

PUBLIC HEALTH REPORTS.

UNITED STATES.

[Reports to the Surgeon-General, Public Health and Marine-Hospital Service.]

Report from Charlotte, N. C.—Investigation of enteric fever.

Passed Assistant Surgeon Anderson reports, July 17, 1906, as follows on the outbreak of enteric fever at Charlotte, N. C., the investigation having been undertaken under Bureau instructions issued July 2, 1906, on request made for special reasons by the State board of health of North Carolina:

Upon arrival in Charlotte, in obedience to my instructions, I called upon Doctor Hawley, the city physician, but was informed by him that the proposed investigation was not on account of enteric fever in the city of Charlotte, but of an outbreak of fever in Elizabeth Seminary, situated in the environs of the city. I then met the principal of the school, the school physician, and two members of the board of trustees, and Mr. W. W. Locke, of the Metropolitan Water Board, Boston, Mass., who had been engaged by the school to investigate the outbreak of fever in Elizabeth Seminary.

This seminary is situated on one of the hills by which the city is partly surrounded. The college buildings were erected in 1899, and, as far as I was able to learn, modern ideas in regard to construction, plumbing, etc., were followed. The dining room, kitchen, and other rooms where food is kept are well screened from flies and kept clean. The water supply is from the city mains. The milk supply up to April 19 was from cows kept at the school, but from that date until the closing of the school, May 22, an additional supply was obtained from the Watkins dairy, from 1 to 3 gallons being received daily. Ice cream was obtained at various times from Brannon, a dealer in Charlotte. Brannon obtained his milk supply from Dotger's and Kirkpatrick's dairies.

Elizabeth Seminary had, during the past session, 180 pupils and teachers; of these, 92 boarded in the college. Doctor King, the principal, had 8 in his family; he lived in a separate house and had the same water, ice, and food, with the exception of the Watkins milk, as the school. His meals were prepared in his own house. There were 24 servants employed in the buildings.

From May 10 to 20 the school physician reports 33 cases of enteric fever among the pupils and teachers; from the infirmary records I think we can be sure that 17 only were genuine enteric, the other cases having a duration of less than a week, some as short as four days. No

case occurred in the principal's family and none among the servants, who were all negroes. So far as could be determined none of the day scholars, about 88 in number, developed enteric fever during this time.

In the city of Charlotte there is a good deal of enteric fever; just how much I am not able to say, as there are no requirements compelling the reporting of enteric fever: 50 cases were reported for the month of June, and 38 cases were reported under treatment during the week ended July 4, but I think double this number would not be too large an estimate.

Two main causes operate for the prevalence of enteric fever in the city itself: 1. The city water supply; 2, the large number of wells.

I made no attempt to investigate the second cause, but paid considerable attention to the city water supply. This supply is derived from a watershed about 5 miles square; the water from the shed is collected in a reservoir, where partial sedimentation takes place, and is passed through a mechanical filter, thence pumped into a standpipe, and from there distributed throughout the city. There are about 40 families living on the watershed. Three dairies, containing about 100 cows, are also on the watershed. At the present time there are two undoubted cases of enteric fever, and possibly a third one convalescent, among those living on the watershed. One of these cases which I saw is within a mile of the reservoir.

The flow of water into the reservoir is very rapid, resulting in the quick washing by rain of material deposited on the ground into the reservoir. These cases of enteric fever on the watershed are a serious menace to the city water supply, and some means should be found to bring about their removal.

The water, after passing through the filtration plant, is almost colorless, but a recent examination of it by Penniman and Browne, of Baltimore, showed the presence of *B. coli*.

There are no proper examinations made of the raw and filtered water to determine just what the plant is doing. It is plain that there is no scientific control of the filtration system, without which no filtration system can give satisfactory results.

Other than the two main sources of infection in the city are the ice, milk, contacts, flies, fresh vegetables, and fruits such as berries. Up to June 1 the ice plant obtained its water from an abandoned mine shaft, which is so situated as to receive the drainage of a number of houses and factories. The manager of the ice plant claims that all the water used for making ice is distilled, but it has been my experience with ice manufacturers that at times when the supply of distilled water runs low plain water is also used.

There are many dairies supplying milk in the city. Time did not permit me to visit all of them. I visited Watkins's, Dotger's, and Culp's. The water at the Watkins dairy is from a spring or a number of springs. Two families reside near this spring, and it would be easy for surface drainage to get into it. As the additional source of milk supply for Elizabeth College, which was first obtained April 19, was from this dairy, I examined into its methods, water, and general conditions at some length. I was unable to learn of any case of sickness among the employees or persons living on the farm. So far as I was able to learn, it was not the custom to sterilize the returned milk cans and bottles; they were simply washed out with warm water and soap and then rinsed out with cold water which was obtained from a

well of the spring water outside the washing room or from the troughs in which the milk cans are kept in the washing room. This last practice seemed to me to be particularly pernicious; for if a returned milk bottle from a house in which there was enteric fever should be infected by any means, it would be possible in rinsing this bottle in the bucket which was used to dip up the water to infect many other bottles and the water in the troughs or well of spring water. It certainly would seem that all milk cans and bottles should be sterilized before being used a second time.

A visit was made to what is known as the "upper" Watkins farm, which supplies part of the Watkins milk. The water supply here is a surface well about 15 feet deep; near the well is a negro cabin in which at the time of my visit was a child who had been sick several days. Clinically the case seemed to be enteric fever. There was no privy, and the dejecta could easily drain into the shallow well. The well supplied water for washing the cans and cooling the milk.

In view of the fact that the college first began to get milk from the Watkins dairy on April 19, or just twenty-one days before the first case of fever developed there, and that no case occurred in the family of the principal, who had the same water and food supply but not the milk from this dairy, I am inclined to regard the Watkins dairy milk as a very probable source of infection for the college.

Moreover, the Presbyterian College for Women had 112 boarding pupils who used the same water supply as Elizabeth College, but a different milk supply, and, except for 1 case of enteric fever, which from the history probably did not originate in Charlotte, had no fever this spring. This probably excludes the city water as the cause of the outbreak of 17 cases in Elizabeth College.

A rather general impression prevailed in certain quarters that the plumbing of the college was the cause of the fever, but it is generally accepted among sanitarians that defective plumbing of itself can not cause enteric fever; besides, I consider the plumbing in good condition and believe that it had absolutely nothing to do with the outbreak of fever.

A partial chemical examination was made by Doctor Kastle, chief of division of chemistry, of the filtered city water and of the water from the tap in the cooling room at Watkins's dairy. This examination, in connection with the bacteriologic examination, shows that the city water is bad. The chlorine, nitrates, and nitrites of the Watkins water are high and the water chemically as well as bacteriologically is unfit for drinking purposes.

BACTERIOLOGICAL EXAMINATION.

Samples of water were taken from various places, placed on ice, and brought to the hygienic laboratory for study. These samples were taken from places which appeared to have more or less connection with the outbreak in Elizabeth Seminary. Thirteen samples in all were taken from the following places:

No. 1.—City tap water, Elizabeth Seminary. *No. 2.*—Tap in cooling room of Watkins's dairy. *No. 3.*—Well of spring water outside washing room, Watkins's dairy. *No. 4.*—Trough for milk cans in washing room, Watkins's dairy. *No. 5.*—Well water, Culp farm. *No. 6.*—Well water, Dotger's dairy. *No. 7.*—Well water, lower Wat-

kins farm. No. 8.—Mine shaft near ice factory. Nos. 9, 10, and 11.—Filtered water, filtration plant. No. 12.—Raw or unfiltered city water. No. 13.—City water at Doctor Bland's house.

Samples Nos. 3, 4, and 10 were not studied in detail as were other samples from practically the same source.

Sample number.	Source of water.	Number bacteria per c.c.	Minimum quantity producing gas in lactose bouill. at 42° C.	Presumptive test for B. coli.	Diagnostic tests for B. coli.							B. coli.	
					Morphology.	Grams.	Motility.	Gelatine liquefaction.	Gas in lactose broth.	Milk coagulated and acid produced.	Indol test.		Nitrates reduced.
1	City water, Elizabeth College.	100	c. c. 1.0	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
2	Tap in cooling room, Watkins dairy.	1,800	0.1	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
3	Well of spring water, Watkins dairy.	7,000	0.1	+									
4	Trough for milk cans, Watkins dairy.	9,000	0.1	+									
5	Well at Dotger's dairy.....	100	10.0	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
6	Well at Culp's dairy.....	40	10.0	+	Rod	—	Slight ..	—	+	+	+	+	?
7	Well at lower Watkins farm.	12,000	0.1	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
8	Old mine shaft near ice plant.	8,000	0.1	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
9	Filtered-water gallery, filtration plant.	800	1.0	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
10	.....do.....	700	1.0	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
11	.....do.....		1.0	+									
12	Unfiltered city water.....	6,000	0.1	+	Rod	—	Slight ..	—	+	+	+	+	Yes.
13	City tap water, Dr. Bland's house.	100	10.0	+	Rod	—	Slight ..	—	+	+	+	+	Yes.

An examination of the above table shows that the colon bacillus was isolated in pure culture from all of the samples studied except No. 6, which was doubtful. All of the samples showed the "presumptive test for *B. coli*." Samples of city water showed *B. coli* in as small as 1 c. c.; the unfiltered city water in 0.1 c. c.

All the samples, from Watkins's dairy spring-water well and from the well at the lower farm showed *B. coli* in as small amounts as 0.1 c. c. The Culp and Dotger water showed *B. coli* in 10 c. c.

CONCLUSIONS.

From the foregoing the following conclusions may be drawn:

1. That an efficient daily patrol of the watershed should be made in order to detect cases of illness, especially enteric fever.
2. Some means should be provided by which all cases of enteric fever occurring on the watershed could be removed so as no longer to be a source of danger to the city water supply.
3. Practically the entire water supply of the city of Charlotte is infected.
4. The filtration plant removes only about 88 per cent of the bacteria.
5. The filtration plant is conducted in an unscientific and faulty manner.
6. There is urgent need of a competent biologist and chemist to make a thorough study of the wells used for drinking water in the city of Charlotte.

7. A daily examination of the raw and filtered water should be made.
8. All infected or suspicious wells and springs should be closed against use for all purposes.
9. The ice factory should be prohibited from using water from the old mine shaft.
10. On account of the fact that the water of certain dairies was found to contain colon bacilli, dairymen should be required to sterilize all milk cans and bottles; these are used for fresh milk.
11. On account of the great lapse of time it is impossible to say definitely where the infection of the 17 cases at Elizabeth Seminary originated, but it was very probably in the additional supply of milk which was first used at the college twenty-one days before the outbreak of the fever.
12. Elizabeth College should have a sufficient number of cows to supply milk for all its purposes.
13. All the water used for drinking purposes in the college should be boiled.
14. No ice used at the college should be put in the water or milk; these articles can be cooled by being put on ice or in some other satisfactory manner.
15. In my opinion, the outbreak of fever at Elizabeth College was not due to defective plumbing, as some persons claimed, nor was it due to any negligence on the part of the college authorities, and it could not have been avoided without biologic examination of the college supplies.
16. Patrons of the school should have no hesitancy in sending their daughters to Elizabeth College for the ensuing session, provided the above suggestions are carried out.

