

PUBLIC HEALTH REPORTS.

UNITED STATES.

LEPROSY-LIKE DISEASE IN RATS.

(Report by Passed Asst. Surg. George W. McCoy, San Francisco, Cal.)

Shortly after being assigned to the examination of rats at San Francisco I was informed by the city bacteriologist that he had observed the leprosy-like disease in one or two instances. He also showed me gross and microscopic specimens of the lesions.

I therefore began to look for the condition and to keep notes on its occurrence.

During the period covered by this report 13,500 rats were examined and 22 cases of the disease observed. (1:614.) It is believed, however, that the condition is more frequent than these figures indicate, as all of the cases observed have been in full-grown, large rats, and the lesions very well marked. I think it quite probable that I have failed to detect cases in young rats and early cases in general, though a number of lesions that suggested an early stage of "rat leprosy" were submitted to microscopic examination, but always with negative results. All of the cases have been in rats of the species *Mus decumanus*. Where note was made of the sex, the records show that three males and eleven females were observed.

The cases have come from widely separated points in the city, but it is noteworthy that four of them came from Butchertown, three of these being from one establishment. Two others came from places only a few doors apart on Market street.

The essential lesion, or at any rate the one invariably found, has been a more or less general infiltration of the subcutaneous tissues and the peripheral lymph glands with an enormous number of fine white or slightly yellowish granules. At times this infiltration forms a general layer, covering the whole surface of the body between the skin and muscular tissues. At other times it is more or less patchy in distribution. This layer of tissue is usually mistaken for fat. The peripheral lymph glands are invariably enlarged, pale, succulent looking, and upon section are seen to contain a large number of the whitish points corresponding in appearance to the granules found in the subcutaneous tissues. In two of the rats examined the enlargement of individual lymph glands was remarkable. In one case an inguinal gland was 3 c. m. in the long axis by $1\frac{1}{2}$ c. m. in the short axis. In another case the measurements were $1\frac{1}{2}$ c. m. by 1 c. m. The pelvic and mesenteric glands were in one instance decidedly enlarged and showed numerous leprosy-like bacilli in smear preparations.

Alopecia, more or less extensive, was present in 55.5 per cent of the cases; ulceration, in 63.6 per cent. The discharge from the ulcers

was usually of a mealy, dryish character, and consisted of enormous numbers of the bacilli and a few remnants of cell débris. In five cases rather large nodules were noted in the subcutaneous tissue, apparently caused by a fusing of a large number of the granules above mentioned.

In one rat only were lesions found in the internal organs. This rat was evidently in a very advanced stage of the disease. In addition to the usual findings granules were found in the retro-peritoneal tissues, on the surface of the peritoneum, on the parietal pericardium, and a few in the liver; in the spleen about a half dozen lesions were found varying in size from a pin head up to about 2 mm. in diameter. These lesions were made up almost entirely of masses of the peculiar bacilli found in this disease. Many bacilli were found in the contents of the bladder; none were found in the intestinal contents. In a number of cases it has been attempted to demonstrate the organism in the nasal mucus; thus far, without success. Beyond these lesions peculiar to the disease, the organs of the animals have appeared to be normal with the exception of the kidneys, which were almost always yellowish or of a slate color, enlarged, friable, and often showed small cysts upon the surface and upon section. This condition of the kidneys is not, however, peculiar to the disease, as it was found in a number of rats otherwise healthy. It is believed that this frequency of nephritis in rats in general here may be due in some measure to the vigorous crusade of poisoning by arsenic and other toxic agents which has been carried on.

The bacilli were acid and alcohol-fast, and were apparently morphologically indistinguishable from the bacillus of Hansen.

The following is in brief the result of the histological examination of the tissues in a well marked case:

Skin.—All structures of the skin, save only the epithelium and the epithelial glands, were infiltrated with the new tissue formation, which appeared to be made up of cells, the protoplasm of which consisted of a large mass of the acid-fast bacilli, surrounding a well stained nucleus. In no other pathological condition with which we are familiar, excepting perhaps leprosy in man, are such enormous numbers of micro-organisms to be found.

Lymph gland.—No evidence of inflammatory reaction was seen in or around the gland. Large, often wedge shaped, masses of the infected tissue were seen running from the capsule toward the hilum of the gland. Between these were seen areas of normal tissue. The bacilli were not homogeneously distributed through the tissue, but appeared as masses, having the general outline of an epithelial cell, but with nothing remaining of the cell but the nucleus. Large areas were seen in which no vestige of the tissue remained beyond the cell nuclei, which lay embedded in a mass of bacilli. Again, scattered groups of the bacilli were seen having the nucleus of a cell lying in their midst, the whole surrounded by an area of otherwise healthy tissue. Occasionally a giant cell was seen with all of the protoplasm replaced by the bacilli. The cell nuclei embedded in these bacterial masses retained well their staining properties. Even the capsule of the gland was invaded. The spindle cells of the connective tissue in the capsule were often densely infiltrated with the organism.

Kidney.—This organ showed a high grade of nephritis of the epithelial type. The cells were largely disintegrated, leaving only nuclei. The glomerular epithelium seemed to be much better preserved than

that of the tubules. Numerous small cysts were to be seen. Examination of the liver and spleen showed no abnormality.

The disease corresponds closely with the previously published descriptions and is undoubtedly the same disease that has been described elsewhere.

As to the relation of the disease to leprosy in man, Dr. W. R. Brinckerhoff, Director of the Leprosy Investigation Station at Molokai, T. H., stated in an article which appeared in the Transactions of the Fifteenth Annual Meeting of the Hawaiian Territorial Medical Society as follows:

The question immediately arises as to whether this disease of the rat may not be human leprosy occurring in that animal. Of course, with the data now available it is impossible to give a categorical answer to this question, but the geographical distribution of the disease speaks against an affirmative reply. It seems more probable that rat leprosy is to human leprosy as is bovine or avian tuberculosis to the human disease, rather than that it is like plague or glanders, a disease common to and transmissible between two species.

A number of rats have been inoculated from typical cases of this interesting disease with the view of making a further study of it, but as a number of months is necessary for the development of the disease in inoculated animals, considerable time will elapse before it will be possible to ascertain whether the inoculations have been successful.

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

Reports from San Francisco, Cal.—Plague-prevention work at San Francisco, Oakland, and Emeryville, Cal.

Passed Assistant Surgeon Blue reports, June 27 and 30:

SAN FRANCISCO, CAL.

Week ended June 27.

Date of last case, sickened January 30, 1908.	
Sick inspected.....	18
Dead inspected.....	89
Premises inspected.....	18, 370
Necropsy held.....	1
Houses disinfected.....	116
Houses destroyed.....	17
Buildings condemned.....	11
Nuisances abated.....	1, 744
<hr/>	
Rats found dead.....	416
Rats trapped.....	4, 458
<hr/>	
Total rats taken.....	4, 874
<hr/>	
Rats identified:	
<i>Mus norvegicus</i> ^a	3, 914
<i>Mus rattus</i>	77
<i>Mus musculus</i>	474
<hr/>	
Total.....	4, 465
<hr/>	
Rats examined bacteriologically.....	2, 990
Poisons placed.....	158, 895

^a This species has heretofore been called *mus decumanus* in this report. The term *mus norvegicus* is, however, considered preferable.

OAKLAND, CAL.

Week ended June 27.

Sick inspected.....	67
Dead inspected.....	26
Premises inspected.....	5,265
Nuisances abated.....	898
Rats found dead.....	29
Rats trapped.....	1,260
Poisons placed.....	7,081
Notices served.....	339
Rats examined bacteriologically.....	1,206
Ships inspected.....	2
Certificate signed.....	1
Ships fumigated.....	3

EMERYVILLE, CAL.

Week ended June 27.

Sick inspected.....	28
Dead inspected.....	1
Premises inspected.....	1,138
House disinfected.....	1
Nuisances abated.....	1
Rats trapped.....	63
Poisons placed.....	5,850
Notices served.....	3

Outgoing quarantine transactions.

Passed Assistant Surgeon Hobby reports:

Week ended June 20:

Vessels fumigated and certified.....	20
Vessels certified.....	68

Reports from Seattle, Wash.—Plague-prevention work.

