0	1	1
Tampa	113,400	3	3	3	0	0	5	0	0

1 No estimate of population made.

2 Nonresident.

City reports for week ended November 23, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expec- tancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	59,000	1	2	1	1	0	1	1	3
Tennessee:									
Memphis.....	190,200	0	10	13	1	0	0	0	10
Nashville.....	139,600	1	5	3	1	0	0	0	15
Alabama:									
Birmingham.....	222,400	1	8	14	7	1	2	1	3
Mobile.....	69,600	1	2	2	2	0	0	0	3
Montgomery.....	63,100	3	2	2			0	1	
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	(¹)	2	2	2			0	0	
Little Rock.....	79,200	2	2	2		0	2	3	1
Louisiana:									
New Orleans.....	429,400	0	13	17	3	3	3	0	9
Shreveport.....	81,300	5	2	0		0	0	0	1
Texas:									
Dallas.....	217,800	4	16	56		0	1	0	4
Fort Worth.....	170,600	24	7	8		1		0	3
Galveston.....	50,600	0	1	1		0	0	0	4
Houston.....	(¹)	0	9	29		0	1	0	4
San Antonio.....	218,100	2	5	10		1	0	0	10
MOUNTAIN									
Montana:									
Billings.....	(¹)	0	0	0		0	0	15	0
Great Falls.....	(¹)	7	0	0		0	1	30	0
Helena.....	(¹)	1	0	1		0	0	2	0
Missoula.....	(¹)	4	0	0		0	0	2	0
Idaho:									
Boise.....	(¹)	5	0	0		0	0	0	0
Colorado:									
Denver.....	294,200	62	17	8		1	2	5	9
Pueblo.....	44,200	3	3	0		0	1	0	1
New Mexico:									
Albuquerque.....	(¹)	5	1	1		0	0	2	1
Utah:									
Salt Lake City.....	138,000	22	5	1		0	8	14	2
Nevada:									
Reno.....	(¹)		0						
PACIFIC									
Washington:									
Seattle.....	383,200	52	6	0			0	19	
Spokane.....	109,100	21	3	0			0	3	
Tacoma.....	110,500	22	3	1		0	1	0	0
Oregon:									
Portland.....	(¹)	27	11	3	1	1	2	9	4
Salem.....	(¹)	9	0	0		0	0	5	0
California:									
Los Angeles.....	(¹)	20	52	14	22	0	3	19	0
Sacramento.....	75,700	7	3	1	1	1	0	25	8
San Francisco.....	585,300	62	19	9	2	1	112	37	1

¹ No estimate of population made.