Report from Baltimore, Md.—Smallpox on steamship Neckar from Bremen—Vessel fumigated.

Passed Assistant Surgeon Stansfield, in temporary charge, reports, August 8, as follows:

The steamship *Neckar* arrived at Baltimore August 6, from Bremen, with one case of smallpox in the steerage. The case was removed and placed in quarantine, the personnel of the vessel vaccinated and allowed to land, and such parts of the vessel as were thought infected were fumigated.

This action was taken by the local quarantine authorities.

Report from Bismarck, N. Dak.—Enteric fever on river steamer Expansion—Precautions against infection of Yellowstone River.

Acting Assistant Surgeon Smyth reports, August 6, as follows:

Within the past month 4 cases of enteric fever were received at this station from the steamer *Expansion*, engaged in local traffic on the Yellowstone River, near Glendive, Mont.

This vessel is engaged in carrying supplies and material to the different camps on an irrigating canal, at present being constructed by the General Government, and I am informed that from 1,000 to 2,000 men are constantly on the irrigation works, divided into camps of from 100 to 200 men. The sanitary conditions in the camps are said to be

bad, no provision being made for the removal of refuse, or for protection of the water supply from pollution.

At present there are about 100 cases of enteric fever at Glendive, all, or most, of which have been brought in from camps along the river.

The stage of water in the Yellowstone River is now getting low and there is danger of infection from that source as the water is used in the camps and in settlements along the river.

The local health authorities are said to be taking precautions and giving instructions, by means of posters, to the men in the different camps as to the best methods of preventing the spread of the disease.

Report from Philadelphia, Pa.—Typhus fever.

Assistant Surgeon Robertson, in temporary charge, reports, August 10, as follows:

In compliance with instructions contained in Bureau letter of the 8th instant, I visited the assistant director of the bureau of health of this city and obtained from him the following data relative to the case of typhus fever reported:

H. P., 17 years of age, born in Denmark, arrived in New York on the steamship *Baltic* on June 29. He remained in New York City from June 29 until July 2 awaiting the arrival of his parents, who came to New York on the latter date on the steamship *United States*. Together with his parents he came to Philadelphia on July 2. On July 10 he was taken sick, and the attending physician suspected typhus fever. This diagnosis was concurred in by several members of the board of health, and on July 17 the patient was removed to the municipal hospital, where he was isolated in a tent on the grounds. The patient died on July 19, two days after admission, and the body was cremated. The house in which the patient was taken ill, together with several houses which he visited were thoroughly disinfected. The friends and relatives who were exposed were not isolated, but were kept under strict observation until the period of incubation had passed.

STATISTICAL REPORTS OF STATES AND CITIES OF THE UNITED STATES,
YEARLY AND MONTHLY.

CONNECTICUT—*Stamford*.—Month of July, 1906. Estimated population, 20,000. Total number of deaths not reported. No deaths from contagious diseases reported.

IOWA—*Ottumwa*.—Month of July, 1906. Estimated population, 23,000. Total number of deaths, 14, including 1 from tuberculosis.

MASSACHUSETTS—*Newton*.—Month of July, 1906. Estimated population, 37,550. Total number of deaths, 25, including 2 from tuberculosis.

Worcester.—Month of April, 1906. Estimated population, 132,550. Total number of deaths, 190, including diphtheria 2, measles 2, and 19 from tuberculosis.

Month of May, 1906. Total number of deaths, 161, including diphtheria 1, enteric fever 1, measles 1, scarlet fever 1, and 20 from tuberculosis.

Month of June, 1906. Total number of deaths, 171, including diphtheria 1, measles 1, whooping cough 1, and 26 from tuberculosis.

MONTANA—*Helena*.—Month of July, 1906. Estimated population, 21,000. Number of deaths not reported. No deaths from contagious diseases reported.

NEW HAMPSHIRE—*Concord*.—Month of July, 1906. Estimated population, 20,000. Total number of deaths, 29, including 1 from tuberculosis.

Franklin.—Month of July, 1906. Estimated population, 6,000. Total number of deaths, 13. Three deaths from tuberculosis reported.

NEW YORK.—Reports to the State board of health, Albany, for the month of June, 1906, from 156 cities, towns, and villages, having an aggregate population of 8,198,500, show a total of 9,937 deaths, including diphtheria 173, enteric fever 71, measles 128, scarlet fever 65, whooping cough 69, smallpox 3, and 1,141 from phthisis pulmonalis.

Saratoga Springs.—Month of July, 1906. Estimated population, 11,822. Total number of deaths not reported. Four deaths from tuberculosis reported.

NORTH CAROLINA.—Reports to the State board of health for the month of June, 1906, from 20 towns, having an aggregate population of 181,800; white, 109,850; colored, 71,950, show a total of 306 deaths; white, 151; colored, 155, including enteric fever 11, whooping cough 9, and 36 from phthisis pulmonalis.

OHIO—*East Liverpool*.—Month of June, 1906. Estimated population, 20,000. Total number of deaths 15, including 2 from enteric fever.

Zanesville.—Month of July, 1906. Estimated population, 25,000. Total number of deaths 30, including enteric fever 2, measles 1, and 1 from tuberculosis.

PENNSYLVANIA—*Altoona*.—Month of July, 1906. Estimated population 38,973. Total number of deaths 67, including 6 from tuberculosis.

Dunmore.—Month of July, 1906. Estimated population, 17,500. Total number of deaths 28, including scarlet fever 2, whooping cough 1, and 2 from tuberculosis.

Newcastle.—Month of July, 1906. Estimated population, 35,500. Total number of deaths 56, including whooping cough 1 and 3 from tuberculosis.

UTAH—*Ogden*.—Month of July, 1906. Estimated population, 25,000. Total number of deaths, 19. No deaths from contagious diseases.

WEST VIRGINIA—*Wheeling*.—Month of July, 1906. Estimated population, 42,000. Total number of deaths 46, including 8 from phthisis pulmonalis. Of the deaths, 7 were of nonresidents.

Smallpox in the United States as reported to the Surgeon-General, Public Health and Marine-Hospital Service, June 29 to August 17, 1906.

[For reports received from December 29, 1905, to June 29, 1906, see PUBLIC HEALTH REPORTS for June 29, 1906.]

[NOTE.—In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

Place.	Date.	Cases.	Deaths.	Remarks.
California:				
General	May 1-June 30		10	
Stockton	June 1-30	1		
Total for State		1	10	
Total for State, same period, 1905.		13		
Colorado:				
Boulder County	May 1-31	1		
Denver County (Denver included)	May 1-June 30	11		
Eagle County	June 1-30	2		
El Paso County (Colorado Springs included)	June 1-30	9		
Fremont County	June 1-30	4		
Garfield County	June 1-30	3		
Kit Carson County	June 1-30	1		
Larimer County	May 1-June 30	8		
Las Animas County	June 1-30	1		
Morgan County	May 1-31	1		
Lincoln County	June 1-30	3		
Pueblo County	May 1-June 30	37		
Teller County	May 1-31	3		
Weld County	May 1-31	2		
Total for State		86		
Total for State, same period, 1905.		46		
Connecticut:				
Stamford	June 1-30	1		
Total for State		1		
Total for State, same period, 1905.				
Florida:				
Brevard County	June 24-30	1		
Columbia County	June 24-July 21	5		
Duval County (Jacksonville included)	June 24-Aug. 4	12		
Escambia County	July 29-Aug. 4	1		
Nassau County	July 15-21	1		
St. Johns County	June 24-30	1		
Total for State		21		
Total for State, same period, 1905.		2		
Georgia:				
Augusta	June 26-July 23	9		
Sapelo Island	June 25-29	1		
Total for State		10		
Total for State, same period, 1905.				
Illinois:				
Galesburg	June 17-Aug. 4	49	1	
Total for State		49	1	
Total for State, same period, 1905.		70	6	
Indiana:				
Adams County	May 1-June 30	24		
Allen County	May 1-June 30	61		
Carroll County	June 1-30	2		
Clark County	May 1-31	10		
Crawford County	May 1-31	2		
Fayette County	May 1-31	1		
Floyd County	May 1-June 30	14		
Fulton County	May 1-31	1		
Grant County	June 1-30	2		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indiana—Continued.				
Henry County.....	May 1-31.....	1		
Jay County.....	June 1-30.....	9		
Marion County.....	May 1-31.....	4		
Miami County.....	May 1-June 30.....	13		
Putnam County.....	May 1-31.....	1		
Shelby County.....	June 1-30.....	10		
Vanderburg County.....	May 1-31.....	5		
Vigo County.....	May 1-June 30.....	3		
Washington County.....	May 1-31.....	20		
Total for State.....		183		
Total for State, same period, 1905.....		12	4	
Kansas:				
Allen County.....	May 1-June 30.....	23	1	
Atchison County (Atchison included).....	May 1-31.....	10		
Barton County.....	May 1-31.....	1		
Bourbon County.....	May 1-31.....	7		
Chase County.....	June 1-30.....	8		
Chautauqua County.....	May 1-June 30.....	3		
Cherokee County.....	May 1-31.....	3		
Cowley County.....	May 1-June 30.....	18		
Doniphan County.....	May 1-31.....	2		
Douglas County.....	May 1-31.....	1		
Elk County.....	June 1-30.....	9		
Ford County.....	May 1-31.....	13		
Harper County.....	May 1-June 30.....	6		
Jackson County.....	May 1-31.....	1		
Jewell County.....	May 1-June 30.....	9		
Leavenworth County (Leavenworth included).....	May 1-31.....	2		
Lyon County.....	June 1-30.....	17		
Montgomery County.....	May 1-June 30.....	68		
Ottawa County.....	May 1-31.....	45		
Pratt County.....	May 1-31.....	6		
Republic County.....	May 1-31.....	4		
Reno County.....	May 1-June 30.....	26		
Riley County.....	June 1-30.....	2		
Rush County.....	May 1-31.....	6		
Saline County.....	June 1-30.....	2		
Sedgwick County (Wichita included).....	May 1-June 30.....	61		
Shawnee County (Topeka included).....	May 1-June 30.....	4		
Stafford County.....	June 1-30.....	3		
Sumner County.....	May 1-June 30.....	10		
Wabau-see County.....	June 1-30.....	1		
Washington County.....	June 1-30.....	1		
Wilson County.....	May 1-June 30.....	19		
Woodson County.....	June 1-30.....	6		
Wyandotte County (Kansas City included).....	May 1-June 30.....	3		
Total for State.....		400	1	
Total for State, same period, 1905.....		219	2	
Louisiana:				
New Orleans.....	June 17-Aug. 4.....	69	5	
Shreveport.....	June 24-30.....	2	1	
Total for State.....		71	6	
Total for State, same period, 1905.....		20		
Maine:				
Blaine.....	July 1-21.....	2		Present.
Mars Hill.....	July 1-21.....			
Houlton.....	June 30-July 6.....	1		
Total for State.....		3		
Total for State, same period, 1905.....				
Maryland:				
Baltimore.....	Aug. 6.....	1		On ss. Neckar from Bremen.
Total for State.....		1		
Total for State, same period, 1905.....				