Passed Assistant Surgeon Glover reports, June 29:

SEATTLE, WASH.

Week ended June 27.

Date of finding of last plague rat.....	April 30, 1908
Rats received.....	1,291
Rats necropsied.....	1,212
Plague rats found.....	0
Plague-infected rats to date.....	11
Ships inspected.....	5
Ships fumigated.....	5

Plague-infected rats found.

Doctor Glover further reports:

July 6. Assistant Surgeon Chapin, plague laboratory, reports two rats positive of plague from Woodward residence district, Eighth and Madison, June 23 and 29.

STATISTICAL REPORTS OF MORBIDITY AND MORTALITY, STATES AND CITIES
OF THE UNITED STATES—UNTABULATED

FLORIDA.—Reports from the State board of health for the week ended June 27, 1908, show as follows: Enteric fever—*Jacksonville*, 7 cases; *Tampa*, 4 cases; *West Tampa*, *Daytona*, *Fort White*, and *Ocala*,

each 1 case. Diphtheria—*Tampa*, 1 case. Tuberculosis—*Jacksonville*, 2 cases; *Manatee*, *Mulberry*, and *Key West*, each 1 case.

IOWA—*Davenport*.—Month of June, 1908. Estimated population, 40,000. Total number of deaths not reported. One death from enteric fever and 1 from whooping cough. Cases: Diphtheria 5, scarlet fever 2, enteric fever 1, measles 57, smallpox 3, and whooping cough 4.

Sioux City.—Month of June, 1908. Estimated population, 50,000. Total number of deaths not reported. Cases: Diphtheria 1, measles 8, scarlet fever 7, and smallpox 2.

MICHIGAN.—Month of May, 1908. There were 2,915 deaths returned to the department of state as having occurred during the month of May, which corresponds to an annual death rate of 13.0 per 1,000 estimated population. There was a decrease of 288 from April, and a decrease of 254 from the number returned for the corresponding month of 1907.

Important causes of death were as follows: Pulmonary tuberculosis, 210; other forms of tuberculosis, 45; enteric fever, 33; diphtheria and croup, 19; scarlet fever, 18; measles, 23; whooping cough, 37.

MINNESOTA—*Minneapolis*.—Month of April,^a 1908. Estimated population, 300,000. Total number of deaths, 276, including diphtheria 6, enteric fever 3, scarlet fever 2, measles 2, whooping cough 1, and 24 from tuberculosis. Cases: Diphtheria 39, enteric fever 8, scarlet fever 49, smallpox 83, and tuberculosis 32.

NEBRASKA—*Lincoln*.—Month of March, 1908. Estimated population, 60,000. Total number of deaths, 44, including measles 1, scarlet fever 2, and 4 from tuberculosis. Cases: Diphtheria 4, measles 8, scarlet fever 6, smallpox 11.

Month of April, 1908. Total number of deaths, 60, including diphtheria 2, measles 1, scarlet fever 1, and 2 from tuberculosis. Cases: Measles 4, diphtheria 4, scarlet fever 7, and smallpox 7.

Month of May, 1908. Total number of deaths, 34, including diphtheria 2, measles 1, and 4 from tuberculosis. Cases: Diphtheria 4, measles 5, scarlet fever 4, and smallpox 4.

NEW HAMPSHIRE—*Concord*.—Month of June, 1908. Estimated population, 20,000. Total number of deaths, 29, including 1 from tuberculosis. Cases: Measles 29, diphtheria 1, and tuberculosis 1.

Franklin.—Month of June, 1908. Estimated population, 6,000. Total number of deaths, 13, including measles 2 and 2 from tuberculosis. Cases: Measles 8, diphtheria 1, scarlet fever 4, and tuberculosis 2.

NEW JERSEY.—Reports to the State board of health for the month ended June 15, 1908, show a total of 2,628 deaths, including diphtheria 41, enteric fever 18, measles 23, scarlet fever 48, whooping cough 21, and 353 from tuberculosis.

^a Received out of regular order.

NEW YORK—*Glens Falls*.—Month of June, 1908. Estimated population, 16,000. Total number of deaths, 17. Cases: Diphtheria 5, measles 1, scarlet fever 1, and tuberculosis 2.

PENNSYLVANIA—*New Castle*.—Month of June, 1908. Estimated population, 38,000. Total number of deaths not reported. Cases: Diphtheria 2, measles 5, scarlet fever 2, tuberculosis 2, and whooping cough 4.

WASHINGTON—*Seattle*.—Month of May, 1908. Estimated population, 276,562. Total number of deaths, 163, including diphtheria 5, enteric fever 2, measles 1, and 18 from tuberculosis. Cases: Diphtheria 52, measles 22, scarlet fever 17, and smallpox 19.

Smallpox in the United States as reported to the Surgeon-General, Public Health and Marine-Hospital Service, June 27 to July 10, 1908.

[For reports received from December 27, 1907, to June 26, 1908, see PUBLIC HEALTH REPORTS for June 28, 1908.]

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

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Huntsville	Jan. 5-June 18	85	.....	And vicinity.
Mobile.....	June 7-20	8	.....
Total for State.....	.....	93	.....
Arkansas:				
Texarkana	Dec. 1-June 15 ....	.....	.....	Present.
California:				
Angel Island Quarantine Station.....	Jan. 1-May 18 ....	.....	.....	5 additional cases. Report received out of date.
Los Angeles	June 7-20	3	.....
Oakland.....	May 1-31.....	12	.....	Report for April not received.
Sacramento	May 1-31.....	3	.....
San Diego County	June 1-18 .....	.....	.....	100 cases estimated. Mainly on Pala Indian Reservation.
San Francisco.....	June 6-27	17	.....
Total for State.....	.....	35	.....
District of Columbia:				
Washington	June 14-27	8	.....
Total for District .....	.....	8	.....
Illinois:				
Alexander County.....	May 1-31.....	3	.....
Carroll County	May 1-31.....	5	.....
Cass County	May 1-31.....	34	.....
Champaign County.....	May 1-31.....	4	.....
Christian County.....	May 1-31.....	3	.....
Clark County.....	May 1-31.....	11	.....
Cook County—				
Chicago	June 14-27	6	.....
Harvey	May 1-31.....	1	.....
DuPage County.....	May 1-31.....	1	.....
Effingham County.....	May 1-31.....	1	.....
Iroquois County.....	May 1-31.....	3	.....
Jo Daviess County.....	May 1-31.....	1	.....
Kane County	May 1-31.....	37	.....
Macon County.....	May 1-31.....	5	.....
Macoupin County.....	May 1-31.....	5	.....
Marshall County.....	May 1-31.....	9	.....
McLean County.....	May 1-31.....	5	.....
Mercer County.....	May 1-31.....	1	.....
Montgomery County.....	May 1-31.....	7	.....
Morgan County.....	May 1-31.....	20	.....
Peoria County.....	May 1-31.....	12	.....
Saline County.....	May 1-31.....	5	.....
Sangamon County—				
Springfield	June 19-July 2....	3	.....