City reports for week ended November 23, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Missouri:											
Kansas City.....	14	40	0	1	0	6	1	0	0	3	103
St. Joseph.....	3	1	0	3	0	0	0	0	0	0	28
St. Louis.....	35	19	1	4	0	10	3	1	1	6	227
North Dakota:											
Fargo.....	3	1	0	1	0	0	0	0	0	0	4
Grand Forks.....	0	0	1	2	-----	-----	0	0	-----	0	-----
South Dakota:											
Aberdeen.....	1	0	0	0	-----	-----	0	0	-----	0	-----
Sioux Falls.....	2	0	0	22	-----	-----	0	0	-----	0	8
Nebraska:											
Omaha.....	5	1	1	1	0	3	0	0	0	3	63
Kansas:											
Topeka.....	3	6	0	0	0	0	0	0	0	9	12
Wichita.....	6	10	0	0	0	0	0	0	0	2	27
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	5	0	0	0	0	1	0	0	0	1	19
Maryland:											
Baltimore.....	19	24	0	0	0	12	3	4	2	23	204
Cumberland.....	1	1	0	0	0	0	0	0	0	0	11
Frederick.....	0	1	0	0	0	0	0	0	0	0	2
District of Col.:											
Washington.....	19	13	0	0	0	4	2	2	1	4	120
Virginia:											
Lynchburg.....	1	0	0	0	0	1	0	0	0	15	12
Norfolk.....	3	3	0	0	0	3	0	0	0	4	-----
Richmond.....	7	5	0	0	0	2	1	0	0	0	41
Roanoke.....	3	5	0	0	0	0	0	1	0	0	16
West Virginia:											
Charleston.....	2	5	0	1	0	1	0	3	0	5	15
Wheeling.....	3	6	0	0	0	0	0	0	0	0	19
North Carolina:											
Raleigh.....	1	0	0	0	0	1	0	0	0	0	18
Wilmington.....	1	0	0	0	0	0	0	0	0	0	10
Winston-Salem.....	2	2	0	0	0	3	0	0	0	2	19
South Carolina:											
Charleston.....	1	1	0	0	0	0	0	0	0	1	19
Columbia.....	0	2	0	0	0	1	0	0	1	5	18
Georgia:											
Atlanta.....	6	16	0	0	0	7	1	0	0	1	80
Brunswick.....	0	0	0	0	0	0	0	0	0	0	3
Savannah.....	1	2	0	0	0	5	0	0	0	0	34
Florida:											
Miami.....	2	0	0	0	0	1	0	0	0	1	25
St. Petersburg.....	0	-----	0	-----	0	0	-----	0	-----	0	13
Tampa.....	1	4	0	0	0	1	0	0	0	0	23
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	3	1	0	0	0	1	0	0	0	0	22
Tennessee:											
Memphis.....	6	7	1	0	0	5	2	3	0	6	55
Nashville.....	3	3	0	0	0	1	1	2	0	0	50
Alabama:											
Birmingham.....	4	10	0	0	0	3	1	0	1	0	59
Mobile.....	0	0	0	0	0	2	0	0	0	0	26
Montgomery.....	1	2	0	0	-----	-----	0	0	-----	0	-----
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	9	0	0	-----	-----	0	0	-----	0	-----
Little Rock.....	1	6	1	1	0	0	0	1	0	0	-----
Louisiana:											
New Orleans.....	8	8	0	0	0	12	2	7	1	0	183
Shreveport.....	1	3	0	0	0	1	1	0	0	0	28

City reports for week ended November 23, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pollagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	0	0	0	0	0	0	0	1	0
Cleveland.....	4	3	0	0	0	0	0	0	0
Columbus.....	1	1	0	0	0	0	0	0	0
Toledo.....	2	0	0	0	0	0	0	0	0
Indiana:									
Indianapolis.....	1	1	0	0	0	0	0	0	0
Illinois:									
Chicago.....	6	2	0	1	1	1	1	0	0
Michigan:									
Detroit.....	5	3	0	0	0	0	1	1	0
Flint.....	3	1	0	0	0	0	0	0	0
Wisconsin:									
Milwaukee.....	2	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	0	1	0	0	0	0	0	0	0
St. Paul.....	0	0	0	1	0	0	0	0	0
Iowa:									
Des Moines.....	0	0	0	0	0	0	0	1	0
Missouri:									
Kansas City.....	2	2	0	0	0	0	0	0	0
St. Louis.....	2	1	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	0	1	0	0	0	0	0
District of Columbia:									
Washington.....	2	0	0	0	0	0	0	0	0
Virginia:									
Lynchburg.....	0	0	0	0	0	1	0	0	0
Richmond.....	0	0	0	0	0	0	0	1	0
Roanoke.....	0	0	0	0	0	0	0	1	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Wilmington.....	0	0	0	0	1	0	0	0	0
Winston-Salem.....	0	0	0	0	3	1	0	0	0
Georgia: ¹									
Atlanta.....	0	0	0	0	0	1	0	0	0
Florida:									
Tampa.....	0	0	0	0	1	1	0	0	0
EAST SOUTH CENTRAL¹									
Kentucky:									
Covington.....	0	2	0	0	0	0	0	0	0
Tennessee:									
Memphis.....	6	1	0	0	0	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	1	1	0	0	0	0	0	0	0
Texas:									
Dallas.....	0	1	0	0	0	0	0	0	0
Houston.....	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Colorado:									
Denver.....	1	0	0	0	0	0	0	1	0
Utah:									
Salt Lake City.....	2	1	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland.....	1	0	0	0	0	0	0	0	0
California:									
Los Angeles.....	2	1	0	0	0	0	0	0	1
San Francisco.....	2	0	0	0	0	0	1	0	0