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Massachusetts:				
Boston	July 22-28	1		
New Bedford	June 24-July 28..	18		
Total for State		19		
Total for State, same period, 1905.		5		
Michigan:				
Bay City	June 1-30		1	
Detroit	June 24-Aug. 4 ..	3		
Lowell	May 20-July 7 ..	34		
Grand Rapids.....	May 1-31.....	1		
Total for State		38	1	
Total for State, same period, 1905.		56	8	
Missouri:				
Amsterdam	May 3-July 12 ...	12		
St. Joseph	July 29-Aug. 4 ..	1		
St. Louis	June 17-July 7 ..	4		
Total for State		17		
Total for State, same period, 1905.		5	1	
Montana:				
Cascade County	June 1-30	1		
Custer County	June 1-30	2		
Fergus County	June 1-30	1		
Yellowstone County	June 1-30	3		
Total for State		7		
Total for State, same period, 1905.		17		
Nebraska:				
Omaha	June 9-30	7		
Total for State		7		
Total for State, same period, 1905.		3		
New Hampshire:				
Concord	June 1-30	1	1	
Total for State		1	1	
Total for State, same period, 1905.		4		
New Jersey:				
Elizabeth	July 1-7	1		
Total for State		1		
Total for State, same period, 1905.				
New York:				Present.
Athens	June 1-30			
Brooklyn	June 1-30		3	
Cohoes	June 1-30			Do.
Durham	June 1-30			Do.
New York	June 17-July 14..	9		
Saratoga Springs.....	June 1-July 31..	2		
Total for State		11	3	
Total for State, same period, 1905.		5	1	
North Carolina:				
Anson County	May 1-June 30..			Do.
Beaufort County	June 1-30			Do.
Bertie County	May 1-June 30 ..	4		
Cabarrus County	May 1-June 30 ..	2		
Camden County	May 1-June 30 ..	14		
Cartaret County	June 1-30	2		
Chowan County	May 1-31	3		
Craven County	May 1-June 30 ..	3		
Cumberland County	May 1-June 30 ..	16		
Currituck County	May 1-June 30 ..	17		
Davie County	May 1-31	6		
Duplin County	June 1-30	1		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
North Carolina—Continued.				
Durham County	May 1-31	1		July 2, no cases.
Forsyth County	May 1-31	4		
Guilford County	May 1-June 30	45		
Harnett County	May 1-31	7		
Hertford County	May 1-June 30	32		
Hyde County	June 1-30	10		
Martin County	June 1-30	70		
Mecklenburg County	May 1-June 30	3		
New Hanover County	June 1-30	1		
Robeson County	May 1-June 30			
Sampson County	May 1-31	5		Present.
Scotland County	May 1-June 30	4		
Union County	May 1-31	1		
Washington County	May 1-June 30	10		
Wayne County	May 1-June 30	6		
Total for State		267		May 1, 1905, to May 1, 1906, cases 6,049.
Total for State, same period, 1905.				
North Dakota:				
Bottineau County	June 1-30	1		
Grand Forks County	May 1-31	1		
Griggs County	May 1-June 30	9		
Kidder County	May 1-31	17		
Lamoure County	June 1-30	27		
Nelson County	June 1-30	1		
Ramsey County	May 1-31	1		
Walsh County	May 1-June 30	3		
Total for State		60		
Total for State, same period, 1905.		55	2	
Ohio:				
Cincinnati	June 16-July 13	5		
East Liverpool	July 1-31	2		
Total for State		7		
Total for State, same period, 1905.		26		
Oklahoma:				
Oklahoma City	June 16-Aug. 4	27	1	
Total for State		27		
Total for State, same period, 1905.				
Oregon:				
Klamath County	June 1-30	11		
Lane County	June 1-30	3		
Polk County	June 1-30	5		
Wasco County	June 1-30	2		
Total for State		21		
Total for State, same period, 1905.		5		
Pennsylvania:				
Columbia	July 29-Aug. 4	1		
Total for State		1		
Total for State, same period, 1905.		8		
South Carolina:				
Camden	July 8-14	1		
Total for State		1		
Total for State, same period, 1905.		2	1	
Tennessee:				
Memphis	June 24-Aug. 4	11		
Knoxville	June 24-July 28	7		
Total for State		18		
Total for State, same period, 1905.		3		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Texas:				
Harrison County (Marshall included).	Apr. 22-July 11...	7	.....
Hopkins County	Apr. 1-July 5.....	50	.....
Total for State		57	.....
Total for State, same period, 1905.				
Utah:				
Davis County	June 1-30.....	1	.....
Salt Lake County	June 1-30.....	13	.....
Sanpete County	June 1-30.....	5	.....
Sevier County	June 1-30.....	10	.....
Summit County	June 1-30.....	5	.....
Weber County (Ogden included).	June 1-30.....	16	.....
Total for State		50	.....
Total for State, same period, 1905.		87	.....
Washington:				
Chehalis County	May 1-31.....	3	.....
Cowlitz County	June 1-30.....	5	.....
Lewis County	June 1-30.....	2	.....
Lincoln County	May 1-31.....	13	.....
Pierce County	May 1-June 30...	13	.....
Spokane County (Spokane included).	July 1-31.....	2	.....
Whatcom County	May 1-June 30...	2	.....
Total for State		40	.....
Total for State, same period, 1905.		44	2	
West Virginia:				
Marshall County	Apr. 1-July 14...	24	.....
Total for State		24	.....
Total for State, same period, 1905.				
Wisconsin:				
Brown County	Jan. 1-Feb. 28...	13	.....
Calumet County	Jan. 1-Feb. 28...	38	.....
Dane County	Jan. 1-Mar. 31...	69	.....
Douglas County	Jan. 1-31.....	1	.....
Fond du Lac County	Feb. 1-28.....	1	.....
Grant County	Jan. 1-Mar. 31...	14	.....
Iowa County	Mar. 1-31.....	3	.....
Jefferson County	Feb. 1-Mar. 31...	9	.....
La Crosse County (La Crosse included).	June 24-July 14...	3	.....
Marinette County (Marinette included).	Jan. 1-31.....	1	.....
Milwaukee County (Milwaukee included).	Jan. 1-July 7....	9	.....
Oconto County	Jan. 1-Mar. 31...	6	.....
Oneida County	Feb. 1-28.....	1	.....
Outagamie County (Appleton included).	Jan. 1-Aug. 4....	77	.....
Ozaukee County	Jan. 1-Mar. 31...	9	.....
Polk County	Jan. 1-Feb. 28...	10	.....
Rock County (Beloit included).	Jan. 1-Mar. 31...	64	.....
Rusk County	Jan. 1-31.....	4	.....
St. Croix County	Feb. 1-28.....	1	.....
Shawano County	Feb. 1-28.....	1	.....
Sheboygan County	Feb. 1-Mar. 31...	10	.....
Walworth County	Feb. 1-28.....	1	.....
Waupaca County	Jan. 1-Feb. 28...	36	.....
Winnebago County	Jan. 1-Feb. 28...	8	.....
Total for State		389	.....
Total for State, same period, 1905.		56	1	
Grand total		1,889	24	
Grand total, same period, 1905		763	28	

Weekly mortality table, cities of the United States.

Cities.	Week ended—	Population, United States census of 1900.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Altoona, Pa.	Aug. 4	38,973	12	1										
Ann Arbor, Mich.	do	14,509	2											
Appleton, Wis.	July 28	15,085	5											
Augusta, Ga.	Aug. 6	39,441	13	1										
Baltimore, Md.	Aug. 4	508,957	239	31						6	1	1		1
Binghamton, N. Y.	do	38,547	18	2										
Boston, Mass.	do	560,892	238	26						1	1	2	1	7
Braddock, Pa.	do	15,654	7											
Brockton, Mass.	do	40,063	7											
Cambridge, Mass.	do	91,886	33											3
Camden, N. J.	do	75,935	24	1								1		
Camden, S. C.	July 28	2,441	2											
Do	Aug. 4	2,441	3	1										
Carbondale, Pa.	do	13,536	4											
Chelsea, Mass.	do	34,072	19	1										
Chicago, Ill.	do	1,698,575	501	58						4	7	9		2
Chicopee, Mass.	do	19,167	7	1										
Cincinnati, Ohio.	Aug. 3	325,902	120	17						6				
Cleveland, Ohio	do	381,766	140	15							1	4	1	3
Clinton, Mass.	Aug. 4	13,667	3											
Columbia, Pa.	July 28	12,316	6											
Covington, Ky.	Aug. 4	42,938	14	1										
Dayton, Ohio.	do	85,333	33	2						3				
Dunkirk, N. Y.	do	11,616	4	1						1				
Elmira, N. Y.	do	35,672	22	1						1				1
Elizabeth, N. J.	June 30	52,130	29											
Do	July 7	52,130	22	1										
Do	July 14	52,130	29	3						1				
Do	July 21	52,130	37	4								1		
Do	July 28	52,130	22	3						1	1			
Do	Aug. 4	52,130	8											1
Fall River, Mass.	do	104,863	5	2										
Findlay, Ohio	do	17,613	3											
Fitchburg, Mass.	do	31,531	12	1										
Galesburg, Ill.	July 28	18,607	4											
Grand Rapids, Mich.	Aug. 4	87,565	39	1										
Greensboro, N. C.	do	10,035	9	3						3				
Harrison, N. J.	do	10,596	6							2				
Hartford, Conn.	July 28	79,850	35	1										
Haverhill, Mass.	Aug. 4	37,175	7							1				
Hoboken, N. J.	do	59,364												
Houston, Tex.	do	44,633	17	2										
Hyde Park, Mass.	do	13,244	5											
Indianapolis, Ind.	Aug. 5	169,164	62	7							2			1
Jacksonville, Fla.	Aug. 4	28,429	11											
Jersey City, N. J.	Aug. 5	206,433	94	8										
Johnstown, Pa.	Aug. 4	35,936	21									1		1
Kingston, N. Y.	do	24,535	9							1				
Knoxville, Tenn.	July 28	32,637		2										
La Crosse, Wis.	Aug. 4	28,895	9	3										
Lafayette, Ind.	Aug. 6	18,116	4											
Lancaster, Pa.	July 28	41,459	13							1				
Do	Aug. 4	41,459	13							1				
Lawrence, Mass.	do	62,559	42	2						1				
Lexington, Ky.	do	26,369	6											
Los Angeles, Cal.	July 28	102,479	73	13										
Lowell, Mass.	Aug. 4	94,969	50	6										
McKeesport, Pa.	July 28	54,227	17	1							1			
Malden, Mass.	Aug. 4	33,664	11											
Manchester, N. H.	do	56,987	28	4										1
Marlborough, Mass.	do	13,609	4											
Massillon, Ohio	do	11,944	3											
Medford, Mass.	do	18,244	2											
Mcrose, Mass.	July 28	12,962	2											
Memphis, Tenn.	Aug. 4	102,320	35							2				
Moline, Ill.	July 30	17,248	2											
Mount Vernon, N. Y.	Aug. 4	21,228	8	1										
Nashville, Tenn.	do	80,865	31	2										
Newark, N. J.	do	246,070	101	10						3				1
New Bedford, Mass.	do	63,442	36	1										1
Newburyport, Mass.	July 28	14,478										1		
Do	Aug. 4	14,478		1										
New London, Conn.	July 28	17,548	9											

Weekly mortality table, cities of the United States—Continued.

