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PASTEURIZATION OF MILK ADVOCATED.

In 1907, when the Public Health Service made its study of the milk situation in its relation to the public health, the pasteurization of milk was urged as the only really dependable means of eliminating milk as a carrier of certain of the common communicable diseases, such as scarlet fever, diphtheria, septic sore throat, and typhoid fever. Following this a commission appointed to consider the milk question as it affected the city of Washington recommended municipal pasteurization. The pasteurization of milk has been advocated by many others. Recently at its meeting, October 15, 1917, the commission on milk standards, appointed by the New York City Milk Committee, adopted a resolution urging, for the protection of the health of the troops against diseases commonly carried by milk—

That all milk, including that which enters in the preparation of milk products, especially ice cream, be pasteurized and the efficiency of the process be controlled; that such milk be reduced to a proper temperature at the source of supply and kept at that temperature during transportation and until consumed; that the specifications for the purchase of milk be in conformity with the standards recommended by this commission.

THE BACTERIOLOGICAL EXAMINATION OF WATER.

COMPARATIVE STUDIES OF MEDIA USED.[1]

By H. E. HASSELTINE, Passed Assistant Surgeon, United States Public Health Service.

During the months of July and August, 1917, the writer, by direction of the Surgeon General, investigated a municipal water supply to ascertain whether the water complied with the Treasury Department [2] standard for water for use on interstate trains. As the third edition of "Standard methods for examination of water and sewage" (A. P. H. A., 1917) had appeared only a short time before, it was deemed advisable to follow its provisions.

[1] From the Hygienic Laboratory.

[2] Treasury Department Standard. Public Health Reports, vol. 29, Nov. 6, 1914, p. 2959.

It was suspected that the lactose broth made as directed in "Standard Methods" (1917) would not be reliable by reason of a probable breaking down of the lactose into simpler sugars, when sterilized at 15 pounds pressure for 15 minutes in the presence of organic matter. Consequently it was decided to run parallel tests of this new broth and the lactose broth prepared according to the method used at the Hygenic Laboratory for several years.

The ingredients used in preparation of the broth were Liebig's extract of meat, Witte's peptone, chemically pure lactose, and distilled water.

The broth was prepared according to the directions given in Standard Methods and the reaction made neutral to phenolphthalein. It was then divided into two equal portions. To the portion to be made into Standard Methods broth, 1 per cent of lactose was added and dissolved by shaking. The broth was then filled into Smith fermentation tubes and sterilized in the autoclave for 15 minutes after the pressure reached 15 pounds. This broth was in the autoclave about 1 hour, the time being divided as follows: 25 minutes to raise the pressure to 15 pounds, 15 minutes at that pressure, and about 20 minutes to allow the pressure to fall sufficiently to allow opening without blowing out or wetting the stoppers. The color of the medium treated in this manner was brown or yellowish-brown.

The portion of the original broth that was to be made into Hygienic Laboratory lactose broth was sterilized in bulk. To this a sufficient quantity of 20 per cent solution of lactose in distilled water, previously sterilized in an Arnold sterilizer for an hour and a half, was added to make 1 per cent lactose. This was then filled into sterile Smith fermentation tubes with reasonable precautions to prevent contamination in the filling process and the tubes were sterilized in the Arnold sterilizer for 30 minutes on one day only. This broth was usually a very pale yellow, nearly colorless.

The technique of the test was as follows: Samples of water were taken in a sterile bottle of 125 cubic centimeters capacity. After shaking the sample vigorously, five tubes of each kind of lactose broth were planted with 10 cubic centimeters, one with 1 cubic centimeter, and one with 0.1 cubic centimeter, using the same pipette for seeding both kinds of tubes. The planting of one kind of broth was never completed before the other was begun, it usually being the custom to plant two tubes of one kind and then two of the other until all were planted. The tubes were then incubated at 37° C. and the formation of gas was recorded at the end of 24 hours and again at the end of 48 hours.

From each tube showing gas formation at the end of 48 hours an Endo plate was made, which was incubated for 24 hours at 37° C. If the Endo plate showed typical colonies of *B. coli* (a red colony

with a greenish metallic luster) this was recorded as a positive test and further work deemed unnecessary. From all plates showing colonies that were not typical *B. coli* one or more colonies were fished to an agar slant, which was incubated 24 hours. The object of this deviation from the Standard Methods procedure was to insure sufficient growth to inoculate two fermentation tubes from one colony, or its descendants, as it was desired to transplant every colony fished into two kinds of lactose broth. It was found in some preliminary tests that it was not always possible to inoculate two fermentation tubes directly from a colony and to get growth in both. In the early tests smears were made to determine whether or not spore-bearing organisms were present, but after some experience it was found that the appearance of the growth was sufficient to determine this point in practically every case. At least one colony of each type present, other than spore-bearing organisms, was fished from each plate if the plate did not show typical *B. coli* colonies.

From these agar slants a fermentation tube of each kind of lactose broth was inoculated and incubated for 48 hours. The Endo plates were reexamined at the end of 48 hours at 37° C., but in no case was there any appearance of typical *B. coli* colonies as a result of this additional incubation. They were then left in the dark for 48 to 72 hours at room temperature and reexamined. A few plates showed a colonlike colony, but the one that was studied further proved to be not *B. coli*.

With the exception of the first 11 samples, further intensive work was done to determine if any *B. coli* were missed. The following procedure was carried out: From the original presumptive tubes showing gas formation, regardless of the amount of gas, a transfer was made directly to a second fermentation tube of lactose broth which was then incubated for 48 hours. If *B. coli* was not found in the first Endo plate or confirmation test and gas appeared in this second presumptive tube, a third fermentation tube and an Endo plate were inoculated from the second presumptive tube. If this Endo plate showed typical colonies of *B. coli* it was called positive. If colonies were only suspicious, confirmatory tests were tried. After 48 hours an Endo plate was made from the third presumptive tube, if gas was present, and this plate carried through the same procedure.

Comparison of Lactose Broth Made According to the Standard Methods Procedure and that Made by the Hygienic Laboratory Method.

In the work done on comparing the "Standard Methods, 1917," and Hygienic Laboratory lactose broth, 32 samples of water were examined, which may be divided into four classes: (1) raw water, (2) filtered water, (3) chlorinated filtered water taken at filter plant, and (4) chlorinated filtered water from taps in the city. The results of the presumptive test are set forth in Table 1.

TABLE 1.

Class of sample.	Number of sample.	Gas in 24 hours. 10 cc. Tubes planted.	10 cc. H. L. broth.	10 cc. S. M. broth.	1 cc. Tubes planted.	1 cc. H. L. broth.	1 cc. S. M. broth.	0.1 cc. Tubes planted.	0.1 cc. H. L. broth.	0.1 cc. S. M. broth.	Gas in 48 hours. 10 cc. H. L. broth.	10 cc. S. M. broth.	1 cc. H. L. broth.	1 cc. S. M. broth.	0.1 cc. H. L. broth.	0.1 cc. S. M. broth.	*B. coli* proven in— 10 cc. H. L. broth.	10 cc. S. M. broth.	1 cc. H. L. broth.	1 cc. S. M. broth.	0.1 cc. H. L. broth.	0.1 cc. S. M. broth.
Raw	1	5	5	5	2	2	2	2	1	1	5	5	2	2	1	2	5	5	2	2	1	1
	17	1	1	1	5	1	1	2	0	0	1	1	4	5	1	2	1	1	3	1	1	0
	25	1	0	1	5	0	1	2	0	0	1	1	5	5	1	2	1	1	1	1	0	0
Total	...	7	6	7	12	3	4	6	1	1	7	7	11	12	3	6	7	7	6	4	2	1
Filtered	3	5	5	2	1	0	0	1	0	0	5	5	2	2	2	0	3	2	0	0	0	0
	18	5	0	2	1	0	0	1	0	0	4	5	1	1	1	1	2	2	0	0	0	0
	26	5	0	2	1	0	0	1	0	0	5	5	1	1	1	0	5	3	0	0	0	0
Total	...	15	5	6	3	0	0	3	0	0	14	15	4	4	4	1	10	7	0	0	0	0
Chlorinated	2	5	0	0	1	0	0	1	0	0	3	5	0	0	0	0	0	0	0	0	0	0
	19	5	0	0	1	0	0	1	0	0	3	5	0	0	0	0	0	0	0	0	0	0
	27	5	0	1	1	0	0	1	0	0	4	5	0	0	0	1	0	1	0	0	0	0
Total	...	15	0	1	3	0	0	3	0	0	10	15	0	0	0	1	0	1	0	0	0	0
Tap	4	5	0	0	1	0	0	1	0	0	1	5	0	0	0	0	0	1	0	0	0	0
	5	5	1	0	1	0	0	1	0	0	4	4	0	0	0	0	0	1	0	0	0	0
	6	5	0	0	1	0	0	1	0	0	1	5	1	0	0	0	0	0	0	0	0	0
	7	5	0	0	1	0	0	1	0	0	2	5	0	0	0	0	0	1	0	0	0	0
	8	5	0	0	1	0	0	1	0	0	4	5	0	0	0	0	2	0	0	0	0	0
	9	5	0	2	1	0	0	1	0	0	2	5	0	0	1	0	0	0	0	0	0	0
	10	5	0	0	1	0	0	1	0	0	0	5	0	1	0	0	0	0	0	0	0	0
	11	5	0	0	1	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0
	12	5	0	0	1	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0	0
	13	5	0	0	1	0	0	1	0	0	4	5	0	1	0	0	0	0	0	0	0	0
	14	5	0	0	1	0	0	1	0	0	4	5	0	1	0	1	1	0	0	0	0	0
	15	5	0	0	1	0	0	1	0	0	2	4	1	0	0	0	0	0	0	0	0	0
	16	5	0	0	1	0	0	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0
	20	5	0	0	1	0	0	1	0	0	2	4	0	1	0	0	0	0	0	0	0	0
	21	5	0	0	1	0	0	1	0	0	4	5	0	0	0	0	0	0	0	0	0	0
	22	5	0	2	1	0	0	1	0	0	4	5	0	0	0	0	3	5	0	0	0	0
	23	5	0	0	1	0	0	1	0	0	2	5	0	0	0	0	0	0	0	0	0	0
	24	5	0	0	1	0	0	1	0	0	1	4	0	1	0	0	0	0	0	0	0	0
	28	5	0	0	1	0	0	1	0	0	2	5	0	1	0	0	1	0	0	1	0	0
	29	5	0	0	1	0	0	1	0	0	2	2	0	1	0	0	0	0	0	0	0	0
	30	5	0	1	1	0	0	1	0	0	2	4	0	0	0	0	0	0	0	1	0	0
	31	5	0	0	1	0	0	1	0	0	1	5	0	0	0	0	0	0	0	0	0	0
	32	5	0	0	1	0	0	1	0	0	3	5	0	0	0	0	1	0	0	0	0	0
Total	...	115	1	5	23	0	0	23	0	0	48	104	2	7	0	2	8	8	0	2	0	0

TABLE 2.—*Summary of totals of Table 1.*

	No. of samples.	Gas in 24 hours. 10 cc. Pl.	10 cc. H. L.	10 cc. S. M.	1 cc. Pl.	1 cc. H. L.	1 cc. S. M.	0.1 cc. Pl.	0.1 cc. H. L.	0.1 cc. S. M.	Gas in 48 hours. 10 cc. H. L.	10 cc. S. M.	1 cc. H. L.	1 cc. S. M.	0.1 cc. H. L.	0.1 cc. S. M.	*B. coli* proven. 10 cc. H. L.	10 cc. S. M.	1 cc. H. L.	1 cc. S. M.	0.1 cc. H. L.	0.1 cc. S. M.
Raw	3	7	6	7	12	3	4	6	1	1	7	7	11	12	3	6	7	7	6	4	2	1
Filtered	3	15	5	6	3	0	0	3	0	0	14	15	4	4	4	1	10	7	0	0	0	0
Chlorinated	3	15	0	1	3	0	0	3	0	0	10	15	0	0	0	1	0	1	0	0	0	0
Tap	23	115	1	5	23	0	0	23	0	0	48	104	2	7	0	2	8	8	0	2	0	0
Grand total	32	152	12	19	41	3	4	35	1	1	79	141	17	23	7	10	25	23	6	6	2	1

From 228 tubes of H. L. lactose broth planted, *B. coli* was confirmed in 33.

From 228 tubes of S. M. lactose broth planted, *B. coli* was confirmed in 30.

Of these 63 confirmed *B. coli*, 52 were proved by Endo plates alone. Twenty-six of these plates were seeded from tubes of H. L. broth and the remaining 26 from tubes of S. M. broth. Seven tubes of H. L. broth and four of S. M. broth required a second lactose broth tube, because typical colonies were not found on the Endo plate.

