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THE TREATMENT OF HAY FEVER.

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Hygienic Measures.

Hygienic measures are as important in the control of hay fever as they are in the case of typhoid fever, malaria, yellow fever, and other preventable diseases. By living in a weed-infected neighborhood a patient greatly increases the difficulties of his immunization and frequently necessitates the raising of his immunity to 85 per cent when ordinarily 70 per cent would be sufficient. In all cases treated at the Hay Fever Clinic at the Charity Hospital, patients are given charts of nine blocks of their neighborhood, with instructions to locate thereon lots that are infested with weeds. When this has been done, the charts are sent to the city board of health, which notifies the owners of the lots to cut the weeds under penalty of prosecution for violating the grass-weeds ordinance.

In order to demonstrate the efficiency of such measures, the American Hay-Fever-Prevention Association in 1916 employed special inspectors to cooperate with the regular force of the New Orleans Board of Health, with the result that the number of spring hay-fever cases of that year was reduced to less than 50 per cent. As the fall hay fever in Louisiana is due to the ragweeds, *Ambrosias*, whose potential radius [1] is ten times greater than that of the grasses which cause the spring hay fever, the benefit in the fall cases was much less marked, as the pollen blew in from the surrounding country.

In the selection of homes, hay-fever subjects should choose localities distant from weed-infested areas. The pollen of the grasses, and of the summer hay-fever weeds generally, does not ordinarily travel very far, and a mile is usually a safe distance. The pollen of the ragweeds and other fall hay-fever weeds, however, is very buoyant, and in windy weather may travel 3 to 5 miles.

During their attacks of hay fever patients should avoid localities infested with weeds generally, and especially with those weeds to whose pollen they are sensitive. Should their neighborhood be infected with weeds, and a grass-weeds ordinance be in force, this

[1] Hay fever and Hay fever Pollens. W. Scheppegrell, M. D. Archives of Internal Medicine, June, 1917.

condition should, in the interest of public health, be reported to the board of health.

During the hay-fever season patients should avoid driving or riding into suburbs abounding in weeds. An attack resulting from this increased exposure may lower their resistance and make them more susceptible to the pollen of their own neighborhood.

A reasonable amount of exercise is beneficial; but this should be taken without increased exposure to the hay-fever pollens. Swimming, especially in salt water, is an excellent form of exercise.

Considerable literature is published each year in the lay press regarding the benefit of the "cold storage" treatment of hay fever. As practically all ventilation is excluded in this treatment, there is an absence of atmospheric pollen, which is the principal cause of the relief which the patients experience. The low temperature, however, instead of being a benefit, is really a source of danger, as we have had several cases of bronchitis which resulted from such exposure. In any event, the relief is only transient and can be as well obtained in any room from which the pollen-laden air is excluded.

Effects of Rain.

It is well known that a continued rain affords relief to hay-fever patients. The action of the rain is to cause precipitation of the pollen floating in the air and to prevent more pollen from leaving the plant during the continuation of the rain. If this condition continues long enough the effects of the inhaled pollen pass off, and the patient has relief until the rain is over and a wind of sufficient velocity again fills the air with the hay-fever pollen.

It has been supposed that the pollen which is precipitated by the rain may again be carried into the air and continue its irritating effect. This, however, is not the case. The principal varieties of pollen have been tested in our biological laboratory and it has been found that the submersion of the pollen in a large amount of water removes its toxic properties. After the pollen has been exposed in this way, it has been tested in large numbers in the nostrils of hay-fever subjects without producing any apparent effect. Several hundred pollen were frequently inhaled without effect by hay-fever subjects who ordinarily react to a small number of fresh pollen.

Screening, Masks, and Inhalers.

The result of this investigation is of practical value in certain cases of hay fever. When a hay-fever subject has been operated on or is seriously ill from other causes so that the irritation of sneezing and other symptoms of hay fever would not only be annoying but even dangerous, the patient may be protected by having the windows of his room screened with thin cloth saturated with water. All pollen

coming in contact with the moist cloth would not only be arrested but robbed of its toxicity.[1]

When this method of screening is not practicable, a special inhaling mask, based on the same principle and serving the same purpose, may be arranged for the patient.

There are on the market a number of widely advertised inhalers for the prevention of hay fever. The device is inserted into the nostrils, and a fine gauze is supposed to filter the inhaled air free from hay-fever pollens. Aside from the question as to whether a mesh with openings of 0.05 cm. prevents the entrance of pollens 0.0015 cm. in diameter, we were unable to find a patient who did not prefer the hay fever to the discomfort of wearing the inhaler.

Diet.

The diet of hay-fever subjects during the hay-fever season should be light as regards food rich in protein, such as meat, fish, eggs, cheese, and milk. Farinaceous food may be taken in moderation. Vegetables are of benefit, as is fruit also.

High seasoning should especially be avoided, as it frequently reacts on the membranes of the nostrils already irritated by the pollen. Alcoholic drinks are injurious.

In cases complicated by asthma, the rules regarding diet should be carefully observed, and it is preferable in these cases to have the principal meal during the middle of the day.

There are certain articles of food that should be avoided in special cases; but these vary within such wide limits that no specific rules can be formulated. In one case, for instance, an attack of hay fever could be aggravated by a piece of watermelon; in another by peaches. Mustard and pepper should be avoided, and occasionally, also, tea and coffee.

Surgical Methods.

While abnormal nasal conditions in their relationship to hay fever have been given undue importance by some rhinologists, they should, nevertheless, be given careful consideration as forming a predisposing factor in hay fever. In fact, any condition which tends to develop a hypersensitiveness of the nasal mucosa predisposes the patient to an incipient sensitization which tends to result in a persistent form of hay fever.

Marked septal spurs, ridges, or deflections, which cause a concentration of pollen in the obstructed nostril, or which touch the opposite turbinal and thus cause irritation, congestion, and hypersensitiveness, may form an important predisposing cause. Infection of

[1] "Toxicity" here refers to the positive reaction in hay-fever subjects. The existence of a true toxin in these pollens is still under investigation.

the sinuses, especially of the ethmoidal cells, should receive careful attention.

While the percentage of cures from operations on these cases is not high (10 per cent), they should not be overlooked in the prophylaxis of hay fever.

Nasal surgery in hay fever, however, should be avoided except in such conditions as indicated above. In other cases operations are unnecessary inflictions on the patient and are without benefit. One of our patients, a physician, had both inferior turbinals cauterized and then removed and the right ethmoidal cells eviscerated without benefit, and the surgeon had advised a similar operation on the left side. Another patient had nine operations performed, including several electrocauterizations, without perceptible benefit to his hay fever. These cases indicate not only the futility of excessive surgery, but also the distressing character of a disease that would make the patient submit to these repeated ordeals.

In hay fever the electrocautery has probably been used more frequently than any other surgical method. It is based on the idea that in hay fever there is an intumescence of the inferior turbinals which the cicatricial contraction following the cauterization is intended to relieve.

There are few cases, however, that have been benefited by this method, and we have seen many patients who claim that their condition was aggravated by the cauterization. In view of these facts electrocauterization should be avoided in hay fever.

In a series of 707 cases (Series C and D) treated in the hay fever clinic of the Charity Hospital 8 per cent had been operated on for hay fever without apparent benefit.

Constitutional Treatment.

Calcium chloride or, preferably, the less irritating calcium lactate, is occasionally of benefit in hay fever. It should be given after meals in doses of 15 grains, well diluted.

In cases of hyperacidity, sodium bicarbonate in the effervescent form should be administered. The dose is 15 grains, 3 or 4 times daily. In one of our cases a seasonal cure resulted from the administration of 10 grains of quinine 3 times daily; in other cases it was without benefit. It is indicated that in this case malaria was the predisposing cause, which was corrected by the quinine.

In cases associated with asthma sodium iodide may be administered, preferably 10 to 20 dops of a saturated solution, 3 times daily, and well diluted.

Mercury has also been used in hay fever, and Barton L. Wright, of the United States Navy, reports several cases successfully treated. He prefers the succinimide of mercury, $\frac{1}{3}$ grain in distilled water, this

being injected deeply into the gluteal muscles. He believes that the effects are due to the fact that patients after a mercuric treatment have a peculiar power of resistance to infection of every kind.

Local Treatment.

Menthol in the form of an oily spray is of benefit in some cases of hay fever, but aggravates the attack in others. Two grains to the ounce of liquid petrolatum is the usual proportion. The following formula gives temporary relief, but tends to establish the cocaine habit:

℞ Epinephrin sol. (1–1000),
2 per cent sol. cocaine.,
Normal saline solution, *aa* f. ℥i.
Sig.—Two drops into each nostril as directed.

Solutions of cocaine and of epinephrin tend to develop a turgescence of the nasal mucosa which aggravates the hay fever. They should therefore, be used only to give relief in severe paroxysms.

The epinephrin and cocaine may also be used in the form of an ointment, but this should be prescribed with the same precautions as the solution.

For the conjunctivitis that frequently accompanies hay fever, five per cent argyrol may be used, or the following may be prescribed:

℞ Sodii biboratis,
Acidi borici, aa. gr. xv
Sodii chloridi, gr. iii
Aquae dest, qs. f. ℥i
Sig.—For eyes as directed.
(Dispense in Stearn's container.)

Nasal Massage.

As a means of reducing the hypersensitiveness of the nostrils before the opening of the hay fever season, and for correcting the intumescence of the nasal mucosa which frequently remains after the paroxysms have subsided, we use a form of nasal vibratory massage. For this purpose, a mechanical vibrator is used which we first devised in 1908. (Fig. 3.) It is operated by compressed air under a pressure of 50 to 60 pounds. The air drives the piston forward and backward in the cylinder, and this imparts a vibratory movement to the nasal applicator. The arrangement is such that the operation of the applicator in the nasal cavity can be observed. Cotton is attached to the end of the applicator, and a 4 per cent solution of iodized phenol in glycerin is applied to the cotton.

By means of this instrument, a vibratory massage is applied over the inferior turbinal septum and the lower portion of the middle turbinal. At first the massage is made very lightly and only for a short time, but the action is gradually increased as is also the length

of time of application. The massage is usually applied two or three times weekly.

Vibratory massage is a useful supplementary treatment, and, in a small percentage of cases, has resulted in a cure without other methods. It should be discontinued during the hay fever season, when the mucous membrane is irritated by the atmospheric pollens.

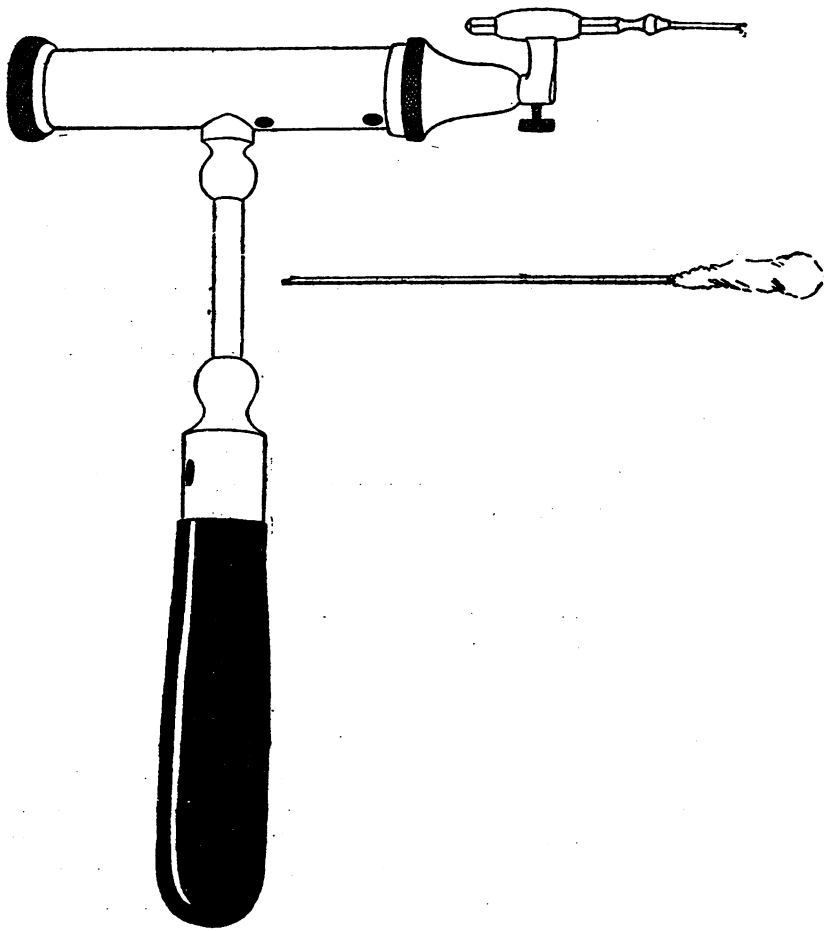

FIG. 3.—Instrument for vibratory massage in hay fever.

Pollen Therapy.

In all cases in which pollen extracts are used, the diagnostic tests should be applied in order to determine the character and degree of the hay fever reaction. This test consists in injecting into (not under) the skin of the forearm five units of the pollen to be tested. These are determined by the pollenometric records, the principal pollens during the spring being from the grasses and, in the eastern, northern, and southern States, from the ragweeds in the fall.

For the convenience of our clinical records, the result of the intradermal tests is recorded on a percentage basis. A marked wheal, two or more centimeters in diameter, is recorded as 100 per cent, 1 centimeter 50 per cent, etc. While this is an arbitrary scale, it is valuable for purposes of comparison, and is much more definite than such terms as "mild," "marked," "severe," etc.

After the character and degree of the sensitization have been determined, the preventive treatment is commenced by injecting five units of the extract of the pollen to which the patient is sensitive and to which he will be exposed. If he is sensitive, for instance, to the grass pollen, which is prevalent in the spring and early summer, this pollen extract is used for the spring treatment.

If the patient is sensitive to both grass and ragweed pollens, the preventive treatment for the grass pollen is commenced six weeks before the grass season opens, and for the ragweed pollen, the same length of time before the commencement of the ragweed season. We do not consider it advisable to use the combined pollens in these cases, on account of the great difference in the seasons of exposure, and the variation in the degree of sensitiveness to these pollens.

The pollen extracts for the preventive treatment are usually injected two or three times weekly and gradually increased to 100 to 200 units. Large doses are not given because our injections of medium doses have given better results, and also because large doses may produce severe reactions, not only of hay fever and asthma, but also of eczema, urticaria, and angioneurotic edema.

As soon as the specific pollen appears in the atmosphere, as shown by the pollenometric records, the injections should be reduced to 20 to 30 units, as the patient is then exposed to the atmospheric pollens.

Pollen and Vaccine Therapy.

While our experience has shown that pollen therapy is useful in the treatment of hay fever, we found that there were many cases in which this form of treatment alone did not give satisfactory results. With the majority of patients, therefore, this was combined with the vaccine therapy. The selection of the form of treatment varies according to the patient's condition, which is influenced by the number of atmospheric pollens which he is inhaling, and this, in turn, depends upon the season and the velocity of the prevailing wind. During the early part of the season, when the grasses and weeds are beginning to pollinate, and toward its end when pollination is nearly completed, the number of pollens in the air is relatively small and the patient's attacks are light. During the middle of the season, however, the number is greatly increased with corresponding increased suffering of the patient.

The principal cause of the increase in the hay-fever paroxysms is due to atmospheric disturbances during the active pollinating

season. During a light wind, 1 to 6 miles per hour, pollen is carried only short distances; while in high winds, 15 to 25 miles per hour, pollen in large quantities is carried to great distances (5 miles or more), so that the number may reach 300 to 400 pollens per square yard of air. During the prevalence of such winds, all hay-fever patients in the vicinity of, and who are sensitive to these pollens, suffer greatly.

If the patient applies for treatment during a severe period, the pollen extracts are usually ineffective and a vaccine should be used, this being injected at intervals of one or two days until the severity of the attack subsides. The pollen extract is then used, the vaccine injections being resumed if a severe paroxysm develops.

Our reason for using the vaccine during severe paroxysms is that at this time the patient is suffering not only from the effects of the pollen, but also from the great increase in the pathogenic microorganisms resulting from the lowered resistance of the respiratory membranes. The use of vaccine therapy at this stage is, therefore, logical, and has given us satisfactory results. In a few cases (3 per cent of a series of 707 cases) the treatment of the successful ones was limited to vaccine therapy only.

The question of autogenous and stock vaccines has been carefully considered in our cases. The autogenous vaccines are preferable, provided they can be obtained of the proper standard and purity. When there is any doubt regarding this, the stock vaccines of unquestioned reliability should be given the preference.

We use three forms of vaccines, each containing to the cc. 1,000 millions in various proportions of the following microorganisms: B Friedländer, M. Catarrhalis, Pneumoccoccus, Streptococcus pyogenes, Staphylococcus aureus and albus. As soon as the acute attack has subsided, the extract of the pollen, which has been determined to be responsible for the patient's hay fever, is injected, the dose being 15 to 30 units, which is used at intervals of two or three days.

The exact dose is determined by the reaction in the diagnostic test, careful records of which are kept for each patient. When the reaction has been marked small doses (15 to 20 units) are used, while in other cases this is increased to 20 to 40 units.

Should an acute attack again develop, the bacterial vaccine is substituted for the pollen extract, from one to four injections being made. In many cases, one injection is sufficient to control the symptoms.

In all cases, the treatment is discontinued when the pollenometric records show that the atmospheric pollens responsible for the attack have disappeared. Before this time, however, the treatment is discontinued when the report of the patient indicates the control of the hay fever. In discontinuing the treatments they are at first made at increasingly longer intervals before being stopped entirely.

Fig. 1.—GIANT RAGWEED (AMBROSIA TRIFIDA).

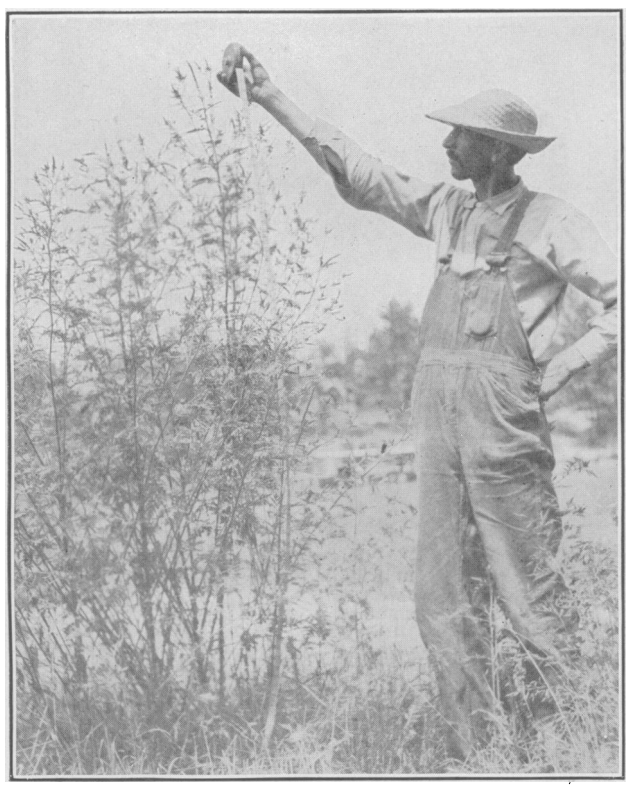

Fig. 2.—COMMON RAGWEED (AMBROSIA ARTEMISIAFOLIA).

In spite of the large number of injections, there have been no cases of infection nor of anaphylactic shock. Tincture of iodine is applied to the skin before and after each injection, except in the diagnostic test, in which case alcohol is applied first and then iodine after the test has been completed.

No restrictions were made regarding the diet in Series C of 400 cases, except in one case in which the symptoms were aggravated by eating peaches or watermelons. Except in this series, we instruct patients to maintain a diet low in proteins, and to refrain from articles known to cause anaphylactic disturbances, such as fish, crabs, shrimps, strawberries, etc.

Results of Treatment.

From an analysis of the result in Series C and D (707 cases) we find that there were seasonal cures in 49 per cent of the cases and marked improvement in 40, or satisfactory results in 89 per cent of the total number.

In 4 per cent of the cases, there was little or no perceptible improvement, and 7 per cent discontinued the treatment before the results could be noted. In no case was there any aggravation of the hay-fever symptoms from the treatment or other ill effect.

"Seasonal cure" in these cases indicates that there were no more hay-fever symptoms for the remainder of the season. Before the opening of the following hay-fever season, these cases are again given the diagnostic test. If this is positive, the treatment is repeated. In cases of recent origin, one course of treatment is usually sufficient, but in cases of longer standing two or three courses are required. In some of the cases treated during previous seasons there was no apparent improvement, but the patients had relief from the hay-fever symptoms the following season.

The reason for the difference in the effects of pollen injections is not clearly established. Cooke, Flood, and Coca [1] suggest that if the resulting resistance is due to a gradual saturation or neutralization of an antibodylike substance with the active pollen substance, the union of these two bodies is a much less firm one than that in the more susceptible individuals, and that the active pollen substance is discharged from such a combination and eliminated much more quickly in the former than in the latter.

While the average results in these cases are satisfactory, we believe that the number of seasonal cures will be considerably larger when the advantages of the preventive treatment of hay fever are better understood. In the majority of cases in this series, especially in the hay-fever clinic, the treatment was not begun until the hay fever had actually developed, when the use of pollen therapy is not as effective as the preventive treatment.

[1] The Nature of the Process and Mechanism of the Alleviating Effect of Specific Treatment. Cooke, Flood, and Coca. The Journal of Immunology. February, 1917.

AN INVESTIGATION OF CHANGES IN THE BLOOD AND URINE RESULTING FROM FATIGUE.

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The chemistry of fatigue has attracted the attention of investigators from the time of Du Bois-Reymond who in 1859 reported experiments which showed that a tetanized frog's muscle was more acid than an untetanized one. It had previously been demonstrated that the acidity arising in excised muscles was probably due to lactic acid. Ranke who attempted to identify and study quantitatively the products of muscular contraction, concluded that fatigue resulted from the presence of certain metabolic products and that the activity of the muscle might be restored by the removal of these metabolites by the blood. As individuals of this class of fatigue substances, he named carbon dioxide, potassium acid phosphate, and lactic acid. Lee found evidence that among the products of metabolism in pathological conditions, β-oxybutyric acid, indol, skatol, and methyl mercaptan had a fatiguing action similar to the above-named substances.

When evidence pointed to the presence of certain substances after fatigue, attention turned to the mechanism of their removal. Much time has been devoted to the investigation of the relation of respiration to fatigue. Geppert and Zuntz concluded that the acceleration of respiration observed during exercise might be attributed to substances which, arising in muscular work, entered into the blood and directly stimulated the respiratory center. Loewy found that if the tissues were supplied with sufficient oxygen during muscular work, the respiratory quotient remained unchanged. Higley and Bowen, in a series of carefully controlled experiments, found that the rate of production of carbon dioxide remained constant for constant work.

Little is to be found in the literature regarding perspiration and muscular fatigue. Viale observed that the concentration of sodium chloride increased during a march. Kittsteiner stated that muscular activity had no direct influence on the acidity of perspiration. Talbert in a preliminary report noted that the hydrogen-ion concentration of perspiration was increased during exercise.

Since Scott has adequately summarized our present knowledge of changes in individual urinary constituents resulting from fatigue, we shall refer only to those observations which have been made on the titratable acidity of the urine. Klupfel reported a few experiments on men from which he concluded that the daily acid content of urine was greater on a day of work than on a day of rest. Sawicki, after performing similar experiments, gave it as his opinion that "the quantity of acid secreted by the urine depends more on the quality and quantity of the food ingested than on rest and work." Aducco later published results which showed that in the course of

fatigue, the urine of dogs became alkaline, due to the presence of alkali carbonates. Benedicenti, in confirmation of Klupfel's observations, found that the urine of marching soldiers was always abnormally acid after a prolonged march.

The attention of the writer has been centered on the hydrogen-ion concentration of the urine and blood plasma, and the alkaline reserve of the latter, as modified by muscular work. The conception of the alkaline reserve of the blood has been clearly defined by Van Slyke and collaborators in connection with their studies of acidosis. The depletion of this reserve alkali might indicate either the presence of acids in abnormal quantities in the organism, or an impaired mechanism for the elimination of the acids produced. Henderson and Haggard have differentiated between a condition of true acidosis and the temporary lowering of the reserve alkali by overbreathing.