Cities.	Week ended—	Population, United States census of 1900.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
New London, Conn.	Aug. 4	17,548	9	1										
New Orleans, La.	July 28	287,104	122	21						5				1
Newport, R. I.	Aug. 4	22,034	4											
Newton, Mass.	do	33,587	8	1										
New York, N. Y.	do	3,437,202	1,482	157						17	4	17	10	12
Niagara Falls, N. Y.	do	19,457	11	1								1		
Norristown, Pa.	do	22,265	10											
North Adams, Mass.	do	24,200	13											
Northampton, Mass.	do	18,643	7											
Oklahoma City, Okla.	July 28	10,037												
Do	Aug. 4	10,037												
Oneonta, N. Y.	do	7,147	2											
Palmer, Mass.	do	7,801	3											
Philadelphia, Pa.	July 7	1,293,697	651	64						12	1	2	4	24
Do	July 14	1,293,697	539	67						15		4	3	11
Do	July 21	1,293,697	538	60					1	7	1	3	1	14
Do	July 28	1,293,697	557	67						13	1	7	4	9
Plainfield, N. J.	Aug. 4	15,369	7											
Portland, Me.	July 28	50,145	14	2										
Providence, R. I.	Aug. 4	175,597	62							1		2		2
Quincy, Mass.	do	23,899	10											
Reading, Pa.	Aug. 6	78,961	24	2										
St. Louis, Mo.	Aug. 4	575,238	187	23						2		1		1
Seattle, Wash.	July 28	80,671	17	1										
Shreveport, La.	Aug. 4	16,013	13	2						1				
Sioux Falls, S. Dak.	do	10,266	1											
Somerville, Mass.	do	61,643	17	1										1
South Bend, Ind.	do	35,999	18	2										
Spokane, Wash.	July 28	38,848	19	2						1				
Springfield, Mass.	Aug. 4	62,059	23	3						1				
Springfield, Ohio.	do	38,253	16	1								1	1	
Steelton, Pa.	do	12,068	3	1										
Tacoma, Wash.	July 28	37,714	9	1										
Taunton, Mass.	Aug. 4	31,036	14	2										
Terre Haute, Ind.	do	36,673	21	12						1				
Toledo, Ohio.	do	131,822	45	6						2		2	1	
Topeka, Kans.	July 28	33,608	11											
Trenton, N. J.	Aug. 4	73,307												
Waltham, Mass.	do	23,481	8											
Wheeling, W. Va.	do	38,878	10	3										
Williamsport, Pa.	do	28,757	8											
Wilmington, Del.	do	76,508	29	2									1	
Winona, Minn.	do	19,714	2											
Worcester, Mass.	do	118,421	52	6								2		

FOREIGN AND INSULAR.

AFRICA.

Report from Cape Town—Examination of rodents for plague infection at East London.

The following is received from the medical officer of health for the Colony, under date of July 2, 1906:

East London.—Week ended June 30, 1906: One hundred and ninety-seven rodents, of which 21 were found dead, bacteriologically examined. No plague infection found.

AUSTRALIA.

Plague in Queensland, New South Wales, and Western Australia—Examination of rodents for plague infection.

The following information is taken from plague bulletins received from Consul-General Bray at Melbourne:

In Queensland a fatal case of plague was reported June 20 at Brisbane. The patient was a Chinese employed as cook in a hotel. Number of rodents destroyed, 511; examined, 339; found infected, none.

In New South Wales 1 fatal plague case was reported during the week ended June 23. The case occurred in a plague-free locality. The patient had been employed in moving material reported rat infested, but no infection was found among the rats taken. Two infected rats were, however, found in the vicinity of the ferry used by the patient. One plague case remained under treatment at the close of the week. Number of rodents destroyed, 2,126; examined, 597; found infected, 2.

In Western Australia 1 plague case remained under treatment at Fremantle. At the end of the week ended June 23 number of rodents examined: At Perth, 22; at Fremantle, 29; 2 found infected at Fremantle.

BARBADOS.

Report from Bridgetown—Inspection of vessels—Sanitary conditions good.

Acting Assistant Surgeon Urquhart reports, July 28, as follows:

On July 24 I fumigated the British steamship *Bernard* bound for Galveston, in water ballast. Everything was in good sanitary condition on board.

The sanitary condition of Bridgetown is very good.

BRAZIL.

Report from Rio de Janeiro—Inspection of vessels—Plague, smallpox, and yellow fever—Health conditions in Rio Grande do Sul and Para—Health legislation.

Acting Assistant Surgeon Stewart reports, July 16, as follows:

Two weeks ended July 8, 1906. Vessels left this port for United States ports were inspected and received bills of health as follows: On the 27th ultimo the British steamship *Carbour* for New Orleans, with a small cargo of coffee, no passengers, and no change in the personnel of the crew; on the 3d instant the Portuguese barkentine *Venturosa* for New Orleans, in sand and stone ballast, with no passengers, and with no change in the crew personnel while here; on the 4th instant the British steamship *Tennyson*, for New York, with 34 first-class and 15 steerage passengers for New York, and with 4 new members of the crew taken on at this port; on the 5th instant the German steamship *Seigmund*, for New York, with no passengers, and no change in the crew personnel while here, and on the 6th instant the British ship *Canada*, for Pensacola, Fla., with no passengers, in stone ballast, and with 2 new members of the crew taken on while in this port.

This latter vessel had been in this port for over 2 months, and about 10 days after arrival had 2 cases diagnosed to be yellow fever. The cases were removed from the ship and the vessel was twice thoroughly disinfected by the port health authorities. As neither of the men supposed to have yellow fever was absent from the ship, in hospital, over 4 days, and as they then returned to duty, it is doubtful if the cases were true cases of yellow fever. They had been ill for only 2 days in 1 case and 3 days in the other case before being transferred to the hospital, and there were no other cases of suspicious illness on board the ship during her stay here.

Week ended July 1, 1906.—Estimated population, 915,000. Total deaths, 268, including 1 death from yellow fever. There were no cases of plague, variola, or yellow fever reported during the week, although there was 1 death from the latter cause. One case of leprosy was reported during the period. At the close of the week there were in the Hospital São Sebastião 3 cases of plague and 4 cases of suspicious illness under observation.

Week ended July 8, 1906.—Total deaths, 240. During the week there were 2 cases of bubonic plague, 1 case of variola, and 1 case of leprosy reported, with no deaths from these diseases. At the close of the week there were in the Hospital São Sebastião 5 cases of plague and 5 cases of suspicious illness under observation.

• *Health conditions in the city of Rio Grande do Sul, year 1905.*

The report for the year 1905 states as follows: There are no public works under construction. During the greater part of the year bubonic plague and smallpox prevailed simultaneously in epidemic form for several months, smallpox causing the larger number of deaths.

Health legislation for Rio de Janeiro.

A resolution has been presented to Congress with regard to the strict health regulations in force in the Federal district of Rio de

Janeiro urging that as they have proved their efficacy they be put permanently into force instead of only temporarily as at present.

Health conditions in Belem (Para).

The last monthly report received is that of April, 1906. This report shows a total of 355 deaths in a population of 177,000 persons. It also shows 39 deaths from yellow fever (only one a native), no cases reported, and 1 death from variola. Also 15 deaths from beriberi and 4 from leprosy.

BRITISH HONDURAS.

Report from Belize, fruit port.

Acting Assistant Surgeon Cooke reports as follows:

Week ended August 2, 1906. Present officially estimated population, 9,000; general sanitary condition of this port and the surrounding country during the week, good.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 27	Anselm.....	New Orleans.....	43	0	0
28	Belize	Mobile.....	18	0	0

CHINA.

Reports from Hongkong—Quarantine restrictions—Quarantinable diseases.

Passed Assistant Surgeon White reports as follows:

Week ended June 16, 1906:

Restrictions enforced by Hongkong remain as reported on May 5, 1906.

Restrictions enforced against Hongkong remain as reported on May 5, 1906.

Communicable diseases: Plague, 57 cases, 45 deaths; smallpox, 1 case, no deaths.

Week ended June 23, 1906:

Communicable diseases: Plague, 34 cases, 31 deaths.

Week ended June 30, 1906:

Restrictions enforced by Hongkong against Singapore as reported on May 5, 1906, have been withdrawn.

Communicable diseases: Plague, 21 cases, 17 deaths; smallpox, 3 cases, 3 deaths.

Emigrants recommended for rejection.

Number of emigrants per steamship *Doric* recommended, June 26, 1906, for rejection: For San Francisco, 10; in transit, 6.

Per steamship *Manchuria*, July 6, 1906: For Honolulu, 2; for San Francisco, 18; in transit, 1.

Report from Shanghai—Inspection of vessels—Smallpox.

Acting Assistant Surgeon Ransom reports, July 5, as follows:

Week ended June 30, 1906. One original and 2 supplemental bills of health issued to 1 sailing vessel and 2 steamers. There were inspected 3 vessels, 264 crew, and 44 steerage passengers. The effects of 16 crew and 8 pieces of steerage baggage were disinfected; also the forecandle of 1 vessel. A vaccination certificate was issued to 1 passenger bound to the United States.

There were no emigration examinations made.

The weekly report of the municipal health officer shows among foreigners 1 new case of smallpox; among natives 1 death from smallpox.

No quarantinable diseases were reported from outports.

COSTA RICA.

Report from Limon, fruit port.

Acting Assistant Surgeon Goodman reports as follows:

Week ended July 28, 1906. Estimated population, 5,000; general sanitary condition of this port and the surrounding country during the week, good. The fumigation of the houses in the railroad village in which yellow fever was found in June, and from the vicinity of which the 2 cases were imported into Limon, seems to have been successful, as no more cases in or around that district have been reported. There is no evidence of any quarantinable disease in this port.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 22	Wilhelmina	Gulfport, Miss.	25	0	0
22	Limon	Boston	37	2	0
23	Prinz Waldemar	New York	90	26	7
25	Alps	New Orleans	24	0	0
26	Zent.	New York	54	6	0
27	Origen.	Mobile	23	0	0
28	Preston	New Orleans	30	0	0

One bill of health for a Panaman port was viséed.

CUBA.

Report from Banes, fruit port

Acting Assistant Surgeon McConnell reports as follows: Week ended July 14, 1906. Present officially estimated population, 6,000; general sanitary condition of this port and the surrounding country during the week, fair as regards Cuban portions; good as regards American portion.

Bill of health was issued to the following-named vessel:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.	Pieces of baggage disinfected.
July 12	Norwegian str. Spero	Charleston	22	0	0	0

Week ended July 21, 1906. General sanitary condition of this port and the surrounding country during the week, fair.

Bill of health was issued to the following-named vessel:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 19	Norwegian str. Freke.....	Charleston	15	0	0

Week ended July 28, 1906. General sanitary condition of this port and the surrounding country during the week, fair.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.	Pieces of baggage disinfected.
July 25	Silvia	23	0	0	0
26	Spero	22	0	0	0

The steamship *Silvia* sailed from Preston and was fumigated by me at the request of the United Fruit Company, bound for New Orleans in ballast. The steamship *Spero* was also fumigated.

Report from Cienfuegos—Inspection and fumigation of vessels—Malarial fever on steamship Madrileño.