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Illinois—Continued.				
Stevenson County.....	May 1-31.....	25		
Tazewell County.....	May 1-31.....	64		
Warren County.....	May 1-31.....	6		
Will County.....	May 1-31.....	1		
Joliet.....	May 1-31.....	19		
Total for State.....		297		
Indiana:				
Allen County.....	Apr. 1-30.....	1		
Fort Wayne.....	June 21-27.....	2		
Bartholomew County.....	Apr. 1-30.....	1		
Boone County.....	Apr. 1-30.....	1		
Clark County.....	Apr. 1-30.....	10		
Dearborn County.....	Apr. 1-30.....	3		
Dekalb County.....	Apr. 1-30.....	2		
Delaware County.....	Apr. 1-30.....	13		
Fulton County.....	Apr. 1-30.....	19		
Grant County.....	Apr. 1-30.....	13		
Hendricks County.....	Apr. 1-30.....	1		
Howard County.....	Apr. 1-30.....	15		
Huntington County.....	Apr. 1-30.....	38		
Jackson County.....	Apr. 1-30.....	3		
Johnson County.....	Apr. 1-30.....	9		
Knox County.....	Apr. 1-30.....	21		
Laporte County.....	Apr. 1-30.....	2		
Lawrence County.....	Apr. 1-30.....	12		
Madison County.....	Apr. 1-30.....	4		
Marion County.....	Apr. 1-30.....	15		
Indianapolis.....	June 8-28.....	7	1	
Marshall County.....	Apr. 1-30.....	1		
Miami County.....	Apr. 1-30.....	16		
Morgan County.....	Apr. 1-30.....	2		
Noble County.....	Apr. 1-30.....	9		
Orange County.....	Apr. 1-30.....	1		
Owen County.....	Apr. 1-30.....	4		
Shelby County.....	Apr. 1-30.....	35	1	
Sullivan County.....	Apr. 1-30.....	9		
Tippecanoe County.....	Apr. 1-30.....	1		
Lafayette.....	June 21-27.....	1		
Tipton County.....	Apr. 1-30.....	1		
Wabash County.....	Apr. 1-30.....	14		
Warrick County.....	Apr. 1-30.....	1		
Wayne County.....	Apr. 1-30.....	15		
Wells County.....	Apr. 1-30.....	1		
Total for State.....		303	2	
Iowa:				
Cedar Rapids.....	June 1-July 1.....	4		
Sioux City.....	June 1-30.....	2		
Total for State.....		6		
Kansas:				
Allen County.....	Apr. 1-30.....	9		
Anderson County.....	Apr. 1-30.....	6		
Atchison County.....	Apr. 1-30.....	48		
Atchison.....	Apr. 1-30.....	16		
Barton County.....	Apr. 1-30.....	6		
Bourbon County.....	Apr. 1-30.....	10		
Chase County.....	Apr. 1-30.....	1		
Cherokee County.....	Apr. 1-30.....	7		
Cheyenne County.....	Apr. 1-30.....	2		
Crawford County.....	Apr. 1-30.....	1		
Pittsburg.....	Apr. 1-30.....	8		
Doniphan County.....	Apr. 1-30.....	3		
Douglas County.....	Apr. 1-30.....	8		
Edwards County.....	Apr. 1-30.....	2		
Franklin County.....	Apr. 1-30.....	2		
Greenwood County.....	Apr. 1-30.....	8		
Hamilton County.....	Apr. 1-30.....	1		
Harper County.....	Apr. 1-30.....	7		
Harvey County.....	Apr. 1-30.....	14		
Hodgeman County.....	Apr. 1-30.....	2		
Jackson County.....	Apr. 1-30.....	32		
Jefferson County.....	Apr. 1-30.....	1		
Kingman County.....	Apr. 1-30.....	12		
Labette County.....	Apr. 1-30.....	14		
Parsons.....	Apr. 1-30.....	14		
Leavenworth County.....	Apr. 1-30.....	18		
Lincoln County.....	Apr. 1-30.....	1		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Kansas—Continued.				
Linn County	Apr. 1-30	15		
Lyon County	Apr. 1-30	18		
Miami County	Apr. 1-30	5		
Montgomery County	Apr. 1-30	5		
Nemaha County	Apr. 1-30	26		
Neosho County	Apr. 1-30	2		
Osage County	Apr. 1-30	1		
Pottawatomie County	Apr. 1-30	1		
Reno County	Apr. 1-30	12		
Republic County	Apr. 1-30	10		
Saline County	Apr. 1-30	11		
Sedgwick County	Apr. 1-30	7		
Shawnee County	Apr. 1-30	80		
Topeka	June 7-20	6		
Smith County	Apr. 1-30	7		
Stevens County	Apr. 1-30	1		
Sumner County	Apr. 1-30	3		
Trego County	Apr. 1-30	22		
Washington County	Apr. 1-30	2		
Wyandotte County— Kansas City	June 8-15	3		
Total for State		440		
Kentucky:				
Covington	June 21-27	8		
Total for State		8		
Louisiana:				
New Orleans	June 14-27	11	1	
Total for State		11	1	
Michigan:				
Saginaw	June 21-27	1		
Total for State		1		
Minnesota:				
Minneapolis	May 1-31	39		
St. Paul	May 1-31	49		
Winona	June 21-27	1		
Total for State		89		
Missouri:				
Conway	Apr. 20-June 19	29		
Kansas City	June 14-27	3		
St. Joseph	June 7-27	11		
St. Louis	June 14-20	1		
Total for State		44		
Nebraska:				
Friend	Apr. 13-June 18	18		
Lincoln	Mar. 1-May 31	22		
South Omaha	June 7-13	1		
Total for State		36		
New York:				
New York	June 14-20	1		
Niagara Falls	June 14-20	1		
Total for State		2		
North Carolina:				
Cabarrus County	Apr. 1-30	28		
Camden County	Apr. 1-30	5		
Chatham County	Apr. 1-30	2		
Chowan County	Apr. 1-30	11		
Cleveland County	Apr. 1-30	8		
Davis County	Apr. 1-30	4		
Forsyth County	Apr. 1-30	1		
Gates County	Apr. 1-30	3		
Gulford County	Apr. 1-30	6		
Johnston County	Apr. 1-30	43		
Mecklenburg County— Charlotte	June 14-27	2		
New Hanover County	Apr. 1-30	4		
Orange County	Apr. 1-30	2		

Smallpox in the United States, etc.—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
North Carolina—Continued.				
Rowan County.....	Apr. 1-30.....	25		
Rutherford County.....	Apr. 1-30.....	12		
Wayne County.....	Apr. 1-30.....	5		
Yadkin County.....	Apr. 1-30.....	2		
Total for State.....		163		
Ohio:				
Cincinnati.....	June 20-July 3....	5		
Dayton.....	June 14-27.....	5		
Toledo.....	June 14-20.....	4		
Total for State.....		14		
Oregon:				
Portland.....	Apr. 1-30.....	13		
Total for State.....		13		
Tennessee:				
Knoxville.....	June 21-27.....	1		
Nashville.....	June 14-20.....	1		
Total for State.....		2		
Texas:				
Fort Worth.....	May 1-31.....	9		
San Antonio.....	June 14-27.....	3		
Total for State.....		12		
Utah:				
Cache County.....	May 1-31.....	2		
Davis County.....	May 1-31.....	1		
Salt Lake County.....	May 1-31.....	5		
Utah County.....	May 1-31.....	6		
Weber County.....	May 1-31.....	19		
Total for State.....		33		
Virginia:				
Alexandria.....	June 25-27.....	13		
Total for State.....		13		
Washington:				
Seattle.....	May 1-31.....	19		Report for April not received.
Spokane.....	June 7-27.....	31		
Tacoma.....	June 8-14.....	1		
Total for State.....		51		
Wisconsin:				
La Crosse.....	June 16-27.....	7		
Milwaukee.....	June 14-27.....	7		
Total for State.....		14		
Grand total, United States.....		1,683	3	

Weekly morbidity and mortality table, cities of the United States.

[For smallpox see special table.]