From these figures it will be seen that owing to the greater incidence of gas formation in the S. M. broth 71 more tubes had to be carried through the confirmation test than when the H. L. broth was used. Notwithstanding the increased amount of work thus necessitated, the number of *B. coli* confirmed by plate or further fermentation test was slightly less than that obtained from the tubes of H. L. broth. This difference, however, is too slight to receive consideration. In other words, the lactose broth sterilized at 15 pounds pressure for 15 minutes required 36 (dividing a plate between two tubes) more Endo plates and 142 more tubes of lactose broth to find the same number of *B. coli* that were found when lactose broth sterilized at 100° C. for 30 minutes was used.

Comparison of Standard Methods Confirmed Test with that Required by the Treasury Department.

In the confirmation test another departure was made from the Standard Methods procedure, in that at least 10 per cent of gas (Treasury Department standard) in Hygienic Laboratory lactose broth was required in order to record it as a positive result. The Standard Methods procedure classifies as a member of the *B. coli* group any aerobic nonspore-forming organism that, fished from Endo plates seeded from the original fermentation tube to a second fermentation tube of lactose broth prepared as directed in Standard Methods, shows gas formation in the second fermentation tube within 48 hours. Using the broth, prepared in accordance with Standard Methods, the writer was able to use a pure culture of *B. proteus* and obtain results that would necessitate classifying it as *B. coli* by following the procedure advised in Standard Methods. Of course the colonies of this organism were far from typical on Endo plates.

The table following shows the results of the confirmation tests in the two kinds of lactose broth.

TABLE 3.

Number of plates fished from—	Number of positive, accepting any amount of gas as + result.		Number of positive, accepting 10 per cent of gas as + result.	
	H. L. broth.	S. M. broth.	H. L. broth.	S. M. broth.
201 (68 seeded from H. L. tubes, 133 seeded from S. M. tubes)...	20	51	10	25
Excess of S. M. + over H. L.....	.....	31	.....	15

From Table 3 it appears that if we accept gas formation, regardless of the amount, in the final lactose tube as indicative of *B. coli* we will practically double our positive findings. If we use lactose broth which is sterilized at 120° C. for 15 minutes we will more than double the positive findings obtained with lactose broth made according to the Hygienic Laboratory procedure. In other words, this indicates that the new Standard Methods procedure may give approximately four to five times more positive *B. coli* results than the Treasury Department procedure when the broth is made according to the Hygienic Laboratory method. This is based on the assumption that a colony is fished from every Endo plate showing aerobic colonies of nonspore-forming organisms.

Intensive work on the tubes which gave negative confirmation tests resulted in isolating *B. coli* from four samples which would have been reported negative by either procedure. Of this number all four showed no gas in the lactose fermentation tube of the confirmation test when Hygienic Laboratory broth was used, and three out of four showed no gas in the corresponding tubes of Standard Methods broth. One showed a bubble in Standard Methods broth. To the writer it appears that less than 10 per cent of gas in the final lactose tube of the confirmation test, can be disregarded without any appreciable danger.

Comparison of Endo Medium Made According to "Standard Methods" and Hygienic Laboratory Procedures.

After carefully reading the Standard Methods requirements for Endo medium it was suspected that Endo medium prepared according to the Hygienic Laboratory method, and the same medium prepared according to the Standard Methods procedure, would show different results if submitted to comparative tests.

The Hygienic Laboratory-Endo medium consists of a 3 per cent agar which is titrated and corrected to +0.5 to phenolphthalein, to which is added 3.7 cubic centimeters of a 10 per cent solution of anhydrous sodium carbonate. For convenience it is flasked, sterilized, and stored in 200 cubic centimeter quantities. When ready

to use the following ingredients are added to 200 cubic centimeters of agar as follows:

(*a*) Dissolve 2 grams C. P. lactose in 25 to 30 cubic centimeters of distilled water, with the aid of gentle heat.

(*b*) Dissolve 0.5 gram of anhydrous sodium sulphite in 10 to 15 cubic centimeters of distilled water.

(*c*) To the sulphite solution add 1 cubic centimeter of saturated solution of basic fuchsin in 95 per cent alcohol.

Add the fuchsin-sulphite solution to the lactose solution, and then add the whole to the agar. Pour plates at once and, after hardening, dry for 15 minutes in the incubator.

The Standard Methods Endo medium consists of a 3 per cent agar made neutral to phenolphthalein, flasked, sterilized, and stored in convenient quantities. When ready to use, to 200 cubic centimeters of agar there are added 2 grams of C. P. lactose and the agar is then melted in the Arnold sterilizer. A 10 per cent solution of anhydrous sodium sulphite is prepared and to 10 cubic centimeters of this solution 2 cubic centimeters of a 10 per cent solution of basic fuchsin in 95 per cent alcohol are added, and this solution is heated for a few minutes. To the 200 cubic centimeters of melted lactose agar is then added 1 cubic centimeter of the fuchsin-sulphite solution. Plates are poured and, when hardened, placed in the incubator for drying.

At first it was thought that the reaction of the agar might account for differences; but titration showed both agars to react the same (+0.8), using phenolphthalein as an indicator. The chief difference in the two media lies in the proportion of fuchsin and of sulphite used. The Standard Methods Endo contains but about one-fifth as much of these ingredients as does the Endo which has been found most useful at the Hygienic Laboratory.

The strength used by the Standard Methods was recommended by Kendall and Walker [1] for use in isolating *B. dysenteriae* from stools, a procedure in which a medium that promoted the formation of colorless colonies was desired. In the use of Endo in water examination colored colonies are sought. It therefore seems rational to use enough of the ingredients that promote color formation to give a reasonable coloration.

In the examination of water the use of an Endo medium that gives a typical colon colony enables the examiner to dispense with a vast amount of work, since the partially confirmed test, when colonies are typical, is almost as certain as the completely confirmed test. Of course atypical colonies must be confirmed, but if the number of typical colonies can be increased the work of confirmation, if required, will be reduced.

[1] Kendall and Walker. Jour. Med. Research, vol. 23. 1910, p. 481.

In the comparison of these two media a plate of each (using half a plate for each tube), was seeded from every fermentation tube showing gas. At the end of 24 hours' incubation the plates were examined. An additional 24 hours' incubation did not develop any typical colonies on plates that did not show typical colonies at the end of 24 hours.

One hundred twenty-nine plates of each kind of Endo medium were inoculated from a like number of fermentation tubes showing gas. The comparative results are shown in the following table:

TABLE 4.

Endo medium.	Number plates made on each medium.	Number showing typical B. coli colonies.	Number showing atypical aerobic colonies.	Number showing no aerobic colonies.
Hygienic laboratory	129	27	97	5
Standard methods	129	5	120	4

From the tubes showing atypical colonies, confirmatory tests and routine study demonstrated *B. coli* in 9. Three were from H. L. Endo, 3 from S. M. Endo, and 3 from both.

When typical *B. coli* colonies were found on either kind of medium, the sample was recorded as positive and the corresponding negative, or doubtful, plates of the other medium were not carried further. In no instance did the Standard Methods medium show typical *B. coli* colonies when the Hygienic Laboratory plate seeded from the same tube showed atypical colonies.

During the progress of the work, it was noted that the spore-bearing aerobes were much more restrained on the Hygienic Laboratory Endo medium than on the Standard Methods medium.

It is assumed that if the two media were equally good for the demonstration of *B. coli* an equal number of plates should show typical colonies. But 22 plates of Standard Methods Endo medium failed to show typical *B. coli* colonies while the corresponding Hygienic Laboratory plates showed typical colonies. In view of the number of *B. coli* subsequently demonstrated from plates showing atypical results, it would appear that the H. L. Endo medium shows typical colonies in 75 per cent of the tubes in which the *B. coli* is present and the S. M. Endo medium in 14 per cent. Since *B. coli* is sought as the index of contamination it would appear to be good policy in the examination of water samples to use an Endo medium designed to demonstrate *B. coli* rather than one modified to demonstrate some other intestinal organism.

Conclusion.

The results of this work indicate that if the new Standard Methods (1917) be adhered to, in the bacteriological examination of water, time, labor, and material will be unnecessarily expended and misleading results may be obtained.

THE SIMULATION OF DISEASE.

DRUGS, CHEMICALS, AND SEPTIC MATERIALS USED THEREFOR.

By A. G. DUMEZ, Technical Assistant, Hygienic Laboratory, United States Public Health Service.

This paper is not intended to be an exposé of all of the various methods of effecting simulation of disease, but is restricted to that phase of the subject involving the use of drugs, chemicals, and septic materials. This phase is of special interest at the present time, as it comprises the means most frequently employed by unscrupulous individuals in attempts to evade military duty. For the purpose of enhancing the value of the paper as a source of reference to the medical examiner, the substances enumerated therein are grouped under the diseases the diagnostic signs of which their use is intended to simulate. For the same reason, brief outlines of the methods recommended for the detection of these frauds are also included, where specific information of this kind has been available.

Substances used in the Simulation of Diseases of the Skin and Subcutaneous Tissue.

ERYTHEMA:[1] Certain nettles, poison ivy, squills, and some plants of the families *Euphorbiaceæ* and *Ranunculaceæ*. These are applied to the skin with friction.

ECZEMA: After abrading the skin, by scraping with a sharp-edged instrument or rubbing with some rough material, one, or more, of the following is applied: Croton oil, sulphur, acid substances, oil of cade, ointment of mercury, or mezereum bark.

Detection: According to Blum (1916), the eruptions produced may be distinguished from those of the true disease by the fact that they are disseminated and do not form confluent masses. Furthermore, the skin, after the removal of the crust, does not appear red, dry, and hypertrophied, as in true eczema.

HERPES: Certain plants of the family *Euphorbiaceæ*, applied to the skin.

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[1] The presence of the diagnostic signs simulating erythema is not always an indication of fraud. Very often workers in various trades may have raw erythematous appearing hands. As examples of this kind, Collie (1916) gives the following: Hair dressers, through the use of alkaline shampooing liquids; French polishers, through the use of potassium dichromate; carpenters, working with teak or rose wood; tanners, handling arsenic; masons, through the handling of silicates; photographers, through the action of liquids containing chlorine; painters, and those engaged in handling aniline dyes or strong alkalies.

Detection: The location and distribution of the lesions is usually so paradoxical as to indicate fraud at first appearance.

IMPETIGO: Cantharidal plaster, or ointment of tartar emetic, applied locally.

OTHER ERUPTIVE DISEASES:[1] Iodides, bromides, arsenic or mercury taken internally. Phenol, cantharides, mustard seeds or croton oil applied externally.

ULCERS: Potash or soda lye, sulphuric acid, hydrochloric acid, nitrohydrochloric acid, or a strong solution of zinc chloride applied externally. A case of sloughing ulcer caused by the repeated application of a hot copper cent to the skin of the arm is reported by Bispham (1914).

Detection: Ascarelli (1917) states that the diagnosis of fraud is not difficult in these cases. He, however, advises a general examination of the suspect to exclude other conditions which might explain the occurrence of the ulcer, namely: syphilis, diabetes, syringomyelia, varix, etc.

ABSCESS: Commonly produced by inserting beneath the skin a thread smeared with tartar from the teeth, saliva or fæcal matter.

Detection: Blum (1916) states that the pus, obtained upon incision, has an odor similar to that obtained from an abscess of the alimentary tract, this being sufficiently characteristic to identify the fraud.

PHLEGMONS: Gasoline, kerosene, oil of turpentine, or a solution of chloride of lime is injected subcutaneously.

Detection: Chavigny (1916), who has made a special study of these artificially produced phlegmons, describes their characteristics as follows: They generally occur in epidemics, and the site of the lesions in these epidemics is usually the same, namely, the knee or immediate neighborhood. They resemble true phlegmons in outward appearance, but are not painful. When in the region of the knee, the flexion of the joint is not hindered and lymph gland enlargement is absent or only slight. They rarely show a thermal reaction above 38.5° C. The pus is asceptic and shows a predominance of mononuclears. The red blood cells are well preserved and show no evidence of autolytic changes. When the phlegmon is the result of the injection of oil of turpentine, the pus is a dirty red in color and contains numerous granular masses. If due to use of gasoline the color is a dirty white. It is homogeneous, and of the consistence of a viscous jelly. In neither case does the pus have the odor of the injected liquid. When

[1] The drugs which are known to give rise to eruptions when taken internally are a most in number. Many of them are administered for legitimate purposes, and care should therefore be exercised in pronouncing a case fraudulent.

kerosene is the agent employed, however, the odor is sufficiently pronounced to be used as evidence of fraud.[1]

LIPOMA: Paraffin injected subcutaneously.