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

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended November 23, 1929, compared with those for a like period ended November 24, 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 an estimated aggregate population 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, October 20 to November 23, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928¹

DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 26, 1929	Oct. 27, 1928	Nov. 2, 1929	Nov. 3, 1928	Nov. 9, 1929	Nov. 10, 1928	Nov. 16, 1929	Nov. 17, 1928	Nov. 23, 1929	Nov. 24, 1928
98 cities.....	134	131	144	140	157	155	160	161	² 186	165
New England.....	111	156	115	90	120	122	170	159	118	140
Middle Atlantic.....	86	99	99	110	104	109	112	135	123	137
East North Central.....	163	154	168	169	194	169	205	165	301	182
West North Central.....	137	158	160	145	200	211	165	198	169	186
South Atlantic.....	139	186	144	231	126	260	122	222	135	230
East South Central.....	183	168	204	196	217	238	231	126	293	147
West South Central.....	411	174	451	223	498	276	443	243	462	272
Mountain.....	26	27	17	71	61	71	44	239	² 99	124
Pacific.....	125	67	115	64	100	79	87	97	62	105

MEASLES CASE RATES

98 cities.....	30	53	38	59	44	74	56	95	² 72	110
New England.....	29	244	27	338	20	402	45	382	57	582
Middle Atlantic.....	21	25	33	33	20	43	26	69	34	59
East North Central.....	47	41	40	39	68	57	91	86	94	105
West North Central.....	21	49	52	68	94	43	50	63	81	102
South Atlantic.....	9	69	15	46	9	59	7	90	24	65
East South Central.....	20	0	0	7	7	0	14	0	14	7
West South Central.....	16	8	0	8	4	8	20	12	28	4
Mountain.....	26	124	244	80	61	177	263	204	² 107	239
Pacific.....	65	43	60	15	117	43	147	51	289	15

SCARLET FEVER CASE RATES

98 cities.....	138	115	156	125	192	165	206	168	² 219	176
New England.....	163	117	179	131	278	175	267	193	251	212
Middle Atlantic.....	75	57	89	69	102	95	135	108	127	109
East North Central.....	192	151	226	172	294	233	310	245	347	227
West North Central.....	173	215	160	198	186	254	138	225	223	284
South Atlantic.....	174	113	139	117	167	153	238	109	163	147
East South Central.....	109	126	204	147	177	161	156	224	156	274
West South Central.....	154	77	154	138	158	178	158	199	162	146
Mountain.....	235	62	226	62	357	89	226	97	² 267	106
Pacific.....	107	179	187	148	182	169	185	143	269	194

SMALLPOX CASE RATES

98 cities.....	10	2	13	1	9	4	14	4	² 24	7
New England.....	0	2	0	0	2	0	25	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	12	3	20	0	15	7	22	4	33	21
West North Central.....	31	2	42	2	29	6	42	2	50	2
South Atlantic.....	0	0	0	2	0	0	0	2	2	0
East South Central.....	0	0	14	7	0	0	0	7	0	14
West South Central.....	0	4	28	4	8	4	4	0	40	8
Mountain.....	52	0	61	0	17	9	9	89	² 71	0
Pacific.....	52	15	30	5	20	15	32	3	115	18

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

² Reno, Nev., not included.