Cities.	Week ended—	Popula- tion, United States census, 1900.	Total Deaths from all causes	Tuber- culosis.		Enteric fever.		Scarlet fever.		Diph- theria.		Measles.		Whoop- ing cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Altoona, Pa.....	June 27	38,973	7	.....	.....	1	.....	1	.....	3	.....	.....	.....	.....	.....
Ann Arbor, Mich.....	do	14,509	7	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Augusta, Ga.....	June 30	39,441	16	2	.....	1	.....	.....	.....	.....	.....	8	.....	.....	.....
Baltimore, Md.....	June 27	508,967	233	13	27	20	1	20	1	3	.....	13	.....	5	1
Bayonne, N. J.....	do	32,722	.....	.....	.....	1	.....	1	.....	.....	.....	12	.....	.....	.....
Beaver Falls, Pa.....	do	10,054	0	.....	.....	.....	.....	1	.....	1	.....	2	.....	5	.....
Berkeley, Cal.....	June 20	13,214	7	.....	1	.....	.....	.....	.....	1	.....	1	.....	.....	.....
Biddeford, Me.....	June 27	16,145	13	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
Binghamton, N.Y.....	do	38,647	22	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boston, Mass.....	do	560,892	168	66	28	11	.....	42	2	45	3	205	2	11	.....
Bradford, Pa.....	do	15,029	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brockton, Mass.....	do	40,063	14	2	1	.....	.....	1	.....	1	.....	26	.....	1	.....
Butte, Mont.....	June 23	30,470	8	.....	2	.....	.....	15	.....	1	.....	.....	.....	.....	.....
Cambridge, Mass.....	June 27	91,886	28	6	4	.....	.....	16	1	3	.....	21	.....	1	.....
Camden, N. J.....	do	75,935	24	3	1	.....	.....	2	.....	7	2	.....	.....	.....	.....
Carbondale, Pa.....	do	13,536	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicopee, Mass.....	do	19,107	12	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....
Cincinnati, Ohio.....	June 26	325,902	107	14	15	3	3	10	2	4	.....	10	1	5	.....
Cleveland, Ohio.....	do	381,768	124	52	13	4	1	3	1	6	.....	65	.....	16	.....
Clinton, Mass.....	June 27	13,667	3	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....
Columbus, Ga.....	do	17,614	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Covington, Ky.....	do	42,938	10	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Danville, Ill.....	June 28	16,354	10	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dayton, Ohio.....	June 27	85,332	34	.....	2	.....	.....	1	.....	1	.....	.....	.....	5	.....
Detroit, Mich.....	do	285,704	117	.....	.....	.....	.....	1	.....	8	.....	.....	.....	.....	.....
Dunkirk, N. Y.....	do	11,616	6	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	4	.....
Elkhart, Ind.....	do	15,184	7	1	1	.....	.....	.....	.....	3	.....	10	.....	.....	.....
Elmira, N. Y.....	do	35,672	8	1	.....	1	.....	.....	.....	1	.....	2	.....	1	.....
Erie, Pa.....	June 25	52,738	18	7	2	5	.....	5	.....	1	.....	2	.....	1	.....
Evansville, Ind.....	June 27	59,007	24	1	2	1	.....	.....	.....	1	.....	.....	.....	3	1
Everett, Mass.....	do	24,336	6	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fall River, Mass.....	do	104,863	42	2	2	3	.....	1	1	.....	.....	6	3	.....	.....
Findlay, Ohio.....	do	17,613	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galesburg, Ill.....	do	18,607	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.....	June 26	37,789	13	4	.....	4	.....	.....	.....	1	.....	.....	.....	.....	.....
Gloucester, Mass.....	June 27	26,121	9	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Rapids, Mich.....	do	87,565	23	2	.....	1	.....	5	.....	.....	.....	45	.....	7	.....
Greensboro, N. C.....	do	10,085	5	1	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....
Greenville, S. C.....	June 20	11,860	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison, N. J.....	June 27	10,596	3	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....
Hartford, Conn.....	June 14	79,850	16	3	4	2	.....	2	.....	2	.....	2	.....	.....	.....
Do.....	June 21	79,850	24	6	2	.....	.....	2	.....	.....	.....	1	.....	1	.....
Do.....	June 28	79,850	11	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....
Hoboken, N. J.....	June 27	59,364	.....	.....	.....	.....	.....	2	.....	1	.....	.....	.....	.....	.....
Hyde Park, Mass.....	do	13,244	4	2	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....
Jacksonville, Fla.....	do	28,429	14	.....	.....	7	1	.....	.....	.....	.....	.....	.....	.....	.....
Jersey City, N. J.....	June 28	206,433	102	12	.....	.....	.....	14	2	10	1	29	.....	3	.....
Johnstown, Pa.....	June 27	35,936	18	.....	2	1	1	2	1	5	.....	2	.....	12	.....
Kalamazoo, Mich.....	June 20	24,404	12	5	2	2	.....	.....	.....	.....	.....	1	.....	2	.....
Kansas City, Kans.....	June 27	51,418	25	.....	5	.....	.....	1	.....	.....	.....	2	.....	.....	.....
Kansas City, Mo.....	do	163,752	54	.....	4	2	.....	.....	.....	2	.....	3	.....	3	.....
Kearny, N. J.....	do	10,896	2	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....
Kingston, N. Y.....	do	24,535	6	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Crosse, Wis.....	do	28,895	6	12	2	.....	.....	.....	.....	.....	.....	2	.....	1	.....
Lancaster, Pa.....	do	41,459	18	.....	6	.....	.....	.....	.....	.....	.....	10	.....	.....	.....
Lawrence, Mass.....	do	62,559	20	.....	4	1	.....	2	.....	.....	.....	3	.....	.....	.....
Lebanon, Pa.....	do	17,628	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Los Angeles, Cal.....	June 20	102,479	60	6	5	2	.....	2	.....	10	1	30	.....	.....	.....
Lowell, Mass.....	June 27	94,969	41	2	2	.....	.....	2	1	4	1	8	.....	.....	.....
Lynn, Mass.....	do	68,513	21	.....	2	2	.....	6	.....	5	1	.....	.....	.....	.....
Malden, Mass.....	do	33,664	14	2	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Manchester, N. H.....	do	56,987	24	1	1	.....	.....	2	.....	7	.....	3	.....	.....	.....
Manitowoc, Wis.....	do	11,786	3	1	.....	1	.....	.....	.....	.....	.....	.....	.....	8	.....
Marlboro, Mass.....	do	13,609	5	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massillon, Ohio.....	do	11,944	4	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Medford, Mass.....	do	18,244	6	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Mobile, Ala.....	June 20	38,469	29	6	2	4	.....	.....	.....	1	.....	.....	.....	.....	.....
Moline, Ill.....	June 28	17,248	6	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Montclair, N. J.....	June 27	13,962	5	.....	1	.....	.....	1	.....	.....	.....	3	.....	.....	.....
Montgomery, Ala.....	June 26	30,346	16	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mount Vernon, N. Y.....	June 27	21,228	6	.....	.....	.....	.....	1	.....	.....	.....	4	.....	3	.....
Nanticoke, Pa.....	June 29	12,616	7	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....

