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THE AMERICAN ACADEMY OF PUBLIC HEALTH.

There was formed in Cincinnati on October 23, 1916, an organization to be known as the American Academy of Public Health. The objects of the academy as specified in its constitution are as follows:

1. To increase the efficiency of its members through the discussion of public health problems.
2. To promote the efficiency of public health administration.
3. To raise the standards of public health practice.
4. To stimulate original work in public health science.

Membership is limited to persons actively engaged in public health work. It is not proposed that at the meetings of the organization scientific papers shall be read. It is intended to devote the sessions of the annual meetings to the free discussion of reports made by special committees of the academy as a result of their work or investigation.

CONTROL OF POLLUTION OF STREAMS.

THE INTERNATIONAL JOINT COMMISSION AND THE POLLUTION OF BOUNDARY WATERS.

By EARLE B. PHELPS, Professor of Chemistry, United States Public Health Service, and Consulting Sanitary Engineer, International Joint Commission.

At a period in our national development when the principle of conservation of natural resources has passed the stage of propaganda and become a definite working program, the natural resources of our waterways, both coastal and inland, have received their due share of attention. Not the least important of the many serious problems connected with waterway development and utilization is that of stream pollution. It would be difficult indeed to discover a situation in which the conflicting interests are more definitely opposed or more completely incompatible, nor in the whole field of constructive conservation is there likely to arise a case calling for more delicate adjustment of the balance. On the one hand the ideal of streams of pristine purity has long since been abandoned of necessity. It is recognized that even without willful and purposeful

pollution, in fact, after the application of all reasonable protective measures, streams draining populous areas will still be too seriously polluted to permit their use for domestic water supply without purification. This fact has put a practical working limit to the views of the exponents of pure streams, and has even permitted an extension of that limit beyond its minimum value, on the ground that water filters capable of handling minimum pollution may without serious additional cost or responsibility protect against an appreciably greater pollution.

On the other hand it is equally well recognized that uncontrolled stream pollution may so overburden the stream as to result in a definite economic loss to the community as a whole. The supposedly utilitarian argument for the unlimited use of streams to carry off all drainage and waste has therefore fallen by its own reasoning. Such use is not, in the long run, utilitarian or economic, but in reality permits the destruction of a resource which is the property of the whole community, or State, for the comparatively small benefit of a comparatively few favored individuals. These two conflicting views, the ideal and the crudely practical, have, therefore, gradually become resolved into a general guiding principle which must meet with the approval of all thoughtful students of the subject, and which may be stated in these terms:

Conservation of natural resources demands that the greatest possible advantageous utilization be made of the various valuable properties of a stream. This may include such uses as navigation, drainage and irrigation, power development, domestic water supply, fishing as an industry, pleasurable and health-giving enjoyment by the people in such forms as boating, bathing, and fishing, the disposal of sewage and waste, the enjoyment of scenic beauty, and various minor uses. These may all be indulged without further restriction than that the less important shall not interfere with or curtail the more important, the importance of any usage being measured in broad economic terms of public welfare.

While such a principle will readily meet with common approval it falls short of furnishing a satisfactory general solution to the problem, because there is no general problem. There are rather a large number of specific problems, differing among themselves in the various possible uses of the stream and each one requiring special study in the application of the general principle of conservation. In the case of the Niagara River, for example, the enjoyment of scenic beauty exceeds all commerical interests and will be protected even at great sacrifice in possible utilization of power. In Pennsylvania, on the other hand, the courts find that the drainage of coal mines is of paramount interest to the State and is a legitimate use of streams, even though other valuable uses be destroyed thereby.

Furthermore, the general principle does not directly meet the special needs of the individual case, in that the factors of the local problem are constantly shifting. Growing populations; the variable but generally increasing value put upon public health, comfort, and pleasure; the decreasing cost of sewage and waste disposal; the possibility of alternative but more costly water supplies, or of new and simpler processes of water purification; all tend to modify the terms of that which we have denoted the greatest possible advantageous utilization of the various valuable properties of a stream. For example, a new and greatly superior process of sewage disposal—and this example is chosen because of the likelihood of its practical realization in the near future—may make sewage disposal economically desirable under conditions that to-day leave it undesirable.