That the blood maintains a constant reaction with great persistency, in spite of marked changes in its alkaline reserve, is well known. This constancy, however, may be apparent rather than real. Hasselbalch and Lundsgaard, in their accurate investigation of the reaction of blood at body temperature, found that, with sufficiently delicate methods of determination, changes in the hydrogen-ion concentration of the blood, correlated with changes in CO_2 tension within physiological limits, might be detected. Milroy observed a fall in the hydrogen-ion concentration of the blood resulting from pulmonary ventilation. Henderson (1909) has shown that the equation $C_H = K\frac{H_2CO_3}{\gamma NaHCO_3}$ closely expresses the relationship between the hydrogen-ion concentration (C_H), the carbon dioxide tension, and the bicarbonate content or alkaline reserve of the blood. It is seen, therefore, that any change in the concentration of either of the variables on the right-hand side of the equation would result in a corresponding change in the other variable in order that the constancy of the reaction of the blood might be preserved.

In contrast with the behavior of the blood, the urine shows comparatively wide variations in its reaction. Henderson (1911) has shown that the normal reaction of the urine varies within the limits of a solution containing mono- and di-sodium phosphate in the approximate ratio of 9 to 1 on the acid side and of 1 to 9 on the alkaline side, corresponding to the hydrogen-ion concentrations of 20×10^{-7} and 0.2×10^{-7} respectively. The character of the diet is one of the most potent of the many factors influencing the urinary reaction. Our data may be of value in indicating the extent to which fatigue may be regarded as one of these factors.

The studies here to be reported were made for the most part on the urine of men and the blood of dogs. In a limited number of cases, data were obtained on both the urine and blood of the same subjects.

In preliminary experiments, fatigue was induced in the animals by causing them to run in a revolving wheel, such as Mosso employed. Later, a motor-driven treadmill, the speed of which could be varied up to 10 miles per hour, provided a more suitable means of fatiguing the subjects. Data on the reaction of the urine of men at rest were obtained from men convalescing from minor surgical operations. The histories and diets of these men were carefully followed. To obtain our figures on fatigued subjects, we determined the reaction of the urine of men engaged in mechanical operations of various degrees of arduousness at an automobile factory, of men participating in a 12-mile Marathon race, of entrants in a 6-day bicycle race, and of a man on a 10-mile walk. In the case of the latter subject the blood also was studied. Urine specimens were collected at comparable times in each series of experiments.

Blood was drawn from the external jugular vein of the dogs, collected under paraffin oil without exposure to air, oxalated and centrifugated according to the procedure described by Van Slyke. The reaction of the plasma was determined electrometrically with a Clark electrode. In order to obviate the error due to loss of carbon dioxide, additional samples of plasma were admitted into the electrode vessel without changing the gas mixture. This was repeated until the tension of carbon dioxide in the vessel was in equilibrium with that in the plasma. Observations were made at room temperature, which was normally 18° C. The reaction of the urine was also estimated by the hydrogen electrode. The reserve alkali of the plasma was found in our first experiments by titrating it electrometrically according to McClendon's technic; but since the more convenient Van Slyke method for the determination of bound carbon dioxide gave results which, for comparative purposes, had a high degree of accuracy, the latter procedure was later exclusively employed.

In considering the experimental results we shall first present the data obtained from the study of blood, then those obtained from the study of urine. Following Sörensen's notation, all hydrogen-ion concentrations are expressed as P_H, the negative exponent of the concentration, C_H. Since $C_H = 10^{-P_H}$, a fall in P_H therefore indicates an increase in hydrogen-ion concentration. The alkaline reserve is expressed in cc. of CO_2 per 100 cc. of plasma.

Results of Observations on the Blood.

Table I consists of representative results obtained from 55 experiments on several dogs and rabbits and a man. In all cases a fall in the bound carbon dioxide occurred after exercise, but no measurable change in the reaction of the plasma was found in any of the 10 instances in which it was determined. The extent to which the alka-

line reserve fell after comparable degrees of fatiguing varied with the individual; but in the same subject, under constant conditions of exercise, the percentage drop was essentially the same (Table II).

TABLE I.

Subject.	Weight in kilograms.	Exercise.		Plasma determinations.		
		Distance in miles.	Rate in miles per hour.	Bicarbonate in volumes per cent CO_2.	Percentage fall in bicarbonate.	Hydrogen-ion concentration expressed as P_H.
Dog A	13.2			57.5		7.72
Do		43.7	6.7	47.9	16.7	7.71
Dog C	16.0			53.8		7.65
Do		12.3	8.2	47.9	11.0	7.65
Dog E	10.5			65.3		7.73
Do		20.0	6.1	61.4	6.0	7.73
Man M	61.4			72.9		7.64
Do		10.0	4.0	67.2	7.8	7.65

TABLE II.

Subject: Dog A. Weight: 13.2 kilograms.

Exercise.		Plasma determinations.	
Distance in miles.	Rate in miles per hour.	Bicarbonate in volumes per cent CO_2.	Percentage fall in bicarbonate.
0	0	57.4	0
34.3	7.6	49.8	13.2
0	0	53.7	0
32.2	7.3	46.0	14.3

In seven of the experiments, samples of blood were drawn from the subjects at regular intervals in the course of their exercise. The data thus obtained were of two classes:

1. In the instance of the large dog A, whose maximum muscular performance was at no time demanded, there was a continuous drop in the reserve alkali, varying almost as a linear function of the distance, after a rapid initial fall probably attributable to the changed character of the respiration (Table III). It would have been highly desirable to maintain the rate of exercise constant throughout the experiment but this was impracticable. It is noteworthy that an acceleration of the speed of the treadmill during the last quarter of the 65-mile run, caused the bound carbon dioxide to fall more rapidly. Curve (a) of Figure 1 shows this graphically.

TABLE III.

Subject: Dog A. Weight: 13.2 kilograms.

Exercise.		Plasma bicarbonate in volumes per cent CO_2.
Distance in miles.	Rate during last increment of distance run.	
0	0	54.7
12.5	8.4	46.0
22.9	6.9	46.0
32.1	6.2	44.1
39.9	6.2	42.2
49.6	7.8	41.3
66.5	8.0	37.5

Total distance = 65.5 miles.
Average rate = 7.5 miles per hour.
Total percentage fall in plasma bicarbonate = 31.4.

TABLE IV.

Subject: Dog C. Weight: 10 kilograms.

Exercise.		Plasma bicarbonate in volumes per cent CO_2.
Distance in miles.	Rate during last increment of distance run.	
0	0	59.6
1.3	7.7	58.2
7.2	7.0	54.9
14.0	7.5	53.9
20.0	6.2	53.9
23.3	3.4	53.9
26.9	3.9	53.9
30.7	3.6	53.9
34.4	4.3	53.9
37.3	3.7	53.9

2. In the instance of smaller dogs, as C, whose capacity for muscular activity was quickly reached by the available speed of the treadmill, the reserve alkali dropped gradually to a point below which it did not fall (Table IV). Then as the dog was unable to run longer at a high rate, the speed of the treadmill was decreased to less than 4 miles per hour. Although he continued to run for a total distance of 37.3 miles, there was no further change in the bicarbonate content of his plasma. This would suggest that a condition of equilibrium obtained in the organism. Curve (b), figure 1, illustrates the difference between this and the above experiment.

The relation between the rate at which the reserve alkali returned to its original concentration and the amount of exercise is shown in Table V. The bicarbonate of a small dog G fell rapidly when he was forced to run a short distance at high speed. The recovery was

complete, however, at the end of one hour of rest. In another instance, when the distance run was relatively greater, the recovery amounted to only 37 per cent of the total fall after two hours of rest. This might be interpreted as pointing to an accumulation of fatigue substances in the organism.

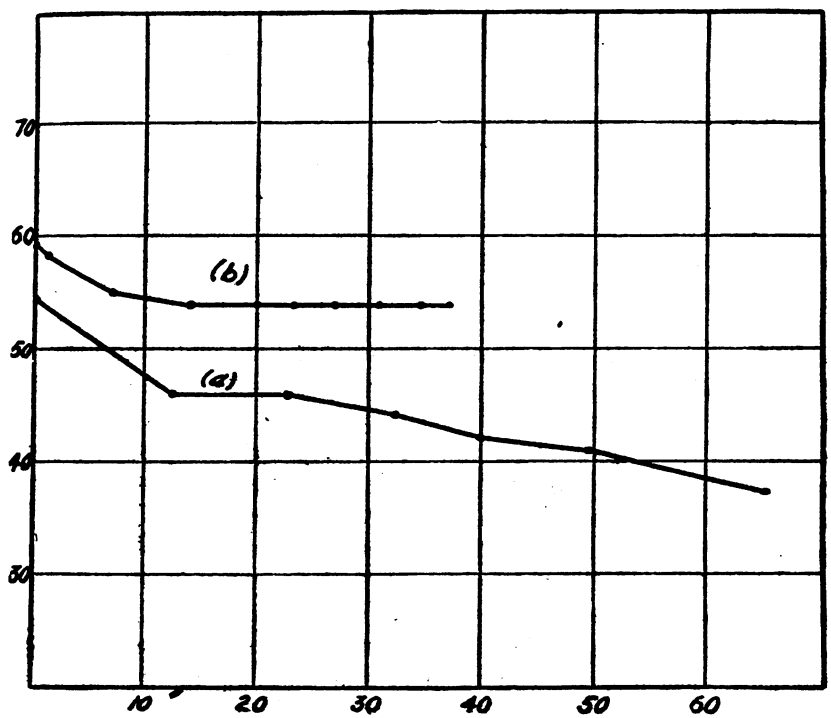

FIG. 1. Graphs representing the change of plasma bicarbonate in (a) a large dog, fatigued at a high rate of exercise, long maintained; and in (b) a small dog, fatigued at a high initial rate which was subsequently decreased. Distance is plotted along the axis of the abscissas in miles. The bound carbon dioxide is plotted along the axis of the ordinates in volumes per cent of CO_2.

TABLE V.

Experiment 1.—Subject: Dog G.

Exercise.		Plasma bicarbonate in volumes per cent CO_2.
Distance in miles.	Rate in miles per hour.	
0	0	59.5
1.3	7.8	44.8
After one hour of rest=		59.5

Experiment 2.—Subject: Dog G.

Exercise.		Plasma bicarbonate in volumes per cent CO_2.
Distance in miles.	Rate in miles per hour.	
0	0	61.4
20.0	7.8	46.2
After two hours of rest=		51.9

Percentage recovery in experiment 1=100.
Percentage recovery in experiment 2= 37.

Results of Observations on the Urine.

Because it is fully appreciated that P_H determinations of the urine become significant only when examined with full knowledge of the food ingested by the subject, the following observations are reported with some hesitation on the part of the writer. In the case of the hospital patients it was possible to note the character and amount of the food eaten. It was obviously impossible to do this when studying a large number of factory employees. In order to approach conformity of experimental conditions as nearly as possible, therefore, the P_H results of only those patients who were on a diet similar to that of the average individual were considered as controls. The importance of this is illustrated by the fact that the P_H of the urine of men on "liquids" exceeded by an average amount of 0.4 the P_H of the urine of men on the "normal" diet.

In Table VI a comparison of the urinary reaction of men at work and at rest is made. The ratio of the final P_H to the initial P_H indicates the direction of the change in the reaction of the urine—a value less than unity denoting increased acidity, one greater than unity, decreased acidity.

TABLE VI.—*Summary of P_H determinations on urine.*

Subjects.	Number of subjects.	Number of observations.	Average P_H of morning urine.	Average P_H of afternoon urine.	Ratio of final to initial P_H.
At rest	6	28	5.78	5.95	1.03
At work	40	289	5.77	5.68	0.98

In the case of the control experiments, the average of 28 observations showed that there was a tendency for the reaction of the afternoon specimens of urine to be slightly less acid than those of the forenoon. Of the 289 observations on 40 factory workers, representing 6 different operations, summarized in Table VI, 67.5 per cent showed a greater concentration of hydrogen-ions at the close of the

day's work than at its beginning. This tendency is indicated by the lowered average P_H.

In the course of our study of the urine of factory operatives, a series of observations extending over a period of 2 weeks was made on 12 workers in the foundry. Although these men varied in physical strength, as indicated by the Martin spring balance method, they all completed the same number of "cores" during the working shift. The results of these observations were graphically expressed as follows:

The ratio of the P_H of the afternoon urine to that of the forenoon urine was plotted from day to day for each individual. These graphs were then arranged according to the physical strength of the subject—that of the weakest being at the left, that of the strongest at the right. From this chart it was apparent that:

1. The ratios of those subjects who were physically weak showed wide deviations, both negatively and positively, from the base line. This indicated that the concentration of hydrogen-ions of the urine at times decreased and at other times increased after work.

2. The ratios of the physically strong men, however, not only did not exhibit these irregularities, but lay almost without exception above the base line, thus indicating an increased acidity of the urine following work. This observation may be related to the difference in results obtained when studying the effect of fatigue on trained and untrained men.

The urine of the men who participated in the 12-mile Marathon race was, without exception, of a higher degree of acidity after the run than before (Table VII). No reason is known for the high P_H of the urine before the race. It may be significant that these men had been on a special training diet and had eaten luncheon two hours before the race began. The "alkaline tide" may therefore have been an influencing factor.

TABLE VII.—*Marathon runners.*

Number of subject.	P_H of urine before race.	P_H of urine after race.	Ratio of final P_H to initial P_H.
1	6.32	5.64	0.89
2	7.03	6.84	.97
3	6.27	5.12	.82
4	7.62	5.59	.73
5	7.08	5.03	.71
6	7.67	6.94	.90

The results obtained from two men entered in the bicycle race are of interest, because of the difference between the conditions under which they competed (Table VIII). Bd rode frantically toward the close of the week in an attempt to recover distance lost through pen-

alties, but no such extraordinary efforts were required from Bk, who was not thus handicapped. The urine of Bk remained at a practically constant P_H throughout the week, but the urine of Bd became markedly acid on the afternoon of the fourth day and continued so on the fifth, after which he was forced to withdraw from the race, on account of exhaustion. The diets of these men were unaltered during the week.

TABLE VIII.—*Bicycle riders: Bd, Bk.*

Day of race.	P_H of urine of Bk.		P_H of urine of Bd.	
	10 a. m.	10 p. m.	10 a. m.	10 p. m.
1	.....	6.03	5.89	5.75
2	6.10	6.02	5.80	5.65
3	6.24	6.02	5.94	5.91
4	6.17	6.06	6.26	5.36
5	6.04	5.92	5.30	.....

The urine of M, whose blood was found to have a lowered bicarbonate content after a 10-mile walk, had a P_H of 4.90 after the exercise as contrasted with a urinary reaction before the exercise of 6.90.

Aducco's observations that the urine of a dog became less acid and even alkaline during exercise were confirmed. Attempts to adjust conditions which would bring about comparable changes in the urinary reaction of men have thus far met with failure. This point requires further investigation.

Summary of Results.

1. Exercise produced a diminution of the bound carbon dioxide of the blood plasma. The depletion, however, did not progress to such a point that the reaction of the plasma was significantly altered.

2. The lowering of the bound carbon dioxide was a function of the rate and the amount of exercise.

3. The rate at which the bound carbon dioxide returned to its original value was related to the amount of exercise.

4. The urine of men engaged in manual labor tended to be of a slightly higher degree of acidity than that of men at rest. This statement could only be made of the class as a whole, and could not be reliably applied to individuals without accurate knowledge of their diets.

5. The urine of physically strong men was regularly slightly more acid after work than before; the urine of physically weak men showed wide variations in its reactions from day to day.

6. When the muscular activity was such that the subject was intensely fatigued, there was invariably an increase in the hydrogen-ion concentration of the urine.

The experimental work was conducted, for the most part, in the laboratory of the department of physiology of Columbia University under the direction of Prof. Frederic S. Lee. The electrometric measurements were made at the Harriman Research Laboratory through the courtesy of Dr. K. G. Falk and Dr. E. J. Cohen.

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THE NOTIFIABLE DISEASES.

PREVALENCE DURING 1918 IN CITIES OF OVER 100,000.[1]

ANTHRAX, CEREBROSPINAL MENINGITIS, DIPHTHERIA, GONORRHEA, INFLUENZA, MALARIA, MEASLES, PELLAGRA, PNEUMONIA (ALL FORMS), POLIOMYELITIS, RABIES IN MAN, RABIES IN ANIMALS, SCARLET FEVER, SMALLPOX, SYPHILIS, TUBERCULOSIS (PULMONARY AND ALL FORMS), AND TYPHOID FEVER—CASES AND DEATHS REPORTED AND INDICATED FATALITIES PER 100 CASES, 1918; AVERAGE NUMBER OF CASES REPORTED DURING RECENT YEARS (1913 TO 1917).

The following tables include data for all cities of the United States having an estimated population of 100,000 or over. Estimates of population in cities were not made by the Census Bureau as of July 1, 1918, and, therefore, case and death rates were not computed.

[1] It will be noted that some of the cities are apparently much more successful in obtaining reports of the notifiable diseases than are others. This may be due to the greater activity of their health departments or to a greater interest in the public welfare on the part of their practicing physicians. That the health departments of certain cities are securing fairly complete information of the prevalence of preventable diseases is indicated in a number of instances by the large number of cases reported as compared with the numbers of deaths registered from the same causes.

Annual averages of the total cases reported in the various cities during the years 1913–1917 were made for cerebrospinal meningitis, diphtheria, measles, pellagra, poliomyelitis, scarlet fever, smallpox, tuberculosis (pulmonary and all forms), and typhoid fever by adding the numbers of cases and dividing the sum by the number of years for which data were obtainable.

The fatalities per 100 cases reported are given for all diseases except syphilis and tuberculosis (pulmonary and all forms), in which instances cases reported for each death registered are given.

It will be noted that the number of cases of poliomyelitis reported during the year 1918 was decidedly lower than the average for the preceding years. In this connection it should be borne in mind that the year 1916 is included in the averages. During this year an epidemic of poliomyelitis occurred in many parts of the United States.

Cities in which no cases of a certain disease were reported are not included in the table for that disease.

A high fatality rate may mean that the disease was unusually virulent in a city, that the physicians did not treat the disease in that city with the success usual elsewhere, or that the practicing physicians did not report all of their cases to the health department. On the other hand, an unusually low fatality rate may be due to the fact that the disease in the city was unusually mild, that the physicians treated it with unusual success, that the practicing physicians reported their cases satisfactorily, or that the registration of deaths was incomplete, or the assignment of the causes of death inaccurate.

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS.

ANTHRAX.

City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.	City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Atlanta, Ga.	1	.....	.....	Newark, N. J.	2	.....	.....
Boston, Mass.	4	0	.....	New Orleans, La.	3	1	33.3
Camden, N. J.	5	0	.....	New York, N. Y.	15	4	26.7
Lawrence, Mass.	1	.....	.....	Philadelphia, Pa.	8	1	12.5
Los Angeles, Calif.	1	1	.....	Rochester, N. Y.	.....	1	.....
Lowell, Mass.	2	0	.....	San Francisco, Calif.	1	0	.....
Lynn, Mass.	1	1	.....				

CEREBROSPINAL MENINGITIS.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y.	1915–1917	3	3	18	7	38.9
Atlanta, Ga.	1917	1	12	7	.....	.....
Baltimore, Md.	1914–1917	4	36	175	75	42.9
Birmingham, Ala.	1913–1917	5	24	40	12	30.0
Boston, Mass.	1913–1917	5	57	126	83	65.9

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

CEREBROSPINAL MENINGITIS—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Bridgeport, Conn.	1913–1917	5	15	21	4	19.0
Buffalo, N. Y.	1913–1917	5	21	26	15	57.7
Cambridge, Mass.	1917	1	5	20	3	15.0
Camden, N. J.	1916	1	3	4	0	.....
Chicago, Ill.	1913–1917	5	141	224	93	41.5
Cincinnati, Ohio.	1913–1917	5	39	40	26	65.0
Cleveland, Ohio.	1913–1917	5	72	73	36	49.3
Columbus, Ohio.	1913, 1915–1917	4	11	10	5	50.0
Dallas, Tex.	1915–1917	3	7	10	7	70.0
Dayton, Ohio.	1914, 1915, 1917	3	10	19	7	36.8
Denver, Colo.	1913–1917	5	3	.....	3	.....
Des Moines, Iowa.	1916–1917	2	4	5	4	80.0
Detroit, Mich.	1915–1917	3	50	74	23	31.1
Fall River, Mass.	1913–1917	5	5	12	7	58.3
Ft. Worth, Tex.	1917	1	2	.....	.....	.....
Grand Rapids, Mich.	.....	.....	.....	2	2	.....
Hartford, Conn.	1914–1917	4	44	11	6	54.5
Houston, Tex.	1916–1917	2	2	7	2	28.6
Indianapolis, Ind.	1914–1917	4	22	28	17	60.7
Jersey City, N. J.	1913–1917	5	6	29	30	.....
Kansas City, Kans.	1914, 1917	2	25	23	26	.....
Kansas City, Mo.	1913–1917	5	36	98	.....	.....
Lawrence, Mass.	1913–1917	5	5	10	5	50.0
Los Angeles, Calif.	1913–1917	5	43	31	16	51.6
Louisville, Ky.	1913–1917	5	32	35	19	54.3
Lowell, Mass.	1913–1917	5	12	19	9	47.4
Lynn, Mass.	1914, 1916, 1917	3	4	6	5	83.3
Memphis, Tenn.	1917	1	19	21	11	52.4
Milwaukee, Wis.	.....	.....	.....	20	20	.....
Minneapolis, Minn.	1915, 1917	2	79	17	9	52.9
Nashville, Tenn.	1913–1917	5	10	40	23	57.5
Newark, N. J.	1913–1917	5	30	103	45	43.7
New Bedford, Mass.	1914–1917	4	2	.....	3	.....
New Haven, Conn.	1914, 1916, 1917	3	8	19	12	63.2
New Orleans, La.	1913–1917	5	29	47	33	70.2
New York, N. Y.	1913–1917	5	262	477	262	54.9
Oakland, Calif.	1917	1	5	7	1	14.3
Oklahoma City, Okla.	1913–1915, 1917	4	6	3	3	.....
Omaha, Nebr.	1914, 1916, 1917	3	15	.....	39	.....
Paterson, N. J.	1915–1917	3	5	14	4	28.6
Philadelphia, Pa.	1913–1917	5	119	176	101	57.4
Pittsburgh, Pa.	1913–1917	5	43	51	30	58.8
Portland, Oreg.	1916	1	3	1	3	.....
Providence, R. I.	1913–1917	5	18	50	29	58.0
Reading, Pa.	1914–1917	4	2	1	1	.....
Richmond, Va.	.....	.....	.....	9	.....	.....
Rochester, N. Y.	1913, 1914, 1916, 1917	4	7	9	9	.....
Salt Lake City, Utah.	1913–1917	5	8	5	2	40.0
San Antonio, Tex.	1913, 1915–1917	4	14	33	17	51.6
San Francisco, Calif.	1913–1917	5	13	41	14	34.1
Schnectady, N. Y.	1914–1917	4	4	15	5	33.3
Scranton, Pa.	.....	.....	.....	12	6	50.0
Seattle, Wash.	1913, 1915–1917	4	2	23	5	21.7
Spokane, Wash.	1917	1	1	1	0	.....
Springfield, Mass.	1913, 1915–1917	4	5	5	5	.....

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

CEREBROSPINAL MENINGITIS—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
St. Louis, Mo	1913–1917	5	68	72	38	52.8
St. Paul, Minn	1914, 1915, 1917	3	23	7	3	42.9
Syracuse, N. Y	1913, 1915, 1917	3	3	3	1	33.3
Tacoma, Wash	1914, 1917	2	1	7	10	.....
Toledo, Ohio	1914–1917	4	5	6	5	83.3
Trenton, N. J	1914, 1917	3	1	4	2	50.0
Washington, D. C	1913–1917	5	11	.....	28	.....
Worcester, Mass	1913, 1914, 1916, 1917	4	7	29	10	34.5
Yonkers, N. Y	1913, 1914 1916	3	7	3	3	.....
Youngstown, Ohio	1917	1	28	14	10	71.4

DIPHTHERIA.