ŒDEMA OF THE HANDS AND FEET: Friction between the fingers or toes with a stalk of a species of horsetail (*Equisetum arvense*). The resulting inflammation is said closely to resemble œdema.

Substances used in the Simulation of Diseases of the Eye.

INFLAMMATORY DISEASES: The following have been placed under the eyelid: ipecac, castor-oil seed, cantharides, lime, silver nitrate, red mercuric oxide, copper sulphate, acid lotions, urine, fæcal matter and putrid matter.

MYDRIASIS: The preparations and alkaloids of belladonna, hyoscyamus and stramonium placed in the eye.

MYOSIS: Lobeline placed in the eye.

Detection: The simulation of mydriasis, or myosis, by the above means, can be most easily discovered by isolating the suspect and keeping him under close observation.

Substances used in the Simulation of Diseases of the Ear.

OTITIS: Urine, fæcal matter and chemicals (specific names not mentioned) are reported as having been inserted into the auditory canal for this purpose.

Detection: The presence of lesions in the meatus and concha may reveal the artificial nature of the disease (Ascarelli, 1917).

Substances used in the Simulation of Diseases of the Throat.

ACUTE TONSILLITIS: Irritating solutions used as a gargle.

Detection: Febrile phenomena are absent. The inflammation is not confined to the tonsils but extends to all parts touched by the liquid (Blum, 1916).

Substances used in the Simulation of Diseases of the Respiratory System.

HÆMOPTYSIS: Colored substances, such as carmine or beet juice, to color the sputum. The blood of animals (chicken) is also reported as having been used for this purpose.

Detection: Fraud of this nature is, usually, readily detected by a microscopical examination of the sputum.

Substances used in the Simulation of Diseases of the Digestive System.

GASTRIC DERANGEMENTS: A mixture of oil and tobacco is frequently imbibed for this purpose. Blum (1916) states that the gastric symptoms which follow may be accompanied by a rapid heart and icterus.

[1] A method for the isolation of the gasoline, kerosene, or oil of turpentine present in the pus obtained from these artificially produced phlegmons has been reported by Ed. Lasuasse (1916). Chemical tests for the identification of these substances have also been described by this author.

Detection: An examination of the stomach contents is the best means of detecting this form of fraud.

DIARRHŒA: Purgatives are reported as having been employed for this purpose. Another means of effecting simulation is the dilution of the fæces with urine or water. In attempts to simulate dysentery, small pieces of meat and pork fat are added to the fæces thus diluted.

Detection: Procedure of this kind can be most easily discovered by isolating the suspect and keeping him under observation. During this period, the fæces and urine should be collected in separate vessels.

ICTERUS:[1] Walnut juice and liquid preparations of curcuma, applied externally, picric acid taken internally.

Detection: Attempts to simulate the diagnostic signs of jaundice by the use of external applications are so crude that they may be detected with ease.

For the detection of the use of picric acid, a number of methods have been devised. Among the best of these are the methods of Le Mithouard (1915), Derrien (see Grimbert, 1916), and Pecker (1916), in which picric acid or its derivatives are identified in the urine, and the methods of Pognan and Sauton (1915) and Tixier and Bernard (1917), in which picric acid or its derivatives are sought for in the blood. The last-mentioned method is given here because of its simplicity and sensitiveness. It is carried out as follows: Add 15 drops of blood, drawn from the tip of the finger of the suspected simulator, to 3 cubic centimeters of salt solution (0.95 per cent), contained in a small glass tube, and shake two or three times. After allowing the mixture to stand at room temperature for 24 hours, draw off, by means of a pipette, 1 to 2 cubic centimeters of the salt solution. The latter will be colored faintly yellow, in case the icterus is due to the ingestion of picric acid. Add an equal volume of a solution of methylene blue (1:50,000) and shake vigorously, then 15 drops of chloroform[2] and shake again. If picric acid derivatives are present, the chloroformic solution, which separates on standing, will appear light green to deep green (bottle green) in color, depending on the quantity of the acid derivatives present.

Substances used in the Simulation of Diseases of the Circulatory System.

RAPID HEART: Cordite (an explosive consisting of a mixture of guncotton and vaseline) is reported as having been chewed for this purpose.

[1] A recent report of the Royal Society of Medicine shows that toxic jaundice in munition workers may be due to the handling of trinitrotoluene or tetrachlorethane. A sufficient amount of these substances to produce the symptoms of jaundice is stated to be absorbed through the skin.

[2] If ether is substituted for the chloroform, there is less danger of forming a troublesome emulsion.

Note: Newspaper reports indicate that perhaps other substances are being employed for this purpose. Attention is, therefore, invited to some of the substances which might be used, namely: Nitroglycerin in the form of the spirit or tablet, atropine or belladonna and its preparations, or caffeine.

Substances used in the Simulation of Diseases of the Kidneys.

ALBUMINURIA: Sodium chloride and milk, consumed in large quantities for several days. Blum (1917) states that this is the method commonly employed by those who are predisposed to the disease. Another method consists of the injection of albumin into the bladder.

Detection: Isolate the suspect and keep him under observation. In case of fraud, the albumin will disappear from the urine in a few days.

Substances used in the Simulation of Diseases of Metabolism.

DIABETES MELLITUS: Phloridzin taken *per os* or injected subcutaneously, ammonium oxalate *per os*, or glucose injected directly into the bladder.

Detection: Phloridzin is excreted in the urine, and may be identified therein by the method of Marcuse (1897), which is as follows: To 5 cubic centimeters of the suspected urine, contained in a test tube, add a few drops of ferric chloride test solution. The mixture will assume a bright red color, if phloridzin is present.

Certain other substances give a similar color reaction, namely: Acetoacetic acid, phenacetin, antipyrin and salicylic acid.

In case the color is due to the presence of salicylic acid the mixture will be decolorized on adding a few drops of hydrochloric acid and shaking with ether.

To test for antipyrin, add a few drops of Lugol's solution to a small quantity of the urine, previously diluted with 20 volumes of water and acidified with hydrochloric acid. The presence of antipyrin will be indicated by the formation of a characteristic precipitate.

To determine whether or not glucose has been injected into the bladder, empty the latter and wash out with a solution of boric acid. Collect a sample of urine two or three hours later and examine. The absence of sugar indicates fraud.

GENERAL DEBILITY OR PHYSICAL EXHAUSTION: Vinegar consumed in excessive amounts; tobacco (excessive use of); arsenious acid, mercury, or lead salts, taken internally for a period of time sufficiently long to cause the appearance of toxic symptoms.

Substances used in the Simulation of other Diseased Conditions.

FEVER: A peeled tooth of garlic inserted into the anus and allowed to remain for 24 hours, or the same substance crushed and rubbed into the axillae (Perez, 1917).

HERNIA: Paraffin injected into the scrotum.

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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.

California Report for the Week Ended November 3, 1917.

The California State Board of Health reported concerning the status of preventable diseases in California for the week ended November 3, 1917, as follows: A case of anthrax was notified in Los Angeles and a case of leprosy in Oakland. A case of poliomyelitis was reported from Pomona. Eight cases of smallpox were notified. Diphtheria and scarlet fever were reported more prevalent. Thirty-eight cases of diphtheria were notified in Los Angeles, but only 11 cases were notified in San Francisco. Typhoid fever continued to decrease, 24 cases being notified during the week. Whooping cough was more prevalent, outbreaks being reported chiefly from rural districts.

The details of notifiable disease cases reported during the week ended October 27, 1917, are as follows:

Anthrax	1	Pellagra	1
Chicken pox	56	Pneumonia	39
Diphtheria	78	Poliomyelitis	2
Dysentery	1	Scarlet fever	75
Erysipelas	6	Smallpox	2
German measles	4	Syphilis	30
Gonococcus infection	51	Trachoma	2
Leprosy	1	Tuberculosis	130
Malaria	22	Typhoid fever	29
Measles	45	Whooping cough	47
Mumps	139		

Indiana Report for the Week Ended Nov. 3, 1917.

The State Board of Health of Indiana reported concerning the status of preventable diseases in Indiana for the week ended November 3, 1917, as follows: Diphtheria epidemics occurred at Jefferson Township, Noble County, and Westpoint, Tippecanoe County. Scarlet fever was reported epidemic at Sugarland School, Davies County; Rankin, White County; and Portland, Jay County; and an epidemic of rabies was reported at Rockport.

ANTHRAX.

Louisiana.

On October 23, 1917, a case of anthrax in man was reported in Kaplan Townsuip, Vermilion Parish, La. On October 24, 1917, another case was reported in St. Joseph, Tensas Parish.

City Report for Week Ended October 20, 1917.

During the week ended October 20, 1917, three cases of anthrax were reported in Stockton, Cal.

CEREBROSPINAL MENINGITIS.

Kansas.

During the week ended November 3, 1917, new cases of cerebrospinal meningitis were reported in Kansas as follows: Brown County, Hiawatha, 1; Doniphan County, Troy, 1; Osage County, Osage City, 1.

Massachusetts.

During the week ended October 27, 1917, new cases of cerebrospinal meningitis were notified in Massachusetts as follows: Boston, 2; Fall River, 1; Worcester, 1.

State Reports for September, 1917.

Place.	New cases reported.
Alabama:	
Baldwin County	1
Chilton County	1
Total	2
Connecticut:	
Fairfield County—	
Bridgeport	1
Hartford County—	
Bristol	1
Hartford	2
West Hartford	1
Middlesex County—	
Essex	3
Middletown	2
New Haven County—	
Meriden	1
New Haven	1
Total	12
Indiana:	
Fountain County	1
Lake County	1
Marion County	3
Total	5
New York:	
Broome County	1
Columbia County	1
Cortland County	1
Dutchess County	1
Erie County	1
Genesee County	1
Montgomery County	1
Steuben County	1
Wayne County	1
New York City	19
Total	28
Wisconsin:	
Douglas County	1
Manitowoc County	3
Milwaukee County	5
Monroe County	1
Rock County	1
Total	11

CEREBROSPINAL MENINGITIS—Continued.

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md	1		Jersey City, N. J	1	2
Bayonne, N. J	1		Kansas City, Mo	2	
Boston, Mass		1	Manchester, N. H	1	
Buffalo, N. Y	1		Milwaukee, Wis	2	2
Cambridge, Mass	1		Minneapolis, Minn	1	
Chicago, Ill	4	4	New Britain, Conn	1	
Cleveland, Ohio	2	2	New York	2	2
Dayton, Ohio	1	4	Philadelphia, Pa		2
Detroit, Mich	1		Stockton, Cal	1	1
Hartford, Conn	1		Winston-Salem, N. C	1	

DIPHTHERIA.

Connecticut.

Collaborating Epidemiologist Black reported November 3, 1917, that diphtheria was more or less epidemic throughout the central and eastern part of Connecticut.

Louisiana—Alexandria.

Four cases of diphtheria were notified in Alexandria, La., October 13 to 17, 1917. An examination of 169 students in St. Francis Xavier College resulted in the finding of five carriers of the disease.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1904.

ERYSIPELAS.

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa	1		Memphis, Tenn		1
Boston, Mass		1	Milwaukee, Wis	1	
Buffalo, N. Y	3	1	Newark, N. J	2	
Camden, N. J	1		New York, N. Y		1
Chicago, Ill	14		Oklahoma City, Okla	1	
Cincinnati, Ohio	1		Philadelphia, Pa	4	
Cleveland, Ohio	1		Pittsburgh, Pa	12	
Denver, Colo	2		Reading, Pa	1	
Detroit, Mich	2		Richmond, Va		1
El Paso, Tex		1	Rochester, N. Y	1	
Hagerstown, Md	1		St. Joseph, Mo		1
Jackson, Mich	1		St. Louis, Mo	6	
Jersey City, N. J		1	San Francisco, Cal	1	
Kalamazoo, Mich	1		Zanesville, Ohio		1
Los Angeles, Cal	2				

MALARIA.

Alabama Report for September, 1917.