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

Cities.	Week ended—	Popula- tion, United States census, 1900.	Total deaths from all causes.	Tuber- culosis.		Enteric fever.		Scarlet fever.		Diph- theria.		Measles.		Whoop- ing cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Nashville, Tenn.	June 27	80,865	56	1	5	15	2	1						2	3
Newark, N. J.	do	246,070	84		17	5		19	2	16	1		1		1
New Bedford, Mass.	do	63,442	28	4	2			6		1	1	3			
Newburyport, Mass.	do	14,478	5	2		1				1		1			
New Orleans, La.	do	278,104	120	30	17	21	2	41	1	4	2				
Newport, R. I.	do	22,441	4	1						3					
Newton, Mass.	do	33,587	3			1				1		2			
New York, N. Y.	do	3,437,202	1,331	106	168	58	7	360	30	286	28	658	19	17	4
Niagara Falls, N. Y.	do	19,457	8		1			1				2			
North Adams, Mass.	do	24,200	3												
Northampton, Mass.	do	18,643	12		3					2		20			
Oneonta, N. Y.	do	7,147	2												
Orange, N. J.	do	24,141	9	3	1	2	1								
Ottumwa, Iowa	do	18,197	7	1											
Palmer, Mass.	do	7,801	2		1										
Philadelphia, Pa.	June 13	1,293,697	404	112	57	29	7	76	5	60	4	265	15	36	5
Do.	June 20	1,293,697	403	107	57	45	4	44	1	50	11	206	6	15	9
Plainfield, N. J.	June 27	15,369	4					1		1	1	2			
Portland, Me.	June 6	50,145	21	3	1	2		3		3		1			
Do.	June 13	50,145	13	4	1					1					
Do.	June 20	50,145	15	4	2	9	1	3						2	
Portsmouth, Va.	June 30	17,427	5					1		2					
Providence, R. I.	June 27	175,587	69	4	6	5	1	6		10	3	2	1		
Racine, Wis.	do	29,102	5	6				2							
Reading, Pa.	June 29	78,961	22	1	1	4	1	5		2				2	
Richmond, Va.	June 27	85,060	51	8	4	10	1					5		3	2
Rock Island, Ill.	do	19,493	5		1	2				2					
Rutland, Vt.	do	11,499	4							2					
Saginaw, Mich.	June 20	42,345	16					1		2					
St. Louis, Mo.	June 27	575,238	207	38	25	5		16	1	10	2	22		14	1
San Antonio, Tex.	do	58,321			1										
San Francisco, Cal.	June 20	342,782	124	8	6	8		3		13	1	64			1
Scranton, Pa.	do	102,026	33					6		5		12		1	
Do.	June 27	102,026	36					4		3	1	7		1	1
Somerville, Mass.	do	61,643	25	4	2	1		4		2		11			
South Bend, Ind.	do	35,999	7	1	1			6							
Spokane, Wash.	June 20	38,848	24	3	2	1		8		3	1	5			
Springfield, Mass.	June 27	62,059	17		1	1		2		3	1	2			1
Springfield, Ohio	do	38,253	8							1	1	14			
Steelton, Pa.	do	12,068	3	1		2		1		1					
Tacoma, Wash.	June 20	37,714	22		1	6				1		4			
Taunton, Mass.	June 27	31,036	11	1	2				1	1		2			
Titusville, Pa.	do	8,244								1		1			
Trenton, N. J.	do	73,307				2	1	4							
Waltham, Mass.	do	23,481	6	2		1	1			4		4			
Warren, Pa.	June 8	8,043	1											4	
Do.	June 15	8,043										1			
Do.	June 22	8,043	1			1									
Do.	June 29	8,043	2												
Wheeling, W. Va.	June 20	38,878	7		1	1	1								
Wichita, Kans.	June 27	24,671										1			
Wilkesbarre, Pa.	June 26	51,721	19		1					2		11		2	
Wilkinsburg, Pa.	June 28	11,886	5			1						3			
Williamsport, Pa.	June 27	28,757	6			1		1		3		4			
Wilmington, Del.	do	76,508	28		1					1					
Woburn, Mass.	do	14,254	1					1							
Worcester, Mass.	June 20	118,421	84	6	1	2		4		22		3	1		
Do.	June 27	118,421	50	11	3	4	1	4		6	3	4			

FOREIGN AND INSULAR.

BARBADOS.

Report from Bridgetown—Inspection and fumigation of vessels—Sanitary conditions.

Acting Assistant Surgeon Urquhart reports, June 5:

Week ended June 20. Bills of health issued to 9 vessels with a total number of 67 passengers and 383 members of crews.

Sanitary condition of above-named vessels, cargoes, crews, and passengers good. One vessel was fumigated.

The sanitary condition of this port remains good, no quarantinable diseases being reported for the port or island during the week.

BRAZIL.

Report from Rio de Janeiro—Inspection of vessels—Mortality—Smallpox.

Acting Assistant Surgeon Stewart reports, June 2:

Week ended May 31. Vessels leaving this port for the United States inspected and received bills of health: May 26, the British steamship *Grecian Prince*, for New York, with no passengers and no change in the crew personnel and with a cargo of coffee, and on May 28, the Brazilian steamship *Acre*, for New York, via Brazilian northern ports, with 48 cabin and 27 steerage passengers, and a crew signed on in this port, this being her home port, and with a cargo for the most part consisting of coffee, as regards the New York cargo. This vessel had all her crew and steerage passengers vaccinated by order of the health officer of the Republic, as a means of prevention of the spread of smallpox to Brazilian ports. No other vessels left this port for United States ports during the week.

Mortality.—Smallpox.—Total estimated population, 628,675. Week ended May 31. Total deaths, 313. No deaths or cases due to yellow fever or plague. Smallpox caused 73 deaths, with 157 new cases reported, making for the two weeks ended on May 31, 328 cases with 151 deaths. At the close of the week there were in the Hospital São Sebastião, 249 cases of smallpox under treatment.

BRITISH HONDURAS.

Report from Belize, fruit port.

Acting Assistant Surgeon Mengis reports:

Week ended June 25. Present officially estimated population, 10,000. General sanitary condition of this port and the surrounding country during the week, very good.

Bills of health issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
June 19	Mobila	New Orleans	48	8	25
19	Carrie Babston	Tampa	7	0	0
25	Herald	New York	10	0	0

COLOMBIA.

Report from Barranquilla—Puerto Colombia closed against Port of Spain, Trinidad, on account of plague.

Consul Burnell reports, June 9:

Under date of June 3 the board of health of Barranquilla, Colombia, declared the port of Puerto Colombia closed for vessels sailing from Port of Spain (Trinidad), on account of the appearance of bubonic plague at that place.

COSTA RICA.

Report from Limon, fruit port.

Acting Assistant Surgeon Goodman reports:

Week ended June 20. Estimated population, 6,000. General sanitary condition of this port and the surrounding country during the week, good.

Bills of health issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
June 14	Esparta	Boston	44	2	0
15	Sibiria	New York	54	28	0
17	Karen	New Orleans	25	0	0
17	H. T. Inge	do	34	0	49
18	Taunton	do	24	7	0
19	Chirripo	New York	54	2	0
19	Haakon VII	New Orleans	22	0	0
20	Glenfinlas	Fernandina	26	0	0
20	Juan	Mobile	28	4	0

Two bills of health for Panaman ports were viséed and twenty-four certificates were issued to passengers bound for Colon.

CUBA.

Report from Habana—Inspection and fumigation of vessels—Sanitary conditions satisfactory—House inspections—Stegomyia calopus present.

Passed Assistant Surgeon Amessee reports, June 29:

Week ended June 27.

Vessels inspected and passed	22
Bills of health issued	24
Crews of outgoing vessels inspected	1, 016
Passengers of outgoing vessels inspected	606
Certificates of immunity to yellow fever issued	29
Certificates issued to passengers bound for southern ports	178
Certificates issued to passengers bound for New York	155
Vessels fumigated prior to sailing	8

Conditions in Habana and Habana Province continue satisfactory. In this city 11,242 house inspections were made during the week. Mosquito larvæ were found on 35 premises and of these 8 were deposits of *Stegomyia calopus*.

Yellow fever at Santiago and Daiquiri.

Doctor Amesse further reports:

July 4. Reliably informed one yellow fever case at Santiago from Daiquiri.

July 6. Sanitary department advises one yellow fever death at Daiquiri officially confirmed.

July 7. One further case yellow fever at Daiquiri.

July 8. Information received several convalescent cases yellow fever at Daiquiri in addition those I have reported.

Reports from Matanzas—Inspection of vessels—Increase of mosquitoes—Work of oiling brigade.

Acting Assistant Surgeon Nuñez reports, June 23 and 29:

Week ended June 20. Bills of health issued to 4 vessels clearing for the United States in good sanitary condition. There were no fumigations performed and no vessel cleared under the fruit port regulations.

On account of daily heavy rains and the stagnant water remaining on roofs, gutters, and the surface drains, the latter running from the yards to the streets under the dwellings, the number of mosquitoes of all varieties is considerably increased. The oiling brigades are constantly at work, but the breeding places beyond their reach remain undisturbed, thus making this operation, at least for the time being, inefficient.

Week ended June 27. Bills of health granted to 3 vessels bound for the United States ports in good sanitary condition. Health and acclimation certificates were issued to 2 passengers going to the United States via Habana.

The rainy weather continues and the number of mosquitoes is considerably on the increase in every section of the town. No quarantinable diseases have been reported either in the city or province.¶

Report from Santiago—Inspection of vessels—Fumigation of vessels to destroy mosquitoes.

Acting Assistant Surgeon Wilson reports, June 24:

Week ended June 20. Bills of health issued to 4 vessels bound for the United States. Two vessels were fumigated before departure to kill mosquitoes, namely, the British steamship *Dorisbrook* bound for Norfolk, and the Norwegian steamship *Alf* bound for Newport News, in ballast.

Yellow fever at Daiquiri.

Doctor Wilson further reports:

July 9. One death and 3 cases yellow fever Daiquiri. Daiquiri quarantined against and quarantine guards placed around.

ECUADOR.