Albany, N. Y	1913–1917	5	120	133	8	6.0
Atlanta, Ga	1916–1917	2	182	70	.....	.....
Baltimore, Md	1913–1917	5	1,023	671	71	10.6
Birmingham, Ala	1913–1917	5	148	188	9	4.8
Boston, Mass	1913–1917	5	2,859	2,832	217	7.7
Bridgeport, Conn	1913–1917	5	268	384	32	8.3
Buffalo, N. Y	1913–1917	5	828	975	112	11.5
Cambridge, Mass	1913, 1917	2	353	399	13	3.3
Camden, N. J	1914–1917	4	196	157	19	12.1
Chicago, Ill	1913–1917	5	7,759	5,708	720	12.6
Cincinnati, Ohio	1913–1917	5	980	757	43	5.7
Cleveland, Ohio	1913–1917	5	2,211	1,371	109	8.0
Columbus, Ohio	1913–1917	5	385	106	7	6.6
Dallas, Tex	1915–1917	3	115	46	6	13.0
Dayton, Ohio	1913–1917	5	436	141	7	5.0
Denver, Colo	1913–1917	5	314	394	28	7.1
Des Moines, Iowa	1916–1917	2	224	220	21	9.5
Detroit, Mich	1913–1917	5	2,943	2,874	270	9.4
Fall River, Mass	1913–1917	5	177	166	27	16.3
Fort Worth, Tex	1915–1917	3	95	70	8	11.4
Grand Rapids, Mich	1913–1917	5	210	181	21	11.6
Hartford, Conn	1914–1917	4	362	262	9	3.4
Houston, Tex	1916–1917	2	96	82	8	9.8
Indianapolis, Ind	1913–1917	5	726	885	80	9.7
Jersey City, N. J	1913–1917	5	811	682	53	7.8
Kansas City, Kans	1914, 1917	2	143	132	13	9.8
Kansas City, Mo	1913–1917	5	499	343	.....	.....
Lawrence, Mass	1913–1917	5	225	93	16	17.2
Los Angeles, Calif	1913–1917	5	564	1,070	54	5.0
Louisville, Ky	1913–1917	5	215	305	25	8.2
Lowell, Mass	1913–1917	5	275	186	17	9.1
Lynn, Mass	1913–1917	5	212	156	8	5.1
Memphis, Tenn	1917	1	474	.....	12	.....
Milwaukee, Wis	1913, 1914, 1916, 1917	4	924	430	51	11.9
Minneapolis, Minn	1915–1917	3	1,032	1,007	88	8.7
Nashville, Tenn	1913–1917	5	106	47	8	17.0
Newark, N. J	1913–1917	5	1,216	974	82	8.4
New Bedford, Mass	1914–1917	4	128	118	19	16.1
New Haven, Conn	1913–1917	5	288	201	22	10.9
New Orleans, La	1913–1917	5	1,293	811	18	2.2
New York, N. Y	1913–1917	5	14,618	11,455	1,245	10.9
Oakland, Calif	1914–1917	4	155	95	9	9.5
Oklahoma City, Okla	1913–1917	5	72	46	6	13.0
Omaha, Nebr	1913, 1914, 1916, 1917	4	282	427	50	11.7
Paterson, N. J	1913–1917	5	233	215	14	6.5

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

DIPHTHERIA—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Philadelphia, Pa.	1913–1917	5	2,698	2,477	376	15.2
Pittsburgh, Pa.	1913–1917	5	1,484	861	112	13.0
Portland, Oreg.	1916, 1917	2	123	132	17	12.9
Providence, R. I.	1913–1917	5	782	735	56	7.6
Reading, Pa.	1914–1917	4	131	161	19	11.8
Richmond, Va.	1914–1917	4	290	207	13	6.3
Rochester, N. Y.	1913, 1914, 1916, 1917	4	331	367	37	10.1
Salt Lake City, Utah.	1913–1917	5	143	246	24	9.8
San Antonio, Tex.	1913, 1915–1917	4	135	42	8	19.0
San Francisco, Calif.	1913–1917	5	956	641	42	6.6
Schenectady, N. Y.	1913–1917	5	119	125	9	7.2
Scranton, Pa.	1914–1917	4	341	261	26	10.0
Seattle, Wash.	1913–1917	5	130	309	24	7.8
Spokane, Wash.	1913, 1916, 1917	3	38	79	5	6.3
Springfield, Mass.	1913–1917	5	221	227	31	13.7
St. Louis, Mo.	1913–1917	5	3,288	2,274	117	5.1
St. Paul, Minn.	1913–1917	5	687	937	60	6.4
Syracuse, N. Y.	1913–1917	5	324	267	22	8.2
Tacoma, Wash.	1913, 1914, 1916, 1917	4	59	85	11	12.9
Toledo, Ohio.	1913–1917	5	315	254	28	11.0
Trenton, N. J.	1914–1917	4	291	228	28	12.3
Washington, D. C.	1913–1917	5	681	517	40	7.7
Worcester, Mass.	1913, 1914, 1916, 1917	4	322	166	20	12.0
Yonkers, N. Y.	1913, 1914, 1916, 1917	4	258	162	15	9.3
Youngstown, Ohio.	1916, 1917	2	198	150	16	10.7

GONORRHEA.

City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.	City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Atlanta, Ga.	573	.....	.....	Lowell, Mass.	4	0	.....
Baltimore, Md.	560	25	4.5	Minneapolis, Minn.	167	8	4.8
Birmingham, Ala.	246	2	.8	Nashville, Tenn.	179	.....	.....
Boston, Mass.	329	.....	.....	New Bedford, Mass.	.....	1	.....
Bridgeport, Conn.	305	0	.....	New Haven, Conn.	98	0	.....
Buffalo, N. Y.	.....	1	.....	New Orleans, La.	460	7	1.5
Camden, N. J.	4	0	.....	New York, N. Y.	6,358	31	.5
Chicago, Ill.	4,152	15	.4	Oakland, Calif.	140	.....	.....
Cincinnati, Ohio.	48	.....	.....	Philadelphia, Pa.	699	8	1.1
Cleveland, Ohio.	89	15	16.9	Portland, Oreg.	822	.....	.....
Columbus, Ohio.	11	1	9.1	Rochester, N. Y.	40	0	.....
Denver, Colo.	3,181	0	.....	San Francisco, Calif.	646	4	.6
Detroit, Mich.	816	6	.7	Scranton, Pa.	.....	1	.....
Fall River, Mass.	3	0	.....	Seattle, Wash.	462	.....	.....
Hartford, Conn.	211	1	.5	Spokane, Wash.	440	1	.2
Houston, Tex.	517	2	.4	Tacoma, Wash.	160	.....	.....
Kansas City, Kans.	118	.....	.....	Toledo, Ohio.	537	14	2.6
Lawrence, Mass.	2	.....	.....	Trenton, N. J.	4	0	.....
Los Angeles, Calif.	618	0	.....	Youngstown, Ohio.	36	.....	.....

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

INFLUENZA AND PNEUMONIA (ALL FORMS).

City.	Influenza.			Pneumonia (all forms).			Influenza and pneumonia (all forms).		
	Cases reported.	Deaths registered.	Fatalities per 100 cases.	Cases reported.	Deaths registered.	Fatalities per 100 cases.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y.	7,621	525	6.9	754	262	34.7	8,375	787	9.4
Atlanta, Ga.	4,808	68	1.4	104	747	.....	4,912	815	16.6
Baltimore, Md.	22,074	1,741	7.9	4,208	3,526	83.8	26,282	5,267	20.0
Birmingham, Ala.	12,868	871	6.8	.....	615	.....	.....	1,486	.....
Boston, Mass.	9,590	4,014	41.9	[1] 2,268	[2] 2,375	.....	[1] 11,858	[2] 6,389	.....
Bridgeport, Conn.	6,739	432	6.4	.....	707	.....	.....	1,139	.....
Buffalo, N. Y.	28,398	1,874	6.6	.....	1,405	.....	.....	3,279	.....
Cambridge, Mass.	3,011	472	15.7	330	314	95.2	3,341	786	23.5
Camden, N. J.	.....	.....	.....	.....	.....	.....	7,269	1,190	16.4
Chicago, Ill.	48,533	6,971	14.4	23,309	7,000	30.0	71,842	13,971	19.4
Cincinnati, Ohio.	12,023	1,776	14.8	.....	702	.....	.....	2,478	.....
Cleveland, Ohio.	26,998	2,817	10.4	2,440	1,698	69.6	29,438	4,515	15.3
Columbus, Ohio.	.....	449	.....	.....	586	.....	5,283	1,035	19.6
Dallas, Tex.	10,677	407	3.8	305	424	.....	10,982	831	7.6
Dayton, Ohio.	.....	479	.....	.....	234	.....	.....	713	.....
Denver, Colo.	.....	161	.....	.....	1,730	.....	.....	1,891	.....
Des Moines, Iowa.	7,699	282	3.7	.....	343	.....	.....	625	.....
Detroit, Mich.	22,273	1,385	6.2	1,388	2,429	.....	23,661	3,814	16.1
Fall River, Mass.	11,230	729	6.5	[1] 444	[2] 210	.....	[1] 11,674	[2] 939	.....
Fort Worth, Tex.	1,624	44	2.7	736	709	96.3	2,360	753	31.9
Grand Rapids, Mich.	5,294	146	2.8	599	288	48.0	5,893	434	7.4
Hartford, Conn.	27,600	692	2.5	23	293	.....	27,623	985	3.6
Houston, Tex.	1,008	500	49.6	.....	.....	.....	.....	.....	.....
Indianapolis, Ind.	11,570	437	3.8	.....	956	.....	.....	1,393	.....
Jersey City, N. J.	12,857	834	6.5	587	1,535	.....	13,444	2,369	17.6
Kansas City, Kans.	8,426	125	1.5	246	563	.....	8,672	688	7.9
Kansas City, Mo.	10,211	.....	.....	801	.....	.....	11,012	.....	.....
Lawrence, Mass.	4,489	211	4.7	187	143	76.5	4,676	354	7.6
Los Angeles, Calif.	43,538	2,002	4.6	1,585	770	48.6	45,123	2,772	6.1
Louisville, Ky.	10,027	149	1.5	704	1,327	.....	10,731	1,476	13.7
Lowell, Mass.	7,394	164	2.2	132	636	.....	7,526	800	10.6
Lynn, Mass.	3,242	490	15.1	266	205	77.1	3,508	695	19.8
Memphis, Tenn.	6,531	172	2.6	.....	824	.....	.....	996	.....
Milwaukee, Wis.	18,339	379	2.1	228	1,636	.....	18,567	2,015	10.8
Minneapolis, Minn.	15,951	990	6.2	.....	490	.....	.....	1,480	.....
Nashville, Tenn.	23	607	.....	34	521	.....	57	1,123	.....
Newark, N. J.	29,704	1,387	4.7	6,947	1,498	21.6	36,651	2,885	7.9
New Bedford, Mass.	14,684	88	.6	[1] 176	[2] 1,039	.....	[1] 14,860	[2] 1,127	.....
New Haven, Conn.	5,314	796	15.0	.....	492	.....	.....	1,288	.....
New Orleans, La.	46,843	1,752	3.7	.....	1,295	.....	.....	3,047	.....
New York, N. Y.	135,949	12,562	9.2	22,662	20,628	91.0	158,611	33,190	20.9
Oakland, Calif.	7,094	679	9.6	52	345	.....	7,146	1,024	14.3
Oklahoma City, Okla.	.....	.....	.....	.....	.....	.....	2,472	494	20.0
Omaha, Nebr.	6,524	970	14.9	.....	415	.....	.....	1,385	.....
Paterson, N. J.	9,138	240	2.6	1,073	822	76.6	10,211	1,062	10.4
Philadelphia, Pa.	49,496	8,395	17.0	5,861	8,439	.....	55,357	16,834	30.4
Pittsburg, Pa.	23,654	515	2.2	2,274	4,245	.....	25,928	4,760	18.4
Portland, Oreg.	11,635	898	7.7	.....	257	.....	.....	1,155	.....
Providence, R. I.	24,056	941	3.9	.....	811	.....	.....	1,752	.....
Reading, Pa.	5,403	292	5.4	73	419	.....	5,476	711	13.0
Richmond, Va.	18,344	586	3.2	.....	532	.....	.....	1,118	.....
Rochester, N. Y.	16,134	948	5.9	965	504	52.2	17,099	1,452	8.5
St. Louis, Mo.	31,748	2,063	6.5	.....	2,271	.....	.....	4,334	.....
St. Paul, Minn.	8,343	823	9.9	.....	341	.....	.....	1,164	.....
Salt Lake City, Utah.	6,848	379	5.5	.....	231	.....	.....	610	.....
San Antonio, Tex.	11,580	196	1.7	252	938	.....	11,832	1,134	9.6
San Francisco, Calif.	36,021	2,396	6.6	[1] 626	[2] 1,024	.....	[1] 36,647	[2] 3,420	.....
Schenectady, N. Y.	5,200	446	8.6	494	177	35.8	5,694	623	10.9
Scranton, Pa.	6,448	105	.....	.....	.....	.....	.....	1,244	.....
Seattle, Wash.	19,159	1,003	5.2	.....	326	.....	.....	1,329	.....

[1] Includes lobar pneumonia only.

[2] Includes pneumonia (all forms).

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

INFLUENZA AND PNEUMONIA (ALL FORMS)—Continued.

City.	Influenza.			Pneumonia (all forms).			Influenza and pneumonia (all forms).		
	Cases reported.	Deaths registered.	Fatalities per 100 cases.	Cases reported.	Deaths registered.	Fatalities per 100 cases.	Cases reported.	Deaths registered.	Fatalities. per 100 cases.
Spokane, Wash	10,432	430	4.1	897	105	11.7	11,329	535	4.7
Springfield, Mass	7,851	614	7.8	[1] 852	[2] 317	.....	[1] 8,703	[2] 931	.....
Syracuse, N. Y	21,189	753	3.6	.....	451	.....	.....	1,204	.....
Tacoma, Wash	3,277	51	1.6	[3] 488	483	.....	[3] 3,765	534	.....
Toledo, Ohio	7,721	523	6.8	54	462	.....	7,775	985	12.7
Trenton, N. J	36,854	735	2.0	.....	241	.....	.....	976	.....
Washington, D. C	30,695	2,028	6.6	.....	.....	.....	.....	.....	.....
Worcester, Mass	5,786	757	13.1	[1] 1,098	[2] 537	.....	[1] 6,884	[2] 1,294	.....
Yonkers, N. Y	5,442	330	6.1	310	189	61.0	5,752	519	9.0
Youngstown, Ohio	10,161	855	8.4	64	380	.....	10,225	1,235	12.1

MALARIA.

City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.	City.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y	1	1	.....	Minneapolis, Minn	1	1	.....
Atlanta, Ga	40	.....	.....	Nashville, Tenn	.....	2	.....
Baltimore, Md	4	1	25.0	Newark, N. J	28	0	.....
Birmingham, Ala	167	21	12.6	New Orleans, La	49	16	32.7
Boston, Mass	13	.....	.....	New York, N. Y	55	8	14.5
Cambridge, Mass	1	.....	.....	Oakland, Calif	.....	1	.....
Camden, N. J	5	0	.....	Paterson, N. J	24	0	.....
Cleveland, Ohio	2	2	.....	Philadelphia, Pa	4	3	75.0
Dallas, Tex	4	7	.....	Providence, R. I	.....	1	.....
Denver, Colo	1	1	.....	Richmond, Va	35	2	5.7
Fall River, Mass	3	1	33.3	San Antonio, Tex	.....	10	.....
Fort Worth, Tex	4	4	.....	San Francisco, Calif	7	3	42.9
Jersey City, N. J	3	.....	.....	Springfield, Mass	1	0	.....
Kansas City, Kans	2	0	.....	St. Louis, Mo	.....	14	.....
Los Angeles, Calif	1	1	.....	Trenton, N. J	3	0	.....
Memphis, Tenn	102	44	43.1				

MEASLES.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y	1913-1917	5	747	603	1	0.2
Atlanta, Ga	1917	1	1,139	333	.....	.....
Baltimore, Md	1913-1917	5	3,536	7,482	75	1.0
Birmingham, Ala	1913-1917	5	2,016	1,694	27	1.6
Boston, Mass	1913-1917	5	5,085	6,319	111	1.8
Bridgeport, Conn	1913-1915 1917	4	308	296	7	2.4
Buffalo, N. Y	1913-1917	5	2,835	3,375	44	1.3
Cambridge, Mass	1913-1917	2	1,189	1,414	30	2.1
Camden, N. J	1914-1917	4	326	763	0	.....
Chicago, Ill	1913-1917	5	13,140	2,663	63	2.4
Cincinnati, Ohio	1913-1917	5	1,135	1,124	20	1.8
Cleveland, Ohio	1913-1917	5	3,435	1,234	17	1.4
Columbus, Ohio	1913-1917	5	1,053	590	10	1.7
Dallas, Tex	1915-1917	3	1,636	25	12	48.0
Dayton, Ohio	1913-1917	5	873	357	0	.....

[1] Includes labor pneumonia only.
[2] Includes pneumonia (all forms).
[3] Cases were not reported before the latter part of October.

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

MEASLES—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Denver, Colo.	1913-1917	5	2,166	2,654	2	.1
Des Moines, Iowa.	.....	.....	.....	86	12	14.0
Detroit, Mich.	1915-1917	3	1,430	1,661	125	7.5
Fall River, Mass.	1913-1917	5	711	234	8	3.4
Fort Worth, Tex.	1915-1917	3	565	54	2	3.7
Grand Rapids, Mich.	1913-1917	5	1,459	721	0	.....
Hartford, Conn.	1914-1917	4	618	447	6	1.3
Houston, Tex.	1916-1917	2	628	392	7	1.8
Indianapolis, Ind.	1913-1917	5	4,038	1,276	3	.2
Jersey City, N. J.	1913-1917	5	1,317	1,182	21	1.8
Kansas City, Kans.	1914, 1917	2	467	709	7	1.0
Kansas City, Mo.	1913-1917	5	1,892	1,573	.....	.....
Lawrence, Mass.	1913-1917	5	444	1,532	35	2.3
Los Angeles, Calif.	1913-1917	5	3,774	3,903	12	.3
Louisville, Ky.	1913-1917	5	248	406	4	1.0
Lowell, Mass.	1913-1917	5	571	501	8	1.6
Lynn, Mass.	1913-1917	5	557	305	1	.3
Memphis, Tenn.	1917	1	2,640	519	4	.8
Milwaukee, Wis.	1913-1914, 1916, 1917	4	2,566	6,394	54	.8
Minneapolis, Minn.	1915-1917	3	1,281	1,323	26	2.0
Nashville, Tenn.	1913-1917	5	655	591	15	2.5
Newark, N. J.	1913-1917	5	4,094	7,779	120	1.5
New Bedford, Mass.	1914-1917	4	616	400	2	.5
New Haven, Conn.	1913-1917	5	721	365	9	2.5
New Orleans, La.	1913-1917	5	2,876	992	22	2.2
New York, N. Y.	1913-1917	5	28,433	28,675	790	2.8
Oakland, Calif.	1914-1917	4	484	1,055	1	.1
Oklahoma, Okla.	1913-1917	5	456	293	.....	.....
Omaha, Nebr.	1914, 1916, 1917	3	541	651	0	.....
Paterson, N. J.	1913-1917	5	594	2,103	16	.8
Philadelphia, Pa.	1913-1917	5	9,842	13,722	119	.9
Pittsburgh, Pa.	1913-1917	5	5,199	5,683	91	1.6
Portland, Oreg.	1916, 1917	2	1,400	3,357	24	.7
Providence, R. I.	1913-1917	5	419	2,390	54	2.3
Reading, Pa.	1914-1917	4	760	1,001	4	.4
Richmond, Va.	1914-1917	4	2,128	1,424	8	.6
Rochester, N. Y.	1913, 1914, 1916, 1917	4	1,504	2,155	27	1.3
Salt Lake City, Utah	1913-1917	5	1,491	798	9	1.1
San Antonio, Tex.	1913, 1915-1917	4	262	140	7	5.0
San Francisco, Calif.	1913-1917	5	2,433	1,720	11	.6
Schenectady, N. Y.	1913-1917	5	797	402	2	.5
Scranton, Pa.	1914-1917	4	609	133	.....	.....
Seattle, Wash.	1913-1917	5	2,361	1,572	16	1.0
Spokane, Wash.	1913, 1916, 1917	3	1,934	37	1	2.7
Springfield, Mass.	1913-1917	5	653	990	13	1.3
St. Louis, Mo.	1913-1915, 1917	4	6,329	2,137	19	.9
St. Paul, Minn.	1913-1917	5	1,594	507	3	.6
Syracuse, N. Y.	1913-1917	5	1,417	2,125	54	2.5
Tacoma, Wash.	1913, 1914, 1916, 1917	4	775	249	3	1.2
Toledo, Ohio.	1913-1917	5	1,854	360	4	1.1
Trenton, N. J.	1914-1917	4	448	346	4	1.2
Washington, D. C.	1913-1917	5	3,010	7,001	48	.7
Worcester, Mass.	1913, 1914, 1916, 1917	4	600	304	7	2.3
Yonkers, N. Y.	1913, 1914, 1916, 1917	4	697	1,126	13	1.2
Youngstown, Ohio.	1916-1917	2	1,587	370	9	2.4

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

PELLAGRA.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Baltimore, Md	1915	1	1	5	5	.....
Birmingham, Ala	1915–1917	3	111	129	104	80.6
Boston, Mass	1915–1917	3	11	2	3	.....
Buffalo, N. Y	.....	.....	.....	.....	1	.....
Cambridge, Mass	.....	.....	.....	1	.....	.....
Chicago, Ill	.....	.....	.....	.....	6	.....
Cincinnati, Ohio	1916	1	2	0	.....	.....
Cleveland, Ohio	1916–1917	2	1	1	1	.....
Columbus, Ohio	.....	.....	.....	1	1	.....
Dallas, Tex	1915–1917	3	32	.....	34	.....
Denver, Colo	1917	1	1	1	1	.....
Des Moines, Iowa	.....	.....	.....	.....	2	.....
Detroit, Mich	1915, 1916	2	1	.....	1	.....
Fall River, Mass	1915, 1917	2	1	.....	1	.....
Fort Worth, Tex	.....	.....	.....	20	20	.....
Hartford, Conn	1915, 1917	2	1	.....	1	.....
Houston, Tex	1917	1	30	13	21	.....
Indianapolis, Ind	1916–1917	2	1	.....	.....	.....
Kansas City, Kans	1917	1	1	1	0	.....
Kansas City, Mo	1915, 1917	2	1	.....	.....	.....
Los Angeles, Calif	1915–1917	3	7	9	6	66.7
Louisville, Ky	1915–1917	3	3	.....	1	.....
Lowell, Mass	1915–1917	3	2	0	0	.....
Lynn, Mass	1916–1917	2	1	.....	0	.....
Memphis, Tenn	1917	1	140	66	32	48.5
Milwaukee, Wis	.....	.....	.....	1	1	.....
Minneapolis, Minn	.....	.....	.....	1	1	.....
Nashville, Tenn	1915–1917	3	318	54	29	53.7
New Orleans, La	1915–1917	3	62	52	52	.....
New York, N. Y	1915–1917	3	7	2	11	.....
Oklahoma City, Okla	.....	.....	.....	.....	7	.....
Omaha, Nebr	.....	.....	.....	.....	1	.....
Paterson, N. J	1916–1917	2	1	0	0	.....
Philadelphia, Pa	1915, 1917	2	3	3	3	.....
Pittsburgh, Pa	1916–1917	2	1	.....	.....	.....
Portland, Oreg	.....	.....	.....	.....	1	.....
Providence, R. I	1916–1917	2	1	2	2	.....
Richmond, Va	1915–1917	3	22	23	19	82.6
San Antonio, Tex	.....	.....	.....	.....	22	.....
San Francisco, Calif	1916–1917	2	1	.....	1	.....
Schenectady, N. Y	.....	.....	.....	.....	1	.....
Seattle, Wash	1915	1	1	0	.....	.....
Springfield, Mass	1916–1917	2	1	0	0	.....
Syracuse, N. Y	.....	.....	.....	.....	1	.....
Washington, D. C	1915–1917	3	19	14	9	64.3
Worcester, Mass	1916–1917	2	7	2	3	.....
Youngstown, Ohio	.....	.....	.....	1	.....	.....

For Pneumonia (all forms) see page 1696.

POLIOMYELITIS (INFANTILE PARALYSIS).