Again, the application of any such general principle of maximum utilization of a resource is often hampered by State legislation, enacted, in the first instance, to prevent growth of serious stream-pollution practices. The evil being so great, it has not infrequently been thought sufficient to apply extreme preventive measures which, literally and strictly enforced, would work unnecessary hardship. Nor has the reasonableness of these measures been at all times capable of demonstration to the courts. Finally the courts themselves, in their interpretation and gradual building up of that which is called the common law, are not at all clear or unanimous as to the exact point at which the principle of maximum good may properly apply against that foundation stone of liberty, personal rights.

There have resulted from this condition many divergent, unrelated, and even conflicting laws and court decisions and a variety of practices in the various States, ranging from the most stringent laws and control to a complete disregard of the whole subject. Were single State jurisdictions coextensive with the principal river systems of the country, each State would doubtless work out its problems to its own best interests. Unfortunately quite the reverse is true and all of the more important river systems, of the eastern half of the country at least, are either interstate or flow from one State into another. Furthermore our greatest of inland water systems, the Great Lakes and their connecting rivers, constitute our international boundary on the north. This situation of divided jurisdiction has been by far the most potent factor in our disregard of the scientific aspects of stream sanitation, leading to the present unsatisfactory conditions in many of our most valuable streams.

Side by side with that natural civic inertia which delays but never prevents needed public improvements there has grown up the feeling that, in the case of interstate streams, local effort is of no avail. There being no medium of communication and agreement between States in such matters, a do-nothing policy has in most

cases prevailed. The interstate character of the larger streams has in certain cases even been made the excuse for exempting such rivers from the workings of otherwise excellent systems of stream control. Upon the plea that these rivers enter the State somewhat polluted, these States permit unlimited and harmful pollution within their borders to the detriment of their own people. In other cases the presence of great interstate rivers has either discouraged legislation altogether or induced a tacit understanding that these rivers are exempted.

The question of our international waters might appear to be even more complicated, but fortunately in this case the treaty-making powers of the Governments have provided a possible remedy and one which is not without significance. Act IV of the waterways treaty of January 11, 1909, between Great Britain and the United States, provides that neither country shall pollute the international boundary waters to the injury of health or property in the other. This same treaty makes provision for an international joint commission, composed of three members from each country, with administrative powers to investigate and report upon questions submitted to it and, in certain cases, with judicial powers to settle disputes arising over matters connected with the boundary waters.

Under date of August 1, 1912, there was referred to this commission for examination and report with such conclusions as might be appropriate, the following questions:

1. To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to the public health and unfit for domestic or other uses?

2. In what way or manner, whether by the construction and operation of suitable drainage canals or plants at convenient points or otherwise, is it possible and advisable to remedy or prevent the pollution of these waters, and by what means or arrangement can the proper construction or operation of remedial or preventative works, or a system or method of rendering these waters sanitary and suitable for domestic or other uses, be best secured and maintained in order to insure the adequate protection and development of all interests involved on both sides of the boundary and to fulfill the obligations undertaken in Article IV of the waterways treaty of January 11, 1909, between the United States and Great Britain, in which it is agreed that the waters therein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.

A progress report[1] issued by the commission January 16, 1914, answered, in no uncertain way, the first of these questions. Under the direction of Dr. Allan J. McLaughlin, United States Public Health Service, over 19,000 bacteriological examinations were made during the course of about seven months. For this purpose 17 laboratories were equipped and used. The examinations covered a stretch of water of almost 2,000 miles, extending from the Lake of the Woods

[1] International Joint Commission, Progress Report in re Pollution of Boundary Waters.

to the St. Lawrence River. For the most part the waters of the Great Lakes themselves remain in a condition of pristine purity, but in certain portions of these lakes and all the connecting waterways dangerous pollution was found. Upon the completion of this work and the publication of the results the commission immediately took up the second branch of the reference dealing with remedies.