Vice and Deputy Consul Lombard reports, July 30, as follows:

Week ended July 28, 1906:

Four bills of health were issued to vessels bound for the United States, with 119 in crew. No passengers for the United States. The Spanish steamship *Pio IX* and the steamship *Madrileño*, of the same nationality, landed, the former 1 and the latter 8 steerage passengers at this port from Spain. The *Madrileño* also left in this port one of the crew suffering from malaria.

The Swedish steamship *Norman*, bound for Mobile, on July 25, and the Spanish steamship *Pio IX*, bound for New Orleans, on July 26, 1906, were both duly fumigated by the Cuban authorities at this port according to prevailing quarantine regulations.

The sanitary condition of these vessels was reported good; no sickness.

No quarantinable diseases reported at this port during the week.

Reports from Habana—Inspection and fumigation of vessels—Dengue fever—Sanitary measures.

Passed Assistant Surgeon von Ezdorf reports, August 1 and 2, as follows:

Week ended July 28, 1906.

Vessels inspected and bills of health issued.....	18
Vessels not inspected and bills of health issued.....	3
Crew of outgoing vessels inspected.....	763
Crew of outgoing vessels not inspected.....	143
Passengers of outgoing vessels inspected.....	495

Passengers of outgoing vessels not inspected.....	1
Vessels fumigated prior to sailing.....	7
Immune certificates issued.....	107
Health certificates issued for New Orleans.....	13
Pieces of baggage inspected.....	100

Six new cases of dengue were reported during the week.

I was also informed that the sanitary forces at Bolondron were withdrawn and that sanitary inspectors alone remain to watch that district.

In Habana the last case of yellow fever was reported June 20, 1906. The sanitary department has for the past month been fumigating all lodging houses and the oiling forces still continue their work. Sanitary measures are done for dengue as for suspects of yellow fever.

Week ended August 4, 1906.

Vessels inspected and bills of health issued.....	16
Vessels not inspected and bills of health issued.....	7
Crew of outgoing vessels inspected.....	644
Crew of outgoing vessels not inspected.....	288
Passengers of outgoing vessels inspected.....	422
Passengers of outgoing vessels not inspected.....	61
Immune certificates issued.....	86
Health certificates issued for New Orleans and Tampa.....	129
Vessels fumigated prior to sailing.....	6
Certificates of vaccination issued for Colon.....	10

During the week 6 new cases of dengue were reported.

August 15: One case yellow fever reported confirmed to-day. Spaniard taken sick 7th. Entered Covadonga Hospital 10th instant.

A telegram from the president of the Superior Board of Health, Habana, dated August 15, states that the patient had been working near Guines, Habana Province, until a fortnight before he was attacked with yellow fever.

Report from Matanzas—Inspection and fumigation of vessels—Malarial fever on steamship Cretavale from Canal Zone ports—History of yellow-fever case in Matanzas Province—Yellow-fever case imported on steamship Miguel M. Periello from Habana.

Acting Assistant Surgeon Nuñez reports, August 6, as follows:

Week ended August 4, 1906: Bills of health were issued to 5 vessels leaving for United States ports; 11 immune certificates were granted to passengers going to the United States via Habana; 2 vessels were fumigated, the British steamship *Cretavale* bound to New York, and the German steamship *Clara Zelck* destined to Mobile, Ala. The *Cretavale* left Cristobal, Canal Zone, July 13, bound to New York via Cardenas, Caibarien, and Matanzas. According to the captain's statement, while this vessel lay at the port of origin 5 of the crew were taken sick with malarial fever; on her way to Cardenas 10 new cases developed, and 3 other cases at Caibarien and Matanzas, making a total of 18 cases, of which 11 had recovered and 7 were still suffering from the disease when the vessel arrived at this port.

All the cases, with the exception of 2, assumed the intermittent type of malarial fever and readily yielded to the use of quinine and arsenic. One of the patients showed the remittent form of the disease, and,

having been ill aboard for sixteen days and requiring special care and nursing, was sent to the hospital by the Cuban quarantine officer for treatment. All living compartments occupied by the sick, particularly the forecabin where the majority of the cases originated, were carefully fumigated with sulphur dioxide under my direction and supervision. No new developments occurred on board and all hands showed normal temperature on August 1, when this vessel cleared from this port.

Since August 1 no new cases of yellow fever have been reported within this province. The latest case at Colon was imported from a sugar plantation known by the name of "Mercedes," within the rural district of Guareiras, distant about 6 miles from Colon. The case occurred in a Spanish immigrant who had been working at the plantation for the last six months, since his arrival from Spain, without returning to Habana during that time. Near by is the town of Real Campiña, where one case of yellow fever was reported on December 11 last, and it is inferred by the Cuban sanitary authorities that the contagion was contracted at the latter place, the only known focus of infection which the patient confessed to have recently visited.

This case was brought to the hospital of Colon on July 31 in an advanced stage of the disease and died during the evening of August 1. The findings at the necropsy held on the case on August 2, according to information received fully confirmed the nature of the disease as yellow fever.

The assigned origin of the contagion in this case appears doubtful, unless we admit the recent preexistence of other cases of a mild form, not detected, either at Real Campiña, the Mercedes plantation, or possibly some other section of the formerly infected territory in the vicinity of Colon or Union de Reyes.

A sanitary brigade under the direction of medical inspectors is said to have been ordered from Habana to Colon for the purpose of carrying out rigid sanitary measures to prevent the spread of the disease.

Summary of the transactions at this office for the month of July, 1906:

Bills of health issued	25
Number of crews	690
Number of passengers	78
Immune certificates granted	3
Vessels fumigated	4
Cases of yellow fever reported	0

There were no transactions for the Canal Zone nor for the Republic of Panama.

August 14. One yellow fever imported from Habana aboard steamship *Miguel M. Penillos* reported to-day. Case isolated, Civil Hospital.

Report from Santiago—Inspection and fumigation of vessels—Vaccination certificates for the Canal Zone issued.

Acting Assistant Surgeon Wilson reports, August 1, as follows:

Week ended July 28, 1906. Bills of health issued to 4 vessels bound for the United States. No vessel was fumigated.

No quarantinable disease was reported.

During the month of July, 1906, 3 vaccination certificates were issued for the Canal Zone and Panama.

Report of transactions for the month of July, 1906.

Bills of health issued	22
Number of crews	1,863
Number of passengers	340
Vessels disinfected	3
Immune certificates issued	7
Vaccination certificates issued for the Canal Zone and Panama	3

GUATEMALA.

Report from Livingston, fruit port.

Acting Assistant Surgeon Wailes reports as follows: Week ended July 31, 1906. Present officially estimated population, 3,500; general sanitary condition of this port and the surrounding country during the week, fair.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 26	Belize	Mobile.....	18	0	0
27	Alabama	New Orleans.....	17	0	0
31	Olympia.....	do			

HONDURAS.

Report from Ceiba, fruit port.

Acting Assistant Surgeon Robertson reports as follows: Week ended July 28, 1906. Present officially estimated population, about 4,000; general sanitary condition of this port and the surrounding country during the week, not good. All requirements of Department circular No. 32, 1906, have been rigidly enforced since the morning of July 25, 1906. The laborers employed in loading fruit vessels are residents of Ceiba and vicinity, as no other class of labor is at present available. Vessels fumigated as per certificate for each vessel.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 22	Condor	Mobile	16	0	0
25	Harald	do	19	0	0
27	Rosina	New Orleans	31	0	0
27	Suldol	Mobile	15	0	0
28	Colombia.....	do	18	0	a 1

a Round trip from Mobile and return; did not leave the ship—vessel fumigated.

Report from Puerto Cortez, fruit port.

Acting Assistant Surgeon Kahle reports as follows:

Week ended July 28, 1906. Present officially estimated population, 4,000; general sanitary condition of this port and the surrounding country during the week, good.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.	Pieces of baggage disinfected.
July 23	Taunton	New Orleans.....	23	0	0	0
23	Carib II .....	.....	8	0	0	0
25	Anselm	New Orleans.....	43	0	0	0
26	Espana	do	14	0	0	0
28	Banan	Mobile	18	0	0	0

Passenger traffic on fruit vessels resumed at Puerto Cortez.

August 8, 1906: Cortez and towns on railroad free from yellow fever. Sanitary conditions good. No communication with infected ports. Recommend night loading passenger traffic.

On August 9 Acting Assistant Surgeon Kahle was authorized by the Bureau to permit night loading of vessels and resumption of passenger traffic on fruit vessels, and on the same date Dr. C. H. Irion, president of the Louisiana State Board of Health, Dr. Joseph Goldthwaite, health officer of Mobile, Ala., and the collectors of customs at New Orleans and Mobile were informed of this action and that the requirement of five days en route was removed.

Report from Tela—Inspection of vessels.

Acting Assistant Surgeon Roe reports as follows: Week ended July 28, 1906. Present officially estimated population, about 4,000; general sanitary condition of this port and the surrounding country during the week, good. A strict quarantine is maintained against La Ceiba, 50 miles east of this place.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 24	Harald	Mobile	19	0	0
25	Rosina	New Orleans	31	0	0
26	Columbia.....	Mobile	18	0	0

INDIA.

Report from Calcutta—Transactions of Service—Cholera, plague, and smallpox.

Acting Assistant Surgeon Eakins reports, July 12, as follows:

Week ended July 7, 1906. Bill of health issued to the steamship *Seminole* bound for San Francisco with a total crew of 73. The usual precautions were taken, holds fumigated, rat guards placed on wharf lines, and Lascars' effects disinfected.

In Calcutta, week ended June 30, 1906: 28 deaths from cholera, 23 from plague, and 19 from smallpox.

In Bengal, week ended June 23, 1906: 37 cases and 39 deaths from plague; week ended June 30: 38 cases and 36 deaths.

In India, week ended June 30, 1906: 896 cases and 769 deaths from plague.

ITALY.

Report from Naples—Inspection of vessels—Rejection of emigrants recommended—Smallpox in Italy.

Passed Assistant Surgeon McLaughlin reports, July 24, as follows:
Week ended July 21, 1906. Vessels inspected at Naples and Palermo.

NAPLES.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of large baggage inspected and passed.	Pieces of baggage disinfected.
July 17	Cretic	New York	1,065	190	1,150
18	Algeria	do	379	60	650
18	Gallia	do	277	50	520
19	Louisiana	do	843	120	1,250
20	Königin Luise	do	770	130	980
21	Sicilian Prince	do	292	35	470
21	Prinz Adalbert	do	568	110	850

PALERMO.

July 19	Algeria	New York	563	642	152
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Rejections recommended.

NAPLES.

Date.	Name of ship.	Tra-choma.	Favus.	Sus-pected tra-choma.	Sus-pected favus.	Other causes.	Total.
July 17	Cretic	39	4	15	1	6	65
18	Algeria	24	1	18	1	4	50
18	Gallia	14	7	7	1	23	23
19	Luisiana	24	2	23	2	3	54
20	Königin Luise	23	1	11	2	3	40
21	Sicilian Prince	8	8	1	1	2	19
21	Prinz Adalbert	27	4	15	1	2	49
	Total	159	12	97	12	20	300

PALERMO.