Summary of weekly reports from cities, October 20 to November 23, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Oct. 26, 1929	Oct. 27, 1928	Nov. 2, 1929	Nov. 3, 1928	Nov. 9, 1929	Nov. 10, 1928	Nov. 16, 1929	Nov. 17, 1928	Nov. 23, 1929	Nov. 24, 1928
98 cities.....	15	19	11	13	9	10	8	10	13	10
New England.....	16	16	7	7	11	9	23	16	11	7
Middle Atlantic.....	8	18	8	11	8	7	3	10	10	9
East North Central.....	7	10	6	5	6	5	6	6	9	5
West North Central.....	6	14	17	18	12	4	4	14	12	16
South Atlantic.....	21	44	13	34	13	17	9	11	19	11
East South Central.....	48	63	34	42	20	42	14	14	34	35
West South Central.....	43	24	20	20	12	41	8	20	36	12
Mountain.....	200	27	78	18	17	27	44	18	36	9
Pacific.....	5	13	2	5	7	3	10	5	5	13

INFLUENZA DEATH RATES

91 cities.....	9	11	11	10	8	13	9	15	8	17
New England.....	0	5	2	2	5	5	9	9	5	9
Middle Atlantic.....	12	8	9	5	8	12	4	9	9	15
East North Central.....	10	5	9	10	8	9	9	10	6	3
West North Central.....	3	12	6	12	3	3	3	9	6	9
South Atlantic.....	4	10	19	11	4	8	11	13	4	13
East South Central.....	22	8	30	31	37	38	22	23	30	31
West South Central.....	20	12	28	25	12	37	32	33	16	33
Mountain.....	17	44	26	18	0	27	26	53	9	44
Pacific.....	3	54	3	27	16	40	10	64	7	94

PNEUMONIA DEATH RATES

91 cities.....	108	89	106	88	105	94	99	105	103	128
New England.....	63	74	75	90	120	80	88	57	88	106
Middle Atlantic.....	144	92	113	83	115	105	103	125	108	128
East North Central.....	91	78	101	78	78	77	71	82	56	106
West North Central.....	72	61	135	107	108	98	120	110	102	104
South Atlantic.....	112	117	116	96	137	75	107	132	94	165
East South Central.....	133	130	155	115	89	169	230	161	252	169
West South Central.....	89	83	110	121	130	92	126	71	134	129
Mountain.....	122	124	131	97	131	97	157	115	107	159
Pacific.....	46	98	33	87	75	125	89	98	59	169

* Reno, Nev., 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

Groups of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total.....	98	91	31,568,400	31,052,700	29,995,100	29,498,600
New England.....	12	12	2,305,100	2,273,900	2,305,100	2,273,900
Middle Atlantic.....	10	10	10,809,700	10,702,200	10,809,700	10,702,200
East North Central.....	16	16	8,181,900	8,001,300	8,181,900	8,001,300
West North Central.....	12	9	2,712,100	2,673,300	1,736,900	1,708,100
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	1,580,300	1,551,200

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended November 16, 1929.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended November 16, 1929, as follows:

Provinces	Cerebro-spinal fever	Dysentery	Influenza	Poliomyelitis	Smallpox	Typhoid fever
Prince Edward Island.....						
Nova Scotia.....			4			1
New Brunswick.....	1					8
Quebec.....						1
Ontario.....	3		2	6	6	1
Manitoba.....				1		
Saskatchewan.....				1	1	
Alberta.....	1			1	5	3
British Columbia.....		8		1	6	2
Total.....	5	8	6	10	18	15

Quebec Province—Communicable diseases—Week ended November 23, 1929.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended November 23, 1929, as follows:

Disease	Cases	Disease	Cases
Chicken pox.....	133	Scarlet fever.....	123
Diphtheria.....	95	Smallpox.....	6
German measles.....	2	Tuberculosis.....	58
Measles.....	214	Typhoid fever.....	6
Mumps.....	103	Whooping cough.....	98

GREAT BRITAIN

Scotland—Vital statistics—Quarter ended September 30, 1929.—The Registrar General of Scotland has published the following statistics for the third quarter of the year 1929:

Population, estimated.....	4,896,000	Deaths from—Continued.	
Births.....	23,047	Heart disease.....	1,776
Birth rate per 1,000 population.....	18.7	Influenza.....	59
Deaths.....	13,283	Lethargic encephalitis.....	29
Death rate per 1,000 population.....	10.8	Measles.....	28
Marriages.....	9,690	Nephritis (acute).....	57
Deaths under 1 year.....	1,437	Nephritis (chronic).....	395
Deaths under 1 year per 1,000 births.....	62	Paratyphoid fever.....	3
Deaths from—		Pneumonia.....	469
Bronchitis.....	423	Poliomyelitis.....	5
Broncho-pneumonia.....	304	Puerperal sepsis.....	41
Cancer.....	1,807	Scarlet fever.....	10
Cerebrospinal meningitis.....	42	Syphilis.....	29
Diabetes.....	138	Tetanus.....	6
Diarrhea.....	81	Tuberculosis (pulmonary).....	665
Diarrhea and enteritis under 2 years.....	227	Tuberculosis (all other forms).....	292
Diphtheria.....	78	Typhoid fever.....	3
Dysentery.....	5	Whooping cough.....	102
Erysipelas.....	31		

GREECE

Plague.—According to information received from the International Office of Public Hygiene, six cases of bubonic plague were reported, November 17, 1929, in a bakery at Pyrgos, Elide Province, Peloponnesus, Greece. Necessary sanitary measures have been taken.

ITALY

Communicable diseases—Four weeks ended September 29, 1929.—During the four weeks ended September 29, 1929, communicable diseases were reported in the Kingdom of Italy as follows:

Disease	Sept. 2-8		Sept. 9-15		Sept. 16-22		Sept. 23-29	
	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected
Anthrax.....	54	42	73	60	47	36	29	25
Cerebrospinal meningitis.....	6	6	13	13	10	9	3	3
Chicken pox.....	41	29	67	39	69	47	45	26
Diphtheria.....	384	201	498	264	471	235	340	212
Dysentery.....	43	22	50	28	21	16	18	12
Lethargic encephalitis.....	4	4	5	5	1	1	3	3
Measles.....	385	137	583	160	403	157	397	103
Poliomyelitis.....	50	34	47	34	45	34	46	32
Scarlet fever.....	299	124	496	181	419	178	302	116
Typhoid fever.....	1,273	531	1,827	745	1,425	611	929	430

JAMAICA

Communicable diseases—Four weeks ended November 9, 1929.—During the four weeks ended November 9, 1929, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island of Jamaica outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis.....		1	Leprosy.....	1	2
Chicken pox.....		3	Paratyphoid fever.....		1
Diphtheria.....		1	Tuberculosis.....	25	60
Dysentery.....	4	28	Typhoid fever.....	18	107

ST. CHRISTOPHER (BRITISH WEST INDIES)

Filariasis.—According to recent telegraphic reports, an epidemic which has been prevalent on the island of St. Christopher, British West Indies, for the last four months had caused 40 deaths out of a total of 375 cases to November 23, 1929. Bacteriological investigation indicates that the disease is filariasis complicated with streptococcal and staphylococcal infection.

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

CHOLERA—Continued

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

Place	Week ended—																			
	October, 1929					November, 1929														
	Sept. 28, 1929	5	12	19	26	2	9	16	23											
India (French):																				
Chandernagor.....	C	3	3	2	1		1		3											
Karikal.....	D	3	3	2	1				1											
Pondicherry Province.....	C	3	3																	
India (Portuguese):																				
Pnompenh.....	D	3	3																	
Indo-China (see also table below):																				
Pnompenh.....	C	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	10	4	5	3	2	3	5	11	27	20	4								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11	7	3	3	5	5	16	28	8	7								
Indo-China (see also table below):																				
Pnompenh.....	D	71	188	9	2															
Indo-China (see also table below):																				
Pnompenh.....	D	37	139	14	2															
Indo-China (see also table below):																				
Pnompenh.....	D	14	11																	