The commission called before it an advisory board composed of eminent sanitary engineers from both countries to assist in the formulation of a policy of control which would reflect the best engineering thought of the day. It also held extensive public hearings at various points along the boundary and gave ample opportunity for the expression of views upon the part of all parties interested. At these hearings, and at other times, engineering and public health representatives of both Federal Governments and of the Provinces, States, and cities most interested were freely consulted.

It was also deemed essential to investigate the practicability and cost of remedial measures as a preliminary to making definite recommendations. For this purpose the St. Clair, Detroit, and Niagara Rivers were selected. These are not only the most seriously polluted of the boundary waters but involve the most difficult problems in the collection and treatment of sewage to be found upon any of these waters. It was assumed, therefore, that any feasible remedial policy that might be worked out upon these streams would of necessity be applicable and practicable upon the other waters.

District offices were established at Detroit and at Buffalo early in 1915 and a comprehensive study was made of the general drainage and treatment problems of all sewered communities upon both sides of these rivers. These studies were not carried to the point of complete engineering design and the plans submitted will not obviate the necessity for further detailed engineering studies in each local situation. They are, however, sufficiently comprehensive and detailed to justify estimates of upper cost limits with reasonable assurance and furnish a satisfactory basis for a proper consideration of the advisability of remedial policies.

It remains for the commission to determine what remedies are, in the terms of the reference, "possible and advisable" to prevent injury to health or property. The opportunity thus presented for the application of the principles of conservation outlined at the outset of this discussion is unique. The facts in the case have been ascertained with great thoroughness and care. The authority of the two Governments, each within its own boundaries, to enforce the treaty obligations is unquestioned. The recommendations which the consulting sanitary engineer has made to the commission as a basis for its final report to the Governments have been based upon a careful study of these facts, including the opinions and testimony taken at

the various hearings. These recommendations have been developed at some length in a report [1] submitted to the commission and are summed up in the following:

GUIDING PRINCIPLES IN CONTROL OF POLLUTION.

The following general principles should guide in the formulation of regulations for the control of pollution in the boundary waters in its international aspects:

1. The boundary waters shall not be polluted on either side to the injury of health or property upon the other.

2. In the case of the boundary rivers the interests of the two countries are so closely bound together as to be mutual and the quality of the streams as a whole shall be considered in determining upon limits of permissible pollution.

3. The limit of permissible bacterial pollution shall be deemed to have been exceeded when the effective dilution as hereinafter defined shall be less than 4 cubic feet per second per capita of contributing population, based upon mean river stages during the season May to September, inclusive.

4. The effective dilution shall be taken as the quotient of the actual physical dilution divided by the residual fraction of the total bacteria remaining after treatment, provided that in the case of the St. Lawrence and other rivers where the time element is such as to permit some degree of self-purification between points of successive pollution, this factor shall be considered as an element of treatment entering the determination of effective dilution at the lower point.

5. In all cases where the actual stream flow below any one point of pollution is less than 4 cubic feet per second per capita of contributing population, or where the net effect of successive pollution with proper allowance for self-purification in the intermediate stretches exceeds the equivalent of one contributing person per 4 cubic feet per second of stream flow, sewage treatment shall be employed to reduce the net bacterial pollution to a basis of an effective dilution of 4 second feet per capita, as defined.

6. Sewage treatment, while based primarily upon bacterial pollution, shall also include the removal of suspended solids capable of settling to approximately the same degree as is called for in the case of bacteria; provided that this requirement shall not be extended to an unreasonable degree in the light of good engineering practice; and provided further, that in the case of combined sewer systems, ordinary mineral detritus shall be excluded in computing the degree of removal.