Place.	New cases reported.	Place.	New cases reported.
Alabama:		Alabama—Continued.	
Autauga County	2	Jackson County	1
Baldwin County	2	Jefferson County	143
Barbour County	3	Lamar County	1
Blount County	8	Lauderdale County	2
Bullock County	3	Lawrence County	1
Butler County	2	Macon County	3
Calhoun County	62	Marengo County	5
Cherokee County	2	Marion County	4
Chilton County	1	Marshall County	2
Choctaw County	4	Mobile County	4
Clarke County	3	Monroe County	19
Coffee County	1	Montgomery County	6
Cocsa County	1	Morgan County	1
Covington County	3	Perry County	3
Crenshaw County	1	Pike County	2
Cullman County	2	Russell County	3
Dallas County	10	Shelby County	1
Elmore County	1	St. Clair County	1
Escambia County	1	Sumter County	9
Etowah County	9	Talladega County	3
Fayette County	1	Tuscaloosa County	11
Franklin County	1	Walker County	2
Geneva County	2	Washington County	1
Greene County	1	Wilcox County	7
Hale County	3		
Houston County	75	Total	439

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.	8		Norfolk, Va.	1	
Charleston, S. C.		1	Philadelphia, Pa.	1	
Los Angeles, Cal.	1		Savannah, Ga.		1
Memphis, Tenn.	18	3	Stockton, Cal.	1	
Mobile, Ala.		1			

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1904.

PELLAGRA.

State Reports for September, 1917.

Place.	New cases reported.	Place.	New cases reported.
Alabama:		Alabama—Continued.	
Autauga County	1	Mobile County	14
Barbour County	1	Monroe County	1
Bibb County	1	Montgomery County	5
Bullock County	1	Morgan County	1
Calhoun County	1	Perry County	1
Chambers County	1	Pickens County	2
Chilton County	1	Pike County	1
Choctaw County	1	Randolph County	2
Clarke County	1	Russell County	1
Cullman County	1	Sumter County	2
Dallas County	5	Talladega County	5
Etowah County	1	Tallapoosa County	1
Hale County	1	Tuscaloosa County	16
Jackson County	1	Walker County	4
Jefferson County	22	Washington County	3
Lauderdale County	1		
Lawrence County	1	Total	107
Lee County	2		
Limestone County	2	Connecticut:	
Macon County	1	New London County—	
Marengo County	1	Preston	1

PELLAGRA—Continued.

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.	4	3	Mobile, Ala.	...	1
Boston, Mass.	...	1	New Orleans, La.	1	...
Charleston, S. C.	...	1	Philadelphia, Pa.	1	...
Lexington, Ky.	...	2	Richmond, Va.	3	...
Lowell, Mass.	1	...	Savannah, Ga.	...	3
Lynchburg, Va.	1	...	Wilmington, N. C.	...	1
Memphis, Tenn.	3	1	Winston-Salem, N. C.	...	1

PNEUMONIA.

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich.	1	...	Manchester, N. H.	1	1
Atlantic City, N. J.	1	...	Medford, Mass.	2	...
Baltimore, Md.	3	9	Newark, N. J.	30	4
Binghamton, N. Y.	1	2	New Castle, Pa.	2	...
Boston, Mass.	5	13	Newport, Ky.	1	1
Braddock, Pa.	1	...	Orange, N. J.	1	...
Cambridge, Mass.	3	1	Philadelphia, Pa.	62	27
Chelsea, Mass.	1	1	Pittsburgh, Pa.	35	19
Chicago, Ill.	132	66	Pittsfield, Mass.	1	1
Cleveland, Ohio	20	19	Pontiac, Mich.	1	...
Dayton, Ohio	3	4	Reading, Pa.	1	...
Detroit, Mich.	4	13	Rochester, N. Y.	10	4
Evansville, Ind.	2	2	Saginaw, Mich.	2	...
Fall River, Mass.	3	1	San Francisco, Cal.	6	4
Grand Rapids, Mich.	1	1	Schenectady, N. Y.	3	1
Harrisburg, Pa.	1	2	Somerville, Mass.	2	2
Haverhill, Mass.	2	1	Springfield, Mass.	1	3
Jackson, Mich.	1	...	Stockton, Cal.	1	...
Johnstown, Pa.	1	1	Toledo, Ohio	2	3
Kalamazoo, Mich.	1	3	Wilkinsburg, Pa.	1	1
Los Angeles, Cal.	8	7	Worcester, Mass.	2	5
Lynn, Mass.	1	1	York, Pa.	2	...

POLIOMYELITIS (INFANTILE PARALYSIS).

Illinois.

During the week ended November 3, 1917, cases of poliomyelitis were notified in Illinois as follows: One case each in Dupage, Fulton, Kane, Kankakee, Logan, McHenry, Ogle, Rock Island, and Winnebago Counties; 18 cases in Cook County, of which 17 occurred in the city of Chicago.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1917.

Place.	New cases reported.
Alabama:	
Cullman County	1
Limestone County	1
Pike County	1
Wilcox County	1
Total	4
Connecticut:	
Fairfield County—	
New Fairfield	1
Hartford County—	
New Britain	1
Tota	2
Indiana:	
DeKalb County	2
Fountain County	1
Lake County	3
Porter County	1
St. Joseph County	2
Total	9
New York:	
Albany County	1
Cattaraugus County	2
Clinton County	2
Columbia County	2
Greene County	1
Lewis County	1
Monroe County	1
Nassau County	1
Niagara County	1
Rensselaer County	2
St. Lawrence County	13
New York City	9
Total	36
Wisconsin:	
Douglas County	1
La Crosse County	1
Milwaukee County	1
Rock County	1
Trempealeau County	1
Vernon County	1
Total	6

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.
Akron, Ohio	1	.....
Altoona, Pa	1	.....
Boston, Mass	1	.....
Chicago, Ill	50	17
Cleveland, Ohio	1	.....
Erie, Pa	1	.....
Los Angeles, Cal	1	.....
Lowell, Mass	1	1
Pittsburgh, Pa	4	.....
Portland, Me	1	.....
Portland, Oreg	1	.....
Saginaw, Mich	1	.....
Seattle, Wash	1	.....

RABIES IN MAN.

Kentucky—Louisville.

A case of rabies in man was notified in Louisville, Ky., November 2, 1917. The patient was bitten by a dog July 7, 1917. Antirabic treatment was not administered.

RABIES IN ANIMALS.

City Reports for Week Ended October 20, 1917.

During the week ended October 20, 1917, cases of rabies in animals were reported as follows: Detroit, Mich., 2; Memphis, Tenn., 1; and Newark, N. J., 1.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1904.

SMALLPOX.

Kansas—Leavenworth.

Assistant Surgeon Wilson reports that the outbreak of smallpox at Leavenworth appears to be at an end. The first case appeared in the city of Leavenworth during the week ended September 22. There have been in all 13 cases reported in the city and 8 cases outside the city. The disease has been of the mild type.

Minnesota.

During the week ended November 3, 1917, five new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Dakota County, Hastings, 1; Hennepin County, Corcoran Township, 1; Kittson County, Halma, 6; Meeker County, Darwin Township, 2; Rice County, Wells, 1.

Texas—Eagle Pass.

During the period from October 11 to 30, 1917, 16 cases of smallpox were notified at Eagle Pass, Tex.

Miscellaneous State Reports.

Place.	Cases.	Deaths.
Alabama (Sept. 1-30):		
Blount County	1	
Chambers County	1	
Conecuh County	1	
Dallas County	1	
Jefferson County	1	
Montgomery County	1	
Pickens County	8	
Talladega County	2	
Wilcox County	1	
Total	17	
Connecticut (Sept. 1-30):		
Litchfield County—		
Winchester	1	
Middlesex County—		
Cromwell	1	
Total	2	
Indiana (Sept. 1-30):		
Adams County	4	
Clay County	5	
Fountain County	1	
Gibson County	7	
Greene County	3	
Jefferson County	1	
Indiana—Continued.		
Johnson County	15	
Knox County	6	
Lake County	1	
Laporte County	2	
Marion County	17	
Vanderburgh County	4	
Vigo County	2	
White County	1	
Total	69	
New York (Sept. 1-30):		
Erie County	2	
Wisconsin (Sept. 1-30):		
Calumet County	2	
Eau Claire County	3	
Juneau County	2	
Lincoln County	1	
Milwaukee County	2	
Monroe County	4	
Portage County	1	
Rock County	2	
Washburn County	1	
Total	18	

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.
Akron, Ohio	3	
Butte, Mont	7	
Chicago, Ill	6	
Cleveland, Ohio	16	
Columbus, Ohio	3	
Danville, Ill	1	
Dayton, Ohio	1	
Denver, Colo	8	
Detroit, Mich	14	
Everett, Wash	1	
Grand Rapids, Mich	2	
Indianapolis, Ind	17	
Kansas City, Kans	6	
Kansas City, Mo	26	
La Crosse, Wis	5	
Leavenworth, Kans	4	
Lincoln, Nebr	2	
Milwaukee, Wis	1	
Minneapolis, Minn	8	
New Orleans, La	1	
Niagara Falls, N. Y	4	
St. Louis, Mo	5	
Salt Lake City, Utah	5	
Sioux City, Iowa	4	
Toledo, Ohio	1	

TETANUS.

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.	1		Philadelphia, Pa.	1	2
Danville, Ill.	1	1	Rutland, Vt.	1	
Galveston, Tex.		1	St. Louis, Mo.	1	1
Memphis, Tenn.	1	1	Troy, N. Y.		1

TRACHOMA.

Alabama—Camden.

An examination of 205 school children in Camden, Wilcox County, Ala., disclosed two cases of trachoma and one case which was classified as doubtful, treatment and observation being required before a positive diagnosis could be made. According to the United States Census of 1910 the population of Camden was 648 persons. The population of Wilcox County and the city of Camden is largely native American, and has been but little influenced by foreign or domestic immigration.

Florida.

Surg. John McMullen, of the United States Public Health Service, in conjunction with officers of the State Board of Health of Florida and assisted by local physicians, investigated and treated cases of trachoma in the State of Florida during part of the month of October, 1917. He reports that cases of trachoma were found as shown in the following table:

Place.	Population, 1910.	Number of cases of trachoma.	Place.	Population, 1910.	Number of cases of trachoma.
Sanford	3,570	165	Lakeland	3,719	30
Oveida	488	8	Plant City	2,481	24
Jacksonville	57,699	15	Tampa	37,782	48

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1904.

TYPHOID FEVER.

Hawaii—Castner.

A report from Honolulu, Hawaii, states that 52 cases of typhoid fever were notified at Castner, Hawaii, during the two weeks ended November 5, 1917, making a total of 95 cases with 5 deaths since September 13.

TYPHOID FEVER—Continued.

Kansas—Leavenworth.

Asst. Surg. Wilson reports that the epidemic of typhoid fever which has existed in Leavenworth and vicinity has come to an end. The epidemic began last February. There have been in the city of Leavenworth 205 cases and in the area outside of the city 69 cases.

South Carolina—Spartanburg County.

A report from Inman Mill Village, Spartanburg County, S. C., states that 14 cases of typhoid fever had occurred there since June. Six patients were confined to their beds at the time of the report, eight being convalescent. Four cases of typhoid fever were reported at Drayton Mill Village, near Spartanburg.

State Reports for September, 1917.

Place.	New cases reported.
Alabama:	
Autauga County	1
Barbour County	3
Bibb County	2
Blount County	1
Bullock County	1
Butler County	2
Calhoun County	40
Chambers County	10
Cherokee County	4
Chilton County	4
Choctaw County	1
Clarke County	4
Cleburne County	3
Coffee County	1
Colbert County	3
Conecuh County	3
Coosa County	6
Covington County	5
Crenshaw County	3
Cullman County	7
Dallas County	5
De Kalb County	4
Elmore County	2
Escambia County	1
Etowah County	13
Fayette County	3
Geneva County	2
Hale County	6
Henry County	1
Houston County	3
Jackson County	15
Jefferson County	266
Lamar County	3
Lauderdale County	2
Lawrence County	3
Lee County	4
Limestone County	9
Lowndes County	3
Macon County	5
Marengo County	1
Marion County	6
Marshall County	3
Mobile County	10
Monroe County	14
Montgomery County	15
Morgan County	3
Pickens County	3
Pike County	7
Russell County	1
Shelby County	1
St. Clair County	13
Alabama—Continued.	
Sumter County	2
Talladega County	5
Tallapoosa County	13
Tuscaloosa County	18
Walker County	10
Washington County	1
Wilcox County	6
Winston County	1
Total	586
Connecticut:	
Fairfield County—	
Bridgeport	5
Danbury	2
Greenwich	2
Shelton	1
Norwalk	2
Ridgefield	1
Stamford	3
Stratford	1
Hartford County—	
Berlin	1
Bristol	1
East Hartford	1
East Windsor	1
Enfield	5
Glastonbury	1
Hartford	9
Manchester	2
New Britain	2
Windsor Locks	1
Litchfield County—	
Morris	1
Plymouth	2
Salisbury	1
Thomaston	3
Watertown	1
Middlesex County—	
Essex	1
Saybrook	1
New Haven County—	
Ansonia	4
Branford	2
Madison	1
Meriden	6
Naugatuck	1
New Haven	9
Orange	4
Wallingford	1
Waterbury	14

TYPHOID FEVER—Continued.