July 19	Algeria	29	19	48
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Smallpox.—Week ended July 19, 1906: S. Giorgio, in Bosco (Padua), 1 case; Rotonda, 2 cases; Pomarico (Potenza), 1 case.

JAPAN.

Report from Yokohama—Emigrants recommended for rejection.

Passed Assistant Surgeon Cumming reports as follows: Number of emigrants per steamship *Shimano Maru* recommended, July 12, 1906, for rejection: For Seattle, 35.

Per steamship *Manchuria* recommended, July 17, 1906, for rejection: For Honolulu, 12; for San Francisco, 4.

Report from Kobe—Emigrants recommended for rejection.

Acting Assistant Surgeon Kilpatrick reports, June 30, as follows:

MONTH OF JUNE, 1906.

Per steamship *America Maru*, 791 for Honolulu, 4 for San Francisco; per steamship *Tremont*, 3 for Tacoma; per steamship *Mongolia*, 1,387 for Honolulu, 7 for San Francisco; per steamship *China*, 1,003 for Honolulu, 4 for San Francisco; per steamship *Tango Maru*, 14 for Seattle; per steamship *Nippon Maru*, 952 for Honolulu.

MEXICO.

Reports from Progreso—Inspection and fumigation of vessels—Yellow fever in Merida—Passenger travel from Progreso to other Mexican ports to be subject to medical inspection.

Acting Assistant Surgeon Harrison reports, July 30 and August 4, as follows:

Week ended July 29, 1906:

Yellow fever persists in Merida, with one or two new cases per day, but shows no increase. In Progreso no cases of any quarantinable disease appeared; 7 steamers were dispatched, with crews, 364 in number, and passengers from this port, 112.

Week ended August 4, 1906. In Merida yellow fever continues, with an average of 1 case a day. I am informed that since the report of 1 case of fever having been carried from this port to Veracruz, passengers from Progreso to other Mexican ports will be subjected to medical inspection here before being permitted to take passage. There is no restriction on passenger traffic between this town and Merida. Five steamers, with 195 in crews and 56 passengers from this port, were dispatched and 3 of the vessels fumigated.

Report from Veracruz—Inspection of vessels—Sanitary conditions—Yellow fever at Tierra Blanca and Santa Cruz.

Acting Assistant Surgeon Frick reports, July 30, as follows:

Week ended July 28, 1906. July 23. Fumigated and passed the Mexican steamship *Beryl*, bound for Port Arthur, with 14 in the crew and 1 passenger; vessel sails in ballast.

July 24. Inspected and passed the Norwegian steamship *City of Tampico*, bound for New Orleans, via Progreso, with 20 in the crew; vessel sails in ballast.

July 26. Fumigated and passed the British steamship *Glenroy*, bound for Mobile, with 23 in the crew; vessel sails in ballast. Inspected and passed the British steamship *Cayo Domingo*, bound for Newport News, via Coatzacoalcas, with 28 in the crew; vessels sails in a partial general cargo. Inspected and passed the Spanish steamship *Montserrat*, bound for New York, via Habana, with 124 in the crew, 42 cabin and 48 steerage passengers; vessel sails in general cargo. Inspected and passed the American steamship *Monterey*, bound for New York, via Habana, with 97 in the crew, 70 cabin and 21 steerage passengers. A bill of health was issued to the Norwegian steamship

Molina, but as it has been concluded to dock her here her sailing date is doubtful.

July 28: Inspected and passed the French steamship *Louisiane*, bound for New Orleans, via Tampico, with 64 in the crew and 8 passengers. Vessel sails in general cargo. Inspected and passed the British steamship *Cayo Gitano*, bound for a Gulf port, via Mexican ports, with 31 in the crew. Vessel sails in general cargo. A bill of health was issued the Norwegian steamship *Avona*, but she will probably sail to-morrow, in which case the data will be included in next week's report.

The sanitary situation remains favorable. Rains as yet have not been severe. The local sanitary board has been working more actively, and important permanent improvements, such as drains, are gradually being made.

August 9: Unofficially though believe reliably informed, 1 diagnosed case of yellow fever at Tierra Blanca; 1 suspect case at Santa Cruz; another suspect case here in San Sebastian Hospital.

August 12: Case at Tierra Blanca officially declared yellow fever. Santa Cruz the focus. Two suspects here declared negative.

NICARAGUA.

Report from Bluefields, fruit port—Increase of mosquitoes.

Acting Assistant Surgeon Layton reports as follows: Week ended July 29, 1906. Present officially estimated population, 3,500; general sanitary condition of this port and the surrounding country during the week, good.

The rainy season has set in. The rainfall during the past week surpasses precipitation of previous years. Mosquitoes are on the increase. Rivers are overflowing their banks and part of the surrounding country is under water.

A bill of health was issued to the following-named vessel:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
July 25, 1906	Imperator	Mobile	22	8	0

PANAMA.

Report from Colon—Inspection and fumigation of vessels—Improvement in smallpox situation—Vaccination—Malarial fever on vessels.

Acting Assistant Surgeon Mohr reports, July 30, as follows:

Week ended July 29, 1906. Vessels cleared for ports in the United States and granted bills of health as follows:

German steamship *Prinz Eitel Friedrich* for New York, via Savannah, July 21, with 91 crew and 40 passengers.

American steamship *Finance* for New York, July 21, with 66 crew and 72 passengers.

British steamship *Burbo Bank* for a port in the United States, via Cuban ports, July 21, with 25 crew and no passengers; holds and living quarters fumigated.

British steamship *Whitehall* for New Orleans, July 24, with 20 crew and no passengers; holds and living quarters fumigated.

British steamship *Asian* for New Orleans, via Kingston, Jamaica, July 25, with 51 crew and no passengers; holds and living quarters fumigated.

American steamship *Colon* for New York, July 26, with 103 crew and 63 passengers.

American schooner *Griffin* for Pascagoula, July 26, with 8 crew and no passengers; holds and living quarters fumigated.

American schooner *E. Dantzler* for Pascagoula, July 27, with 8 crew and no passengers; holds and living quarters fumigated.

British steamship *Pandosia* for a port in the United States, via Cienfuegos, Cuba, July 25, with 24 crew and no passengers; holds and living quarters fumigated.

British steamship *Aureola* for a port in the United States, via Daiquiri, Cuba, with 24 crew and no passengers; holds and living quarters fumigated.

The smallpox situation has greatly improved. No cases were found from July 19 to July 29, when 2 more cases developed, both traceable to the original focus. During the past 10 days over 4,000 people have been vaccinated.

Five cases of malarial fever occurred on the steamship *Whitehall* while in port here. One of these cases developed while the vessel was being fumigated and the sailing of the vessel was delayed 24 hours in order to observe the case. The disease proving to be typical intermittent malarial fever, the ship, lying at a safe anchorage away from the shore, was allowed to proceed on her voyage without a second fumigation.

Three cases of malarial fever occurred on the schooner *E. Dantzler* while lying at the dock in the canal.

Report from Bocas del Toro, fruit port.

Acting Assistant Surgeon Osterhout reports, July 27, as follows:

Week ended July 27, 1906. Present officially estimated population not obtainable; general sanitary condition of this port and the surrounding country during the week, good.

Bills of health were issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.	Pieces of baggage disinfected.
July 21	<i>Venus</i>	New Orleans	31	0	0	0
26	<i>Chickahominy</i>	do	47	0	0	0
26	<i>Mount Vernon</i>	Mobile	21	0	0	0

PERU.

Report from Callao—Inspection and fumigation of vessels—Plague in Peru—Plague and smallpox in Chilean ports.

Assistant Surgeon Wightman reports, July 15, as follows:

Week ended July 14, 1906. Vessels dispatched by this office as follows:

The British steamship *Chile* on the 10th, for Ancon, Canal Zone, with general cargo, and a total personnel of 182, of whom 6 new

members of crew, 41 cabin and 43 steerage passengers were from this port.

The British steamship *Cuzco* on the 13th, for Charleston, S. C., with general cargo, and a total personnel of 65, of whom 2 new members of crew were from this port.

The Chilean steamship *Tucapel* on the 14th, for Ancon, with general cargo, and a total personnel of 158, of whom 3 new members of crew, 27 cabin and 37 steerage passengers were from this port.

All the vessels were fumigated, and steerage passengers' baggage was inspected and passed or disinfected.

The last report on plague in Peru, received by courtesy of the director de salubridad, states as follows:

Locality.	Cases June 26.	New cases.	Recov- ered.	Died.	Remain- ing July 8.
Lima	0	1	0	0	1
Paita	4	0	2	2	0
Trujillo	2	0	1	1	0
Lambayeque	1	6	1	2	4

Bills of health from Chilean ports show in Antofagasta 33 cases of smallpox with 3 deaths, and 5 cases of plague with 1 death in two weeks prior to July 5. No other changes of importance are noted.

PHILIPPINE ISLANDS.

Report from Manila—Cholera in Manila and the provinces—Origin of cholera outbreak in Manila—Inspection of vessels.

Chief Quarantine Officer Heiser reports, July 6, as follows:

Week ended June 30, 1906: Cholera has broken out again in Manila in severe form. For this period there were 41 cases, with 40 deaths. There has been a gradual increase from day to day. On the last day covered by this report there were 16 cases reported. The disease is most virulent in type, practically all the known victims dying a few hours after they are attacked.

During the same period cholera was reported from the provinces as follows:

Province.	Cases.	Deaths.
Bulacan	6	2
Cavite	1	1
Laguna	11	8
Pampanga	8	6
Rizal	91	54
Total	117	71

In the report for last week the fact was mentioned that cholera had appeared simultaneously in a number of widely separated towns. Subsequent investigation throws considerable light upon the cause of the outbreak. It was found that at Pasig there was a truck garden conducted by a Chinaman who used liquid human excrement for the fertilization of the vegetables grown therein, and in all probability cholera infection was introduced through this source. It was found

that the first persons attacked in the different towns had just come from Pasig, and had, in all probability, purchased some of the vegetables in the market at Pasig, and which had come from the garden in question.

From Pasig the disease spread down the Pasig River and finally invaded Manila. The bureau of health has had the greatest difficulty in combating the outbreak satisfactorily on account of the fact that many cases were concealed, and consequently the premises remained undisinfected, which gave the disease every opportunity to spread. So far the disease has been almost entirely confined to the poorer classes, which would indicate that the infection must be in the class of food stuffs which these people use. No quarantine of the city has been attempted, yet there has been very little spread into the provinces.

The infection in the provincial towns mentioned in the report of last week has been almost stamped out in every instance. One notable exception, however, is the town of Tanay, where the disease continues to make progress in spite of the measures which have been adopted. Within a mile on either side of Tanay are the towns of Baras and Pilillia, and although there is free communication with the infected locality and the outbreak has already extended over a period of nearly three weeks, yet there has been no spread to either town.

In view of the reappearance of the disease in Manila, it was thought advisable to increase the quarantine upon outgoing inter-island vessels to two days. A copy of the circular letter putting the order into effect is inclosed herewith.

On June 28, 1906, a case of cholera was detected upon the steamship *Vasco Navarro* during the time she was undergoing the outgoing quarantine detention at Mariveles.