Albany, N. Y	1913, 1916 1917	3	11	0	0	.....
Atlanta, Ga	1916, 1917	2	2	0	0	.....
Baltimore, Md	1913–1917	5	47	38	5	13.2
Birmingham, Ala	1913–1917	5	6	2	3	.....
Boston, Mass	1913–1917	5	152	17	9	52.9
Bridgeport, Conn	1913 1915–1917	4	20	1	0	.....
Buffalo, N. Y	1913–1917	5	16	7	1	14.3
Cambridge, Mass	1913, 1917	2	4	6	2	33.3
Camden N. J	1914, 1916 1917	3	23	0	0	.....
Chicago, Ill	1913–1917	5	184	96	25	26.0

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Cincinnati, Ohio	1913, 1915–1917	4	18	23	2	8.7
Cleveland, Ohio	1913–1917	5	52	23	2	8.7
Columbus, Ohio	1913–1917	5	5	10	5	50.0
Dallas, Tex	1915–1917	3	2	10	2	20.0
Dayton, Ohio	1914–1917	4	7	2	0	.....
Denver, Colo	1914–1917	4	3	.....	2	.....
Des Moines, Iowa	1916, 1917	2	7	2	0	.....
Detroit, Mich	1915–1917	3	28	17	8	47.1
Fall River, Mass	1914–1917	4	9	2	0	.....
Fort Worth, Tex	1915, 1916	2	1	.....	.....	.....
Grand Rapids, Mich	1914, 1916, 1917	3	13	5	3	60.0
Hartford, Conn	1913, 1915–1917	4	19	17	2	11.8
Houston, Tex	1916, 1917	2	3	1	0	.....
Indianapolis, Ind	1913, 1915–1917	4	9	3	.....	.....
Jersey City, N. J	1913–1917	5	41	1	.....	.....
Kansas City, Kans	1917	1	9	2	2	.....
Kansas City, Mo	1915–1917	3	12	3	.....	.....
Lawrence, Mass	1913–1917	5	6	.....	.....	.....
Los Angeles, Calif	1913–1917	5	13	9	0	.....
Louisville, Ky	1913, 1914, 1916, 1917	4	6	3	0	.....
Lowell, Mass	1914–1917	4	11	7	5	71.4
Lynn, Mass	1913–1917	5	12	.....	0	.....
Milwaukee, Wis	1916–1917	2	13	94	24	25.5
Minneapolis, Minn	1915–1917	3	42	5	2	40.0
Nashville, Tenn	1913, 1915, 1916	3	3	.....	1	.....
Newark, N. J	1913–1917	5	300	19	6	31.6
New Bedford, Mass	1914–1917	4	7	11	0	.....
New Haven, Conn	1914, 1916, 1917	3	33	6	1	16.7
New Orleans, La	1913–1917	5	10	19	0	.....
New York, N. Y	1913–1917	5	1,939	134	29	21.6
Oakland, Calif	1914–1917	4	2	2	.....	.....
Oklahoma City, Okla	1916–1917	2	2	.....	1	.....
Omaha, Nebr	1914, 1916, 1917	3	10	0	0	.....
Paterson, N. J	1913–1917	5	21	0	0	.....
Philadelphia, Pa	1913–1917	5	216	16	6	37.5
Pittsburgh, Pa	1913–1917	5	20	42	8	19.0
Portland, Oreg	1916–1917	2	15	2	.....	.....
Providence, R. I	1913–1917	5	36	9	2	22.2
Reading, Pa	1914–1917	4	2	1	0	.....
Richmond, Va	1916–1917	2	12	5	1	20.0
Rochester, N. Y	1913, 1914, 1916, 1917	4	4	9	3	33.3
Salt Lake City, Utah	1913, 1915, 1916	3	6	5	.....	.....
San Antonio, Tex	1916–1917	2	4	2	0	.....
San Francisco, Calif	1913–1917	5	14	16	3	18.7
Schenectady, N. Y	1913–1917	5	4	.....	1	.....
Scranton, Pa	1914, 1916, 1917	3	6	4	.....	.....
Seattle, Wash	1913, 1915–1917	4	8	1	0	.....
Spokane, Wash	1913, 1916, 1917	3	2	1	1	.....
Springfield, Mass	1913–1917	5	25	4	0	.....

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
St. Louis, Mo.	1913–1917	5	12	26	6	23.1
St. Paul, Minn.	1913–1917	5	18	4	1	25.0
Syracuse, N. Y.	1913, 1914, 1916, 1917	4	63	1	1	.....
Tacoma, Wash.	1914, 1916, 1917	3	1	1	.....	.....
Toledo, Ohio.	1915–1917	3	40	17	3	17.6
Trenton, N. J.	1914–1917	4	43	0	0	.....
Washington, D. C.	1913–1917	5	13	2	0	.....
Worcester, Mass.	1913, 1914, 1916, 1917	4	15	1	.....	.....
Yonkers, N. Y.	1913, 1914, 1916	3	47	.....	.....	.....
Youngstown, Ohio.	1916–1917	2	4	4	.....	.....

RABIES (IN MAN).

City.	Cases reported.	Deaths registered.	City.	Cases reported.	Deaths registered.
Birmingham, Ala.	1	1	New Orleans, La.	.....	3
Dallas, Tex.	.....	2	Pittsburgh, Pa.	3	3
Denver, Colo.	1	1	Spokane, Wash.	1	1
Detroit, Mich.	.....	1	St. Louis, Mo.	.....	5
Louisville, Ky.	1	1	Toledo, Ohio.	.....	3
Milwaukee, Wis.	1	1	Youngstown, Ohio.	1	1

RABIES (IN ANIMALS).

City.	Cases reported.	City.	Cases reported.
Boston, Mass.	10	Memphis, Tenn.	53
Buffalo, N. Y.	2	Milwaukee, Wis.	28
Cincinnati, Ohio.	3	Minneapolis, Minn.	7
Cleveland, Ohio.	117	Newark, N. J.	15
Columbus, Ohio.	8	New York, N. Y.	19
Dayton, Ohio.	6	Rochester, N. Y.	78
Denver, Colo.	5	Schenectady, N. Y.	7
Detroit, Mich.	23	St. Paul, Minn.	5
Kansas City, Mo.	37	Toledo, Ohio.	16
Los Angeles, Calif.	1	Washington, D. C.	20
Louisville, Ky.	8		

SCARLET FEVER.

City.	Average.			1918.		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y.	1913–1917	5	181	26	1	3.8
Atlanta, Ga.	1916–1917	2	159	183	.....	.....
Baltimore, Md.	1913–1917	5	944	366	8	2.2
Birmingham, Ala.	1913–1917	5	189	226	3	1.3
Boston, Mass.	1913–1917	5	2,205	1,126	24	2.1

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

SCARLET FEVER—Continued.

City.	Average.			1918.		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Bridgeport, Conn.	1913–1917	5	204	110	1	.9
Buffalo, N. Y.	1913–1917	5	608	632	18	2.8
Cambridge, Mass.	1913, 1917	2	145	59	.....	.....
Camden, N. J.	1914–1917	4	67	109	1	.9
Chicago, Ill.	1913–1917	5	7,922	1,809	48	2.7
Cincinnati, Ohio.	1913–1917	5	432	279	3	1.1
Cleveland, Ohio.	1913–1917	5	807	408	11	2.7
Columbus, Ohio.	1913–1917	5	336	724	4	.6
Dallas, Tex.	1915–1917	3	121	47	1	2.1
Dayton, Ohio.	1913–1917	5	534	150	3	2.0
Denver, Colo.	1913–1917	5	504	777	7	.9
Des Moines, Iowa.	1916–1917	2	132	424	8	1.9
Detroit, Mich.	1913–1917	5	2,084	1,599	45	2.8
Fall River, Mass.	1913–1917	5	221	119	0	.....
Fort Worth, Tex.	1915–1917	3	88	71	.....	.....
Grand Rapids, Mich.	1913–1917	5	347	284	2	.7
Hartford, Conn.	1914–1917	4	148	160	2	1.3
Houston, Tex.	1916–1917	2	50	23	0	.....
Indianapolis, Ind.	1913–1917	5	553	913	19	2.1
Jersey City, N. J.	1913–1917	5	676	388	10	2.6
Kansas City, Kans.	1914, 1917	2	261	179	5	2.8
Kansas City, Mo.	1913–1917	5	630	434	.....	.....
Lawrence, Mass.	1913–1917	5	102	14	.....	.....
Los Angeles, Calif.	1913–1917	5	487	362	4	1.1
Louisville, Ky.	1913–1917	5	233	73	1	1.4
Lowell, Mass.	1913–1917	5	114	99	4	4.0
Lynn, Mass.	1913–1917	5	247	110	2	1.8
Memphis, Tenn.	1917	1	177	147	2	1.4
Milwaukee, Wis.	1913–1914, 1916–1917	4	1,711	1,327	51	3.8
Minneapolis, Minn.	1915–1917	3	600	669	33	4.9
Nashville, Tenn.	1914–1917	4	102	96	3	3.1
Newark, N. J.	1913–1917	5	979	515	11	2.1
New Bedford, Mass.	1914–1917	4	191	56	2	3.6
New Haven, Conn.	1913–1917	5	222	55	3	5.5
New Orleans, La.	1913–1917	5	111	58	0	.....
New York, N. Y.	1913–1917	5	8,755	4,460	177	4.0
Oakland, Calif.	1914–1917	4	218	182	2	1.1
Oklahoma City, Okla.	1913–1917	5	90	38	1	2.6
Omaha, Nebr.	1913–1914, 1916–1917	4	631	412	6	1.5
Paterson, N. J.	1913–1917	5	137	97	1	1.5
Philadelphia, Pa.	1913–1917	5	1,910	1,384	43	3.1
Pittsburgh, Pa.	1913–1917	5	1,832	450	9	2.0
Portland, Oreg.	1916–1917	2	472	254	5	2.0
Providence, R. I.	1913–1917	5	641	367	18	4.9
Reading, Pa.	1914–1917	4	229	84	1	1.2
Richmond, Va.	1914–1917	4	202	171	0	.....
Rochester, N. Y.	1913–1914, 1916–1917	4	666	518	9	1.7
Salt Lake City, Utah.	1913–1917	5	300	472	17	3.6
San Antonio, Tex.	1913, 1915–1917	4	53	37	1	2.7
San Francisco, Calif.	1913–1917	5	647	435	8	1.8
Schnectady, N. Y.	1913–1917	5	221	43	1	2.3
Scranton, Pa.	1913–1917	4	209	146	3	2.1
Seattle, Wash.	1913–1917	5	174	637	14	2.2
Spokane, Wash.	1913, 1916, 1917	3	76	147	2	1.4
Springfield, Mass.	1913–1917	5	198	139	3	2.2
St. Louis, Mo.	1913–1917	5	1,439	933	17	1.8
St. Paul, Minn.	1913–1917	5	769	785	39	4.9
Syracuse, N. Y.	1913–1917	5	333	452	2	.4
Tacoma, Wash.	1913–1914, 1916–1917	4	73	799	3	.4
Toledo, Ohio.	1913–1917	5	629	298	16	5.4

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

SCARLET FEVER—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Trenton, N. J.	1914–1917	4	160	29	0	.....
Washington, D. C.	1913–1917	5	555	893	16	1.8
Worcester, Mass.	1913–1914, 1916–1917	4	290	168	2	1.2
Yonkers, N. Y.	1913–1914, 1916–1917	4	240	100	8	8.0
Youngstown, Ohio	1916–1917	2	148	77	.....	.....

SMALLPOX.

Albany, N. Y.	1913–1914, 1917	3	10	0	0	.....
Altanta, Ga.	1917	1	24	67	.....	.....
Baltimore, Md.	1913–1915, 1917	4	103	46	0	.....
Birmingham, Ala.	1913–1917	5	124	754	2	0.3
Boston, Mass.	1913–1917	5	2	6	.....	.....
Bridgeport, Conn.	1914, 1917	2	1	.....	.....	.....
Buffalo, N. Y.	1913–1917	5	13	71	.....	.....
Camden, N. J.	1915–1916	2	4	0	0	.....
Chicago, Ill.	1913–1917	5	116	266	4	1.5
Cincinnati, Ohio.	1914–1917	4	47	323	0	.....
Cleveland, Ohio.	1913–1917	5	191	1,120	0	.....
Columbus, Ohio.	1913–1917	5	78	212	1	.5
Dallas, Tex.	1915–1917	3	109	417	0	.....
Dayton, Ohio.	1913–1915, 1917	4	32	138	0	.....
Denver, Colo.	1913–1917	5	88	828	0	.....
Des Moines, Iowa.	1916–1917	2	101	545	0	.....
Detroit, Mich.	1913–1917	5	411	893	6	.7
Fort Worth, Tex.	1915–1917	3	127	515	.....	.....
Grand Rapids, Mich.	1914–1917	4	56	217	0	.....
Hartford, Conn.	1914, 1917	2	10	36	.....	.....
Houston, Tex.	1916, 1917	2	32	65	2	3.1
Indianapolis, Ind.	1913–1917	5	262	1,202	4	.3
Jersey City, N. J.	1914–1917	4	1	1	.....	.....
Kansas City, Kans.	1914, 1917	2	371	1,119	2	.2
Kansas City, Mo.	1913–1917	5	439	1,933	.....	.....
Los Angeles, Calif.	1913–1917	5	42	114	0	.....
Louisville, Ky.	1913–1917	5	187	73	0	.....
Lowell, Mass.	1913, 1916, 1917	3	14	2	0	.....
Lynn, Mass.	1913, 1916, 1917	3	1	1	0	.....
Memphis Tenn.	1917	1	361	327	.....	.....
Milwaukee, Wis.	1913, 1914, 1916, 1917	4	437	206	1	5
Minneapolis, Minn.	1915–1917	3	463	523	3	.6
Nashville, Tenn.	1913–1917	5	100	110	.....	.....
Newark, N. J.	1916, 1917	2	1	2	0	.....
New Bedford, Mass.	1915, 1917	2	10	0	0	.....
New Orleans, La.	1913–1917	5	112	192	0	.....
New York, N. Y.	1913–1917	5	13	21	0	.....
Oakland, Calif.	1914–1917	4	11	23	.....	.....
Oklahoma City, Okla.	1913–1917	5	165	591	2	.3
Omaha, Nebr.	1913, 1914, 1916, 1917	4	303	1,009	0	.....
Paterson, N. J.	1914, 1917	2	0	1	0	.....
Philadelphia, Pa.	1913, 1914, 1916, 1917	4	12	33	0	.....
Pittsburgh, Pa.	1913–1917	5	12	48	.....	.....
Portland, Oreg.	1916, 1917	2	57	137	.....	.....
Providence, R. I.	1913, 1914, 1916, 1917	4	3	0	0	.....

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

SMALLPOX—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Reading, Pa.	1914, 1916 1917	3	4	0	0	.....
Richmond, Va.	1914–1917	4	17	5	0	.....
Rochester, N. Y.	1913, 1914 1917	3	3	0	0	.....
Salt Lake City, Utah	1913–1917	5	238	576	2	.3
San Antonio, Tex.	1913 1915–1917	4	132	17	0	.....
San Francisco, Calif.	1913–1917	5	40	125	0	.....
Schenectady, N. Y.	1913, 1917	2	2	1	0	.....
Scranton, Pa.				2	.....	.....
Seattle, Wash.	1913–1917	5	63	270	1	.4
Spokane, Wash.	1913, 1916 1917	3	229	364	0	.....
St. Louis, Mo.	1913–1917	5	158	502	.....	.....
St. Paul, Minn.	1913–1917	5	136	382	0	.....
Syracuse, N. Y.	1913 1915–1917	4	3	2	0	.....
Tacoma, Wash.	1913, 1914 1916, 1917	4	36	59	.....	.....
Toledo, Ohio.	1913–1917	5	248	210	1	.5
Washington, D. C.	1913–1917	5	64	48	0	.....
Worcester, Mass.	1914, 1917	2	20	.....	.....	.....
Yonkers, N. Y.	1914	1	1	.....	.....	.....
Youngstown, Ohio.	1916, 1917	2	200	115	.....	.....

SYPHILIS.

City.	Cases reported.	Deaths registered.	Number of cases reported for each death registered.	City.	Cases reported.	Deaths registered.	Number of cases reported for each death registered.
Albany, N. Y.	.....	11	.....	Nashville, Tenn.	152	19	8.0
Atlanta, Ga.	67	.....	.....	New Bedford, Mass.	.....	5	.....
Baltimore, Md.	235	126	1.9	New Haven, Conn.	100	0	.....
Birmingham, Ala.	96	96	1.0	New Orleans, La.	130	94	1.4
Boston, Mass.	93	87	1.1	New York, N. Y.	17,320	584	29.7
Buffalo, N. Y.	.....	67	.....	Oakland, Calif.	70	13	5.4
Cambridge, Mass.	.....	3	.....	Omaha, Nebr.	.....	12	.....
Camden, N. J.	2	0	.....	Philadelphia, Pa.	1,033	285	3.6
Chicago, Ill.	2,442	191	12.8	Pittsburgh, Pa.	.....	60	.....
Cincinnati, Ohio.	40	.....	.....	Portland, Oreg.	283	13	21.8
Cleveland, Ohio.	305	101	3.0	Providence, R. I.	.....	30	.....
Columbus, Ohio.	7	16	.....	Reading, Pa.	.....	6	.....
Dayton, Ohio.	.....	17	.....	Richmond, Va.	.....	43	.....
Denver, Colo.	502	17	29.5	Rochester, N. Y.	80	17	4.7
Detroit, Mich.	737	94	7.8	Salt Lake City, Utah.	.....	6	.....
Fall River, Mass.	1	7	.....	San Antonio, Tex.	.....	9	.....
Fort Worth, Tex.	.....	1	.....	San Francisco, Calif.	733	97	7.6
Hartford, Conn.	66	3	22.0	Schenectady, N. Y.	.....	6	.....
Houston, Tex.	363	15	24.2	Scranton, Pa.	.....	3	.....
Jersey City, N. J.	1	.....	.....	Seattle, Wash.	623	34	18.3
Kansas City, Kans.	35	.....	.....	Spokane, Wash.	87	11	7.9
Los Angeles, Calif.	796	52	15.3	St. Paul, Minn.	.....	12	.....
Louisville, Ky.	.....	18	.....	Syracuse, N. Y.	.....	20	.....
Lowell, Mass.	5	2	2.5	Tacoma, Wash.	95	3	31.6
Lynn, Mass.	.....	4	.....	Toledo, Ohio.	200	57	3.5
Memphis, Tenn.	.....	25	.....	Trenton, N. J.	4	0	.....
Milwaukee, Wis.	.....	12	.....	Worcester, Mass.	.....	20	.....
Minneapolis, Minn.	835	63	13.3	Youngstown, Ohio.	12	20	.....

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

TUBERCULOSIS (PULMONARY).

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Number of cases reported for each death registered.
Albany, N. Y.	1916, 1917	2	445	354	217	1.6
Atlanta, Ga.				199	239	
Baltimore, Md.	1916, 1917	2	1,920	2,036	1,273	1.6
Birmingham, Ala.	1916, 1917	2	561	448	304	1.5
Boston, Mass.	1916, 1917	2	2,645	2,779	1,186	2.3
Bridgeport, Conn.				270	177	1.5
Buffalo, N. Y.	1916, 1917	2	1,303	1,295	713	1.8
Cambridge, Mass.	1917	1	274	219	220	
Chicago, Ill.					3,276	
Cincinnati, Ohio.	916, 1917	2	1,397	1,110	855	1.3
Cleveland, Ohio.	1916, 1917	2	1,795	1,606	1,020	1.6
Columbus, Ohio.	1917	1	281	312	312	
Dallas, Tex.	1916, 1917	2	118		167	
Dayton, Ohio.	1916, 1917	2	190	187	176	1.1
Denver, Colo.					729	
Des Moines, Iowa.				2	93	
Detroit, Mich.				1,922	941	2.0
Fall River, Mass.	1916, 1917	2	468	375	222	1.7
Fort Worth, Tex.	1917	1	84	110	110	
Grand Rapids, Mich.				246	135	1.8
Hartford, Conn.	1916, 1917	2	261	253	123	2.1
Houston, Tex.				159	200	
Indianapolis, Ind.	1916, 1917	2	783	654	440	1.5
Jersey City, N. J.					385	
Kansas City, Kans.	1917	1	123	122	93	1.3
Lawrence, Mass.	1916, 1917	2	192	199	158	1.3
Louisville, Ky.	1916	1	725	382	395	
Lowell, Mass.	1916, 1917	2	214	237	144	1.6
Lynn, Mass.	1916, 1917	2	175	162	97	1.7
Memphis, Tenn.					370	
Milwaukee, Wis.	1916	1	1,017	1,115	482	2.3
Minneapolis, Minn.				1,084	415	2.6
Nashville, Tenn.	1916, 1917	2	246	196	227	
Newark, N. J.	1916, 1917	2	1,864	1,451	683	2.1
New Bedford, Mass.	1916, 1917	2	404	435	203	2.1
New Haven, Conn.	1916, 1917	2	289	418	175	2.4
New Orleans, La.	1916, 1917	2	1,642		1,076	
New York, N. Y.	1916, 1917	2	18,395	14,439	8,779	1.6
Oakland, Calif.	1916, 1917	2	318	375	181	2.1
Oklahoma, Okla.	1916	1	11	49	95	
Omaha, Nebr.	1916	1	46		168	
Paterson, N. J.	1917	1	1,203	431	188	2.3
Philadelphia, Pa.					3,257	
Pittsburgh, Pa.	1917	1	1,307	1,215	691	1.8
Portland, Oreg.	1916, 1917	2	281	488	185	2.6
Providence, R. I.	1916, 1917	2	152		320	
Reading, Pa.	1916	1	187	94	111	
Richmond, Va.	1916, 1917	2	291		285	
Rochester, N. Y.	1917	1	538		242	
Salt Lake City, Utah.	1916, 1917	2	7		52	
San Francisco, Calif.	1916, 1917	2	1,470	1,727	820	2.1
Schenectady, N. Y.	1916	1	208	211	72	2.9
Scranton, Pa.	1917	1	149	145	110	1.3
Seattle, Wash.	1916, 1917	2	549	565	191	3.0
Spokane, Wash.	1916, 1917	2	97	115	64	1.8
Springfield, Mass.	1916, 1917	2	179	179	124	1.4
St. Louis, Mo.	1916, 1917	2	2,288	2,250	1,353	1.7
St. Paul, Minn.	1916, 1917	2	404		239	

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

TUBERCULOSIS (PULMONARY)—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Number of cases reported for each death registered.
Syracuse, N. Y.	1917	1	261	262	134	2.0
Tacoma, Wash.	1916	1	55			
Toledo, Ohio.					350	
Trenton, N. J.	1916, 1917	2	337		259	
Washington, D. C.				1,131	647	1.7
Worcester, Mass.	1916, 1917	2	372	336	183	1.8
Yonkers, N. Y.	1916, 1917	2	210	179	126	1.4
Youngstown, Ohio	1916, 1917	2	152	137	104	1.3

TUBERCULOSIS (ALL FORMS).

Albany, N. Y.					241	
Atlanta, Ga.	1917	1	137			
Baltimore, Md.	1917	1	2,028	2,056	1,493	1.4
Birmingham, Ala.					362	
Boston, Mass.	1916	1	2,734	3,049	1,367	2.2
Bridgeport, Conn.	1916, 1917	2	248		210	
Buffalo, N. Y.	1916, 1917	2	1,501	1,505	816	1.8
Cambridge, Mass.	1917	1	304	243	246	
Camden, N. J.	1916, 1917	2	224	253	24	10.5
Chicago, Ill.	1916, 1917	2	13,402	16,567	3,827	4.3
Cincinnati, Ohio.	1916, 1917	2	1,487	1,280	940	1.4
Cleveland, Ohio.	1916, 1917	2	1,862	1,639	1,190	1.4
Columbus, Ohio.	1916, 1917	2	354	402	402	
Dallas, Tex.	1917	1	93	315	197	1.6
Dayton, Ohio.					212	
Denver, Colo.					798	
Des Moines, Iowa.					107	
Detroit, Mich.	1916, 1917	2	1,653	1,982	1,110	1.8
Fall River, Mass.	1916, 1917	2	493	415	248	1.7
Fort Worth, Tex.	1916	1	19			
Grand Rapids, Mich.	1916, 1917	2	301			
Hartford, Conn.					156	
Houston, Tex.	1916, 1917	2	204			
Jersey City, N. J.	1916, 1917	2	1,045	839	435	1.9
Kansas City, Mo.	1916, 1917	2	253	79		
Lawrence, Mass.	1916, 1917	2	217	242	166	1.5
Los Angeles, Calif.	1916	1	2,697	2,198	1,146	1.9
Louisville, Ky.	1916, 1917	2	751	540	443	1.2
Lowell, Mass.	1916, 1917	2	233	256	182	1.4
Lynn, Mass.	1916, 1917	2	196	182	118	1.5
Memphis, Tenn.	1917	1	770	778	406	1.9
Milwaukee, Wis.	1917	1	962			
Minneapolis, Minn.	1916, 1917	2	1,148	1,174	478	2.5
Nashville, Tenn.					283	
Newark, N. J.	1916, 1917	2	2,258	1,962	798	2.5
New Bedford, Mass.	1916, 1917	2	436	486	236	2.1
New Haven, Conn.					220	
New Orleans, La.				1,669	1,210	1.4
New York, N. Y.					10,099	
Oakland, Calif.	1916	1	364		215	
Oklahoma City, Okla.	1917	1	11			
Omaha, Nebr.	1917	1	68		194	
Paterson, N. J.	1916	1	447			
Philadelphia, Pa.	1916, 1917	2	5,758	5,555	3,595	1.5
Pittsburgh, Pa.	1916	1	1,267		830	

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

TUBERCULOSIS (ALL FORMS)—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Number of cases reported for each death registered.
Portland, Oreg.	1916	1	271	.....	248	.....
Providence, R. I.	1916	1	14	533	425	1.3
Reading, Pa.	1917	1	157	.....	113	.....
Richmond, Va.	.....	.....	.....	618	339	1.8
Rochester, N. Y.	1916, 1917	2	485	581	278	2.1
Salt Lake City, Utah	1917	1	5	.....	64	.....
San Antonio, Tex	1916, 1917	2	524	277	534	.....
San Francisco, Calif.	.....	.....	.....	.....	926	.....
Schenectady, N. Y.	1916, 1917	2	213	220	85	2.6
Scranton, Pa.	1916	1	158	.....	146	.....
Seattle, Wash.	1917	1	620	.....	.....	.....
Spokane, Wash.	1916, 1917	2	120	132	80	1.7
Springfield, Mass.	1916, 1917	2	212	218	152	1.4
St. Paul, Minn.	1916, 1917	2	486	464	316	1.5
Syracuse, N. Y.	1916	1	291	.....	171	.....
Tacoma, Wash.	1917	1	83	.....	68	.....
Toledo, Ohio.	1916, 1917	2	426	510	392	1.3
Trenton, N. J.	1917	1	382	.....	280	.....
Washington, D. C.	1916, 1917	2	1,033	.....	739	.....
Worcester, Mass.	.....	.....	.....	.....	244	.....
Yonkers, N. Y.	1916, 1917	2	223	199	145	1.4
Youngstown, Ohio.	1916, 1917	2	159	140	144	.....