State Reports for September, 1917—Continued.

Place.	New cases reported.
Connecticut—Continued.	
New London County—	
Groton	3
New London	8
Preston	16
Stonington	1
Tolland County—	
Willington	1
Windham County—	
Killingly	1
Willimantic	4
Total	127
Indiana:	
Adams County	1
Allen County	5
Bartholomew County	1
Blackford County	6
Carroll County	3
Cass County	3
Clark County	5
Clay County	10
Clinton County	1
Crawford County	2
Daviess County	4
Dearborn County	2
Decatur County	1
DekalbCounty	4
Delaware County	27
Dubois County	4
Elkhart County	9
Floyd County	9
Fountain County	3
Franklin County	4
Fulton County	1
Gibson County	4
Grant County	2
Greene County	1
Hamilton County	4
Hancock County	10
Harrison County	8
Hendricks County	2
Henry County	2
Howard County	7
Huntington County	14
Jackson County	6
Jay County	11
Jefferson County	4
Jennings County	4
Johnson County	5
Knox County	3
Kosciusko County	8
Lake County	8
Laporte County	12
Lawrence County	17
Madison County	8
Marion County	60
Marshall County	2
Monroe County	1
Montgomery County	2
Orange County	12
Owen County	3
Parke County	1
Perry County	3
Pike County	2
Porter County	2
Posey County	3
Putnam County	4
Randolph County	3
Ripley County	2
Rush County	5
Scott County	2
St. Joseph County	132

Place.	New cases reported.
Indiana—Continued.	
Sullivan County	1
Switzerland County	2
Tippecanoe County	6
Tipton County	6
Union County	2
Vanderburg County	28
Vermilion County	1
Vigo County	6
Wabash County	1
Warren County	1
Warrick County	5
Washington County	10
Wayne County	2
Wells County	3
White County	3
Total	561
New York:	
Albany County	80
Allegany County	2
Broome County	5
Cayuga County	1
Chautauqua County	7
Chemung County	18
Chenango County	6
Clinton County	4
Columbia County	2
Delaware County	4
Dutchess County	5
Erie County	44
Essex County	4
Franklin County	1
Genesee County	8
Greene County	3
Herkimer County	10
Jefferson County	4
Lewis County	3
Madison County	1
Monroe County	11
Montgomery County	1
Nassau County	6
Niagara County	22
Oneida County	6
Onondaga County	11
Ontario County	1
Orange County	5
Orleans County	1
Oswego County	5
Otsego County	6
Putnam County	1
Rensselaer County	49
Rockland County	2
St. Lawrence County	7
Saratoga County	7
Schoharie County	2
Schuyler County	2
Seneca County	1
Steuben County	7
Suffolk County	17
Sullivan County	2
Tioga County	3
Ulster County	18
Warren County	3
Washington County	3
Wayne County	2
Westchester County	16
Yates County	2
New York City	365
Total	796

TYPHOID FEVER—Continued.

State Reports for September, 1917—Continued.

Place.	New cases reported.	Place.	New cases reported.
Wisconsin:		Wisconsin—Continued.	
Ashland County	4	Marinette County	1
Clark County	1	Milwaukee County	12
Dane County	1	Outagamie County	1
Fond du Lac County	4	Sheboygan County	2
Grant County	1	Washington County	1
Green Lake County	1	Winnebago County	4
Juneau County	1	Wood County	3
Kenosha County	5		
Marathon County	1	Total	43

City Reports for Week Ended Oct. 20, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	1		Minneapolis, Minn	4	
Alameda, Cal	1		Mobile, Ala	1	
Albany, N. Y	2		Muscatine, Iowa		1
Allentown, Pa	1		Nashville, Tenn	2	
Altoona, Pa	3		Newark, N. J	6	
Ann Arbor, Mich	7		New Bedford, Mass	1	1
Atlantic City, N. J	1		New Castle, Pa	1	
Baltimore, Md	23	3	New Orleans, La	12	
Birmingham, Ala	24	3	New York, N. Y	32	5
Boston, Mass	2		Norfolk, Va	3	
Buffalo, N. Y	5	1	Norristown, Pa	1	
Butler, Pa	1		North Adams, Mass	2	
Cambridge, Mass	2		Oklahoma City, Okla	1	1
Chelsea, Mass	1		Pawtucket, R. I	2	
Chicago, Ill	18	2	Perth Amboy, N. J	1	
Cincinnati, Ohio	1		Philadelphia, Pa	24	3
Cleveland, Ohio	4		Pittsburgh, Pa	7	3
Coffeyville, Kans	2		Portland, Oreg	7	
Columbus, Ohio	1	1	Providence, R. I	3	
Cumberland, Md	1		Quincy, Mass	1	
Danville, Ill	1		Reading, Pa	1	
Dayton, Ohio	1		Richmond, Va	5	
Denver, Colo	9		Roanoke, Va	1	
Detroit, Mich	7	3	Rochester, N. Y	2	
Elizabeth, N. J	1		Rock Island, Ill	1	
El Paso, Tex	4	1	Saginaw, Mich	2	
Erie, Pa	14		St. Louis, Mo	10	1
Evansville, Ind	2		Salt Lake City, Utah	6	1
Fall River, Mass	13	3	San Francisco, Cal	2	1
Flint, Mich	2	2	Savannah, Ga	2	1
Fort Worth, Tex	1		Seattle, Wash	2	
Galesburg, Ill	2		Somerville, Mass	1	
Galveston, Tex	2		South Bend, Ind	3	
Grand Rapids, Mich	3	1	Springfield, Ill	1	1
Hagerstown, Md	3		Springfield, Mass	1	
Harrisburg, Pa	1		Springfield, Ohio	2	
Hartford, Conn	5	1	Stockton, Cal	6	1
Haverhill, Mass		1	Terre Haute, Ind	3	
Indianapolis, Ind	6		Topeka, Kans	3	1
Jersey City, N. J	2		Toledo, Ohio	3	
Johnstown, Pa	2		Trenton, N. J	4	
Kansas City, Kans	5		Troy, N. Y	5	1
Kansas City, Mo	6	1	Washington, D. C	20	1
Kokomo, Ind	1		Washington, Pa	7	
Leavenworth, Kans	1		Watertown, N. Y	4	
Lexington, Ky	2	1	Wheeling, W. Va	5	1
Lima, Ohio	3		Wichita, Kans	7	1
Lincoln, Nebr	1		Wilkes Barre, Pa	3	
Los Angeles, Cal	9	2	Wilmington, Del	10	
Lynn, Mass	2		Winston-Salem, N. C	4	1
Malden, Mass	1		Worcester, Mass	3	1
Memphis, Tenn	8		York, Pa	5	
Milwaukee, Wis		1	Zanesville, Ohio	1	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for September, 1917.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Alabama	127	64	102	New York	1,182	519	433
Connecticut	162	54	57	Wisconsin	200	40	190
Indiana	508	35	179				

City Reports for Week Ended Oct. 20, 1917.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md	589,621	193	14	1	2	1	20	1	32	26
Boston, Mass	756,476	195	73	9	41	1	26	.....	63	13
Chicago, Ill	2,497,722	660	285	28	15	1	104	3	418	71
Cleveland, Ohio	674,073	200	46	5	2	.....	6	.....	42	25
Detroit, Mich	571,784	200	106	12	17	.....	42	.....	27	17
Los Angeles, Cal	503,812	132	10	1	3	.....	11	.....	32	19
New York, N. Y	5,602,841	1,348	230	16	83	2	71	.....	393	156
Philadelphia, Pa	1,709,518	505	74	8	7	.....	22	2	91	50
Pittsburgh, Pa	579,090	161	48	3	4	.....	13	.....	31	10
St. Louis, Mo	757,309	200	81	6	6	.....	48	.....	38	16
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y	468,558	132	18	6	3	.....	9	.....	26	13
Cincinnati, Ohio	410,476	123	27	1	3	.....	10	.....	16	11
Jersey City, N. J	306,345	90	17	1	6	.....	7	.....	13	9
Milwaukee, Wis	436,535	.....	25	3	6	.....	41	3	24	6
Minneapolis, Minn	363,454	.....	39	.....	5	.....	9	.....	.....	.....
Newark, N. J	408,894	97	33	.....	24	.....	12	.....	51	11
New Orleans, La	371,747	132	30	1	.....	.....	3	.....	29	18
San Francisco, Cal	463,516	116	16	2	10	.....	5	.....	26	14
Seattle, Wash	348,639	48	4	.....	5	.....	6	.....	8	2
Washington, D. C	363,980	100	110	1	7	.....	19	.....	32	9
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio	214,878	50	4	1	2	.....	20	.....	9	4
Denver, Colo	260,800	63	11	.....	.....	.....	7	.....	.....	18
Indianapolis, Ind	271,708	.....	56	.....	2	.....	11	.....	5	.....
Kansas City, Mo	297,847	78	18	3	7	.....	3	.....	2	8
Portland, Oreg	295,463	62	2	1	.....	.....	3	.....	5	1
Providence, R. I	254,960	68	14	.....	2	2	5	.....	.....	4
Rochester, N. Y	256,417	71	4	.....	5	.....	13	.....	14	4
From 100,000 to 200,000 inhabitants:										
Albany, N.Y	104,199	.....	.....	.....	.....	.....	2	.....	2	.....
Birmingham, Ala	181,762	69	.....	.....	7	.....	11	.....	10	3
Bridgeport, Conn	121,579	36	12	1	.....	.....	3	.....	4	4
Cambridge, Mass	112,981	25	8	.....	4	.....	4	.....	3	2
Camden, N. J	106,233	.....	3	.....	6	.....	2	.....	5	.....
Dayton, Ohio	127,224	42	4	.....	.....	.....	3	.....	5	.....
Fall River, Mass	128,366	35	8	.....	.....	.....	2	.....	24	2
Fort Worth, Tex	104,562	22	.....	.....	.....	.....	.....	.....	.....	1
Grand Rapids, Mich	128,291	34	7	.....	.....	.....	8	.....	4	1
Hartford, Conn	110,900	40	15	1	4	.....	3	.....	6	1
Lawrence, Mass	100,560	23	3	.....	.....	.....	.....	.....	2	1
Lowell, Mass	113,245	32	5	.....	1	.....	1	.....	4	2
Lynn, Mass	102,425	13	4	.....	.....	.....	1	.....	4	5
Memphis, Tenn	148,995	46	20	.....	17	.....	3	.....	17	7
Nashville, Tenn	117,657	32	4	.....	2	.....	5	.....	5	7
New Bedford, Mass	118,158	36	7	.....	5	.....	1	.....	7	3
New Haven, Conn	149,685	52	2	.....	2	.....	1	.....	6	3
Oakland Cal	198,604	29	2	.....	7	.....	5	.....	8	4
Omaha, Nebr	165,470	45	12	1	.....	.....	3	.....	.....	4
Reading, Pa	109,382	34	5	2	.....	.....	1	.....	.....	1
Richmond, Va	156,687	52	10	1	.....	.....	5	.....	7	10
Salt Lake City, Utah	117,399	26	1	1	5	.....	11	.....	.....	2