During the week vessels bound for the United States ports were cleared as follows:

On June 26 the American steamship *Lyra*, with 57 crew, was granted a bill of health for Tacoma via China and Japan ports. All persons on board were inspected at the hour of sailing. Miscellaneous cargo certified, 3,511 pieces.

On June 27 the British steamship *Sikh*, with 67 crew, en route from Cebu to Boston and New York, was granted a supplemental bill of health after the usual inspection of cargo and personnel.

On June 27 the British steamship *Kaifong*, with 67 crew, en route from Amoy to Cebu and Iloilo, was granted a supplemental bill of health after disinfection at Mariveles.

On June 30 the U. S. army transport *Logan*, with 177 crew and 254 passengers, was granted a bill of health for San Francisco via Nagasaki and Honolulu. Crew and steerage passengers were bathed and their effects disinfected at Mariveles. Vessel partially disinfected. Cargo and freight inspected and either disinfected or passed and so labeled. All persons on board were inspected at the hour of sailing.

Quarantine transactions of the Service in the Philippine Islands during the month of April, 1906, were as follows:

PORT OF MANILA.

Bills of health issued	330
Vessels inspected	333
Passengers on arriving boats inspected	8, 275
Persons vaccinated	497
Crew on arriving steamships inspected	9, 287

Crew on arriving sailing vessels inspected	1,082
Number of persons quarantined for observation, suspects and contacts	183
Number of persons bathed and effects disinfected	471
Number of persons remaining in quarantine April 30	3
Number of vessels in quarantine	3
Steamships disinfected	3
Steamships partially disinfected	3
Vessels fumigated to exterminate vermin	4
Cases of quarantinable diseases detected on vessels, suspected cholera	1
Cases of quarantinable diseases detected on vessels, smallpox	1
Pieces of baggage disinfected	637
Pieces of baggage inspected and passed	41

(Outgoing.)

Number of vessels entering quarantine during the month	147
Vessels discharged from quarantine	151
Vessels disinfected	2
Number of crew quarantined	5,572
Number of passengers quarantined	3,412
Crew on vessels inspected	6,003
Passengers on vessels inspected	5,011
Crew bathed and effects disinfected	336
Passengers bathed and effects disinfected	1,345
Pieces of baggage disinfected	5,444
Pieces of baggage inspected and passed	4,459
Pieces of miscellaneous cargo certified	7,017

PORT OF ILOILO.

Bills of health issued	12
Steamships inspected	121
Passengers on arriving boats inspected	2,020
Number of crew on arriving vessels inspected	2,932

PORT OF CEBU.

Bills of health issued	6
Vessels inspected	116
Passengers on arriving boats inspected	1,122
Number of crew on arriving vessels inspected	2,913

PORT OF CAVITE.

Bills of health issued	4
Vessels inspected	3
Passengers on arriving boats inspected	2
Crew on arriving steamships inspected	749

PORT OF ZAMBOANGA.

Vessels inspected	4
Passengers on arriving boats inspected	97
Crew on arriving steamships inspected	284

PORT OF JOLO.

Vessels inspected	1
Passengers on arriving boats inspected	29
Crew on arriving steamships inspected	66

FOREIGN AND INSULAR STATISTICAL REPORTS OF COUNTRIES AND CITIES—UNTABULATED.

ARGENTINA—*Buenos Aires*.—Month of May, 1906. Estimated population, 1,044,040. Total number of deaths, 1,550, including diphtheria 9, enteric fever 42, measles 5, scarlet fever 7, smallpox 197, typhus fever 42, and 146 from tuberculosis.

AUSTRALIA—*New South Wales—Newcastle*.—Month of May, 1906. Estimated population, 51,120. Total number of deaths, 32, including diphtheria 1, enteric fever 1, and 4 from tuberculosis.

BRAZIL—*Pernambuco*.—Two weeks ended June 15, 1906. Estimated population, 200,000. Total number of deaths, 374, including whooping cough 2, smallpox 4, plague 1, and 66 from tuberculosis.

BRITISH GUIANA—*Demerara—Georgetown*.—Month of June, 1906. Estimated population, 36,567. Total number of deaths, 174, including 20 from tuberculosis.

CANADA—*Ontario—Hamilton*.—Month of July, 1906. Estimated population, 59,567. Total number of deaths, 82, including diphtheria 1, enteric fever 2, and 6 from tuberculosis.

CUBA—*Habana*.—Month of May, 1906. Estimated population, 275,000. Total number of deaths, 550, including diphtheria 3, enteric fever 2, measles 2, whooping cough 1, and 106 from tuberculosis.

DUTCH GUIANA—*Paramaribo*.—Month of June, 1906. Estimated population, 33,535. Total number of deaths, 71. No contagious diseases.

FRANCE—*St. Etienne*.—Two weeks ended June 30, 1906. Estimated population, 146,836. Total number of deaths, 119, including measles 2, enteric fever 1, whooping cough 3, and 20 from tuberculosis.

GERMANY—*Weimar*.—Month of June, 1906. Estimated population, 31,127. Total number of deaths, 32, including 2 from tuberculosis.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 76 great towns in England and Wales during the week ended July 21, 1906, correspond to an annual rate of 12.0 per 1,000 of population, which is estimated at 15,818,360.

London.—One thousand and fifty-four deaths were registered during the week, including measles 35, scarlet fever 12, diphtheria 10, whooping cough 20, enteric fever 5, and 56 from diarrhea. The deaths from all causes correspond to an annual rate of 11.6 per 1,000. In Greater London 1,472 deaths were registered. In the "outer ring" the deaths included 1 from diphtheria, 4 from measles, 2 from scarlet fever, and 2 from whooping cough.

Ireland.—The average annual death rate represented by the deaths registered during the week ended July 21, 1906, in the 21 principal town districts of Ireland was 18.0 per 1,000 of the population, which is estimated at 1,101,499. The lowest rate was recorded in Wexford, viz, 4.7, and the highest in Newtownards, viz, 40.1 per 1,000. In Dublin and suburbs 156 deaths were registered, including diphtheria 1, enteric fever 1, measles 2, whooping cough 3, and 34 from tuberculosis.

Scotland.—The deaths registered in 8 principal towns during the week ended July 21, 1906, correspond to an annual rate of 13.7 per 1,000 of the population, which is estimated at 1,787,788. The lowest

rate of mortality was recorded in Paisley, viz, 10.2, and the highest in Perth, viz, 24.2 per 1,000. The aggregate number of deaths registered from all causes was 470, including diphtheria 5, enteric fever 5, measles 7, and 12 from whooping cough.

JAPAN—Formosa.—Ten days ended June 30, 1906: Estimated population, 3,050,004. Total number of deaths not reported; 129 deaths from plague reported.

Nagasaki.—Ten days ended July 10, 1906: Estimated population, 163,324. Total number of deaths not reported; 1 death from enteric fever reported.

SPAIN—Barcelona.—Ten days ended July 20, 1906: Estimated population, 600,000. Total number of deaths, 379, including diphtheria 1, enteric fever 9, measles 1, whooping cough 1, smallpox 12, and 28 from tuberculosis.

WEST INDIES—St. Thomas.—Weeks ended June 29 and July 13, 1906. Estimated population, 11,012. Total number of deaths, 4 and 9, respectively, including 1 from tuberculosis.

Cholera, yellow fever, plague, and smallpox, from June 29 to August 17, 1906.

[Reports received by the Surgeon-General, Public Health and Marine-Hospital Service, from American consuls through the Department of State, and from other sources.]

[For reports received from December 29, 1905, to June 29, 1906, see PUBLIC HEALTH REPORTS for June 29, 1906.]

[NOTE.—In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay	May 30–Aug. 10 .....	.....	174	
Calcutta	May 20–June 30 .....	.....	196	
Karachi	July 2–8	1	1	
Madras	June 2–July 6 .....	.....	33	
Rangoon	May 27–June 30 .....	.....	9	
Philippine Islands:				
Manila	May 13–June 30	70	63	
Provinces	Apr. 28–June 30	262	159	1 on schr. Florence S., 1 on ss. Ban Yek, and 1 on ss. Vasco Navarro, at Mariveles.
Siam:				
Bangkok	Feb. 3–Apr. 14	224	198	
Straits Settlements:				
Parak	May 9–12	64	34	
Singapore	May 9–June 15	45	41	
Wellesley Province	Apr. 10–May 12	107	81	

YELLOW FEVER.

Brazil:				
Para	April 1–30 .....	.....	39	
Rio de Janeiro	June 25–July 1 ...	1	1	
Costa Rica:				
Limon	June 20–25	1	.....
Cuba:				
Habana	Aug. 15	1		
Matanzas Province	Aug. 1–14	2	1	1 on ss. Miguel de Penillos from Habana.
Ecuador:				
Guayaquil	June 1–July 14 ..	42	18	
Honduras:				
Ceiba	July 21–July 23 ..	.....	.....	Present.
Pimienta	June 12–July 5 ...	14	.....

Cholera, yellow fever, plague, and smallpox, etc.—Continued.

YELLOW FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Vera Cruz—				
Tierra Blanca	Aug. 12	1	.....	Imported from Yucatan on ss. Sinaloa.
Vera Cruz	July 23-28	1	1	
Yucatan—				
Merida	June 10-July 28..	60	36	
Peru:				
Callao	May 27-June 2..	.....	1	On Br. ss. Chile from Ancon.

PLAGUE.

Arabia:				
Djeddah	June 25-July 1...	3	7	From May 28 to July 1, 44 cases, 44 deaths.
Mekka	June 7-8	1	1	
Australia:				
Brisbane	May 3-June 9...	2	1	
Fremantle	May 31-June 9...	2	1	
Perth	May 14-15	1	1	
Rockhampton	May 13	1	.....
Sydney	May 10-June 20..	3	1	
Brazil:				
Bahia	July 2	1	.....	From Jan. 1 to June 30, 83 cases, 64 deaths.
Pernambuco	June 1-15 .....	.....	1	
Rio de Janeiro	May 28-June 24..	5	2	
Chile:				
Antofagasta	May 16-July 5 ...	33	5	
China:				
Hongkong	May 6-June 30...	430	404	
Egypt:				
Alexandria	June 4-July 15...	18	10	
Beni-Souef Province	June 18-24	1	.....
Garbieh Province	May 21-June 16..	1	1	
Guerga Province	May 27-July 1 ...	9	8	
Keneh Province	June 4-9	7	10	
Minieh Province	June 4-27	3	2	
Port Said	May 4-July 17 ...	4	4	
Formosa:				
General	May 1-June 30...	1,415	1,126	
Hawaii:				
Honolulu	Aug. 6 .....	.....	1	
India:				
Bombay Presidency and Sind	May 20-June 23..	3,546	2,870	
Madras Presidency	May 20-June 23..	33	23	
Bengal	May 20-June 23..	560	579	
Eastern Bengal and Assam	May 20-June 23..	.....	.....
United provinces	May 20-June 23..	1,763	1,576	
Punjab	May 20-June 23..	29,008	26,420	
Burma	May 20-June 23..	701	645	
Central provinces (including Berar)	May 20-June 23..	13	8	
Mysore State	May 20-June 23..	85	74	
Hyderabad State	May 20-June 23..	.....	.....
Central India	May 20-June 23..	44	36	
Rajputana	May 20-June 23..	20	22	
Kashmir	May 20-June 23..	801	513	
Northwest frontier province	May 20-June 23..	.....	.....
Baluchistan	May 20-June 23..	10	6	
		36,584	32,772	
Japan:				
Kobe	May 12-June 16..	21	15	
Persia:				
Seistan	June 23-30 .....	.....	1	
Peru:				
Lima	May 25-July 8 ...	5	1	
Paiza	May 25-July 8 ...	12	5	
Trujillo	May 25-July 8 ...	1	2	
Philippine Islands:				
Manila	Apr. 22-28	1	1	
Siam:				
Bangkok	Mar. 29-31	5	4	