TYPHOID FEVER.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Albany, N. Y.	1913–1917	5	136	86	12	14.0
Atlanta, Ga.	1916–1917	2	134	89	29	32.6
Baltimore, Md.	1913–1917	5	835	303	73	24.1
Birmingham, Ala.	1913–1917	5	579	304	64	21.1
Boston, Mass.	1913–1917	5	347	110	20	18.2
Bridgeport, Conn.	1913–1917	5	33	22	5	22.7
Buffalo, N. Y.	1913–1917	5	284	87	37	42.5
Cambridge, Mass.	1913, 1917	2	69	23	3	13.0
Camden, N. J.	1914–1917	4	63	42	4	9.5
Chicago, Ill.	1913–1917	5	1,019	270	38	14.1
Cincinnati, Ohio.	1913–1917	5	148	184	20	10.9
Cleveland, Ohio.	1913–1917	5	288	143	37	25.9
Columbus, Ohio.	1913–1917	5	144	41	20	48.8
Dallas, Tex.	1915–1917	3	141	25	17	68.0
Dayton, Ohio.	1913–1917	5	111	30	9	30.0
Denver, Colo.	1913–1917	5	147	130	24	18.5
Des Moines, Iowa.	.....	.....	.....	45	12	26.7
Detroit, Mich.	1914–1917	4	465	255	67	26.3
Fall River, Mass.	1913–1917	5	185	159	17	10.7
Fort Worth, Tex.	1916–1917	2	106	.....	.....	.....
Grand Rapids, Mich.	1913–1917	5	139	50	9	18.0
Hartford, Conn.	1914–1917	4	105	37	8	21.6
Houston, Tex.	1916–1917	2	75	74	11	14.9
Indianapolis, Ind	1913–1917	5	377	86	19	22.1
Jersey City, N. J.	1913–1917	5	64	20	13	65.0

REPORTED PREVALENCE FOR 1918—AVERAGES FOR PREVIOUS YEARS—Continued.

TYPHOID FEVER—Continued.

City.	Average.			1918		
	Years.	Number of years.	Cases reported.	Cases reported.	Deaths registered.	Fatalities per 100 cases.
Kansas City, Kans	1914, 1917	2	57	78	13	16.7
Kansas City, Mo	1913–1917	5	97	113	.....	.....
Lawrence, Mass	1913–1917	5	55	38	10	26.3
Los Angeles, Calif	1913–1917	5	202	167	16	9.6
Louisville, Ky	1913–1917	5	137	158	30	19.0
Lowell, Mass	1913–1917	5	72	21	2	9.5
Lynn, Mass	1913–1917	5	83	23	1	4.3
Memphis, Tenn	1917	1	248	118	23	19.5
Milwaukee, Wis	1913–1914, 1916–1917	4	219	103	28	27.2
Minneapolis, Minn	1915–1917	3	167	197	31	15.7
Nashville, Tenn	1913–1917	5	223	262	39	14.9
Newark, N. J	1913–1917	5	160	.....	15	.....
New Bedford, Mass	1914–1917	4	109	48	10	20.8
New Haven, Conn	1913–1917	5	105	68	8	11.8
New Orleans, La	1913–1917	5	306	227	77	33.9
New York, N. Y	1913–1917	5	2,082	1,288	196	15.8
Oakland, Cal	1914–1917	4	105	72	10	13.9
Oklahoma, Okla	1913–1917	5	50	28	9	32.1
Omaha, Nebr	1913–1914, 1916–1917	4	33	.....	11	.....
Paterson, N. J	1913–1917	5	62	17	3	17.6
Philadelphia, Pa	1913–1917	5	929	383	85	22.2
Pittsburgh, Pa	1913–1917	5	379	147	58	39.5
Portland, Oreg	1916–1917	2	76	41	15	36.6
Providence, R. I	1913–1917	5	185	78	13	16.7
Reading, Pa	1914–1917	4	149	36	14	38.9
Richmond, Va	1914–1917	4	157	105	12	11.4
Rochester, N. Y	1913–1914, 1916–1917	4	100	27	5	18.5
Salt Lake City, Utah	1913–1917	5	151	38	9	23.7
San Antonio, Tex	1913, 1915–1917	4	92	314	66	21.0
San Francisco, Calif	1913–1917	5	231	97	22	22.7
Schenectady, N. Y	1913–1917	5	55	15	3	20.0
Scranton, Pa	1914–1917	4	43	29	8	27.6
Seattle, Wash	1913–1917	5	91	35	9	25.7
Spokane, Wash	1913, 1916, 1917	3	55	53	15	28.3
Springfield, Mass	1913–1917	5	56	29	4	13.8
St. Louis, Mo	1913–1917	5	534	351	58	16.5
St. Paul, Minn	1913–1917	5	113	47	9	19.1
Syracuse, N. Y	1913–1917	5	71	42	15	35.7
Tacoma, Wash	1913–1914, 1916–1917	4	35	17	7	41.2
Toledo, Ohio	1913–1917	5	298	98	26	26.5
Trenton, N. J	1914–1917	4	65	28	11	39.3
Washington, D. C	1913–1917	5	361	218	48	22.0
Worcester, Mass	1913–1914, 1916–1917	4	63	25	5	20.0
Yonkers, N. Y	1913–1914, 1916–1917	4	21	16	2	12.5
Youngstown, Ohio	1916–1917	2	95	86	49	57.0

MARRIAGE OF DISEASED PERSONS.

NEW JERSEY COURT DECIDES THAT CONCEALMENT OF TUBERCULOSIS IS CAUSE FOR ANNULLING MARRIAGE.

The New Jersey Court of Chancery has decided [1] that a marriage can be annulled where one of the parties concealed the fact that he had chronic tuberculosis.

In a suit by a wife for the annulment of her marriage it was shown that the husband had concealed the fact that he was suffering from chronic tuberculosis for fear that if he told her she would not marry him. The court held that the concealment was such fraud as would warrant the annulment of the marriage. In the opinion it was said:

* * * Defendant at the time of the marriage was, to his knowledge, suffering from chronic tuberculosis. His father had died of tuberculosis prior to the marriage. Defendant did not inform his wife of his condition. He concealed it because of a fear on his part that if he told her she would not marry him. The death of the father was falsely represented to the wife, prior to the marriage, as due to pneumonia. Petitioner did not discover that defendant was suffering from tuberculosis until November, 1916, and immediately upon the discovery ceased cohabitation. The medical testimony is to the effect that tuberculosis is an infectious, contagious disease, transmissible to offspring. If the disease itself is not transmitted, there is grave danger that offspring will be predisposed to the disease. * * *

The conduct of the defendant in the case at bar in concealing the fact that he was at the time of the marriage suffering from hereditary chronic tuberculosis was undoubtedly fraudulent. The question, then, is whether, under Carris *v.* Carris, to relieve against such fraud would be against good policy, sound morality, and the peculiar nature of the marriage relation. I am convinced to the contrary. * * * It is well known, aside now from the medical testimony in this case, that close contact with one suffering from tuberculosis involves great danger of transmission both through infection and contagion. It is almost impossible to conceive the ordinary relationship of husband and wife existing without that danger ever present. There is always also great danger of transmittal of the disease to offspring, and, as I have stated before, if the disease itself is not transmitted, there are likely to be transmitted characteristics which predispose toward the development of the disease. False representations with respect to its existence go then, I think, to an essential of the marriage relation. They are very different from representations with respect to health in general. They are more akin to representations of freedom from leprosy or diseases of similar nature.

I can not agree that the only diseases which affect an essential of the marriage relation are those of a venereal nature. I can see nothing whatever in good policy, sound morality, or the peculiar nature of the marriage relation which would warrant the court, after having found the fraud, denying relief. Neither good morals nor public policy are subserved by compelling parties to live together as man and wife, with the ever-present danger of infection, and beget offspring liable to be tuberculously inclined, nor are they subserved by compelling a woman who has married under a misrepresentation with respect to the fact to continue to be bound to a man affected with tuberculosis without having the close intimacy to which she is entitled. * * * The suppression by defendant of the fact that he was suffering from tuberculosis of the nature that he was, for the reason that he did suppress it, is equivalent in law to an express representation on his part that he was free from it. * * *

[1] Davis *v.* Davis, 106 Atl., 644.

DEATHS DURING WEEK ENDED JULY 19, 1919, IN CITIES.

From the "Weekly Health Index," July 22, 1919, issued by the Bureau of the Census, Department of Commerce.

Deaths from all causes in certain large cities of the United States during the week ended July 19, 1919, infant mortality (per cent), annual death rates, and comparison with corresponding week of preceding years.

City.	Population July 1, 1918, estimated.	Week ended July 19, 1919. Total deaths.	Week ended July 19, 1919. Death rate.[1]	Average annual death rate per 1,000.[2]		Per cent of deaths under 1 year. Week ended July 19, 1919.	Per cent of deaths under 1 year. Previous year or years.[2]	
Albany	112,565	21	9.7	C	10.7	9.5	C	8.7
Atlanta	201,732	47	12.1	C	12.4	14.9	C	14.6
Baltimore	[3] 669,981	173	13.5	A	17.5	30.6	A	25.1
Birmingham	197,670	49	12.9	A	18.4	10.2	A	14.7
Boston	785,245	175	11.6	A	13.6	13.1	A	15.7
Buffalo	473,229	112	12.3	C	12.9	12.5	C	15.4
Cambridge	111,432	22	10.3	A	9.9	22.7	A	10.7
Chicago	2,596,681	475	9.5	A	12.6	19.6	A	20.1
Cincinnati	418,022	112	14.0	C	13.8	16.1	C	10.8
Cleveland	800,396	146	9.4	C	12.0	19.2	C	24.2
Columbus	225,296	57	13.2	C	11.1	21.1	C	10.4
Dayton	130,655	37	14.8	C	16.0	10.8	C	5.0
Denver		53				7.5		
Fall River	128,392	27	11.0	C	15.0	18.5	C	45.9
Grand Rapids	135,450	27	10.4	C	9.6	7.4	C	4.0
Indianapolis	290,389	65	11.7	C	13.5	10.8	C	16.0
Kansas City	313,785	71	11.8	C	12.6	12.7	C	7.9
Los Angeles	568,496	125	11.5	A	11.5	8.0	A	10.9
Louisville	242,707	59	12.7	C	13.3	8.5	C	12.9
Lowell	109,062	21	10.0	A	13.6	19.0	A	28.4
Memphis	154,759	74	24.9	C	15.8	13.5	C	4.3
Milwaukee	453,431	73	8.4	A	9.4	20.5	A	16.1
Minneapolis	388,442	58	7.2	C	7.6	7.5	C	21.4
Nashville	119,215	35	15.3	C	22.3	14.3	C	11.8
Newark	428,684	61	7.4	C	13.1	18.0	C	30.6
New Haven	154,865	32	10.8	C	14.8	18.8	C	18.2
New Orleans	382,273	128	17.5	A	18.6	11.7	A	13.2
New York	5,215,879	1,055	10.5	C	11.7	15.9	C	15.8
Oakland	214,206	42	10.2	A	9.6	4.8	A	13.7
Omaha	186,264	36	10.4	C	10.4	11.1	C	11.1
Philadelphia	1,761,371	380	11.2	[4]	[4]	18.7	[4]	23.5
Pittsburgh	593,303	134	11.8	C	13.8	19.4	C	26.1
Portland, Oreg.		67				11.9	C	8.8
Providence	263,613	42	8.3	C	15.4	9.5	C	15.4
Richmond	160,719	44	14.3	C	17.5	18.2	C	27.8
Rochester	264,856	43	8.5	C	11.8	16.3	C	26.7
St. Louis	779,951	165	11.0	C	13.6	11.5	C	14.7
St. Paul	257,699	37	7.5	C	11.9	5.4	C	11.9
San Francisco	478,530	103	11.2	C	14.5	9.7	C	12.8
Spokane		22				22.7	C	18.2
Syracuse	161,404	33	10.7	C	15.2	12.1	C	21.3
Toledo	262,234	30	6.0	A	12.6	16.7	A	17.5
Washington, D. C.	491,681	87	11.3	A	15.8	14.9	A	17.6
Worcester	173,650	45	13.5	C	13.2	13.3	C	9.1

[1] Annual rates per 1,000 estimated population.
[2] "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1918.
[3] Population estimated as of July 1, 1919.
[4] Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended July 19, 1919.

Policies in force	40,510,915
Number of death claims	7,752
Death claims per 1,000 policies in force, annual rate	10.0

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 STATE SUMMARIES.

Telegraphic Reports for Week Ended July 26, 1919.

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

ALABAMA.	Cases.
Diphtheria	3
Malaria	32
Poliomyelitis	1
Scarlet fever	9
Smallpox	6
Tuberculosis (pulmonary)	32
Typhoid fever	26
Venereal diseases	135
Whooping cough	13

CONNECTICUT.

No outbreak or unusual prevalence.

DELAWARE.	
Chancroid:	
State	1
Chicken pox:	
State	2
Erysipelas:	
Newark	1
Gonorrhea:	
State	40
Malaria:	
Laurel	1
Measles:	
Lewes	1
Mumps:	
State	1
Syphilis:	
State	7
Tuberculosis:	
[illegible]	4
[illegible]	1
[illegible]	1
[illegible]	1

FLORIDA.	Cases.
Diphtheria	1
Malaria	42
Scarlet fever	2
Smallpox	3
Typhoid fever	8

GEORGIA.	
Acute infectious conjunctivitis	1
Chicken pox	1
Diphtheria	8
Dysentery (amebic)	1
Dysentery (bacillary)	7
Gonorrhea	139
Hookworm	1
Influenza	11
Malaria	92
Measles	11
Mumps	14
Paratyphoid fever	1
Pneumonia (acute lobar)	2
Scarlet fever	10
Septic sore throat	8
Smallpox	4
Syphilis	47
Tuberculosis (pulmonary)	6
Tuberculosis (other than pulmonary)	2
Typhoid fever	35
Whooping cough	9

ILLINOIS.	
Cerebrospinal meningitis:	
Clinton County—Meridian Township	1
Waukegan	2
Freeport	1
Chancroid:	
State	11

CURRENT STATE SUMMARIES—Continued.

Telegraphic Reports for Week Ended July 26, 1919—Continued.

ILLINOIS—continued.

Diphtheria:	Cases.
Chicago	80
Quincy	2
Maywood	2
Decatur	2
State	13
Gonorrhea:	
State	289
Lethargic encephalitis:	
Chicago	1
Poliomyelitis:	
Chicago	9
Ladd	1
Springvalley	1
La Salle	1
Seneca	1
Mark	1
Freeport	1
Scarlet fever:	
Chicago	28
Morris	4
Springfield	2
State	5
Smallpox:	
Galiatin County—Eagle Creek Township	5
Green County—White Hall Township	5
Belknap	6
State	4
Syphilis:	
State	173
Typhoid fever:	
Chicago	11
Saint Elmo	2
Alton	2
Woodstock	2
Joliet	3
Allendale	3
Belmont	3
Mount Carmel	2
State	14

INDIANA.

Chancroid:	
State	2
Diphtheria:	
Warsaw	1
Aurora	1
Hobbs	1
Bargersville	1
Bedford	1
Upland	1
Richmond	1
Gonorrhea:	
State	100
Paratyphoid fever:	
Markle	1
Syphilis:	
State	101
Typhoid fever:	
Mount Vernon	1
Terre Haute	1
Indianapolis	1
Auburn	1
Bloomington	1

IOWA.

Cerebrospinal meningitis:	Cases.
Bremer County	1
Diphtheria:	
Council Bluffs	2
Des Moines	1
Monroe	1
Benton County	1
Des Moines County	1
Howard County	1
Mills County	1
Polk County	1
Gonorrhea:	
State	24
Scarlet fever:	
Burlington	2
Davenport	1
Dickinson County	1
Polk County	1
Webster County	1
Smallpox:	
Davenport	1
Jones County	1
Lyon County	7
Syphilis:	
State	27

KANSAS.

Diphtheria	12
Scarlet fever	8
Smallpox	13

LOUISIANA.

Chancroid	30
Diphtheria	9
Gonorrhea	181
Influenza	3
Pellagra	10
Poliomyelitis	1
Smallpox	2
Syphilis	138
Typhoid fever	27

MAINE.

Chancroid:	
State	2
Chicken pox:	
State	12
Diphtheria:	
Rumford	1
Columbia Falls	1
Addison	2
Gonorrhea:	
State	33
Influenza:	
York	1
Augusta	1
Measles:	
Augusta	3
Mumps:	
Lewiston	1
Scarlet fever:	
Portland	2
Augusta	6
Norway	1
Lewiston	1
Otisfield	1

CURRENT STATE SUMMARIES—Continued.

Telegraphic Reports for Week Ended July 26, 1919—Continued.

MAINE—continued.

Smallpox:	Cases.
Lewiston	3
Auburn	1
Orono	1
East Livermore	1
Syphilis:	
State	17
Tuberculosis:	
State	20
Typhoid fever:	
Augusta	3
Portland	2
Oldtown	1
South Berwick	1
Whooping cough:	
Booth Bay	3

MINNESOTA.

Chancroid:	
State	6
Gonorrhea:	
State	122
Poliomyelitis:	
State	5
Smallpox:	
Lac Qui Parle County—Ortonville village	1
Lyon County—Monroe Township	1
Otter Tail County—Parkers Prairie Township	1
Rock County—Mound Township	1
Syphilis:	
State	85

MONTANA.

Diphtheria:	
State	8
Rocky Mountain spotted or tick fever:	
Fergus County	1
Valley County	1
Scarlet fever:	
State	27
Smallpox:	
State	2
Typhoid fever:	
State	2

NEW JERSEY.

Influenza	4
Pneumonia	25

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis:	
Clarkson	1
Diphtheria:	
State	107
Gonorrhea:	
State (voluntary reports)	66
Measles:	
State	135

NEW YORK—continued.

Poliomyelitis:	Cases.
Patchogue	1
Utica	1
Pneumonia:	
State	18
Scarlet fever:	
State	81
Syphilis:	
State (voluntary reports)	116
Typhoid fever:	
State	44
Whooping cough:	
State	129

NORTH CAROLINA.

Cerebrospinal meningitis	2
Chancroid	15
Chicken pox	12
Cholera infantum	2
Diphtheria	15
Dysentery (bacillary)	1
Gonorrhea	117
Measles	47
Paratyphoid fever	1
Pneumonia (broncho)	7
Pneumonia (lobar)	3
Scarlet fever	11
Septic sore throat	1
Smallpox	20
Syphilis	88
Typhoid fever	172
Whooping cough	146

OHIO.

No unusual prevalence reported.

VERMONT.

No unusual prevalence or outbreak.

VIRGINIA.

Poliomyelitis:	
Dickenson County	3
Richmond	3
Smallpox:	
Franklin County	1

WASHINGTON.

Diphtheria more frequent.

Scarlet fever:	
Seattle	11
Aberdeen	4
Ellensburg	2
Hoquiam	2
Spokane	5
State	6

Smallpox unusually prevalent.
Whooping cough more frequent.

CURRENT STATE SUMMARIES—Continued.

Telegraphic Reports for Week Ended July 26, 1919—Continued.

WEST VIRGINIA.

Cerebrospinal meningitis:	Cases.
Huntington	1
Diphtheria:	
Bluefield	2
Buckhannon	2
Charleston	2
Huntington	5
Weston	1
Measles:	
State	9
Poliomyelitis:	
Keyser	1
Scarlet fever:	
Clarksburg	1

WEST VIRGINIA—continued.

Scarlet fever—Continued.	Cases.
Huntington	2
Martinsburg	1
Smallpox:	
Clarksburg	2
Montgomery	1
Morgantown	1
Typhoid fever:	
Buckhannon	1
Charleston	3
Martinsburg	3
Morgantown	1
Weston	3
Wheeling	1

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

Tables showing by counties the reported cases of cerebrospinal meningitis, malaria, pellagra, poliomyelitis, smallpox, and typhoid fever are published under the names of these diseases. (See names of these and other diseases in the table of contents.)

The following monthly State reports include only those which were received during the current week. These reports appear each week as received.

State.	Cerebrospinal meningitis.	Diphtheria.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
June, 1919:									
Arizona	.....	.....	.....	.....	.....	.....	.....	2	.....
California	5	194	56	85	7	1	186	153	105
Connecticut	2	122	.....	383	.....	1	127	.....	23
Delaware	.....	11	2	13	.....	.....	5	3	1
Michigan	.....	379	.....	802	.....	9	313	304	71
New Jersey	6	490	16	719	.....	2	276	11	43
North Carolina	3	53	.....	499	.....	3	25	205	431
North Dakota	.....	14	.....	49	.....	.....	34	11	2
Ohio	10	250	1	2,512	.....	3	356	431	110
Rhode Island	2	41	.....	26	.....	.....	43	.....	11
South Carolina	3	26	107	22	40	.....	3	79	190
Washington	2	36	.....	297	.....	.....	306	403	27
Wyoming	.....	7	.....	123	.....	1	16	76	1

ANTHRAX.

California Report for June, 1919.

During June, 1919, one case of anthrax was reported in California.

CEREBROSPINAL MENINGITIS.

State Reports for June, 1919.

Place.	New cases reported.
California:	
Merced County	1
Orange County—	
Anaheim	1
Placer County	1
Sacramento County—	
Sacramento	1
San Francisco	1
Total	5
Connecticut:	
Hartford County—	
New Britain	1
New Haven County—	
Waterbury	1
Total	2
New Jersey:	
Essex County	4
Hunterdon County	1
Middlesex County	1
Total	6
North Carolina:	
Catawba County	1
Gaston County	1
Guilford County	1
Total	3
Ohio:	
Allen County	1
Columbiana County	1
Cuyahoga County	2
Hamilton County	4
Lorain County	1
Richland County	1
Total	10
Rhode Island:	
Providence County—	
Providence	1
Pawtucket	1
Total	2
South Carolina:	
Greenville County	1
Sumter County	2
Total	3
Washington:	
King County—	
Seattle	2

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Asbury Park, N. J.	1		Kalamazoo, Mich.	1	1
Atlanta, Ga.		1	Milwaukee, Wis.	2	2
Bayonne, N. J.	1		Newburyport, Mass.	1	
Boise, Idaho	1	1	New York, N. Y.	8	4
Cambridge, Mass.		1	Philadelphia, Pa.	4	3
Cedar Rapids, Iowa	1		Rochester, N. Y.	1	1
Charlotte, N. C.		1	St. Louis, Mo.	1	
Chicago, Ill.	1		San Francisco, Calif.	2	
Danville, Ill.		1	Savannah, Ga.	1	
Duluth, Minn.	1		West Hoboken, N. J.	1	
El Paso, Tex.		4			

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 1711; Monthly summaries by States, p. 1714, and Weekly reports from cities, p. 1728.