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

City Reports for Week Ended Oct. 20, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 100,000 to 200,000 inhabitants—Continued.										
Springfield, Mass.	105,942	32	19	2	9	.....	11	.....	4	2
Syracuse, N. Y.	155,624	42	12	.....	3	.....	6	.....	1	1
Toledo, Ohio	191,554	81	9	3	1	.....	14	.....	17	12
Trenton, N. J.	111,593	33	12	.....	.....	.....	.....	.....	6	2
Worcester, Mass.	163,314	48	17	5	.....	.....	4	.....	3	1
From 50,000 to 100,000 inhabitants:										
Akron, Ohio	85,625	.....	18	.....	1	.....	3	.....	1	.....
Allentown, Pa.	63,505	16	9	.....	1	.....	1	.....	.....	.....
Altoona, Pa.	58,659	.....	13	.....	.....	.....	.....	.....	.....	.....
Atlantic City, N. J.	57,660	.....	.....	.....	.....	.....	.....	.....	6	.....
Bayonne, N. J.	69,893	.....	3	.....	.....	.....	.....	.....	1	.....
Berkeley, Cal.	57,653	10	.....	.....	.....	.....	.....	.....	.....	.....
Binghampton, N. Y.	53,973	18	9	.....	.....	.....	2	.....	2	1
Brockton, Mass.	67,449	.....	3	.....	.....	.....	1	.....	3	.....
Canton, Ohio	60,852	17	.....	.....	.....	.....	1	.....	.....	.....
Charleston, S. C.	60,734	21	1	.....	.....	.....	3	.....	.....	.....
Covington, Ky.	57,144	17	3	.....	.....	.....	3	.....	.....	1
Duluth, Minn.	94,495	18	4	1	2	.....	2	.....	2	2
Elizabeth, N. J.	86,690	20	10	.....	5	.....	4	.....	2	1
El Paso, Tex.	63,705	.....	2	.....	1	.....	.....	.....	.....	10
Erie, Pa.	75,195	.....	6	.....	.....	.....	9	.....	3	19
Evansville, Ind.	76,078	20	4	2	.....	.....	3	.....	.....	2
Flint, Mich.	54,772	17	11	.....	.....	.....	3	.....	11	1
Harrisburg, Pa.	72,015	18	8	1	.....	.....	7	3	4	.....
Hoboken, N. J.	77,214	19	1	.....	2	.....	.....	.....	7	1
Johnstown, Pa.	68,529	23	4	.....	.....	.....	9	.....	1	.....
Kansas City, Kans.	99,437	.....	6	.....	.....	.....	2	.....	3	.....
Lancaster, Pa.	50,853	.....	1	.....	3	.....	.....	.....	.....	.....
Malden, Mass.	51,155	10	3	.....	2	.....	2	.....	6	.....
Manchester, N. H.	78,283	20	2	.....	10	.....	.....	.....	8	2
Mobile, Ala.	58,221	20	2	.....	.....	.....	5	.....	.....	2
New Britain, Conn.	53,794	4	2	.....	.....	.....	1	.....	.....	4
Norfolk, Va.	89,612	.....	5	.....	.....	.....	2	.....	2	1
Oklahoma City, Okla.	92,943	21	3	.....	.....	.....	1	.....	.....	1
Passaic, N. J.	71,744	12	10	.....	.....	.....	.....	.....	1	1
Pawtucket, R. I.	59,411	13	2	.....	.....	.....	1	1	.....	2
Portland, Me.	63,867	23	1	.....	3	1	.....	.....	.....	1
Rockford, Ill.	55,185	16	.....	.....	.....	.....	.....	.....	3	.....
Sacramento, Cal.	66,895	24	.....	.....	.....	.....	.....	.....	5	.....
Saginaw, Mich.	55,642	11	1	.....	.....	.....	1	.....	.....	.....
St. Joseph, Mo.	85,236	22	10	1	.....	.....	1	.....	1	2
San Diego, Cal.	53,330	16	.....	.....	3	.....	1	.....	3	2
Savannah, Ga.	68,805	28	4	1	.....	.....	3	.....	1	6
Schenectady, N. Y.	99,519	24	7	.....	.....	.....	.....	.....	1	.....
Sioux City, Iowa.	57,078	.....	.....	.....	.....	.....	3	.....	.....	.....
Somerville, Mass.	87,039	22	7	.....	4	.....	6	.....	5	2
South, Bend, Ind.	68,946	15	.....	.....	.....	.....	.....	.....	1	1
Springfield, Ill.	61,120	22	.....	.....	.....	.....	.....	.....	.....	1
Springfield, Ohio.	51,550	16	1	.....	1	.....	.....	.....	2	2
Terre Haute, Ind.	66,083	10	1	.....	.....	.....	3	.....	.....	1
Troy, N. Y.	77,916	.....	1	.....	1	.....	.....	.....	4	4
Wichita, Kans.	70,722	.....	3	1	.....	.....	3	.....	.....	.....
Wilkes-Barre, Pa.	76,776	20	11	1	1	.....	.....	.....	5	.....
Wilmington, Del.	94,265	34	1	.....	.....	.....	4	.....	.....	2
York, Pa.	51,656	.....	1	.....	1	.....	3	.....	3	.....
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,732	2	.....	.....	1	.....	5	.....	.....	.....
Bellingham, Wash.	32,985	4	.....	.....	.....	.....	.....	.....	.....	1
Brookline, Mass.	32,730	2	1	.....	.....	.....	3	.....	.....	.....
Butler, Pa.	27,632	2	4	1	.....	.....	1	.....	.....	.....
Butte, Mont.	43,425	.....	2	.....	.....	.....	5	.....	.....	.....
Chelsea, Mass.	46,192	14	9	1	1	.....	.....	.....	3	.....
Chicopee, Mass.	29,319	5	.....	.....	.....	.....	1	.....	2	.....
Cumberland, Md.	26,074	7	.....	.....	.....	.....	.....	.....	.....	1
Danville, Ill.	32,261	10	.....	.....	.....	.....	2	.....	3	1
Davenport, Iowa.	48,811	.....	.....	.....	.....	.....	7	.....	.....	.....
Dubuque, Iowa.	39,873	.....	.....	.....	.....	.....	.....	.....	.....	2
East Chicago, Ind.	28,743	14	1	.....	.....	.....	.....	.....	.....	.....
East Orange, N. J.	42,458	7	1	.....	12	.....	.....	.....	1	1
Elgin, Ill.	28,203	7	.....	.....	.....	.....	.....	.....	.....	.....

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

City Reports for Week Ended Oct. 20, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Everett, Mass.	39,233	8	10		5		1		3	
Everett, Wash.	35,486						3		3	1
Fitchburg, Mass.	41,781	5	3				1		1	
Galveston, Tex.	41,863	16	1							
Green Bay, Wis.	29,353	8								
Hagerstown, Md.	25,679		3				3			
Haverhill, Mass.	48,477	16	5				1			2
Jackson, Mich.	35,363	17					1			1
Kalamazoo, Mich.	48,886	24	10		13					
Kenosha, Wis.	31,576	7	1				4		1	
Knoxville, Tenn.	38,676				1		17			
La Crosse, Wis.	31,677	6	7				1		2	
Lexington, Ky.	41,097	31	4		10		2			4
Lima, Ohio.	35,384	6	12	2			4	2		
Lincoln, Nebr.	46,515	6								
Long Beach, Cal.	27,587	6					1		1	
Lorain, Ohio.	36,964		6							
Lynchburg, Va.	32,940	6	1	1						
Madison, Wis.	30,699						3			
McKeesport, Pa.	47,521	12	7				2			
Medford, Mass.	26,231	6	2		1		4			
Montclair, N. J.	26,318	5							1	1
Nashua, N. H.	27,327	7								1
Newburgh, N. Y.	29,603	13	2		14				6	1
New Castle, Pa.	41,133						1			
Newport, Ky.	31,927								2	2
Newport, R. I.	30,108	6	26		3					
Newton, Mass.	43,715	9	2						3	
Niagara Falls, N. Y.	37,353	6	4				1		2	
Norristown, Pa.	31,401	11	5	1			4			
Ogden, Utah.	31,404	9	4				8			
Orange, N. J.	33,080	5	1		2		5			
Pasadena, Cal.	46,450	5			2		2		1	
Perth Amboy, N. J.	41,185	5	6				1		3	
Pittsfield, Mass.	38,629	14					1		4	1
Portsmouth, Va.	39,651	13	1							2
Quincy, Ill.	36,798	11	7							1
Quincy, Mass.	38,136	11			1		3		1	1
Racine, Wis.	46,486	8	1				1			1
Roanoke, Va.	43,284	12	3		1				1	
Rock Island, Ill.	28,926	11			1					
Steubenville, Ohio.	27,445	6								
Stockton, Cal.	35,358		1						4	1
Superior, Wis.	46,226	10					3			
Taunton, Mass.	36,283	16					1		7	2
Topeka, Kans.	48,726	4	7				2		2	
Waltham, Mass.	30,570	7	3		1					
Watertown, N. Y.	29,894		1		1		1			
West Hoboken, N. J.	43,139	3	1				1			
Wheeling, W. Va.	43,377	9	6						1	
Williamsport, Pa.	33,809	1	5	1			3		6	
Wilmington, N. C.	29,892	19					1			3
Winston-Salem, N. C.	31,155	14	4	1			4			1
Zanesville, Ohio.	30,863	8							3	4
From 10,000 to 25,000 inhabitants:										
Alton, Ill.	22,874	13	2		4				1	1
Ann Arbor, Mich.	15,010	6	4				1			
Braddock, Pa.	21,685		3		2				1	
Cairo, Ill.	15,794	6								
Clinton, Mass.	[1] 13,075	5					2			
Concord, N. H.	22,669	8	2		1		4			
Galesburg, Ill.	24,276	7	2							
Kearney, N. J.	23,539	7	1	1	6		7		1	
Kokomo, Ind.	20,930	9	1				2			
Leavenworth, Kans.	[1] 19,363	10	2					1		
Long Branch, N. J.	15,395	1	3						1	
Marinette, Wis.	[1] 14,610	4	1							1
Melrose, Mass.	17,445	3	2							
Morristown, N. J.	13,284	4	1							

[1] Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended Oct. 20, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants—Continued.										
Muscatine, Iowa	17,500	1								
Nanticoke, Pa.	23,126	5								
Newburyport, Mass.	15,243	1								
New London, Conn.	20,985	7	2							
North Adams, Mass.	[1] 22,019	9	1						1	
Northampton, Mass.	19,926	13	1				8		1	1
Plainfield, N. J.	23,805	13	2							1
Pontiac, Mich.	17,524	9	1				4			1
Portsmouth, N. H.	11,666		1				4			
Rocky Mount, N. C.	12,067	6	1							
Rutland, Vt.	14,831	4					2			
Sandusky, Ohio	20,193	6								
Saratoga Springs, N. Y.	13,821	3								
Steelton, Pa.	15,548	1					1		5	
Washington, Pa.	21,618						1		1	
Wilkinsburg, Pa.	23,228	9	1				1		1	
Woburn, Mass.	15,969	7								

[1] Population Apr. 15, 1910; no estimate made.

FOREIGN.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Aug. 21-31, 1917.		Remaining under treatment Aug. 31, 1917.	Disease.	Aug. 21-31, 1917.		Remaining under treatment Aug. 31, 1917.
	New cases.	Deaths.			New cases.	Deaths.	
Cerebrospinal meningitis			1	Measles	5		16
Diphtheria	10	1	9	Paratyphoid fever	3	1	6
Leprosy			10	Typhoid fever	28	4	67
Malaria	14	1	24	Varicella			1

CYPRUS.

Leprosy—Malaria—Typhoid Fever—Year 1916. [1]

The following statement of the occurrence of leprosy, malaria, and typhoid fever in the island of Cyprus during the year 1916 was taken from the annual report of the medical officer of the island: Leprosy, 4 new cases; remaining under treatment December 31, 1916, 90. Malaria, 3,752 cases as compared with 4,537 reported cases for the year 1915. Typhoid fever, 376 cases as compared with 267 in 1915. The estimated population of the island was 298,775.

Paratyphoid Fever—Trachoma—Year 1916.

Paratyphoid fever was recognized in the island for the first time during the year 1916. Trachoma was reported present with 547 cases.

INDO-CHINA.

Cholera—Plague—Smallpox—Month of July, 1917.

During the month of July, 1917, 522 cases of cholera, 69 cases of plague, and 525 cases of smallpox were notified in Indo-China. The cases of these diseases were distributed by Provinces as follows:

Cholera.—Province of Anam, 86 cases; Cambodia, 74; Cochin-China, 359; Tonkin, 3.

[1] Public Health Reports, Feb. 23, 1917, p. 335.

Plague.—Province of Anam, 13 cases; Cambodia, 10; Cochin-China, 43; Tonkin, 3.

Smallpox.—Province of Anam, 353 cases; Cambodia, 28; Cochin-China, 130; Laos, 10; Tonkin, 4.

As regards cholera the prevalence in July, 1917, was less than that for the corresponding month in the year 1916, when 1,571 cases were notified. The greatest prevalence was in the Province of Cochin-China, the disease being generally diffused throughout the Province.

Plague declined in prevalence during July, 1917, 69 cases being notified in that month as against 178 in June, 1917, and 93 in July, 1916.

The number of smallpox cases notified in July, 1917, was almost double that of the cases for June, 1917, namely 525 as against 275. In July, 1916, 57 cases were notified. Almost the entire occurrence of the disease in July, 1917, was in the Provinces of Anam and Cochin-China. In Anam, 112,313 vaccinations were performed (population of the Province, 5,513,700).

PERSIA.

Cholera—July-August, 1917.

Cholera was reported present in Persia during the period July 23 to August 5, 1917, the cases occurring as follows: Barfourouche, 4 cases; Demavend, 11 cases; Sari, 179 cases; and at the village of Ozoundeh in the vicinity of Tabriz, 179 cases.

PERU.

Plague—June 1-July 31, 1917.