Turkey:	May, 1929	June, 1929	July, 1929	August, 1929	September, 1929	October, 1929
Adalia.....						
Constantinople.....						
Union of Socialist Soviet Republics:						
Caucasia.....						
Ural-Kirghiz.....						
Union of South Africa:						
Cape Province.....						
Orange Free State.....						
On vessel:						
S. S. Chaban, at Port Said, from Jaffa.....						
S. S. Tokio, at Shanghai, from Singapore.....						
S. S. Gazan Maru, at Osaka, from Haiphong.....						
Steamship at Porto Novo, from Lagos.....						
S. S. Seigo Maru, at Osaka, from Bombay—Plague-infected rats.....						
S. S. Sumatra, at Osaka, from Bombay.....						

Place	May, 1929	June, 1929	July, 1929	August, 1929	September, 1929	October, 1929
British East Africa (see also table above):						
Kenya.....	22	69	67	19	28	64
Uganda.....	1,215	1,203	1,973			
Ecuador: Guayaquil.....	2		1	6	7	12
Plague-infected rats.....	1	1		1	3	4
Greece (see also table above):	3	1		4	8	5
Indo-China (see also table above):				1	2	2
Madagascar (see also table above):			37	9		
Ambrositra Province.....			19	48		
Antsirabe Province.....			18	46		
Majunga Province.....				9		
Moramanga Province.....				9		
Antsirabe Province.....			2	1		
Majunga Province.....			2	1		
Moramanga Province.....			1	2		
Madagascar (see also table above)—Continued:						
Tananarive Province.....						
Peru.....						
Senegal:						
Baol.....						
Dakar.....						
Louga.....						
Rufisque.....						
Thies.....						
Tiavaouane.....						

: Incomplete reports.

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

SMALLPOX—Continued

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

Place	Week ended—										
	1929					1929					
	May 5- June 1, 1929	June 2- June 19, 1929	June 30-July 27, 1929	July 28- 30-Aug. 24, 1929	Aug. 25- Sept. 21, 1929	Sept. 22, 1929	Oct. 5- 12	19- 26	Nov. 2- 9	16- 23	30
Great Britain:											
England and Wales.....	1,179	789	541	502	496	108	97	131	154	131	168
Ashton under Lyne.....			7	3					2		
Birmingham.....	1	4	3		8	2	1	1	2		4
Bradford.....	4		1								8
Bristol.....				1		1					
Cardiff.....	4										1
Castleford.....	12	3	1								
Leeds.....		1	1		2						
London.....	193	167	107	78	144	46	26	39	45	29	44
London and Great Towns.....	656	496	363	297	304	81	60	87	104	83	115
Newcastle-on-Tyne.....	3	1	4			2	2	2		3	1
Stoke-on-Trent.....	37	20	15	4	18	3	2	2			6
West Ham.....	86	62	32	18	18	3					
Scotland—Glasgow.....	1		26	59							
Greece (see table below).											
Hedjaz.....	40	83	53	11	22		2	2	1		4
Honduras.....	24	53	35	19	7			1			4
Oboluteca.....								1	1		
Puerto Castilla.....	1										
India:	17,011	11,540	7,936	5,481	4,199	915	640				
Bombay.....	4,185	3,098	2,092	1,418	984	185	188				
Calcutta.....	208	147	92	63	37	5	5	4	6	6	
Cochin.....	131	89	56	31	24	2	4	5	3	1	3
Karachi.....	39	27	16	31	21	1	5	2	4	1	3
Madras.....	36	24	11	4	20	16	4	2	4	1	2
Moulmein.....	8	6	4	4	13	2	3	8	18	16	28
Siam.....	84	35	25	15	27	3	6	2	2	2	2
Sri Lanka.....	59	26	13	7	16	3	6	1			2
Yokohama.....	174	88	122	89	82	22	28	13	16	15	11
Zanzibar.....	61	20	32	22	21	3	2	1	1	21	3
Moulmein.....	8	6	10	11	5	2	1	2	1	1	1
Moulmein.....	6	5	6	5	2	2	1	2	1	1	1