Report from Guayaquil—Inspection and fumigation of vessels—Mortality—Plague, smallpox, and yellow fever.

Assistant Surgeon Wightman reports, June 5:

Week ended May 30. One steamship was fumigated and dispatched, with a personnel of 120 crew, 56 cabin and 34 steerage passengers.

During the same week 79 deaths occurred in Guayaquil, including plague 10, and smallpox 4. One case of yellow fever was reported during the week.

GREAT BRITAIN AND IRELAND.

Report from Belfast—Conclusions of Commission relative to prevalence of enteric fever—Unsanitary shellfish as a cause of disease—Mortality from tuberculosis.

Consul Knabenshue reports, June 17:

There has been for a number of years an unexplained prevalence of enteric fever in Belfast, attended by serious mortality, notwithstanding an excellent water supply and the enforcement of many sanitary precautions. In fact, so persistent was the succession of cases that the disease might be said to be endemic rather than epidemic in form. The local government board for Ireland determined to make special inquiry as to its cause, and in February, 1907, appointed a commission for that purpose.

This commission was directed to investigate thoroughly not only the unexplained prevalence of enteric fever but also every matter bearing upon the public health of Belfast. This work engaged the members until recently, and the report of the commission has now been made public.

The commission found that the mortality from enteric fever during the past 25 years in Belfast had been so great that no other city or town of the United Kingdom had even approached it. During the years 1900, 1901, and 1902 the annual death rate from this disease was 0.72 per 1,000 of population in Belfast as compared with 0.34 in Dublin, 0.13 in Manchester, and 0.15 in England and Wales.

The continuous prevalence of this disease has been contemporaneous with improvements in the water supply and in the general sanitary condition of the city. The most manifest facts regarding it ascertained by the commission were that it affected the working classes rather than the wealthier population, and that the Jewish residents of the city were practically exempt. Dr. L. W. Darra Mair, medical inspector of the local government board for England, was asked by his fellow-members to devote himself to investigating the causes of the disease prevailing under these conditions. His conclusions were adopted by the commission as part of its report.

The commission completely absolved the local water supply. One limited outbreak was traced to infected milk; but the endemic prevalence of the disease was shown to be due to the unrestricted gathering of cockles, mussels, and other shellfish from the "slob-lands" of Belfast Lough, which are laden with the city's sewage. Hundreds of acres in area of these lands are exposed at every low tide, and the shellfish are gathered by the poorer classes of the community, being eaten chiefly raw. The exemption of the Jewish residents was due to their refusal to eat these molluscs. The evidence on which

these conclusions are based is fully set forth in the report, with the urgent recommendation that, "as no system of sewage treatment within practicable limits of cost will fully safeguard the lough shell-fish, powers should be obtained to prohibit the gathering of the same for human consumption."

The commission reported that the mortality from tuberculosis of the lungs is greater in Belfast than in corresponding urban populations in Great Britain; but it adds that the Belfast death rate from this cause is not exceptional for Ireland, and even shows signs of improvement, while that for Ireland as a whole does not.

It was also noted that there is a mortality in excess of the average from diseases of the nervous system, and that the death rate among persons from 5 to 35 years of age is out of proportion to and in excess of that for other ages, infants included.

Dealing with the death rate as a whole—18.6 per 1,000 in 1906—the commission finds that it can not be said to be excessive. The report stated that it "is about the same as that of Manchester, rather lower than that of Liverpool and Dublin, but not so low as that of other large cities of the United Kingdom."

GUATEMALA.

Report from Puerto Barrios, fruit port.

Acting Assistant Surgeon Wailes reports:

Week ended June 25. Present officially estimated population, 250. General sanitary condition of this port and the surrounding country during the week, very good.

Bills of health 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.
June 25	Corinto	25	.....	.....	.....

HONDURAS.

Report from Ceiba, fruit port—Destruction of garbage.

Acting Assistant Surgeon Jumel reports:

Week ended June 23. Present officially estimated population, 6,500. General sanitary condition of this port and the surrounding country during the week, good.

The local authorities report the removal from town limits of 8,000 cart loads of garbage during the period February 1 to June 20.

Bills of health 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.
June 20	Rosina	34	1	0	0
21	Harald	18	0	0	0
21	Viator	17	0	0	0
21	Marietta Di Giorgio	21	0	0	0

Report from Puerto Cortez, fruit port—Stegomyia calopus present.

Acting Assistant Surgeon Ames reports: Week ended June 20. Present officially estimated population, about 2,400. General sanitary condition of this port and the surrounding country, very good. *Stegomyia calopus* present. Water tanks oiled.

Bills of health issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
June 16	Mobila.....	New Orleans.....	48	3	1
17	Utstein.....	do.....	15	0	0
17	Harald.....	Mobile.....	18	0	0
18	Alabama.....	do.....	18	3	0
19	John Wilson.....	New Orleans.....	17	0	0

Temperature taken of all persons on board above-named vessels on day of sailing. Pulse of passengers taken.

Report from Tela, fruit port.

Acting Assistant Surgeon Roe reports as follows:

Week ended June 20. Present officially estimated population, about 1,250. General sanitary condition of this port and the surrounding country during the week, good.

Bills of health issued to the following-named vessels:

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
	Columbia.....	Mobile.....	19	0	0
	Rosina.....	New Orleans.....	34	0	0
	Harald.....	Mobile.....	18	0	0

INDIA.

Report from Calcutta—Transactions of Service.

Acting Assistant Surgeon Allan reports, June 4:

Week ended May 30: Bill of health issued to the steamship *Schonfels*, bound for Philadelphia, Boston, and New York with a total crew of 64. The usual precautions were taken—holds fumigated, rat guards on wharf lines, and Asiatics' effects disinfected.

Cholera in the Raniganj coal field.

The following is received from Consul-General Michael, under date of May 28:

The work of inoculation against cholera in the coal districts is being pushed vigorously. Doctor Haffkine spent a day in Asansol for the purpose of meeting the residents with a view to affording those who wished the opportunity of protecting themselves. He has arranged to carry on inoculation at the Chota Nagpur and vicinity. The present epidemic has reawakened interest in cholera inoculation, which was carried on extensively and with a large measure of success between 1893 and 1896, and which, though continued for some years afterwards, was completely overshadowed by the outbreak of plague.

(See Public Health Reports, May 29, 1908, page 755: "Cholera in the coal fields of India.")

ITALY.

Report from Naples—Inspection of vessels—Emigrants recommended for rejection—Smallpox in Italy.

Assistant Surgeon Wollenberg reports June 15:

Vessels inspected at Naples week ended June 15.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
June 10	Pannonia.....	New York.....			
10	Canopic.....	do.....	272	100	420
10	Hamburg.....	do.....	153	50	280
10	Brasile.....	do.....	167	40	250
	Total.....		595	190	950

Rejections recommended.

Date.	Name of ship.	Trachoma.	Favus.	Suspected trachoma.	Suspected favus.	Other causes.	Total.
June 10	Pannonia.....						
10	Canopic.....	6	1	3			10
10	Hamburg.....	4		3			7
10	Brasile.....	5	2	1	1		9
	Total.....	15	3	7	1		26

Week ended June 14. *Smallpox* — Cases: Tazzia (Porto Maurizio) 5; Cairate (Milan) 2; Montichiari (Brescia) 1; Castel San Pietro (Bologna) 1; Bari 3, Canosa 8, Capurso (Bari) 1; Sarconi 2, San Costantino Albanese (Potenza) 1; Sialletta (Messina) 3.

MEXICO.

Report from Coatzacoalcas—Inspection and fumigation of vessels—Health conditions satisfactory.

Acting Assistant Surgeon Thompson reports, June 25:

Week ended June 24. Three vessels inspected. Of these, two were fumigated. The health of the port is satisfactory.

Report from Progreso—Sanitary conditions in Yucatan—Summary of yellow fever at Laguna de Terminos—Inspection and fumigation of vessels.

Acting Assistant Surgeon Harrison reports, June 20:

Sanitary conditions in Yucatan unchanged and fairly satisfactory.