During the period June 1 to July 31, 1917, 36 cases of plague were notified in Peru. The cases were distributed by locality as follows:

Place.	New cases.	Place.	New cases.
Ancachs Department:		Lambayeque Department:	
Casma	3	Chiclayo	1
Arequipa Department:		Libertad Department:	
Mollendo	6	Trujillo	3
Callao Department:		Lima Department:	
Callao	4	Lima (city and country)	19

UNION OF SOUTH AFRICA.

Typhus Fever—Cape of Good Hope State.[1]

An increase in the area of prevalence of typhus fever in the State of Cape of Good Hope, Union of South Africa, was reported August 25, 1917. Sixteen districts were reported infected.

[1] Public Health Reports, Sept. 28, 1917, p. 1655.

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

Reports Received During the Week Ended Nov. 9, 1917.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay	Aug. 12–18	1	1	
Madras	Aug. 19–Sept. 1	9	4	
Indo-China				July 1–31, 1917: Cases, 522; deaths, 314.
Provinces—				
Anam	July 1–31	86	47	
Cambodia	do	74	53	
Cochin-China	do	359	214	
Tonkin	do	3		
Persia:				
Barfourouche	July 28	4	1	
Demavend	July 29	11	6	
Sari	July 25–Aug. 5	179	98	
Tabriz				Aug. 4, 1917: In village of Ozoumdeh, vicinity of Tabriz, about 7 cases daily.

PLAGUE.

Brazil:				
Bahia	Sept. 9–15	1	1	
India				Aug. 12–18, 1917: Cases, 6,493; deaths, 4,724.
Bassein	Aug. 12–18		6	
Bombay	Aug. 18–Sept. 1	63	48	
Henzada	Aug. 12–18		2	
Karachi	Aug. 18–Sept. 1	10	8	
Madras Presidency	Aug. 19–Sept. 1	478	361	
Mandalay	Aug. 12–18		7	
Moulmein	do		3	
Pegu	do		3	
Toungoo	do		2	
Indo-China				July 1–31, 1917: Cases, 60, deaths, 45.
Provinces—				
Anam	July 1–31	13	9	
Cambodia	do	10	10	
Cochin-China	do	43	24	
Tonkin	do	3	2	
Peru:				
Departments—				
Ancachs	June 1–July 31	3		At Casma.
Arequipa	do	6		At Mollendo.
Callao	do	4		At Callao.
Lambayeque	do	1		At Chiclayo.
Libertad	do	3		At Trujillo.
Lima	do	19		At Lima (city and country).
Straits Settlements:				
Singapore	Aug. 28–Sept. 6	5	4	

SMALLPOX.

Brazil:				
Bahia	Sept. 9–22	3		
China:				
Chungking	Sept. 9–15			Present.
Mukden	Sept. 24–30			Do.
India:				
Bombay	Aug. 12–Sept. 1	7	3	
Karachi	Aug. 19–Sept. 1	4	1	
Madras	do	8	2	
Indo-China				July 1–31, 1917: Cases, 525; deaths, 132.
Provinces—				
Anam	July 1–31	353	59	
Cambodia	do	28	23	
Cochin-China	do	130	49	
Laos	do	10	1	
Tonkin	do	4		
Italy:				
Turin	Sept. 24–30	3	1	
Portuguese East Africa:				
Lourenço Marquez	June 1–30		2	

[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 the Week Ended Nov. 9, 1917—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
Alexandria	Sept. 10-16	6	3	
Great Britain:				
Glasgow	Sept. 30-Oct. 6	1		
Russia:				
Riga	June 10-16	5		May 1-31, 1917: Cases, 4.
Do	July 22-28	5		
Union of South Africa:				
Cape of Good Hope State	Aug. 25			Present in 16 districts.

Reports Received from June 30 to Nov. 2, 1917.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bassein	Apr. 1-May 5		8	
Bombay	June 24-30	1	1	
Do	July 8-Aug. 4	13	7	
Calcutta	Apr. 29-June 30		347	
Do	July 1-Aug. 18		20	
Madras	Apr. 22-June 30	5	4	
Do	July 1-Aug. 21	93	59	
Mandalay	May 6-June 30		2	
Do	July 29-Aug. 11		1	
Moulmein	May 13-June 2		3	
Pakokku	Apr. 20-May 5		1	
Pegu	May 27-June 30		5	
Do	July 1-7		7	
Prome	July 29-Aug. 11		1	
Rangoon	Apr. 21-June 30	31	17	
Do	July 8-28	9	7	
Indo-China:				
Provinces				Feb. 1-June 30, 1917: Cases, 1,273; deaths, 805.
Anam	Feb. 1-June 30	230	191	
Cambodia	do	79	51	
Cochin-China	do	878	543	
Laos	June 1-30	1		
Tonkin	Feb. 1-June 30	36	21	
Saigon	Apr. 23-May 27	163	108	
Do	July 2-Sept. 9	45	30	
Japan				Jan.-July, 1917: Cases, 391. Occurring in 16 provinces and districts. Sept. 12, 1917: Cases, 252. In 5 provinces and districts.
Tokyo	Sept. 12	2		
Java:				
East Java	Apr. 2-8	1		
Do	July 9-15	1	1	
Mid Java	July 16-22	1	1	
West Java				Apr. 13-July 5, 1917: Cases, 71; deaths, 31. July 6-Aug. 23, 1917: Cases, 171; deaths, 96.
Batavia	Apr. 13-July 5	7	2	
Do	July 6-Aug. 23	14	4	
Persia:				
Mazanderan Province—				
Amir Kela	Feb 3	1		
Barfourouche	Jan. 15-17	4		
Hamze Kela	Jan. 17	1		
Machidessar	Jan. 31	3		
Philippine Islands:				
Manila	June 17-23	1		
Do	Aug. 19-25	2		Sept. 2-8, 1917: 1 case. Not previously reported.
Provinces				May 20-June 30, 1917: Cases, 795; deaths, 506. July 1-Aug. 4, 1917: Cases, 2,064; deaths, 1,271. Aug. 19-Sept. 15, 1917: Cases, 871; deaths, 521.
Agusan	July 15-28	12	2	
Albay	May 20-June 30	113	76	
Do	July 1-Aug. 4	53	30	
Do	Aug. 19-Sept. 1	10	7	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands—Continued.				
Provinces—Continued.				
Ambos Camarines	June 3–9	2	1	
Do	July 22–Aug. 4	20	11	
Bataan	July 8–14	1		
Batanga-	June 17–23	1	1	
Bohol	May 20–June 30	368	251	
Do	July 1–Aug. 4	203	161	
Do	Aug. 19–Sept. 15	64	35	
Capiz	June 3–30	62	40	
Do	July 1–Aug. 4	64	45	
Cebu	June 2–30	231	150	
Do	July 1–Aug. 4	388	284	
Do	Aug. 19–Sept. 15	65	36	
Iloilo	July 1–Sept. 15	61	36	
Leyte	June 10–30	14	5	
Do	July 1–Aug. 4	334	223	
Do	Aug. 19–Sept. 15	239	138	
Misamis	July 8–Aug. 4	237	117	
Mindanao	July 20–Aug. 4	12	11	
Do	Aug. 19–Sept. 15	327	189	
Negros Oriental	July 1–Aug. 4	276	177	
Do	Aug. 19–Sept. 15	48	39	
Rizal	June 24–30	1		
Do	July 1–7	1		
Romblon	July 22–28	1	1	
Samar	July 15–21	4	2	
Do	Aug. 19–Sept. 1	92	52	
Sorsogon	June 3–30	196	88	
Do	July 1–Aug. 4	216	114	
Do	Aug. 19–25	8	5	
Surigao	July 29–Aug. 4	4	4	
Do	Aug. 19–25	6	4	
Tayabas	June 3–30	7	7	
Do	July 1–Aug. 4	11	9	
Do	Aug. 19–Sept. 1	2	2	
Zamboanga	July 15–21	11	7	

PLAGUE.

Arabia:				
Aden	May 3–July 4		43	Apr. 8–May 14, 1917: Cases, 69; deaths, 51.
Brazil:				
Bahia	June 10–30	12	8	
Do	July 8–Sept. 8	5	1	
Pernambuco	July 16–Aug. 15	4	1	
Ceylon:				
Colombo	Apr. 8–June 23	41	33	
Do	July 6–21	1	4	
China:				
Amoy	Apr. 29–May 5			Present and in vicinity.
Do	July 1–7	6	6	Present Aug. 10.
Hongkong	May 13–June 30	20	13	
Do	July 8–Aug. 18	4	3	
Kwangtung Province—				
Ta-pu district	June 2			Present.
Ecuador:				
Estancia Vieja	Feb. 1–28	1		
Guayaquil	do	56	29	
Do	Mar. 1–Apr. 30	42	23	
Do	July 1–Aug. 31	4		
Milagro	Mar. 1–31	1		
Do	Apr. 1–30	1	1	
Nobol	Feb. 1–28	2		
Saltitre	do	1		
Do	Mar. 1–31		1	
Taura	Feb. 1–28	3	3	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt				Jan. 1–Sept. 30, 1917: Cases, 723; deaths, 393.
Alexandria	June 21–27	6	4	
Do	July 31–Sept. 11	5	1	
Port Said government	Apr. 30–May 19	4	3	
Port Said	June 25	1		
Do	July 28–29	1	1	
Provinces—				
Fayoum	May 11–June 26	14	7	
Galioubeh	June 28	1		
Girgeh	May 17		1	
Minieh	May 12–June 28	4	3	
Do	July 29–Sept. 11	9		
Siout	May 12	3	1	
Suez government	Apr. 30–June 2	23	9	
Suez	May 12–June 28	38	23	
Great Britain:				
Gravesend	Aug. 13–24	3	1	From s. s. Matiana.
London	May 3–8	2		2 in hospital at port. From s. s. Sardinia from Australian and oriental ports.
India				Apr. 15–June 30, 1917: Cases, 43,992; deaths, 30,197. July 1–7, 1917: Cases, 1,870; deaths, 1,322. July 15–Aug. 18, 1917: Cases, 12,837; deaths, 9,851.
Bassein	Apr. 1–June 30		54	
Do	July 1–Aug. 11		23	
Bombay	Apr. 22–June 30	486	397	
Do	July 1–Aug. 11	231	188	
Calcutta	Apr. 29–June 2		38	
Do	July 15–21		1	
Henzada	Apr. 1–June 30		35	
Karachi	Apr. 22–June 30	468	413	
Do	June 28–July 28	11	8	
Madras Presidency	Apr. 22–June 30	301	250	
Do	July 1–Aug. 21	721	509	
Mandalay	Apr. 8–May 12		9	
Do	July 29–Aug. 11		2	
Moulmein	Apr. 1–June 30		74	
Do	July 1–7		16	
Myingyan	Apr. 1–7		1	
Pegu	May 27–June 2		2	
Do	July 29–Aug. 11		3	
Rangoon	Apr. 15–June 30	183	169	
Do	July 1–Aug. 11	303	286	
Toungoo	Apr. 8–14		2	
Do	July 29–Aug. 11		5	
Indo-China:				
Provinces				Feb. 1–June 30, 1917: Cases, 730; deaths, 491.
Anam	Feb. 1–June 30	232	131	
Cambodia	do	132	115	
Cochin-China	do	219	133	
Kwang-Chow-Wan	May 1–June 30	34	23	
Tonkin	Feb. 1–June 30	113	89	
Saigon	Apr. 23–June 3	47	26	
Japan:				
Aichi Ken	Jan.–July	22		
Miye Ken	do	3		
Java:				
East Java				Apr. 2–May 20, 1917: Cases, 29; deaths, 29. July 30–Aug. 5, 1917: Cases, 3; deaths, 3.
Djocjakarta Residency	Apr. 23–May 6	1	1	
Kediri Residency	do	1	1	
Samarang Residency	Apr. 23–May 20	3	3	
Surabaya Residency	Apr. 2–May 20	18	18	
Do	July 8–28	4	4	
Surakarta Residency	do	6	6	
Peru				May 13–31, 1917: Cases, 15.
Departments—				
Arequipa	May 16–31	4		At Mollendo.
Callao	do	1		At Callao.
Lambayeque	do	2		At Chiclayo.
Libertad	do	7		At Salaverry, San Pedro, and Trujillo.
Lima	do	1		At Lima.
Siam:				
Bangkok	Apr. 22–June 30	13	12	
Do	July 3–Sept. 1	17	15	
Straits Settlements:				
Singapore	June 3–16	2	1	
Do	July 1–Aug. 18	4	3	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Union of South Africa:				
Cape of Good Hope State—				
Cradock	Aug. 23	.....	.....	Present.
Glengrey district	Aug. 13	.....	.....	Do.
Terka district	May 28	1	1	At Summerhill Farm.
Queenstown	June 6	1	.....	
Orange Free State	.....	.....	.....	Apr. 16–22, 1917: 1 case. Apr. 9–22, 1917: Cases, 26; deaths, 17.
Winburg district	May 28	.....	1	
At sea:				
S. S. Matiana	July 14–18	9	6	En route for port of London.