Cholera, yellow fever, plague, and smallpox, etc.—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Africa:				
Cape Colony				
Cape Town	May 20-July 7	18		
Argentina:				
Buenos Ayres	Apr. 1-May 31		356	From Jan. 1 to May 31, 1,697 cases, 554 deaths.
Corrientes Province	June 14			Present.
Austria:				
Bukowina	May 13-June 2	22		
Galicia	May 13-June 2	31		
Silesia	May 13-June 2	2		
Belgium:				
Province of Luxemburg	May 20-June 23	27		
Brazil:				
Bahia	June 28-July 2	1	1	
Para	Apr. 1-30		1	
Pernambuco	May 1-June 30		16	
Rio de Janeiro	June 4-July 8	3		
Canada:				
Toronto	June 17-July 14	4		
Winnipeg	July 8-14	1		
Chile:				
Antofagasta	May 16-July 5	86	13	Epidemic.
Iquique	June 4-16			
China:				
Hongkong	May 6-June 30	23	17	
Shanghai	June 16-30	1	1	
Ecuador:				
Guayaquil	June 25-July 14		27	
France:				
Marseille	May 1-June 30		2	
Rheims	July 9-15	12		
Paris	June 3-July 21	49		Apr. 21 to May 12, 16 cases, 1 death. ^a
Germany:				
Bremen	May 27-June 16	1	1	
Gibraltar:				
Gibraltar	June 11-July 22	12	2	
Great Britain and Ireland:				
Bristol	July 1-7	1		
Hull	June 10-July 14	4	1	1 case imported.
Liverpool	July 22-28	4		
London	June 10-25	8		
Greece:				
Athens	June 5-25		6	
India:				
Bombay	May 30-July 10		26	
Karachi	May 28-July 1	40	12	
Calcutta	May 20-June 30		158	
Madras	May 26-July 6		27	
Rangoon	May 20-June 30		46	
Italy:				
General	June 8-July 19	121		
Japan:				
Kobe	June 16	1		
Yokohama	May 7-June 3	1	2	
Mexico:				
City of Mexico	Dec. 17-Apr. 1	142	78	
Yucatan—				
Progreso	July 14	1		On Mexican ss. Sonora.
Nicaragua:				
Bluefields	Aug. 6	1		
Panama:				
Colon	July 9-18	37		
Philippine Islands:				
Manila	Apr. 22-June 9	8		
Russia:				
Moscow	May 27-July 31	30	15	
Odessa	May 27-July 21	57	10	
St. Petersburg	May 13-July 7	52	17	
Siberia:				
Vladivostok	June 4-28	7		
Spain:				
Barcelona	June 10-July 20		29	
Cadiz	May 1-31		1	
Seville	May 1-June 30		79	
Switzerland:				
Zurich	May 27-June 2	1		
Turkey:				
Constantinople	June 4-10		1	
Uruguay:				
Montevideo	May 1-31		1	

Weekly mortality table, foreign and insular cities.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Acapulco	July 21	6,000	9											
Do	July 28	6,000	5											
Alexandretta	July 14	15,000	5											
Do	July 21	15,000	5											
Antwerp	do	304,975	35	5										
Athens.	July 14	200,000	11							1			3	
Do	July 21	200,000	12							2			4	
Barmen	do	157,200	37	10										1
Beirut	July 7	80,000	20											
Belize	Aug. 2	9,000	11	1										
Birmingham.	July 21	542,959	136										2	3
Do	July 28	542,959	122	6							3	2	4	3
Bristol	July 21	363,223	80										3	1
Do	July 28	363,223	89										4	
Brunswick.	July 21	136,162												
Brussels	July 14	612,401	135	16									3	3
Do	July 21	612,401	175	18									6	
Calcutta	June 23	847,796	379	26	29	31		8		1	1	1	3	
Do	June 30	847,796	403	27	23	28		19					1	
Cape Town	do	169,641												
Cardiff	July 21	183,823	22	5										
Do	July 28	183,823	35											1
Cartagena	July 21	30,000	11	2										
Catania	July 19	160,000	89	3										
Do	July 26	160,000	122	5					1	13	2	1	3	
Christiania	July 14	227,000	54							1				2
Do	July 21	227,000	46									2		
Coatzacoalcas	July 14	3,360	8											
Do	July 21	3,360	4											
Do	July 28	3,360	6											
Cognac	July 21	19,483	4	1										
Cologne	do	437,278	189	17										
Colombo	June 23	173,254	170							9				
Do	June 30	173,254	178							9				
Do	July 7	173,254	184							10				
Constantinople	July 15	800,000	265	34									2	
Do	July 22	800,000	217	23						6	2		1	
Copenhagen	July 21	430,000	124	13										2
Crefeld.	June 30	111,579	21	2										
Do	July 7	111,579	28	5										
Do	July 14	111,579	23	4								1		2
Do	July 21	111,579	28	1								1		1
Dublin	do	378,994	156	34						1		1	2	8
Edinburgh.	do	341,035	70										2	
Fiume	July 1	40,000												
Do	July 8	40,000												
Do	July 15	40,000												
Flushing.	July 28	20,002	2											
Frankfort-on-the-Main	July 21	340,000	100							1				
Geneva	July 14	115,600	19											
Girgenti	do	25,099	15											
Do	July 21	25,069	13											
Glasgow	July 27	835,625	245							4		3	3	8
Halifax	Aug. 4	40,787	13											
Hamburg	July 21	808,050	206	30						2	3	4	8	4
Havre.	July 14	132,430	47	6						1				1
Do	July 21	132,430	59	12										
Honolulu	July 7	39,306	13	2									1	
Hull	July 14	262,426	58					1		1		2		
Jalapa	July 20	22,000	16	2										1
Do	July 27	22,000	27	2										1
Karachi.	July 1	108,644	69		21			1					1	
Do	July 8	108,644	63		17	1								
Kingston, Jamaica	July 14	52,065												
La Rochelle	July 22	31,553	10											
Do	July 29	31,553	12	1										
Las Palmas	July 14	49,500	16											
Lausanne	do	53,000	13											
Leeds	July 21	443,359	122	10						1	2			3
Leipzig	do	507,989	165	17								2		3
Leith	do	82,660	18	4										
Licata	July 14	26,000	14	1						6				

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—									
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Licata.....	July 21	26,000	12							7			
Liege.....	July 14	172,282	29	3						6			
Liverpool.....	July 21	739,180	234										
London.....	do	7,113,561	1,472							8	16	15	43
Madras.....	June 22	509,346	364			2		3					2
Do.....	June 29	509,346	378			8		2					1
Manchester.....	July 21	631,533	191	14							3		10
Mannheim.....	July 14	166,248	53							1			
1905. ^a													
Mexico.....	Dec. 23	368,898	24					2	20	1			
Do.....	Dec. 30	368,898	18					5	19	1		2	
1906.													
Do.....	Jan. 6	368,898	25					2	28	2			5
Do.....	Jan. 13	368,898	32					2	81		1	3	2
Do.....	Jan. 20	368,898	17					3	43	1	1	4	1
Do.....	Jan. 27	368,898	22					5	50	3		1	1
Do.....	Feb. 3	368,898	23						51			2	7
Do.....	Feb. 10	368,898	23					7	40		1		7
Do.....	Feb. 17	368,898	20					4	41	1			3
Do.....	Feb. 24	368,898	24					7	51			1	
Do.....	Mar. 3	368,898	21					6	52	1			1
Do.....	Mar. 10	368,898	20					9	30				3
Do.....	Mar. 17	368,898	19					8	55		1	3	5
Do.....	Mar. 24	368,898	21					5	42			1	1
Do.....	Mar. 31	368,898	26					5	41		2	1	2
Do.....	Apr. 7	368,898	26					14	44		2		3
Monte Cristi.....	July 21	1,500	1										
Moscow.....	July 7	1,173,427	791	42				1		3		6	8
Do.....	July 14	1,173,427	764	59				4	1	3	3	7	8
Newcastle-on-Tyne.....	do	264,511	90										
Do.....	July 21	264,511	89									1	2
Nottingham.....	do	250,000	66										
Odessa.....	July 14	461,000	220	10					1	1	5	2	5
Palermo.....	do	330,000	129	6									
Do.....	July 21	330,000	141	8									
Prague.....	July 14	226,813	102	32									
Do.....	July 21	226,813	103	29									
Puerto Cortez.....	July 24	4,000	0										
Do.....	July 31	4,000	0										
Quebec.....	Aug. 4	70,000											
Rangoon.....	June 23	252,155	264	13	94	2		5					
Rheims.....	July 22	108,385	49	5						1			1
Rotterdam.....	July 28	384,326	95								1	1	
Rouen.....	July 22	116,316	67	12						1			
St. John, N. B.....	Aug. 4	40,787	8	2									
St. Petersburg.....	July 7	1,500,000	837	101				2		47	15	16	27
St. Stephen, N. B.....	Aug. 4	2,840	0										
Salford.....	July 21	234,077	64	9								1	5
San Feliu de Guixols.....	July 22	11,094	3							2			
Do.....	July 29	11,094	4							1			
San Juan del Norte.....	July 14	600	2										
Do.....	July 21	600	1										
Santa Cruz de Tenerife.....	July 14	46,000	9	1									
Do.....	July 21	46,000	7										
Santander.....	July 22	53,576	28										
Smyrna.....	July 8	320,000	62	12									
Southampton.....	July 21	117,312	18	2									
Do.....	July 28	117,312	26	4									
South Shields.....	July 14	111,402	22	4									1
Do.....	July 21	111,402	22	3									
Stuttgart.....	July 16	251,500	124	4							1		2
Do.....	July 23	251,500	117	9									2
Tangier.....	July 21	45,000											
Toronto.....	do	262,749	69									1	
Do.....	July 29	262,749	93							1			
Trapani.....	July 14	67,379	23										
Do.....	July 21	67,379	13										
Tuxpan.....	July 24	13,000	7										
Uvilla.....	July 14	800	0										
Do.....	July 21	800	0										
Venice.....	July 7	171,709	38	4						1			3

^a Received out of date.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Veracruz.....	July 28	32,000	30	11	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Vienna.....	July 21	1,937,869	539	115	.....	.....	.....	.....	.....	.....	3	5	8	2
Vladivostok.....	June 14	50,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Hartlepool.....	July 14	66,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 21	66,750	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Windsor, Nova Scotia..	July 4	3,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winnipeg.....	July 28	100,000	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Zurich.....	July 21	171,709	47	11	.....	.....	.....	.....	.....	.....	1	1	.....	2

By authority of the Secretary of the Treasury:

WALTER WYMAN,

Surgeon-General,

United States Public Health and Marine-Hospital Service.