The consular agent at Laguna reports, June 15, that there had been 7 cases of yellow fever in all at that port, 3 of which died. No new cases. He states that a sanitary official of the Mexican service was at Laguna instituting and enforcing the necessary measures against the recurrence of the disease.

Five steamships were dispatched from Progreso after fumigation. They carried 111 persons in crews, but no passengers.

Reports from Veracruz—Inspection and fumigation of vessels—Sanitary conditions—Sanitary work—Summary of yellow fever at Laguna.

Acting Assistant Surgeon Jacobs reports, June 20:

Week ended June 20. Three vessels inspected and passed; 3 fumigated and passed.

The sanitary and health conditions of Veracruz and surrounding country are good. No quarantinable diseases have been reported during the week. The Federal Government has appropriated funds for cleaning Laguna de Terminos. Ditching and draining are being done under direction of the sanitary authorities.

Summary of yellow fever at Laguna—Sanitary measures.

Dr. Jacobs further reports, June 24:

The following information regarding the status of yellow fever at Laguna de Termino is received from the delegate of the national board of health, who has just returned from that port.

From the *Lembit* there were 4 cases, with 3 deaths.

In Laguna, 2 cases, one of which died.

Summary to date: Total confirmed cases.....	6
Deaths.....	4

Of the cases amongst the residents of Laguna proper all were foreigners.

The *Lembit* was fumigated twice, first on occurrence of the cases on board at Laguna and again just before sailing for Europe.

Vessels are being fumigated both on departure from Laguna and on arrival at this port.

Passengers are inspected and held under surveillance if remaining in the vicinity.

General fumigation and cleaning up is being done in the port of Laguna under a special sanitary officer.

New yellow fever cases at Laguna—Fatal yellow fever case at Veracruz.

Doctor Jacobs further reports:

June 27. Two cases of yellow fever were confirmed at Laguna yesterday.

The local authorities are watching all cases of fever and are fumigating houses where deaths from malarial fever occur. For the past week they have been fumigating buildings in which severe cases of malarial fever occur.

July 7. One fatal case yellow fever reported to-night, Veracruz.

PERU.

Report from Callao—Inspection and fumigation of vessels—Status of plague in Peru—Plague at Chilean ports.

Acting Assistant Surgeon Gutierrez reports, June 9:

Week ended June 6. Three British steamships and an American schooner were dispatched, with an aggregate personnel of 216 crew, 63 cabin, and 57 steerage passengers. All were fumigated; the steerage baggage was inspected and passed, or disinfected, and the passengers of the same class for Panama were vaccinated.

The following is the last report on plague received from the Director de Salubridad Pública:

Locality.	Cases May 19.	New.	Recovered.	Died.	Remaining June 1.
Lima (city).....	14	3	4	4	11
Lima (country).....		2			
Callao.....	1	7		2	6
Trujillo (city).....	24	9	7	13	28
Trujillo (country).....		15			
Mollendo.....	2		1		1
Monsefu.....	1				1
Chiclayo.....		2		2	
Chepen.....	3		2		
Niepos (Hualgayoc).....	2				2

Since last report a new case of plague has occurred in Callao.

Plague is reported from Chile as follows: Antofagasta, 24 cases with 2 deaths (May 24); Iquique, 11 cases and 1 death (May 26); Arica, present (May 27).

PORTO RICO.

Report from San Juan—Yellow fever case on steamship Julia from Santiago.

Chief Quarantine Officer Foster reports:

July 8. Mild case yellow fever at station from steamship *Julia* from Santiago. Apparently well on arrival, but suspected account temperature and immediately placed in mosquito-proof. *Julia* sulphurized here and Santiago. Probably no danger.

VENEZUELA.

Report from Caracas—Status of plague—Sanitary precautions not observed.

The following is received from Chargé d'Affaires ad interim Sleeper, under date of June 13:

The plague situation here is as follows:

June 10, 2 cases; June 11, 1 case, 1 death; June 12, 2 cases.

I understand that the Government last week ordered 1,000 tubes of Haffkine's lymph and 2,000 tubes of Yersin serum. Aside from this and the disinfection and temporary closing of the infected houses the Government has taken no measures to prevent the spread of the disease. Ordinary vehicles are used to carry the infected to the hospital and immediately afterwards employed in the transportation of merchandise from one part of the city to another, the hospital itself being situated in the midst of a congested district within a few hundred yards of the stations of the Caracas and La Guaira and Puerto Cabello railroads.

It is impossible to obtain authentic information from the interior.

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

AUSTRALIA—Queensland—Brisbane.—Month of April, 1908. Estimated population, 135,655. Total number of deaths, 83, including enteric fever 1, plague 1, and 7 from tuberculosis.

BRAZIL—Ceara.—Month of May, 1908. Estimated population, 50,000. Total number of deaths, 131, including 2 from whooping cough.

Sao Paulo, Santos, and Campinas.—Week ended May 24, 1908. Estimated population, 300,000. Total number of deaths, 200, including enteric fever 1, plague 1, smallpox 1, and 6 from tuberculosis.

CANADA—*Ontario, Niagara Falls.*—Month of June, 1908. Estimated population, 9,500. Total number of deaths, 4.

FRANCE—*Nice.*—Month of May, 1908. Estimated population, 150,881. Total number of deaths, 272, including diphtheria 3, measles 11, and 35 from tuberculosis.

Toulon.—Month of May, 1908. Estimated population, 105,000. Total number of deaths, 165, including diphtheria 2, scarlet fever 1, and 1 from enteric fever.

GERMANY—*Weimar.*—Month of May, 1908. Estimated population, 31,127. Total number of deaths, 37, including diphtheria 2, and 4 from tuberculosis.

GIBRALTAR.—Three weeks ended June 21, 1908. Estimated population, 36,830. Total number of deaths, 20, including 1 from tuberculosis.

GREAT BRITAIN—*England and Wales.*—The deaths registered in 76 great towns in England and Wales during the week ended June 13, 1908, correspond to an annual rate of 11.8 per 1,000 population, which is estimated at 16,234,952.

Dartmouth.—Month of May, 1908. Estimated population 7,000. Total number of deaths, 10, including 1 from diphtheria.

London.—One thousand and eleven deaths were registered during the week, including measles 32, scarlet fever 10, diphtheria 5, whooping cough 22, enteric fever 1, tuberculosis 133, and 22 from diarrhea. The deaths from all causes correspond to an annual rate of 11.0 per 1,000. In Greater London 1,448 deaths were registered. In the "outer ring" the deaths included 5 from measles, 2 from scarlet fever, 3 from diphtheria, and 3 from whooping cough.

Ireland.—The average annual death rate represented by the deaths registered during the week ended June 13, 1908, in the 21 principal town districts of Ireland was 16.9 per 1,000 of the population, which is estimated at 1,131,959. The lowest rate was recorded in Wexford, viz, 4.7, and the highest in Newtownards, viz, 40.1 per 1,000.

Scotland.—The deaths registered in 8 principal towns during the week ended June 13, 1908, correspond to an annual rate of 13.2 per 1,000 of the population, which is estimated at 1,839,038. The highest rate of mortality was recorded in Paisley, viz, 16.2, and the lowest in Dundee, viz, 10.5 per 1,000. The aggregate number of deaths registered from all causes was 464, including diphtheria 6, measles 10, scarlet fever 1, enteric fever 2, and 11 from whooping cough.

MALTA.—Two weeks ended June 6, 1908. Estimated population, 206,690. Total number of deaths, 208, including measles 2, and 10 from tuberculosis.

MAURITIUS—*Port Louis.*—Month of March, 1908. Estimated population, 376,625. Total number of deaths, 1,654, including enteric fever 3, plague 2, measles 5, and 81 from tuberculosis.

NEW ZEALAND—Auckland.—Month of April, 1908. Census population, 69,149. Total number of deaths, 79, including enteric fever 5, scarlet fever 1, whooping cough 1, and 3 from tuberculosis.

Christchurch.—Month of April, 1908. Census population, 55,263. Total number of deaths, 43, including 2 from tuberculosis.

Dunedin.—Month of April, 1908. Census population, 58,036. Total number of deaths, 55, including 9 from tuberculosis.