LEPROSY.

Contra Costa County, Calif., Los Angeles, Calif., and New Orleans, La.

During the month of June, 1919, one case of leprosy in the person of M. D., Chinese, male, age 30, was reported in Contra Costa County, Calif. The patient is isolated at the County Hospital.

At Los Angeles, Calif., the case of F. R., Mexican, male, age 45, was reported on June 10. The patient is isolated at the County Hospital.

During the week ended July 12, 1919, one case of leprosy was reported at New Orleans, La.

LETHARGIC ENCEPHALITIS.

Santa Barbara, Calif., Week Ended July 12, 1919.

During the week ended July 12, 1919, one case of lethargic encephalitis, with one death, was reported at Santa Barbara, Calif.

MALARIA.

State Reports for June, 1919.

Place.	New cases reported.
California:	
Alameda County—	
Alameda	1
Butte County	5
Chico	3
Gridley	11
Calaveras County—	
Angels	2
Colusa County	1
El Dorado County	1
Fresno County	3
Clovis	1
Firebaugh	1
Reedley	1
Kern County	4
Los Angeles County—	
Long Beach	1
South Pasadena	1
San Joaquin County—	
Manteca	1
Stockton	1
Tracy	1
Santa Clara County—	
Gilroy	3
Shasta County	3
Redding	2
Solano County—	
Mare Island	1
Sonoma County—	
Santa Rosa	1
Tuolumne County	1
Total	50
Connecticut:	
Hartford County—	
Rocky Hill	2
New London County—	
Norwich	3
Connecticut—Continued.	
New Haven County—	
New Haven	1
Total	6
Delaware:	
Kent County—	
Dover	2
New Jersey:	
Bergen County	1
Essex County	4
Mercer County	3
Middlesex County	2
Monmouth County	1
Passaic County	2
Somerset County	2
Sussex County	1
Total	16
Ohio:	
Ross County	1
South Carolina:	
Abbeville County	12
Beaufort County	14
Chester County	10
Chesterfield County	1
Clarendon County	17
Dillon County	1
Lexington County	5
Marion County	28
Richland County	5
Spartanburg County	7
Union County	4
York County	3
Total	107

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.
Alexandria, La	4	
Atlanta, Ga	1	
Birmingham, Ala	5	1
Columbus, Ga	4	
Dallas, Tex	1	1
Danville, Ill	4	
East St. Louis, Ill	20	
Framingham, Mass	1	
Kansas City, Kans	1	
Little Rock, Ark	4	
Los Angeles, Calif	1	
Memphis, Tenn	2	
Moline, Ill	1	
Nashville, Tenn		1
Newark, N. J	3	
New Orleans, La	1	
Pine Bluff, Ark	3	
Plainfield, N. J	1	
Redlands, Calif	1	
San Francisco, Calif	1	
Savannah, Ga		1
Winston-Salem, N. C	1	

MEASLES.

See Telegraphic weekly reports from States, p. 1711; Monthly summaries by States, p. 1714; and Weekly reports from cities, p. 1728.

PELLAGRA.

State Reports for June, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		South Carolina—Continued.	
Los Angeles County—		Cherokee County	1
Los Angeles	1	Chester County	7
Pasadena	1	Clarendon County	5
Riverside County—		Edgefield County	1
Riverside	2	Fairfield County	1
San Diego County—		Georgetown County	2
San Diego	1	Greenville County	1
National City	1	Greenwood County	2
Tulare County—		Marion County	1
Visalia	1	Newberry County	1
		Pickens County	1
Total	7	Richland County	3
		Spartanburg County	5
South Carolina:		Sumter County	1
Abbeville County	3	York County	1
Beaufort County	2		
Charleston County	2	Total	40

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
			Macon, Ga.		1
Anniston, Ala.	1		Memphis, Tenn.		1
Asheville, N. C.		1	Montgomery, Ala.		1
Atlanta, Ga.		1	Muscatine, Iowa.	1	
Birmingham, Ala.	1	3	New Orleans, La.	4	3
Charleston, S. C.		1	Norwood, Ohio.	1	
Columbus, Ga.	2		Pine Bluff, Ark.	1	
Cumberland, Md.	1		Richmond, Va.	1	1
Dallas, Tex.	2		Waco, Tex.		2
Fort Worth, Tex.		2	Wilmington, N. C.	4	

PLAGUE-INFECTED GROUND SQUIRRELS.

Alameda County, Calif., July 2, 1919.

On July 2, 1919, two plague-infected ground squirrels were reported found in Alameda County, Calif. In each case diagnosis was based upon animal inoculation and cultures. Intensive hunting and poisoning operations are being carried on.

PNEUMONIA.

City Reports for Week Ended July 12, 1919.

Place.	Lobar.		All forms.	
	Cases.	Deaths.	Cases.	Deaths.
Atlanta, Ga.		1		
Atlantic City, N. J.	1			
Baltimore, Md.	3	3		
Binghamton, N. Y.	2	1		
Birmingham, Ala.		2		
Boston, Mass.	13	2		
Bridgeport, Conn.		1		
Buffalo, N. Y.		1		
Cambridge, Mass.	3			
Charlotte, N. C.		1		
Chicago, Ill.			67	28
Chicopee, Mass.	1			
Cincinnati, Ohio.		2		
Cleveland, Ohio.	2	11		
Clinton, Mass.	1			
Covington, Ky.		1		
Denver, Colo.				3
Detroit, Mich.	1	6		7
Dubuque, Iowa.		1		
Duluth, Minn.	1	1		
East Chicago, Ind.				1
Elmira, N. Y.		1		
El Paso, Tex.		1		
Everett, Mass.	1			
Flint, Mich.	1	1		
Fort Worth, Tex.				
Galesburg, Ill.		1		
Galveston, Tex.		1		
Great Falls, Mont.		1		
Hackensack, N. J.				1
Haverhill, Mass.	1			
Indianapolis, Ind.				2
Ironwood, Mich.	1			
Ithaca, N. Y.	1			
Jamestown, N. Y.			1	
Jersey City, N. J.		1		
Kansas City, Mo.	2	7		
Kearny, N. J.	1	1		
Leominster, Mass.	1			
Logansport, Ind.				1
Los Angeles, Calif.	5			
Lynn, Mass.	1			
Macon, Ga.		1		
Medford, Mass.		1		
Memphis, Tenn.		3		
Milwaukee, Wis.		4		
Minneapolis, Minn.		1		
Montgomery, Ala.		2		
Newark, N. J.	7	2		
Newburgh, N. Y.	1			
New Orleans, La.		7		
Newton, Mass.		1		
New York, N. Y.			3	83
Northampton, Mass.	1			
Oakland, Calif.		4		
Oklahoma City, Okla.				1
Olean, N. Y.				1
Omaha, Nebr.				2
Orange, N. J.	1			
Parsons, Kans.			1	
Pasadena, Calif.				1
Paterson, N. J.			5	
Peoria, Ill.		1		
Philadelphia, Pa.	29	16		
Portsmouth, Va.		3		
Providence, R. I.		1		
Racine, Wis.		1		
Richmond, Va.		1		
Rochester, N. Y.		1		
Rome, N. Y.	1			
Salem, Mass.	1	1		
San Francisco, Calif.	8	3		
Saratoga Springs, N. Y.	1			
Schenectady, N. Y.	1			
Springfield, Ohio.	1			
Syracuse, N. Y.		1		
Trenton, N. J.		1		
Washington, D. C.		4		
West Orange, N. J.	1			
Wilmington, Del.		2		
Wilmington, N. C.		1		
Worcester, Mass.	1	2		
Yonkers, N. Y.		2		
Youngstown, Ohio.		1		

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for June, 1919.

Place.	New cases reported.
California:	
Stanislaus County	1
Connecticut:	
Litchfield County—	
New Milford	1
Michigan:	
Kent County—	
Grand Rapids City	1
Oakland County—	
Pontiac	7
Wayne County—	
Detroit	1
Total	9
New Jersey:	
Mercer County	1
Warren County	1
Total	2
North Carolina:	
Buncombe County	1
Wake County	2
Total	3
Ohio:	
Defiance County	1
Highland County	1
Summit County	1
Total	3
Wyoming:	
Freemont County	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md	1		Newark, N. J	1	
Charleston, W. Va	1		New Orleans, La	1	
Chicago, Ill	6	2	Norfolk, Va	1	
Dubuque, Iowa	1	1	Pontiac, Mich	1	1
Los Angeles, Calif	2		St. Louis, Mo	1	
Marinette, Wis	1		Waco, Tex	1	
Milwaukee, Wis	6	1			

RABIES IN ANIMALS.

Detroit, Mich., and Rocky Mount, N. C.

During the week ended July 12, 1919, there were reported one case of rabies in animals at Detroit, Mich., and one at Rocky Mount, N. C.

ROCKY MOUNTAIN SPOTTED OR TICK FEVER.

Fremont County, Wyo., June, 1919.

During the month of June, 1919, two cases of Rocky Mountain spotted or tick fever were reported in Fremont County, Wyo.

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 1711; Monthly summaries by States, p. 1714; and Weekly reports from cities, p. 1728.

SMALLPOX.

State Reports for June, 1919—Vaccination Histories.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Arizona:						
Prescott County—						
Yavapai	2				2	
California:						
Alameda County—						
Alameda	4				4	
Oakland	5			1	3	1
Butte County—						
Chico	1				1	
Colusa County	2				2	
Colusa City	6				6	
Fresno County	14			1	13	
Humboldt County—						
Arcata	1				1	
Eureka	1					1
Imperial County—						
Brawley	1				1	
Imperial	1			1		
Los Angeles County	1			1		
Los Angeles	3				3	
Long Beach	6			1	5	
Merced County	1				1	

SMALLPOX—Continued.

State Reports for June, 1919—Vaccination Historics—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
California—Continued.						
Monterey County—						
Monterey	2				2	
Pacific Grove	1				1	
Orange County	5				5	
San Diego County—						
San Diego	5				5	
San Francisco	17			2	15	
San Joaquin County	4				4	
Stockton	23			1	22	
San Mateo County—						
South San Francisco	1			1		
Santa Clara County	8			1	7	
San Jose	37				37	
Solano County—						
Vallejo	1				1	
Stanislaus County—						
Turlock	1				1	
Yolo County	1				1	
Total	153			10	141	2
Michigan:						
Allegan County—						
Cheshire Township	1				1	
Gun Plains Township	1					1
Plainwell	14				14	
Barry County—						
Hastings Township	1					1
Maple Grove Township	1		1			
Berrien County—						
Galien Township	1				1	
Niles	1				1	
Calhoun County—						
Battle Creek	7		1	3	3	
Cheboygan County—						
Cheboygan	1				1	
Chippewa County—						
Dafter Township	1					1
Whitefish Township	4		1		3	
Clare County—						
Farwell	1		1			
Garfield Township	5				5	
Grant Township	1					1
Clinton County—						
Dewitt Township	2		1		1	
Riley Township	1				1	
Victor Township	2				2	
Westphalia Township	1				1	
Crawford County—						
Grayling	3			1	1	1
Eaton County—						
Delta Township	1				1	
Grand Ledge	13		1		12	
Oneida Township	2				2	
Emmett County—						
Petoskey	1				1	
Genesee County—						
Flint	2				2	
Genesee Township	1				1	
Gogebic County—						
Bessemer	1				1	
Ironwood	1				1	
Gratiot County—						
Alma	10			3	7	
Ithaca	1			1		
Houghton County—						
Adams Township	7		1	1	5	
Hubbell	5		2	1	2	
South Range	1				1	

SMALLPOX—Continued.

State Reports for June, 1919—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan—Continued.						
Ingham County—						
Aurelius Township	1				1	
Delhi Township	1				1	
East Lansing	1				1	
Lansing Township	1				1	
Lansing	38			7	31	
Williamston Township	1				1	
Ionia County—						
Portland	1				1	
Iron County—						
Stambaugh	1				1	
Isabella County—						
Broomfield Township	1				1	
Deerfield Township	3				3	
Mount Pleasant	1				1	
Nottawa Township	1			1		
Rolland Township	3				3	
Vernon Township	1				1	
Wise Township	1				1	
Jackson County—						
Jackson	24		3	4	17	
Kalamazoo County—						
Kalamazoo	10			2	8	
Kalamazoo Township	1				1	
Richland Township	4			1	3	
Kent County—						
Grand Rapids Township	1			1		
Grand Rapids	9					9
Lowell	1				1	
Keweenaw County—						
Allonez Township	11		2		9	
Eagle River Township	1		1			
Houghton Township	1				1	
Lenawee County—						
Hudson	1				1	
Palmyra Township	1				1	
Marquette County—						
Marquette	9			1	8	
Mecosta County—						
Millbrook Township	1					1
Menominee County—						
Ingalliston Township	1				1	
Midland County—						
Coleman	4		1	2	1	
Ingersall Township	1				1	
Mount Haley Township	1				1	
Monroe County—						
Monroe	1				1	
Muskegon County—						
Muskegon Heights	3				3	
Newaygo County—						
Garfield Township	2				2	
Ogemaw County—						
Hill Township	1				1	
Ottawa County—						
Georgetown Township	2			2		
Saginaw County—						
Saginaw	2				1	1
St. Clair County—						
St. Clair Township	1				1	
Shiawassee County—						
Antrim Township	2		1		1	
Laingsbury	2		1		1	
Owosso	2				2	
Sciota Township	2				2	
Woodhull Township	1				1	
Washtenaw County—						
Ann Arbor	1				1	
Wayne County—						
Detroit	44			3	22	19
Highland Park	2			1	1	
Van Buren Township	3			1	2	
Total	304		18	36	215	35

SMALLPOX—Continued.

State Reports for June, 1919—Vaccination Histories—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
New Jersey:						
Burlington County	3				2	1
Camden County	1				1	
Cape May County	6				6	
Monmouth County	1				1	
Total	11				10	1
Ohio:						
Ashtabula County	4				4	
Belmont County	16				1	15
Brown County	3				1	2
Butler County	30				15	15
Clark County	3				1	2
Coshocton County	2				2	
Cuyahoga County	40			3	21	16
Darke County	2				1	1
Erie County	2				1	1
Fayette County	24				23	1
Franklin County	25				6	19
Hamilton County	26			2	8	16
Hancock County	1					1
Hardin County	2				1	1
Highland County	1					1
Jefferson County	21		2		13	6
Lake County	1					1
Lawrence County	11				2	9
Licking County	4				1	3
Lorain County	27			1	11	15
Lucas County	11				11	
Mahoning County	61			1	40	20
Marion County	31				22	9
Montgomery County	3				2	1
Ottawa County	1					1
Perry County	8				2	6
Ross County	1				1	
Scioto County	11		1		1	9
Seneca County	6				1	5
Stark County	14			1	9	4
Summit County	2					2
Trumbull County	7				1	6
Tuscarawas County	17				5	12
Union County	5				5	
Warren County	8		2		6	
Total	431		5	8	218	200

State Reports for June, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Delaware:			North Carolina—Continued.		
Sussex County—			Davie County	1	
Fairmount	[1]3		Durham County	3	
North Carolina:			Edgecombe County	4	
Anson County	4		Forsyth County	17	
Ashe County	6		Franklin County	2	
Beaufort County	6		Gaston County	1	
Bertie County	3		Graham County	2	
Cabarrus County	1		Granville County	1	
Caswell County	1		Guilford County	16	
Chatham County	1		Harnett County	6	
Chowan County	1		Iredell County	1	
Currituck County	1		Johnson County	4	
Dare County	1		Lenoir County	1	
			Martin County	2	

[1] In same family.

SMALLPOX—Continued.

State Reports for June, 1919—Continued.

Place.	Cases.	Deaths.
North Carolina—Continued.		
McDowell County	30	
Montgomery County	3	
Orange County	2	
Pasquotank County	4	
Pitt County	21	
Robeson County	5	
Rockingham County	12	
Rutherford County	1	
Surry County	3	
Vance County	11	
Wake County	7	
Washington County	4	
Watauga County	3	
Wilkes County	3	
Wilson County	8	
Yancey County	2	
Total	205	
North Dakota:		
Bottineau County—		
Souris	2	
Foster County—		
Melville	1	
Morton County—		
St. Joseph	1	
Mountrail County	5	
Ward County—		
Minot	2	
Total	11	
South Carolina:		
Abbeville County	3	
Charleston County	5	
Cherokee County	8	
Clarendon County	2	
Edgefield County	16	
Fairfield County	1	
Florence County	12	
Greenville County	1	
Orangeburg County	1	
Richland County	15	
Spartanburg County	11	
Sumter County	3	
Williamsburg County	1	
Total	79	
Washington:		
Chelan County—		
Wenatchee	1	
Franklin County	2	
Pasco	6	
Grant County—		
Hartline	2	
Washington—Continued.		
Grays Harbor County—		
Cosmopolis	1	
Hoquiam	16	
King County—		
Seattle	147	
Kitsap County	1	
Bremerton	1	
Kittitas County	4	
Ellensburg	1	
Lewis County	2	
Centralia	2	
Okanogan County	2	
Pierce County	21	
Orting	1	
Puyallup	10	
Snohomish County	12	
Everett	45	
Marysville	2	
Monroe	3	
Spokane County	1	
Deer Park	1	
Latah	1	
Spangle	1	
Spokane	10	
Thurston County—		
Olympia	6	
Walla Walla County	1	
Walla Walla	9	
Whatcom County	1	
Bellingham	4	
Yakima County	46	
Selah	2	
Sunnyside	1	
Toppenish	1	
Wapato	5	
Yakima	26	
Zillah	5	
Total	403	
Wyoming:		
Sweetwater County	34	
Carbon County	1	
Big Horn County	7	
Laramie County	7	
Niobrara County	7	
Converse County	2	
Natrona County	11	
Albany County	1	
Sheridan County	3	
Weston County	3	
Total	76	

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.
Ann Arbor, Mich	1	
Atchison, Kans	1	
Atlanta, Ga	4	
Birmingham, Ala	2	
Boise, Idaho	1	
Chanute, Kans	2	
Cheyenne, Wyo	1	
Columbia, S. C	2	
Columbus, Ga	2	
Dallas, Tex	3	
Davenport, Iowa	1	
Denver, Colo	12	
Detroit, Mich	1	
Duluth, Minn	1	
Eureka, Calif	2	
Everett, Wash	4	
Ft. Wayne, Ind	1	
Ft. Worth, Tex	2	
Galesburg, Ill	1	
Grand Rapids, Mich	1	
Great Falls, Mont	1	
Harrisburg, Pa	1	
Hoquiam, Wash	7	
Indianapolis, Ind	1	
Kansas City, Mo	1	
Kokomo, Ind	4	
Lincoln, Nebr	5	
Little Rock, Ark	3	

SMALLPOX—Continued.

City Reports for Week Ended July 12, 1919—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Logansport, Ind	3		Racine, Wis	2	
Long Beach, Calif	2		Rock Island, Ill	1	
Los Angeles, Calif	1		St. Cloud, Minn	1	
Marinette, Wis	1		St. Joseph, Mo	1	
Marquette, Mich	1		St. Paul, Minn	2	
Milwaukee, Wis	10		Salt Lake City, Utah	1	
Minneapolis, Minn	4		San Diego, Calif	3	
Mobile, Ala	2		San Francisco, Calif	2	
Montgomery, Ala	1		San Jose, Calif	3	
Morgantown, W. Va	2		Seattle, Wash	4	
New Orleans, La	1	1	Sioux City, Iowa	1	
Norfolk, Va	5		Spartanburg, S. C	1	
Oakland, Calif	3		Spokane, Wash	6	
Ogden, Utah	1		Stockton, Calif	6	
Omaha, Nebr	11		Superior, Wis	2	
Oshkosh, Wis	2		Tacoma, Wash	3	
Philadelphia, Pa	1		Topeka, Kans	2	
Pocatello, Idaho	3		Wichita, Kans	8	
Portland, Oreg	50		Winston-Salem, N. C	1	
Portsmouth, Va	1		Yakima, Wash	2	
Pueblo, Colo	4		Youngstown, Ohio	12	

TETANUS.

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Austin, Tex		1	Milwaukee, Wis		1
Elgin, Ill		1	St. Joseph, Mo		1
Kansas City, Mo		1	St. Louis, Mo		1

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 1711; and Weekly reports from cities, p. 1728.

TYPHOID FEVER.

State Reports for June, 1919.

Place.	New cases reported.	Place.	New cases reported.
California:		California—Continued.	
Alameda County	1	Orange County	2
Berkeley	4	Riverside County	1
Oakland	6	Banning	1
Butte County	1	Riverside	2
Chico	1	Sacramento County	2
Contra Costa County—		Sacramento	3
Richmond	1	San Bernardino County—	
Fresno County—		Ontario	1
Coalinga	2	Redlands	3
Fresno	1	San Bernardino	2
Imperial County	4	San Diego County—	
Brawley	12	San Diego	3
Calexico	1	San Francisco	4
El Centro	1	Santa Clara County	1
Imperial	2	San Jose	3
Kern County	5	Shasta County	1
Los Angeles County	1	Siskiyou County—	
Huntington Park	1	Doris	1
Los Angeles	11	Sonoma County—	
Pasadena	1	Santa Rosa	2
Pomona	15		
South Pasadena	1	Total	105
Whittier	1		

TYPHOID FEVER—Continued.

State Reports for June, 1919—Continued.

Place.	New cases reported.
Connecticut:	
Fairfield County—	
Danbury	1
Stamford	1
Hartford County—	
Hartford	3
New Britain	1
Windsor Locks	2
Middlesex County—	
Middletown	1
New Haven County—	
Ansonia	1
Cheshire	1
Hamden	1
New Haven	4
Waterbury	2
New London County—	
Norwich	1
Waterford	3
Windham County—	
Willimantic	1
Total	23
Delaware:	
New Castle County—	
Wilmington	1
Michigan:	
Barry County—	
Nashville	1
Cass County—	
Ontwa Township	1
Crawford County—	
Grayling	1
Genesee County—	
Flint	7
Hillsdale County—	
Hillsdale	1
Huron County—	
Bad Axe	1
Harbor Beach	1
Ingham County—	
Lansing	2
White Oak Township	1
Kent County—	
Grand Rapids	1
Lenawee County—	
Clinton	1
Fairfield Township	1
Macomb County—	
Mt. Clemens	3
Mason County—	
Hamlin Township	1
Montcalm County—	
Maple Valley Township	1
Oakland County—	
Troy Township	1
Ogemaw County—	
West Branch	1
Ottawa County—	
Crockery Township	1
Holland	1
Roscommon County—	
Lake Township	1
Saginaw County—	
Brady Township	1
Saginaw	2
St. Clair County—	
Marine City	1
Wales Township	1
Tuscola County—	
Vassar	1
Van Buren County—	
Decatur Township	1
Washtenaw County—	
Ann Arbor	1
Bridgewater Township	2
Ypsilanti	1
Michigan—Continued.	
Wayne County—	
Detroit	27
Hamtramck	1
Highland Park	1
Livonia Township	1
River Rouge	1
Total	71
New Jersey:	
Atlantic County	2
Bergen County	4
Camden County	5
Cape May County	1
Essex County	4
Gloucester County	1
Hudson County	2
Mercer County	3
Middlesex County	1
Monmouth County	1
Morris County	12
Passaic County	1
Salem County	1
Somerset County	2
Union County	3
Total	43
North Carolina:	
Alamance County	2
Alexander County	1
Anson County	3
Ashe County	5
Avery County	2
Beaufort County	6
Bladen County	2
Brunswick County	1
Buncombe County	3
Cabarrus County	4
Caldwell County	8
Caswell County	4
Catawba County	10
Chatham County	1
Cherokee County	1
Clay County	3
Cleveland County	11
Columbus County	17
Craven County	6
Cumberland County	3
Davidson County	8
Davie County	3
Duplin County	4
Durham County	10
Edgecombe County	13
Forsyth County	11
Franklin County	3
Gaston County	11
Granville County	2
Greene County	2
Guilford County	31
Halifax County	4
Harnett County	1
Haywood County	1
Henderson County	2
Hertford County	3
Iredell County	6
Jackson County	4
Johnston County	7
Lee County	4
Lenoir County	7
Lincoln County	9
Martin County	11
McDowell County	2
Mecklenburg County	2
Mitchell County	3
Montgomery County	2
Nash County	3
New Hanover County	4

TYPHOID FEVER—Continued.

State Reports for June, 1919—Continued.