SMALLPOX.

Australia:				
New South Wales	.....	.....	.....	Apr. 27–Aug. 30, 1917: Cases, 77.
Brewarrina	Apr. 27–June 21	6	.....	
Cessnock	July 25–28	4	.....	
Coonabarabran	May 25–July 5	13	.....	
Quambone	Apr. 27–June 21	2	.....	
Warren district	June 22–Aug. 30	52	.....	
Queensland—				
Thursday Island Quarantine Station.	May 9	1	.....	From s. s. St. Albans from Kobe via Hongkong. Vessel proceeded to Townsville, Brisbane, and Sydney, in quarantine.
Brazil:				
Bahia	May 6–June 30	4	.....	
Do	July 22–Aug. 4	2	1	
Rio de Janeiro	....do	126	31	
Do	July 1–Sept. 15	433	91	
Canada:				
Manitoba—				
Winnipeg	June 10–16	1	.....	
Do	Aug. 19–Sept. 1	5	.....	
Nova Scotia—				
Halifax	June 18–July 7	3	.....	
Port Hawkesbury	June 17–30	.....	.....	Present in district.
Ontario—				
Ottawa	July 30–Aug. 5	1	.....	
Windsor	Sept. 30–Oct. 20	3	.....	
Ceylon:				
Colombo	May 6–12	1	.....	
China:				
Amoy	Apr. 29–May 26	.....	.....	Present and in vicinity.
Do	July 1–Aug. 19	.....	.....	Do.
Antung	May 21–June 24	4	.....	
Do	Aug. 6–12	1	.....	
Changsha	May 27–June 2	5	.....	
Do	Aug. 11–17	.....	7	
Chungking	May 6–June 23	.....	.....	Do.
Do	July 1–Sept. 8	.....	.....	Do.
Dairen	May 13–June 30	30	4	
Do	July 8–28	6	1	July 1–7, 1917: Present.
Hankow	June 24–30	2	.....	
Harbin	Apr. 23–May 6	7	.....	On Chinese Eastern Ry.
Hongkong	May 6–June 16	8	7	
Do	Aug. 5–18	1	.....	
Manchuria Station	Apr. 23–29	1	.....	Do.
Mukden	May 27–June 2	.....	.....	Present.
Do	July 8–Sept. 8	.....	.....	Do.
Shanghai	May 21–July 1	13	32	Cases foreign; deaths among natives.
Do	July 2–Sept. 29	.....	9	Among Chinese.
Tsitshar Station	Apr. 16–22	1	.....	On Chinese Eastern Ry.
Tsingtao	May 22–July 7	35	7	At another station on railway 1 case.
Do	July 30–Aug. 11	4	1	
Chosen (Korea):				
Chemulpo	May 1–31	1	.....	
Ecuador:				
Guayaquil	Feb. 1–28	1	.....	
Do	Mar. 1–Apr. 30	8	.....	
Do	July 1–Aug. 31	12	.....	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
Alexandria	Apr. 30–July 1	39	9	
Do	July 2–29	30	4	
Cairo	Feb. 12–Apr. 8	80	1	
France:				
Nantes	July 30–Aug. 5	1		
Paris	May 6–12	1		
Germany				Mar. 18–Apr. 28, 1917: Cases, 715; in cities and 32 States and districts.
Berlin	Mar. 18–Apr. 28	106		
Bremen	do	16		
Charlottenberg	do	18		
Hamburg	do	50		
Leipzig	do	20		
Lubeck	do	2		
Munich	do	10		
Stuttgart	do	1		
Greece:				
Athens	July 25–30		23	
India:				
Bombay	Apr. 22–June 30	186	75	
Do	July 1–Aug. 11	48	22	
Calcutta	Apr. 29–May 26		12	
Karachi	Apr. 22–July 4	27	8	
Do	July 8–14	1	1	
Madras	Apr. 22–June 30	80	48	
Do	July 1–Aug. 21	3	18	
Rangoon	Apr. 15–June 30	33	5	
Do	July 1–28	7		
Indo-China:				
Provinces				Feb. 1–June 30, 1917: Cases, 617; deaths, 535.
Anam	Feb. 1–June 30	1,630	237	
Cambodia	do	136	26	
Cochin-China	do	1,267	377	
Kwang-Chow-Wan	Mar. 1–Apr. 30	4		
Laos	Apr. 1–30	5	1	
Tonkin	Feb. 1–June 30	274	30	
Saigon	Apr. 27–June 10	199	63	
Do	July 2–Sept. 9	33	19	
Italy:				
Turin	May 21–June 24	32	12	
Do	July 12–Aug. 26	9	3	
Jamaica:				
Kingston	Sept. 9–15	1		
Japan				Jan.–July, 1917: Cases, 4,974; in 37 Provinces and districts.
Kobe	May 27–July 22	65	16	
Nagasaki	May 28–June 3	1		
Osaka	May 16–July 5	177	55	
Yokkaichi	July 25–31	1		
Yokohama	May 27–July 1	1	1	
Java:				
East Java	Apr. 2–July 1	38	2	
Do	July 2–29	18		
Mid-Java	Apr. 1–July 1	88	7	
Do	July 2–22	23		
West Java				Apr. 13–July 5, 1917: Cases, 239; deaths, 44. July 6–Aug. 2, 1917: Cases, 68; deaths, 14.
Batavia	Apr. 13–July 5	30	6	
Mexico:				
Coatepec	Jan. 1–June 30		116	
Do	Aug. 1–14		1	Jan. 1–Aug. 14, 1916: 118 deaths.
Jalapa	July 1–13		1	
Mazatlan	July 11–Aug. 7		9	
Mexico City	June 3–30	162		
Do	Aug. 5–Sept. 22	142		
Monterey	June 18–24		24	
Orizaba	Jan. 1–June 30		23	
Do	July 1–23		1	
Vera Cruz	July 1–Sept. 15	6	2	
Netherlands:				
Amsterdam	Aug. 13–18	1	1	
Philippine Islands:				
Manila	May 13–June 9	6		Varioloid.
Do	July 8–Sept. 1	5		Do.
Portugal:				
Lisbon	May 13–June 30	14		
Do	July 8–Aug. 18	8		
Portuguese East Africa:				
Lourenço Marques	Mar. 1–May 31		3	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Archangel	May 1–June 28	56	4	
Do	July 2–Aug. 28	6	.....	
Moscow	July 2–15	6	.....	
Petrograd	Feb. 18–June 23	543	.....	
Do	July 2–29	58	.....	
Riga	Mar. 11–June 2	7	.....	Jan. 1–Mar. 31, 1917: Cases, 9.
Vladivostok	Mar. 15–24	23	7	
Siam:				
Bangkok	June 9–30	16	.....	
Do	July 11–17	3	5	
Spain:				
Madrid	May 1–June 19	.....	4	
Malaga	Apr. 1–June 30	.....	44	
Seville	May 1–June 30	.....	11	
Valencia	June 3–23	5	.....	
Do	July 1–Sept. 15	13	.....	
Straits Settlements:				
Penang	Mar. 18–June 23	6	3	
Singapore	June 24–30	1	.....	
Sweden:				
Malmo	Apr. 22–28	1	.....	
Stockholm	May 20–June 23	2	1	
Tunisia:				
Tunis	June 2–8	2	.....	
Turkey in Asia:				
Trebizond	Feb. 25–Apr. 13	.....	15	
Union of South Africa:				
Johannesburg	Mar. 12–24	4	.....	
Do	July 1–31	3	.....	
Uruguay:				
Montevideo	May 1–31	2	.....	
Venezuela:				
Maracaibo	June 18–July 8	.....	8	
Do	July 9–23	.....	1	

TYPHUS FEVER.

Algeria:				
Algiers	June 1–30	6	3	
Do	July 1–Aug. 31	1	1	
Argentina:				
Buenos Aires	Aug. 12–18	.....	1	
Austria-Hungary:				
Austria	.....	.....	.....	Oct. 22–Dec. 17, 1916: Cases, 2,371.
Bohemia	Oct. 22–Dec. 17	634	.....	
Galicia	.....do.....	809	.....	
Lower Austria	.....do.....	47	.....	
Moravia	.....do.....	617	.....	
Silesia	.....do.....	16	.....	
Styria	.....do.....	243	.....	
Upper Austria	.....do.....	5	.....	
Hungary	.....	.....	.....	Feb. 19–Mar. 25, 1917: Cases, 1,381.
Budapest	Feb. 19–Mar. 25	83	.....	
Brazil:				
Rio de Janeiro	July 29–Aug. 11	2	.....	
Canary Islands:				
Santa Cruz de Teneriffe	Sept. 23–29	.....	1	
China:				
Antung	June 25–July 1	3	.....	
Do	July 9–Sept. 23	15	1	
Hankow	June 9–15	1	.....	
Do	July 8–14	.....	1	
Tientsin	June 17–23	1	.....	
Tsingtao	May 30–July 7	4	.....	
Do	Aug. 5–11	1	.....	
Egypt:				
Alexandria	Aug. 30–July 1	1,648	478	
Do	July 17–Sept 10	412	112	
Cairo	Jan. 22–Apr. 8	188	76	
Port Said	Mar. 19–25	1	.....	
Great Britain:				
Cork	June 17–23	.....	1	
Greece:				
Saloniki	May 23–June 30	.....	32	
Do	July 1–Aug. 4	.....	19	

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

Reports Received from June 30 to Nov. 2, 1917—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Japan:				
Hakodate	July 22-28	1		
Nagasaki	June 11-24	4		
Do	July 9-Sept. 30	34	6	
Java:				
East Java				May 6-July 1, 1917: Cases, 6.
Surabaya	June 25-July 29	4		July 9-29, 1917: Cases, 6.
Mid-Java				Apr. 1-June 24, 1917: Cases, 38;
Samarang	May 5-June 10	14	2	deaths, 5. July 9-Aug. 23,
Do	July 2-8	5		1917: Cases, 13; deaths, 1.
West Java				Apr. 13-July 5, 1917: Cases, 147;
Batavia	Apr. 13-July 5	70	6	deaths, 6. July 6-Aug. 23, 1917
Do	July 6-Aug. 23	61	8	Cases, 82; deaths, 11.
Mexico:				
Aguascalientes	July 10-16		1	
Coatepec	Aug. 1-14		1	
Jalapa	Apr. 1-June 30		5	
Do	July 1-31		3	
Mexico City	June 3-30	431		
Do	July 8-Sept. 22	1,044		
Orizaba	Jan. 1-June 30		6	
Do	July 1-31		1	
Netherlands:				
Rotterdam	June 9-23	3	2	
Do	July 15-Sept. 1	11		
Norway:				
Bergen	July 8-28	7		
Portuguese East Africa:				
Lourenço Marques	Mar. 1-31	1		
Russia:				
Archang l	May 1-June 28	11	2	
Do	July 2-Aug. 28	16	5	
Moscow	July 2-15	10		
Petrograd	Feb. 18-June 23	138	3	
Do	July 2-29	33		
Riga	May 31-June 2	3		Jan. 1-31, 1917: 1 case.
Vladivostok	Mar. 29-May 21	5		
Spain:				
Almeria	May 1-31		5	
Madrid	do		2	
Switzerland:				
Basel	June 17-23	1		
Do	July 8-Sept. 22	7	1	
Zurich	July 26-Sept. 22	2		
Trinidad	June 4-9	2		
Tunisia:				
Tunis	June 30-July 6		1	
Union of South Africa:				
Cape of Good Hope State—				
East London	Sept. 10			Present.

YELLOW FEVER.

Ecuador:				
Babahoyo	Feb. 1-28	1	1	
Do	Mar. 1-31	2	1	
Chobo	do	1	1	
Guayaquil	Feb. 1-28	18	7	
Do	Mar. 1-Apr. 30	34	18	
Do	July 1-Aug. 31	24	10	
Milagro	Feb. 1-28	1		
Do	Mar. 1-Apr. 30	2	1	
Naranjito	July 1-Aug. 31	2	2	
Mexico:				
Campeche State—				
Campeche	Aug. 19-25	2	1	
Yucatan State—				
Merida	Aug. 8-Sept. 20	8	3	
Peto	June 23	1	1	In person recently arrived from
Do	July 1-Sept. 25	6	1	Mexico City.
Venezuela:				
Coro				Present Sept. 5.