Wellington.—Month of April, 1908. Census population, 63,807. Total number of deaths, 31, including scarlet fever 3, and 3 from tuberculosis.

SPAIN—Huelva.—Month of May, 1908. Estimated population, 24,000. Total number of deaths, 61, including 15 from tuberculosis.

WEST INDIES—Curaçao.—Two weeks ended June 12, 1908. Estimated population, 31,600. Total number of deaths, 20. No deaths from contagious diseases reported.

Cholera, yellow fever, plague, and smallpox, from June 26 to July 10, 1908.

[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 27, 1907, to June 26, 1908, see PUBLIC HEALTH REPORTS for June 26, 1908.]

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

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon, general	May 17-23 .....	.....	1	
India:				
Bombay	May 20-June 2 .....	.....	2	
Calcutta	May 10-16 .....	.....	109	
Madras	May 16-29 .....	.....	8	
Rangoon	May 17-23	8	.....
Indo-China:				
Saigon	May 10-23	66	52	
Straits Settlements:				
Singapore	May 10-16 .....	.....	1	

YELLOW FEVER.

Brazil:				
Manaos	May 26-30	2	2	
Para	May 31-June 20	9	9	
Cuba:				
Santiago Province—				
Daiquiri	July 6-9	3	1	
Santiago	July 4	1	.....	From Daiquiri.
Ecuador:				
Guayaquil	May 31-June 6 .....	.....	3	
Mexico:				
Laguna de Terminos	June 9-26	3	1	From May 18—1 case additional from S. S. Lembit.
Veracruz	July 7	1	1	
Porto Rico:				
San Juan	July 8	1	.....	From S. S. Julia from Santiago.

PLAGUE.

Brazil:				
Rio de Janeiro	May 11-17	4	.....
Sao Paulo	May 18-24 .....	.....	1	
Chile:				
Antofagasta	May 18-24	24	2	
Arica	May 21-27 .....	.....	.....	Present.
Iquique	May 20-26	11	1	
China:				
Hongkong	May 10-16	88	65	

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

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Ecuador:				
Guayaquil	May 31-June 6		6	
Egypt:				
Alexandria	May 27-June 8	5	3	
Provinces—				
Assiout	May 27-June 8	1	1	
Minieh	May 15-June 1	3	1	
Garbieh	May 16-June 10	15	1	
Fayoum	May 28-June 11	41	28	
Beni Souef	May 29-June 9	2		
Kena	May 28-June 11	16	10	
Galyoobeeyeh	May 21-June 10	15	10	
Japan:				
Formosa	May 10-30	398	299	
Kobe	May 24-30	1	1	
Indo-China	May 17-23	7	6	
Peru:				
Callao	May 20-June 21	7	2	
Chiclayo	May 20-June 21	2	2	
Lima	May 20-June 21	5	4	And vicinity.
Trujillo	May 20-June 21	24	13	Do.
Siam:				
Tongkah	May 4			Present.
Trinidad	June 4-11		3	
Turkey in Asia:				
Bagdad	June 7-13	10	9	
Venezuela:				
Caracas	June 10-12	5	1	
La Guaira	June 16-19	5	1	

SMALLPOX.

Arabia:				
Aden	May 28-June 11		2	
Austria:				
Galiccia	May 24-June 6	2		
Brazil:				
Bahia	May 1-31	114	5	Report for April not received.
Rio de Janeiro	May 11-31	521	226	
Santos	May 18-23		1	
Canada:				
Nova Scotia—				
Halifax	June 14-20	6		
Ceylon, general	Apr. 1-30		2	
China:				
Amoy (Kulansu)	Apr. 5-May 16		1	Present.
Hongkong	May 10-16	3	1	
Shanghai	May 18-31		5	
Ecuador:				
Guayaquil	May 31-June 6		5	
Egypt, general	May 14-20	77	10	
Cairo	May 31-June 10	11	3	
France:				
Paris	May 31-June 6	1		
Toulon	May 1-31	1		
Germany, general	May 24-June 6	14		
Bremen	May 24-June 6	3		
Great Britain:				
Liverpool	Apr. 30-June 6	1		
India:				
Bombay	May 20-June 2		60	
Calcutta	May 10-16		16	
Madras	May 23-29	1		
Italy, general	June 8-14	27		
Catania	May 22-June 11		1	
Naples	June 7-20	12		
Palermo	May 24-June 6	7		
Japan:				
Nagasaki	May 26-31	1		
Osaka	May 10-16	20	17	
Yokohama	June 2-8	2		
Java:				
Batavia	May 10-23	7		
Mexico:				
Agua Calientes	June 8-27		7	
Mexico City	May 10-16		10	
Monterey	June 8-14		1	
Philippine Islands:				
Manila	May 3-June 9	11	4	

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.
Fiume	June 14	49,500	32	12										
Flushing	June 20	20,257	7											
Frontera	June 13	9,000	7	1										
Funchal	June 14	44,049	22	3										
Geneva	June 6	118,500	26											
Ghent	June 13	165,033	51	4										
Glasgow	June 19	859,715	230								1	3		
Gottenborg	June 13	160,500	44	19									1	
Greenock	do.	71,788	18											
Guayaquil	June 6	70,000	78	11	6		3	5		1				1
Halifax	June 20	40,727	10											
Hamburg	June 13	854,472	247	36						1	2		5	4
Hull	do.	271,137	63									1	2	1
Johannesburg	May 16	102,078	67										3	
Konigsberg	June 13	234,500	72	5										
La Rochelle	June 14	31,553	14	1									1	
Lausanne	June 6	56,000	7											
Leeds	June 13	477,107	102	16										3
Leipzig	do.	528,184	118	14							1			
Leith	do.	84,689	19	4						1	1			
Liege	June 6	174,423	39	3										
Do	June 13	174,423	50	5						1				1
Liverpool	do.	753,203	205	22							4	5	7	11
London	do.	7,828,327	1,448								15	11	49	28
Lubeck	do.	96,000	35	2								2	1	
Lyon	do.	472,114	146	25						1		2	1	1
Magdeburg	June 6	247,857	75	9										
Manaos	May 30	50,000	25	4			2					1	1	
Manchester	June 6	631,533	169	15						2			5	5
Do	June 13	631,533	173	12						2	2	1	8	7
Mannheim	June 6	177,875	35	2						1				
Manzanillo	June 20	1,700	2											
Matamoros	June 20	8,000	6	1										
Mayaguez	June 13	35,700	14	3										
Do	June 20	35,700	24	1										1
Mazatlan	June 13	22,000	16											
Monterey	June 21	100,000	75	4										
Montreal	June 20	378,856	18							1	3			2
Moscow	May 30	1,335,104	728	84			12		1	13	8	23	3	3
Do	June 6	1,335,104	712	93			15	3	3	9	15	29		
Nantes	June 14	133,247	61	13										
Do	June 21	133,247	43	3					1			1		
Newcastle-on-Tyne	June 13	272,969	82								1			

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.
Shanghai	May 24	544,500	158	14					3				1	
Singapore	May 16	258,324	267	28	2	1				7				
Southampton	June 13	122,196	20	2										
South Shields	do	115,585	30	8										
Stettin	do	255,000	79											
Stockholm	May 30	337,460	94	14										
Do	June 6	337,460	97	25							1	1		
Sunderland	June 13	157,495	31	3										
Tarragona	do	20,400	6	1									1	
Trieste	June 6	213,719	81							2				
Do	June 13	213,719	94								1	2		
Turin	June 7	373,701	130	13									4	2
Tuxpam	June 23	13,000	17							1				1
Venice	May 16	176,815	57	3									1	2
Do	May 23	176,815	50	7									1	1
Do	May 30	176,815	60	6						2			1	1
Veracruz	June 20	32,000	26	10										
Vevey	June 6	14,000	3											
Victoria, B. C.	June 20	27,500	6											
Vienna	June 13	2,021,052	697							1	6	10	30	5
Vigo	do	36,000	13	1						2				
West Hartlepool	do	66,750	16											
Zurich	do	177,329	46	11							1		1	

By authority of the Secretary of the Treasury:

WALTER WYMAN,
Surgeon-General,
United States Public Health and Marine-Hospital Service.