Place.	New cases reported.
North Carolina—Continued.	
Onslow County	10
Pamlico County	3
Pender County	6
Person County	5
Pitt County	24
Randolph County	7
Richmond County	8
Robeson County	9
Rockingham County	2
Rowan County	19
Rutherford County	9
Sampson County	1
Scotland County	4
Stokes County	2
Surry County	3
Swain County	8
Wake County	7
Warren County	1
Washington County	2
Watauga County	1
Wayne County	8
Wilkes County	7
Wilson County	5
Yadkin County	11
Total	431
North Dakota:	
Morton County—	
Mandan	2
Ohio:	
Adams County	1
Allen County	2
Ashtabula County	1
Auglaize County	2
Belmont County	7
Columbiana County	6
Crawford County	1
Cuyahoga County	8
Defiance County	1
Fairfield County	1
Franklin County	4
Fulton County	3
Guernsey County	1
Hamilton County	6
Harrison County	3
Highland County	1
Jackson County	1
Lawrence County	9
Logan County	2
Lorain County	3
Lucas County	3
Mahoning County	2
Marion County	4
Meigs County	3
Miami County	2
Montgomery County	6
Morrow County	1
Noble County	1
Pike County	2
Portage County	1
Sandusky County	2
Scioto County	1
Seneca County	2
Stark County	1
Summit County	3
Trumbull County	4
Tuscarawas County	2
Vinton County	3
Warren County	1
Washington County	1
Wood County	2
Total	110

Place.	New cases reported.
Rhode Island:	
Providence County—	
Providence	6
North Providence (town)	2
Kent County—	
West Warwick (town)	3
Total	11
South Carolina:	
Abbeville County	9
Aiken County	3
Anderson County	3
Barnwell County	11
Beaufort County	7
Charleston County	4
Cherokee County	4
Chester County	4
Chesterfield County	3
Clarendon County	3
Darlington County	1
Dillon County	7
Edgefield County	3
Fairfield County	2
Florence County	6
Greenville County	7
Greenwood County	13
Hampton County	3
Horry County	3
Kershaw County	8
Laurens County	1
Lexington County	6
Marion County	6
Marlboro County	4
Newberry County	8
Oconee County	4
Orangeburg County	9
Richland County	16
Spartanburg County	7
Sumter County	21
Union County	2
York County	2
Total	190
Washington:	
Benton County—	
Prosser	1
Chelan County—	2
Cowlitz County—	
Woodland	1
Ferry County	1
Republic	1
Franklin County	2
Pasco	2
Kittitas County	2
Pacific County—	
Ilwaco	1
South Bend	1
Pierce County	1
Steilacoom	2
Snohomish County—	
Everett	1
Spokane County—	
Spokane	2
Walla Walla County	2
Yakima County	2
Wapato	1
Yakima	2
Total	27
Wyoming:	
Washakie County	1

TYPHOID FEVER—Continued.

City Reports for Week Ended July 12, 1919.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	7		Monessen, Pa	1	
Allentown, Pa	1		Montgomery, Ala		1
Anderson, Ind		1	Morristown, N. J	3	1
Arlington, Mass	1		Moundsville, W. Va	1	1
Atlanta, Ga	4		Muscatine, Iowa	2	
Atlantic City, N. J	1		Nashville, Tenn	7	
Baltimore, Md	6	1	New Haven, Conn	3	
Berkeley, Calif		2	New London, Conn	1	
Birmingham, Ala	5	1	New Orleans, La	3	2
Bluefield, W. Va	1		Newport News, Va	1	1
Buffalo, N. Y		2	New York, N. Y	29	5
Centralia, Ill	1		Norfolk, Va	4	
Charleston, S. C	2		North Tonawanda, N. Y	2	
Charleston, W. Va	4	2	Norwalk, Conn	2	
Chicago, Ill	8	1	Oakland, Calif	2	1
Cleveland, Ohio	4		Oklahoma City, Okla		1
Columbia, S. C	2		Paterson, N. J	1	
Columbus, Ga	4		Philadelphia, Pa	17	2
Connellsville, Pa	1		Pittsburgh, Pa	3	
Dallas, Tex	3		Port Chester, N. Y	2	
Danville, Va	1		Portland, Me	1	
Detroit, Mich	12	2	Portsmouth, Va	1	
Durham, N. C	4		Poughkeepsie, N. Y	2	
East St. Louis, Ill	1		Providence, R. I	2	1
Elmira, N. Y	2		Pueblo, Colo	1	
El Paso, Tex	4		Reading, Pa	1	
Evanston, Ill	1		Red Wing, Minn	1	
Everett, Wash	2		Richmond, Va	5	
Fairmont, W. Va	1		Roanoke, Va	2	1
Fall River, Mass	3		Rochester, N. Y	5	
Flint, Mich	9		Rockford, Ill	1	
Fort Worth, Tex	2		St. Louis, Mo	4	1
Fostoria, Ohio	1		St. Paul, Minn	1	
Galveston, Tex	2		San Diego, Calif	1	1
Grand Rapids, Mich	1	1	San Francisco, Calif	2	
Harrisburg, Pa	2		Saratoga Springs, N. Y	1	
Haverhill, Mass	1		Sault Ste. Marie, Mich	1	
Highland Park, Mich	2		Savannah, Ga	1	
Houston, Tex	1		Scranton, Pa	2	
Hutchinson, Kans	4		Springfield, Ill	1	1
Indianapolis, Ind	2		Springfield, Ohio	1	
Ironwood, Mich	1	1	Syracuse, N. Y	1	1
Jersey City, N. J	2		Terre Haute, Ind	1	
Kansas City, Mo	1		Toledo, Ohio	1	
Lancaster, Ohio	1		Topeka, Kans	3	
Los Angeles, Calif	5	1	Tulsa, Okla	8	
Louisville, Ky	7		Waco, Tex		2
Lynchburg, Va	2		Washington, D. C	3	
Lynn, Mass	3	1	Wheeling, W. Va	4	1
McKees Rocks, Pa	1		Wichita, Kans	1	
Malden, Mass	2		Wilmington, Del	1	1
Martinsburg, W. Va	1		Winston-Salem, N. C	4	1
Memphis, Tenn	3		Worcester, Mass	2	
Milwaukee, Wis	2		York, Pa	1	
Minneapolis, Minn	2		Youngstown, Ohio		1
Mobile, Ala	2	3	Zanesville, Ohio	1	1

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended July 12, 1919.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams, Mass	14,406	2								
Adrian, Mich	11,570	2								
Akron, Ohio	93,604	36	6		5		3		9	
Alameda, Calif	28,433	6	4	1			5			
Alexandria, La	16,232	6								2
Allentown, Pa	65,109		1		3					
Alton, Ill	23,783						2			
Altoona, Pa	59,712		6				1		1	
Anderson, Ind	24,230	8								2
Ann Arbor, Mich	15,041	10	1				1		2	
Anniston, Ala	14,326		1						1	
Ansonia, Conn	16,954	3								
Appleton, Wis	18,005	2								
Arlington, Mass	13,073	11	1							
Asbury Park, N. J	14,629	3	1							
Asheville, N. C	25,656	15							12	6
Ashtabula, Ohio	22,008	3					4		1	
Atlanta, Ga	196,144	63	3	1	1		3		1	4
Atlantic City, N. J	59,515	12	1	1	10				3	
Attleboro, Mass	19,776	2							2	
Auburn, N. Y	37,823	6			2					
Austin, Tex	35,612	4								1
Bakersfield, Calif	17,543	2							1	
Baltimore, Md	594,637	274	16	3	5		19		36	25
Baton Rouge, La	17,544	5							2	2
Battle Creek, Mich	30,159		4		2		1			
Bayonne, N. J	72,204						1		8	
Beatrice, Nebr	10,437	4								1
Bedford, Ind	10,613	2								
Belleville, N. J	12,797								1	
Beloit, Wis	18,547	5								
Benton Harbor, Mich	11,099				2					
Berkeley, Calif	60,427	9								2
Berlin, N. H	13,892	5								1
Bethlehem, Pa	14,353		1		13					
Beverly, Mass	22,128	4	1						1	1
Biddeford, Me	17,760	2								
Binghampton, N. Y	54,864	14	1		1		1	1		
Birmingham, Ala	189,716	74	1		6		3		10	12
Bloomington, Ind	11,661	2								
Boise, Idaho	35,951	7					3			
Boston, Mass	767,815	218	41	4	24	1	22		39	28
Braddock, Pa	32,060		2							
Brazil, Ind	10,472	5								
Bridgeport, Conn	124,724	16	1		12		1		2	2
Bristol, Conn	16,318	1								
Brockton, Mass	69,152	15			1				3	1
Brookline, Mass	33,526	6			4		1			3
Buffalo, N. Y	475,781	109	42	3	25		6		41	13
Burlington, Iowa	25,144	2					1			
Burlington, Vt	21,802	10			1					1
Butler, Pa	28,677		2		1					
Butte, Mont	44,057		1		3		3			
Cadillac, Mich	10,158	3								
Cairo, Ill	15,995	6			2					1
Cambridge, Mass	114,293	27	1		5		5		9	4
Camden, N. J	108,117		1				1		4	
Canton, Ohio	62,566	14					1		3	2
Cape Girardeau, Mo	11,146		3							
Carbondale, Pa	19,597		1							
Carlisle, Pa	10,795				3					
Cedar Rapids, Iowa	38,033		1							
Centralia, Ill	11,838	3								
Chambersburg, Pa	12,475				2					
Chanute, Kans	12,968	2					1			
Charleston, S. C	61,011	23							1	4
Charleston, W. Va	31,060	11								1
Charlotte, N. C	40,759	11			1		1		1	
Chelsea, Mass	48,405	6							2	2
Chester, Pa	41,857		3		2				4	
Chicago, Ill	2,547,201	517	89	11	211	4	20		427	72
Chicopee, Mass	29,950	6								1
Chillicothe, Ohio	15,625	4								
Cincinnati, Ohio	414,218	107	7	1	54	1	13		28	12

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 12, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cleveland, Ohio	692,259	143	29	1	27		1		35	20
Clinton, Mass	[1] 13,075	3								
Cohoes, N. Y	25,292	7								1
Colorado Springs, Colo	38,965	12							12	4
Columbia, S. C	35,165	1								
Columbus, Ga	26,306	12	1		5				2	1
Columbus, Ohio	220,135	60	1		8		1		4	4
Concord, N. H	22,858	9								1
Corpus Christi, Tex	10,789								1	
Council Bluffs, Iowa	31,838	5								
Covington, Ky	59,623	15	1							3
Cranston, R. I	26,773	3							1	1
Cumberland, Md	26,686	8			1		3		1	1
Dallas, Tex	129,738	36	1						1	4
Danbury, Conn	22,931	4								
Danvers, Mass	10,037		2							
Danville, Ill	32,969	2			1				1	1
Danville, Va	20,183									2
Davenport, Iowa	49,618		4							
Dayton, Ohio	128,939	33	4		13		1		7	2
Decatur, Ill	41,483	6	1		1				1	
Dedham, Mass	10,618	3	2							
Denver, Colo	268,439	62	6	1	22		4			12
Des Moines, Iowa	104,052						1			
Detroit, Mich	619,648	164	29	2	68	1	20	2	48	21
Dover, N. H	13,276	4								
Du bois, Pa	14,994						8			
Duluth, Minn	97,077	17	3		3		1		4	2
Durham, N. C	26,160	5							2	1
East Chicago, Ind	30,286	9								1
Easton, Pa	30,854		1						1	
East Orange, N. J	43,761	9	1		1		1		2	2
East St. Louis, Ill	77,312	8	1		5		1		1	1
Elgin, Ill	28,562	6			4					1
Elizabeth, N. J	88,830		2				2		4	1
Elmira, N. Y	38,272	10	1						1	
El Paso, Tex	69,149	30					5	1		7
Englewood, N. J	12,603	2					2			
Erie, Pa	76,592		4						10	
Eureka, Calif	15,142	3								
Evanston, Ill	29,304	11			2					
Everett, Mass	40,160	8	2						3	
Everett, Wash	37,205						3			
Fairmount, W. Va	16,111		1		3					
Fall River, Mass	129,828	34	3		15		4		4	2
Fargo, N. Dak	17,872	2			10		1		2	
Farrell, Pa	10,190		1							
Findlay, Ohio	14,858	1			2					
Flint, Mich	57,386	3	13		9					
Fond du Lac, Wis	21,486	4								1
Fort Dodge, Iowa	21,039	1								1
Fort Scott, Kans	10,564	5								
Fort Wayne, Ind	78,014	19					1		5	2
Fort Worth, Tex	109,597	16	3	1	2				2	2
Fostoria, Ohio	10,959	3			2					
Framingham, Mass	14,149	10								1
Freeport, Ill	19,844	1								
Fremont, Nebr	10,080	4								
Fremont, Ohio	11,034	1								
Fresno, Calif	36,314	4								
Galesburg, Ill	24,629	11			3					
Galveston, Tex	42,650	12							1	
Gloversville, N. Y	22,314				18					
Grand Rapids, Mich	132,861	29	2		6					2
Great Falls, Mont	[1] 13,948	10								1
Green Bay, Wis	30,017	10								
Greenfield, Mass	12,251	3	1							
Greensboro, N. C	20,171	6								
Greenville, S. C	18,574	4								
Greenwich, Conn	19,594		1				1		2	1
Hackensack, N. J	17,412	11			1				2	
Hancock, Mich	12,578	5							1	1

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 12, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Harrisburg, Pa.	73,276				5					
Harrison, N. J.	17,345						1		1	
Hartford, Conn.	112,831	29	1		1		3			2
Haverhill, Mass.	49,180	9	11	1	1				1	1
Hazleton, Pa.	28,981				1					
Highland Park, Mich.	33,859	5	8	1	5		1		3	
Hoboken, N. J.	78,324	12	5		2				2	1
Holland, Mich.	12,459	2								1
Holyoke, Mass.	66,503	10					1		3	1
Houston, Tex.	116,878	34	4		1		1			
Hudson, N. Y.	12,898	3								
Hutchinson, Kans.	21,461		1							
Independence, Mo.	11,964	9							1	1
Indianapolis, Ind.	283,622	80	4		10				9	3
Iowa City, Iowa.	11,626								1	
Ironwood, Mich.	15,095	8							6	3
Ithaca, N. Y.	16,017	3							1	
Jamestown, N. Y.	37,431	12			19				1	3
Janesville, Wis.	14,411	9								1
Jersey City, N. J.	312,557		24	2	7		1		15	6
Johnstown, N. Y.	10,678	1								
Johnstown, Pa.	70,473		2		7					
Joplin, Mo.	33,400	5							2	
Kalamazoo, Mich.	50,408	20	1		10		9		4	3
Kansas City, Kans.	102,096				2				2	
Kansas City, Mo.	305,816	89	2		11				4	5
Kearny, N. J.	24,325	9	1				1			
Kenosha, Wis.	32,833	4			2		3		1	
Knoxville, Tenn.	59,112						1		4	4
Kokomo, Ind.	21,929	4					1			2
Lackawanna, N. Y.	16,219	2								
La Crosse, Wis.	31,835	7		1			2		1	
La Fayette, Ind.	21,481	10								
Lakewood, Ohio.	23,813	4	1							
Lancaster, Ohio.	16,086	6								1
Lancaster, Pa.	51,437		2		1					
Lawrence, Kans.	13,477	3								
Lawrence, Mass.	102,923	12	2				1		1	1
Lebanon, Pa.	20,947		3				1		3	
Leominster, Mass.	21,365	5	1		3					
Lexington, Ky.	41,997	24								2
Lincoln, Nebr.	46,957	9			1				1	2
Lincoln, R. I.	10,473		1				1			
Little Rock, Ark.	58,716	5								1
Logansport, Ind.	21,338	3	1		1					
Long Beach, Calif.	29,163	13	1						1	
Long Branch, N. J.	15,733	2							2	
Lorain, Ohio.	38,266	4								
Los Angeles, Calif.	535,485	121	12		7		2		37	22
Louisville, Ky.	240,808	85	2				2		6	10
Ludington, Mich.	10,566	5			2					
Lynchburg, Va.	33,497	9					2			
Lynn, Mass.	104,534	16	2		3		3		3	3
McKees Rocks, Pa.	20,795		4						1	
Macon, Ga.	46,099	17								
Madison, Wis.	31,315	5			1					1
Malden, Mass.	52,243	4					3		2	
Manchester, Conn.	15,859	3								
Manchester, N. H.	79,607	17	2						2	2
Manitowoc, Wis.	13,931	4					2			
Mankato, Minn.	[1] 10,365						1			
Marinette, Wis.	[1] 14,610	3								
Marion, Ind.	19,923	10	2	2			1			
Marlboro, Mass.	15,285	3							1	
Marquette, Mich.	12,555	3	2		4					1
Martinsburg, W. Va.	12,984						2			
Medford, Mass.	26,681	6					1			
Melrose, Mass.	17,724	4	1							
Memphis, Tenn.	151,877		2		2				10	2
Methuen, Mass.	14,320	2								
Middletown, Ohio.	16,384	5							2	1
Milwaukee, Wis.	445,008	86	10		2		18		19	9
Minneapolis, Minn.	373,448	81	9	1	16	1	6		20	11
Missoula, Mont.	19,075	4					10			

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 12, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Mobile, Ala	59,201	28	.....	.....	.....	.....	.....	.....	1	2
Moline, Ill	27,976	1	.....	.....	.....	.....	.....	.....	2	1
Monessen, Pa	23,070	.....	1	.....	.....	.....	1	.....	.....	.....
Montgomery, Ala	44,039	13	.....	.....	.....	.....	.....	.....	1	.....
Morgantown, W. Va	14,444	2	.....	.....	.....	.....	.....	.....	1	.....
Morristown, N. J	13,410	3	.....	.....	.....	.....	.....	.....	.....	.....
Moundsville, W. Va	11,513	3	.....	.....	.....	.....	.....	.....	.....	.....
Mount Carmel, Pa	20,709	.....	2	.....	5	.....	.....	.....	3	.....
Mount Vernon, N. Y	37,991	10	2	.....	.....	.....	3	.....	.....	.....
Nashua, N. H	27,541	4	.....	.....	.....	.....	.....	.....	.....	.....
Nashville, Tenn	118,136	37	2	.....	4	.....	.....	.....	4	4
Natick, Mass	10,140	.....	.....	.....	.....	.....	.....	.....	1	1
Newark, N. J	418,789	70	19	.....	3	1	8	.....	44	5
New Bedford, Mass	121,622	.....	4	.....	4	.....	2	.....	5	.....
New Britain, Conn	55,385	12	4	1	2	.....	1	.....	.....	.....
Newburgh, N. Y	29,893	11	.....	.....	.....	.....	.....	.....	1	2
Newburyport, Mass	15,291	1	.....	.....	.....	.....	.....	.....	.....	.....
New Castle, Pa	41,915	.....	.....	.....	.....	.....	1	.....	5	.....
New Haven, Conn	152,275	29	.....	.....	2	.....	1	.....	8	2
New London, Conn	21,199	7	2	.....	.....	.....	1	.....	1	.....
New Orleans, La	377,010	140	9	.....	.....	.....	.....	.....	23	13
Newport News, Va	22,622	9	.....	.....	2	.....	.....	.....	1	1
Newport, R. I	30,585	7	1	.....	.....	.....	1	.....	.....	.....
Newton, Mass	44,345	15	.....	.....	.....	.....	.....	.....	.....	.....
New York, N. Y	5,737,492	1,267	203	16	85	4	31	3	188	148
Niagara Falls, N. Y	38,466	7	1	.....	34	.....	.....	.....	4	.....
Norfolk, Va	91,148	.....	1	.....	.....	.....	.....	.....	.....	.....
Norristown, Pa	31,969	.....	.....	.....	1	.....	2	.....	.....	.....
North Adams, Mass	[1] 22,019	3	.....	.....	.....	.....	.....	.....	1	.....
Northampton, Mass	20,006	7	.....	.....	.....	.....	2	.....	.....	.....
North Attleboro, Mass	11,248	5	.....	.....	.....	.....	1	.....	1	1
North Braddock, Pa	15,684	.....	1	.....	.....	.....	.....	.....	.....	.....
North Tonowanda, N. Y	14,060	2	.....	.....	2	.....	.....	.....	.....	.....
Norwalk, Conn	27,332	.....	.....	.....	.....	.....	1	.....	.....	.....
Norwich, Conn	21,923	.....	.....	.....	.....	.....	.....	.....	1	.....
Norwood, Ohio	23,269	2	.....	.....	1	.....	.....	.....	.....	.....
Oakland, Calif	206,405	60	.....	1	.....	.....	4	.....	7	8
Oak Park, Ill	27,816	7	.....	.....	10	.....	1	.....	1	.....
Ogden, Utah	32,343	2	.....	.....	.....	.....	.....	.....	.....	.....
Oil City, Pa	20,162	.....	2	.....	15	.....	1	.....	.....	.....
Oklahoma City, Okla	97,588	17	.....	.....	.....	.....	1	.....	1	3
Olean, N. Y	16,927	7	.....	.....	.....	.....	.....	.....	.....	.....
Omaha, Nebr	177,777	31	7	.....	4	.....	1	.....	.....	5
Orange, N. J	33,636	17	2	.....	.....	.....	.....	.....	1	1
Oshkosh, Wis	36,549	3	2	.....	.....	.....	1	.....	.....	.....
Parkersburg, W. Va	21,059	5	.....	.....	1	.....	.....	.....	1	.....
Parsons, Kans	15,952	.....	.....	.....	.....	.....	.....	.....	1	.....
Pasadena, Calif	49,620	11	.....	.....	1	.....	.....	.....	1	1
Passaic, N. J	74,478	10	3	1	.....	.....	1	.....	3	1
Paterson, N. J	140,512	.....	3	.....	.....	.....	2	.....	9	.....
Peekskill, N. Y	19,034	2	.....	.....	.....	.....	.....	.....	.....	.....
Peoria, Ill	72,184	19	2	.....	.....	.....	2	.....	.....	2
Perth Amboy, N. J	42,646	8	2	.....	.....	.....	.....	.....	3	1
Philadelphia, Pa	1,735,514	528	67	9	99	1	22	1	133	65
Phillipsburg, N. J	15,879	4	1	.....	.....	.....	.....	.....	.....	.....
Pine Bluff, Ark	17,777	.....	1	.....	.....	.....	.....	.....	.....	.....
Piqua, Ohio	14,275	5	.....	.....	.....	.....	.....	.....	.....	.....
Pittsburgh, Pa	586,196	.....	20	.....	8	.....	2	.....	24	.....
Pittsfield, Mass	39,678	13	.....	.....	.....	.....	4	.....	1	2
Plainfield, N. J	24,330	2	.....	.....	16	.....	.....	.....	.....	.....
Plattsburg, N. Y	13,111	3	2	.....	.....	.....	.....	.....	.....	.....
Pomona, Calif	13,624	7	3	1	.....	.....	.....	.....	.....	.....
Pontiac, Mich	18,006	13	2	.....	8	.....	.....	.....	3	1
Port Chester, N. Y	16,727	4	.....	.....	.....	.....	.....	.....	1	.....
Portland, Me	64,720	22	.....	.....	.....	.....	9	.....	.....	.....
Portland, Oreg	308,399	58	2	1	.....	.....	5	.....	5	5
Portsmouth, N. H	11,730	.....	.....	.....	.....	.....	.....	.....	1	.....
Portsmouth, Va	40,693	24	1	.....	.....	.....	.....	.....	1	.....
Pottstown, Pa	16,987	.....	.....	.....	2	.....	1	.....	.....	.....
Poughkeepsie, N. Y	30,786	8	1	.....	.....	.....	.....	.....	4	.....
Providence, R. I	259,895	52	12	1	2	.....	2	.....	.....	4
Pueblo, Colo	56,084	.....	.....	.....	1	.....	.....	.....	.....	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended July 12, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Quincy, Mass.	39,022	6	3		1					1
Racine, Wis.	47,465	14			1					
Rahway, N. J.	10,361	3								
Raleigh, N. C.	20,274	6								1
Reading, Pa.	111,607				1					
Redlands, Calif.	14,573	5								1
Reno, Nev.	15,514	7								3
Richmond, Va.	158,702	56	2		5		3		20	4
Riverside, Calif.	20,496	5	1						2	
Roanoke, Va.	46,282	13	3		4				1	
Rochester, N. Y.	264,714	51	11	1	2	1	8		11	3
Rockford, Ill.	56,739	10							1	
Rock Island, Ill.	29,452	11			1				1	1
Rocky Mount, N. C.	12,673	2	2				1			
Rome, N. Y.	24,259		2		6				4	
Rutland, Vt.	15,038	6								
Sacramento, Calif.	68,984	18								1
St. Cloud, Minn.	12,013								1	
St. Joseph, Mo.	86,498	18					1			3
St. Louis, Mo.	768,630	206	37	4	56		8		40	18
St. Paul, Minn.	252,465	43	13	1	11	1	3	1	24	2
Salem, Mass.	49,346	7	3				1		5	
Salem, Oreg.	21,274	3								
Salt Lake City, Utah.	121,623	28	8				1	1		
San Diego, Calif.	56,412	13							9	1
Sandusky, Ohio.	20,226	7			1				1	3
Sanford, Me.	11,217	2								
San Francisco, Calif.	471,023	113	7	1	2		6		15	10
San Jose, Calif.	39,810						4		1	
Santa Barbara, Calif.	15,360	3								
Santa Cruz, Calif.	15,150	3								1
Saratoga Springs, N. Y.	13,839	5							1	
Saugus, Mass.	10,210		1		7		1			
Sault Ste. Marie, Mich.	14,130	4	1				1			
Savannah, Ga.	69,250	26							4	1
Schenectady, N. Y.	103,774	12	2		5				10	1
Scranton, Pa.	149,541		2						2	
Seattle, Wash.	366,445		5		14		14			
Shamokin, Pa.	21,274		3		15					
Sioux Falls, S. Dak.	16,887	6	1				4			
Somerville, Mass.	88,618	20	1				3		5	
South Bend, Ind.	70,967	9								4
Southbridge, Mass.	14,465	1								
Spartanburg, S. C.	21,985	4								
Spokane, Wash.	157,656				17		9			
Springfield, Ill.	62,623	15								1
Springfield, Mass.	108,668	39						1	3	4
Springfield, Mo.	41,169	8								3
Springfield, Ohio.	52,296	9			2				1	1
Steelton, Pa.	15,759		1							
Steubenville, Ohio.	28,259	4							1	
Stockton, Calif.	36,209	15					1			1
Superior, Wis.	47,167	10	1		4					
Syracuse, N. Y.	158,559	37	1		3		3		3	1
Tacoma, Wash.	117,446		5		3		1			
Taunton, Mass.	36,610	16					1		2	1
Terre Haute, Ind.	67,361	12								3
Toledo, Ohio.	202,010	44	1		135		6		7	4
Topeka, Kans.	49,538	1							2	
Trenton, N. J.	113,974	56	1		29		1		7	6
Troy, N. Y.	78,094	24	4	1					3	3
Tulsa, Okla.	32,507		1				1		18	
Vallejo, Calif.	13,803	4								
Vancouver, Wash.	13,805		1							
Waco, Tex.	34,015	15								4
Wakefield, Mass.	12,947	5							2	
Walla Walla, Wash.	26,067		2				1			
Waltham, Mass.	31,011	4	1		2		1			
Warren, Pa.	15,083				1				1	
Washington, D. C.	369,282		12	3	3				15	11
Washington, Pa.	22,076				3					
Waterbury, Conn.	59,201	5	2		4		3		2	5

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Cont.

City Reports for Week Ended July 12, 1919—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Watertown, Mass.	15,188	3	.....	.....	.....	.....	.....	.....	.....	1
Wausau, Wis.	19,666	2	.....	.....	.....	.....	.....	.....	.....	.....
West Chester, Pa.	13,403	.....	2	.....	.....	.....	2	.....	1	.....
Westfield, Mass.	18,769	8	2	.....	.....	.....	2	.....	.....	3
West Hoboken, N. J.	44,386	4	.....	.....	.....	.....	.....	.....	2	.....
West New York, N. J.	19,613	3	.....	.....	.....	.....	.....	.....	1	.....
West Orange, N. J.	13,964	.....	.....	.....	.....	.....	.....	.....	1	.....
Wheeling, W. Va.	43,657	11	1	.....	.....	.....	.....	.....	.....	3
White Plains, N. Y.	23,331	1	3	.....	1	.....	.....	.....	1	.....
Wichita, Kans.	73,597	21	1	.....	.....	.....	.....	.....	.....	.....
Wilkes-Barre, Pa.	78,334	.....	1	.....	9	.....	.....	.....	4	.....
Wilkinsburg, Pa.	23,699	.....	1	.....	1	.....	1	.....	.....	.....
Williamsport, Pa.	34,123	.....	.....	.....	3	.....	.....	.....	2	.....
Wilmington, Del.	95,369	34	2	.....	1	.....	1	.....	.....	2
Wilmington, N. C.	30,400	9	1	.....	1	.....	.....	.....	1	.....
Winchester, Mass.	10,812	1	.....	.....	.....	.....	.....	.....	.....	.....
Winona, Minn.	[1] 18,583	.....	1	.....	.....	.....	.....	.....	.....	.....
Winston-Salem, N. C.	33,136	20	1	.....	.....	.....	.....	.....	2	2
Winthrop, Mass.	13,105	2	.....	.....	1	.....	.....	.....	1	2
Woburn, Mass.	16,076	3	.....	1	.....	.....	.....	.....	.....	.....
Worcester, Mass.	166,106	40	3	.....	12	.....	.....	.....	7	3
Yonkers, N. Y.	103,066	19	8	.....	1	.....	.....	.....	1	9
York, Pa.	52,770	.....	1	.....	1	.....	.....	.....	1	.....
Youngstown, Ohio.	112,282	31	2	2	2	1	1	.....	3	.....
Zanesville, Ohio.	31,320	7	.....	.....	.....	.....	.....	.....	.....	1

[1] Population Apr. 15, 1910.

FOREIGN.

AUSTRALIA.

Epidemic Encephalitis Declared a Quarantinable Disease.

Under date of May 28, 1919, the Governor General of the Commonwealth of Australia declared epidemic encephalitis to be a quarantinable disease.

CHINA.

Epidemic Influenza—Canton.

Epidemic influenza was reported present at Canton, China, during the two weeks ended June 14, 1919.

Further Relative to Cholera—Swatow and Vicinity.[1]

Cholera was declared present at Swatow, China, May 27, 1919. On May 28 a daily average occurrence of seven fatalities from cholera was reported, with a total to that date of about 100 fatal cases. The mortality was stated to be low as compared with that of previous epidemics.

Cholera was reported, May 28, to be seriously prevalent in a number of villages in the vicinity of Swatow and in the cities of Chaoyang and Kityang.

Quarantine Against Swatow—Amoy.

According to information dated June 9, 1919, quarantine has been declared at Amoy, China, against Swatow, on account of cholera.

MADAGASCAR.

Epidemic Influenza—Tananarive.

During the two weeks ended May 11, 1919, epidemic influenza was reported present at Tananarive, Madagascar, with 75 fatal cases occurring among natives. During the same period there were reported 272 fatal cases of pneumonia among natives. (Total number of deaths reported among natives during the period, 523; total population, 64,003; natives, 62,410.)

[1] Public Health Reports, June 6, 1919, page 1291.

UNION OF SOUTH AFRICA.

Anthrax.

According to information dated March 24, 1919, anthrax has been reported to be spreading in the Cape Province, Free State, Natal, and Transvaal, with large losses in stock.

Influenza—August–November, 1918.

The prevalence of influenza in the Union of South Africa in 1918 has been reported as follows:

Influenza appeared in South Africa in August, 1918, and attained its greatest incidence in October of that year. From August 1 to November 30, 1918, 11,726 fatal cases of influenza were notified among the white population; rate per 1,000, 8.26. Among the colored population there were 127,745 reported fatalities, or 27.19 per 1,000, making a total of 139,471 deaths, or 22.80 per 1,000 of the white and colored population combined.

The Cape Province appears to have suffered most severely, the city of Cape Town having had the greatest number of fatal cases, 6,342, as well as the highest death rate among the white population of any city in the Union. (Population of Cape Town, estimated, 173,050.) The mining town of Kimberley reported 4,861 fatalities from influenza (population in 1904, 34,331, of whom 13,556 were whites).

The total number of influenza cases which came to the attention of the health authorities was 2,616,805, or nearly 43 per cent of the population (6,110,000, estimated). As influenza was not a reportable disease, it was estimated that the number of persons affected with the disease was far in excess of the figures quoted.

According to information dated March 6, 1919, influenza has been declared a reportable disease in the Union of South Africa.[1]

Influenza—East London.

During the week ended June 7, 1919, 23 cases of epidemic influenza were reported at East London, Cape of Good Hope State, Union of South Africa.

Influenza—Johannesburg.

During the month of April, 1919, influenza was reported very prevalent at Johannesburg, Union of South Africa.

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[1] Public Health Reports, May 30, 1919, p. 1232.

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

Reports Received During Week Ended Aug. 1, 1919.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton	June 8–21	10	3	
Swatow	June 2–21	.....	118	
India:				
Bombay	May 25–31	5	5	
Rangoon	May 18–31	15	9	
Indo-China:				
Cochin-China—				
Saigon	May 26–June 8	85	51	
Java:				
East Java		.....	.....	Apr. 23–May 20, 1919: Cases, 252; deaths, 195.
Surabaya	Apr. 23–May 20	83	66	
West Java		.....	.....	May 9–June 5, 1919: Cases, 35; deaths, 30.
Batavia	May 9–June 5	2	.....	
Philippine Islands:				
Provinces		.....	.....	June 8–14, 1919: Cases, 97; deaths, 70.
Batangas	June 8–14	9	6	
Bohol	do	6	4	
Bulacan	do	20	12	
Cavite	do	7	2	
Laguna	do	5	6	
Nueva Ecija	do	6	6	
Pampanga	do	25	22	
Pangasinan	do	9	5	
Tayabas	do	10	7	

PLAGUE.

China:				
Canton	June 8–21	4	1	Apr. 27–May 10, 1919: Cases, 3; present May 24–June 7, 1919.
Egypt		.....	.....	Jan. 1–June 25, 1919: Cases, 638; deaths, 339.
Cities—				
Kantarah	June 19–20	4	2	2 cases European; septicemic.
Port Said	June 25	3	.....	1 European.
Provinces—				
Assiout	June 20–24	11	7	
Beni-Souef	June 21	1	1	
Fayoum	do	.....	1	
Girgeh	June 21–25	.....	2	
Menoufia	June 24	4	1	
Minieh	June 20–25	4	5	
India		.....	.....	May 25–31, 1919: Cases, 891; deaths, 702.
Bombay	May 25–31	30	25	
Karachi	June 8–14	25	27	
Rangoon	May 18–24	11	10	
Japan:				
Yokohama	June 9–15	1	1	
Java:				
East Java		.....	.....	Apr. 23–May 20, 1919: Cases, 25: deaths, 25.
Surabaya	Apr. 23–May 20	6	6	

SMALLPOX.

Canada:				
New Brunswick—				
Campbellton	June 15–21	1	.....	
Nova Scotia—				
Halifax	July 6–12	20	.....	Present in Antigonish, Cumberland, Guysborough, Hants, and Halifax Counties.
Ontario—				
Ottawa	June 15–21	2	.....	
Prince Edward Island—				
Charlotte Town	July 6–19	6	.....	
Saskatchewan—				
Regina	.....	.....	.....	Jan. 1–Apr. 30, 1919: Cases, 41; deaths, 1.

[1] From medical officers of the Public Health Service, American consuls, and other sources

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

Reports Received During Week Ended Aug. 1, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy	June 10-16			Present.
Canton	June 8-21			Do.
Chefoo	do			Do.
Chungking	June 1-14			Do.
Hongkong	May 18-June 7	4	4	
Nanking	June 8-21			Do.
Czecho-Slovakia:				
Prague	May 18-June 21	2	1	
Egypt:				
Alexandria	June 18-24	45	18	
Cairo				Jan. 15-28, 1919: Cases, 9; deaths, 1.
France:				
Paris	June 15-21	2	3	
Great Britain:				
Cardiff	June 30-July 5	3		
London	June 8-July 5	9		
India:				
Bombay	May 25-31	52	30	
Karachi	June 8-14	7	7	
Rangoon	May 18-31	56	24	
Japan:				
Nagoya	June 1-7	1	1	
Taiwan	June 11-17	7		Entire island.
Tokyo	June 1-15	1		
Java:				
West Java				May 9-June 5, 1919: Cases, 232; deaths, 39.
Batavia	May 9-June 5	2		
Mesopotamia:				
Bagdad	May 24-30	1		
Mexico:				
Mexico City	June 22-July 5	4		
Vera Cruz	July 6-12	2		
Newfoundland:				
Outports				July 5-18, 1919: Cases, 10.
Siberia:				
Vladivostok	June 8-15	9		
Spain:				
Almeria	June 2-16	8		
Barcelona	June 13-19		6	
Cadiz	May 1-31		1	

TYPHUS FEVER.

Egypt:				
Alexandria	June 18-24	172	51	
Cairo				Jan. 15-28, 1919: Cases, 14; deaths, 8.
Port Said				Jan. 9-15, 1919: Cases, 3; deaths, 3.
Great Britain:				
Dundee	June 30-July 5	3		
Glasgow	June 28-July 5	4	1	
Italy:				
Genoa	June 25-July 1	62		17 Austrian prisoners.
Japan:				
Nagasaki	June 16-22	2		
Mesopotamia:				
Bagdad	May 24-30	4	4	
Mexico:				
Mexico City	June 22-July 5	49		
Siberia:				
Vladivostok	June 9-15	23		

YELLOW FEVER.

Brazil:				
Bahia	May 11-17	4	3	
Peru:				
Paita	July 10-22	8	5	Department of Piura.
Piura	do	46	10	Do.

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

Reports Received from June 28 to July 25, 1919.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo	Apr. 20–26	10		
China:				
Foochow	July 3			Present.
India:				
Bombay	Apr. 28–May 24	22	19	
Calcutta	May 4–31		476	
Madras	May 18–24	10	8	
Rangoon	Apr. 28–May 17	43	36	
Indo-China:				
Cochin-China—				
Saigon	Apr. 21–May 18	113	83	City and district.
Japan:				
Pescadores Islands	July 14	40		In one village.
Java:				
East Java				Apr. 2–22, 1919: Cases, 301; deaths, 264.
Mid-Java				Mar. 28–Apr. 24, 1919: Cases, 1,595; deaths, 1,225.
Samarang	Mar. 28–Apr. 24	75	74	
West Java				May 2–22, 1919: Cases, 35; deaths, 13.
Batavia	May 2–8	10	5	
Persia:				
Ardebil	May 2			Present.
Enzeli	Apr. 23	1		Outbreak.
Khorram-Ahab	May 3			Do.
Mianedge	Apr. 28			
Zindjan	Apr. 21–May 4		49	
Philippine Islands:				
Manila	Apr. 26–May 31	7	2	
Provinces				May 4–24, 1919: Cases, 567; deaths, 383.
Batangas	May 4–24	25	23	
Bulacan	do	48	25	
Cebu	do	162	84	
Laguna	do	20	15	
Mindoro	do	19	14	
Misamis	do	9	2	
Pampanga	do	166	131	
Tayabas	do	118	89	
Philippine Islands:				
Provinces				June 1–7, 1919: Cases, 87; deaths, 47.
Batangas	June 1–7	16	13	
Bulacan	do	12	7	
Nueva Ecija	do	4	1	
Pampanga	do	23	16	
Tayabas	do	12	10	
Siam:				
Bangkok	Apr. 13–May 17		693	

PLAGUE.

China:				
Canton	May 25–31			Present.
Foochow	May 18–24			Do.
Hongkong	June 15–28	42	33	
Ecuador:				
Posorja	June 1–15	2	1	Bathing place 65 kilometers from Guayaquil.
Egypt				Jan. 1–June 11, 1919: Cases, 539; deaths, 200.
Cities—				
Cairo	May 15		1	
Port Said	May 1–4	1	2	
Suez	June 5–11	3	3	
Provinces—				
Assiout	May 17–June 11	69	34	
Beni-Souef	May 19–June 5	5	4	
Fayoum	May 18–June 11	8	6	
Girgeh	May 15	3	2	
Menoufia	June 8	1		
Minieh	May 15–June 11	25	10	
Hawaii:				
Paauhau	July 19	1		

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

Reports Received from June 28 to July 25, 1919—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Apr. 27-May 24, 1919: Cases, 6,585: deaths, 5,402.
Bombay	Apr. 28-May 24	212	141	
Calcutta	May 18-31		30	
Karachi	May 18-June 7	109	93	
Rangoon	Apr. 28-May 17	30	29	
Indo-China:				
Cochin-China—				
Saigon	Apr. 21-May 18	18	14	City and district.
Japan:				
Yokohama	June 9	1		
Java:				
East Java				Apr. 8-22, 1919: Cases, 52; deaths, 52.
Mesopotamia:				
Bagdad	Apr. 19-May 16	267	201	
Basra	May 3-10	108	89	Including suburb of Ashar. Total from date of outbreak to May 19, 1919, 288 cases.
Siam:				
Bangkok	Apr. 27-May 17	2	2	
Straits Settlements:				
Singapore	Apr. 13-26	2	1	
On vessel:				
S. S. City of Sparta	Apr. 19-21	1	1	From Bombay Apr. 3, 1919; case, a soldier; at sea.
Do	May 13-17	1	1	At Liverpool: case, a native member of the crew. (Public Health Reports, June 27, 1919, p. 1463.)

SMALLPOX.

Arabia:				
Aden	May 13-19		1	
Austria				Mar. 9-Apr. 5, 1919: Cases, 92.
Salzburg	Mar. 9-Apr. 5	50		
Vienna	do	17		
Azores:				
St. Michaels	June 7-20	1		
Brazil:				
Bahia	Apr. 20-May 3	2		
Canada:				
British Columbia—				
Vancouver	June 15-July 5	4		
New Brunswick—				
Moncton	July 6-12	1		
Nova Scotia—				
Cities—				
Halifax	June 15-July 5	69		
Sydney	June 8-21	3		
Counties—				
Antigonish	do			Present.
Guysborough	do			Do.
Halifax	do			Do.
Hants	do			Do.
Ontario—				
Province				May 1-31, 1919: Cases, 98: deaths, 2.
Hamilton	June 29-July 5	1		
Harwich	May 1-31	14	2	Township in Kent County.
Ottawa	June 15-July 5	2		
Peterborough	June 15-21	4		
Walpole Island	May 1-31	42		Kent County. Island in Lake St. Clair. Among Indians.
Quebec—				
Montreal	June 8-28	18		
Quebec	June 29-July 12	5		June 8-14, 1919: 10 cases. On incoming vessels.
Ceylon:				
Colombo	May 1-24	3		
China:				
Amoy	May 20-June 2		13	
Canton	May 18-31			Present.
Chungking	May 4-31			Do.
Foochow	May 18-31			Do.
Nanking	May 25-June 7			Do.

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

Reports Received from June 28 to July 25, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Chosen (Korea):				
Chemulpo	Apr. 1–May 31	19	4	
Fusan	do	294	81	
Seoul	do	3	1	
Czecho-Slovakia:				
Prague	May 18–June 14	9	1	
Egypt:				
Alexandria	May 14–June 21	188	77	
Cairo	Jan. 2–14	8	3	
Finland				Apr. 16–May 15, 1919: Cases, 217.
Provinces—				
Abo Och Bjorneborg	Apr. 16–May 15	5		
Kuopio	do	12		
Nyland	do	3		
St. Michael	do	26		
Tavastehus	do	24		
Vasa	do	4		
Viborg	do	132		
France:				
Marseille	May 1–31		2	
Paris	May 11–June 14	10	3	
Great Britain:				
Cardiff	June 15–21	1		
Dundee	June 1–7	1		
Glasgow	June 8–21	5		
London	May 25–June 7	3		
Greece:				
Saloniki	May 15–21		18	
India:				
Bombay	Apr. 28–May 24	242	161	
Calcutta	May 4–31		353	
Karachi	May 4—June 7	18	9	
Madras	May 18–24	23	11	
Rangoon	Apr. 28–May 17	93	43	
Indo-China:				
Cochin-China—				
Saigon	Apr. 21–May 18	11	4	City and district.
Italy:				
Leghorn	June 16–22	1		
Messina	June 1–21	13		Province, June 8–21, 1919: Cases, 23; deaths, 3.
Milan	Mar. 1–Apr. 30	20	5	
Milazzo	June 1–7	1	1	
Naples	June 2–22	96	79	
Palermo	May 2–June 20	39	5	
Turin	May 18–June 22	4	1	
Venice	May 26–June 1	2		
Japan:				
Kobe	May 4–31	48	17	
Taiwan	May 21–June 10	2	4	Entire island.
Tokyo	May 1–31	1		
Yokohama	May 26–June 1	1		
Java:				
East Java				Apr. 9–15, 1919: Cases, 1.
West Java				May 2–22, 1919: Cases, 187; deaths, 42.
Batavia	Apr. 18–May 1	2	1	
Manchuria:				
Dairen	May 13–June 2	3	2	
Mexico:				
Mexico City	June 1–14	16	1	
Piedras Negras	June 22–28	2	2	
Newfoundland:				
St. Johns	June 13–July 4	3		June 13–27, 1919: Outports, 21 cases.
Philippine Islands:				
Manila	May 11–17	1		
Portugal:				
Oporto	June 2–14	17	9	
Portuguese East Africa:				
Laurenco Marques	Apr. 1–May 31	2	1	
Spain:				
Almeria	May 18–31	40	5	
Barcelona	May 15–21	3		
Bilbao	May 1–10	1		
Cadiz	Apr. 1–30		4	
Madrid	May 1–31	3		
Valencia	May 11–June 7	174	12	
Straits Settlements:				
Singapore	Mar. 24–May 10	4	2	

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

Reports Received from June 28 to July 25, 1919—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Tunis:				
Tunis	June 15-21		1	
On vessels:				
S. S. Eastern	Apr. 25-26	2	1	Death at sea. Second case landed at Woodman's Quarantine Station, Fremantle, Australia, Apr. 29. Vessel from England via Egypt and Colombo.
S. S. Karoa	Apr. 19	1		Landed at Colombo. Vessel from the United Kingdom via Egypt and Colombo.
S. S. Khyber	Apr. 10-May 4	4		From Liverpool, via Port Said, Suez, and Colombo. One case landed at Port Said Apr. 10, 2 cases at Colombo Apr. 22 one at quarantine, Fremantle, Australia, May 4, 1919.

TYPHUS FEVER.

Algeria:				
Algiers	May 1-31	76	8	
Austria				Mar. 23-Apr. 5 ,1919: Cases, 118.
Vienna	Mar. 23-Apr. 5	9		
China:				
Changsha	May 11-17	1	1	
Chosen (Korea):				
Chemulpo	Apr. 1-May 31	54	8	
Fusan	May 1-31	4	1	
Seoul	Apr. 1-May 31	79	14	
Czecho-Slovakia:				
Prague	May 18-24	1		
Egypt:				
Alexandria	May 14-June 21	253	185	
Cairo	Jan. 2-14	13	2	
Finland				Apr. 16-May 15, 1919: Cases, 15.
Provinces—				
Abo Och Bjorneborg	May 15	1		
Nyland	Apr. 16-May 15	3		
St. Michael	do	8		
Viborg	do	3		
Germany	Jan. 12-Feb. 22	344		Military.
Do	Feb. 23-Mar. 22	220		Civil.
Do	Mar. 23-Apr. 12	333		Civil, military, prisoners of war, deserters.
Great Britain:				
Glasgow	June 8-21	9	1	
Greece:				
Saloniki	May 15-21		2	
Hungary				Feb. 24-May 9, 1919: Cases, 258.
Budapest	Feb. 24-May 9	124	6	
Debreczin	do	42		
Italy				Apr. 28-June 8, 1919: Cases, 3,470—Austrian prisoners, 3,321; Italian soldiers, 82; civil population, 67.
Naples	May 12-June 22	50	16	
Venice	Apr. 27-June 14	58	9	
Mesopotamia:				
Bagdad	Apr. 19-May 23	26	16	
Mexico:				
Mexico City	May 4-June 21	162		
Newfoundland:				
St. Johns	June 21-27	1		From vessel.
Palestine:				
Jaffa				Oct. 22-Dec. 22, 1918: Cases, 8; deaths, 3.
Portugal:				
Oporto	June 1-15	52		
Spain:				
Barcelona	May 15-21		1	
Madrid	May 1-31		1	
Tunis:				
Tunis	May 24-June 21	3		

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

Reports Received from June 28 to July 25, 1919—Continued.

YELLOW FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia	Apr. 12–May 11	18	12	
Ecuador:				
Guayaquil	May 1–31	1	1	
Naranjito	May 1–June 15	2	1	
Mexico:				
Merida	June 30–July 1	5	2	State of Yucatan.
Peru:				
Paita	Reported July 17	8	2	
Piura	do	30		
Salvador:				
La Union	July 6	2		
St. Miguel	June 24–July 6	4		75 miles from city of San Salvador.
San Salvador	do	1	1	