7. In all cases where sewage treatment to a specified degree is demanded, the entire contributing population shall be dealt with upon the same basis of relative improvement required, so that the net residual pollution from each community shall be proportional to its population; provided, however, that where the factor of self-purification is an element in the degree of pollution at any point the population above shall be reduced to equivalent population at that point by the self-purification factor, and the burden of responsibility shall be apportioned in terms of these equivalent populations.

8. Steamboats which pass by waterworks intakes shall be regarded as being capable of discharging sewage in the near vicinity of those intakes without appreciable dilution. The application of the rule leads in this case to a complete bacterial purification or sterilization before discharge. Equivalent removal of solids capable of settling will not be required in the case of steamboats.

9. No garbage, city waste, offal, or other like material capable of polluting or rendering offensive the waters shall be deposited in the boundary rivers, or in such places as will permit their reaching these rivers.

[1] International Joint Commission, Pollution of Boundary Waters. Report of the Consulting Sanitary Engineer upon Remedial Measures, Mar. 8, 1916.

The most interesting feature of these recommendations is the fixing, for the present, of a standard of permissible pollution in the international waters. This standard, although expressed in somewhat different terms, is based upon the views of a board of advisory engineers composed of Messrs. George W. Fuller, George C. Whipple, and the writer for the United States, and Messrs. F. A. Dallyn, W. S. Lea, and T. J. Lafreniere for Canada. These gentlemen expressed the opinion that the limit of safe loading for a water plant treating the waters of the boundary rivers is exceeded if the annual average number of *B. coli* in the water delivered to the plant is higher than about 500 per 100 cubic centimeters.

Such a standard is difficult of interpretation and of little practical value for administrative purposes. It was possible, however, to utilize the extensive bacterial data that had been accumulated by the commission in its progress report for the purpose of establishing this standard upon an engineering basis. A statistical study of these data indicated a hitherto unsuspected seasonal variation of considerable magnitude and unusual direction. Where self-purification is a factor in the bacterial content of a polluted stream the evidences of pollution, other things being equal, are greatest in the wintertime. In these boundary rivers, on the contrary, the maximum pollution occurs in August, with a monthly average range during the months of May to September of from 0.26 to 2.31 times the average.

In view of this wholly unusual and unexpected situation the average bacterial content during the period May-September was substituted for the annual average recommended by the advisory engineers. It was furthermore found, after applying proper seasonal correction, that the pollution, measured in terms of *B. coli*, could be readily expressed in per capita and dilution terms from which there was derived the lower limit of effective dilution of four second feet per capita. The engineering studies indicated the entire feasibility of supplementing the existing physical dilution in the Detroit and Niagara Rivers with artificial treatment to bring about the required net effective dilution. In the case of the Detroit River there is required for the near future population of 750,000 a removal of bacteria and settleable solids amounting to about 93.5 per cent and increasing to 95 per cent with the increase of population to 1,000,000. For Buffalo, the present requirements upon a similar basis are about 90 per cent.

The broad terms of the reference submitted to the commission, therefore, as to what remedies are "possible and advisable" have been satisfactorily answered. It is believed that the recommendations, if finally adopted by the commission, will permit the maximum utilization of the value of these streams for the two opposing uses of waste disposal and water supply.

The result represents an economic balance which may at any time be upset by new discoveries. Developments in sewage treatment will tend to raise the standards while improvements in water purification will tend to lower them. Hence the necessity for a continuing board of control, with power to modify the present standards upon any satisfactory basis of new evidence. The nature of this economic balance is well illustrated in the treatment of the steamboat problem. Pollution from boats is small in amount as compared with the city pollution. On the other hand boats constitute moving sewers not capable of proper administrative control. At small cost a degree of treatment is possible in this case which would be entirely out of the question for the cities. The removal of a minor danger is considered well worth the cost and recommendations have been made that steamboat sewage be efficiently disinfected before discharge.

Finally, the procedure of the International Joint Commission may be not without significance and value to those entrusted with stream control within the United States. The logical steps in applying the general principle of conservation to any special problem of this kind are, a full determination and analysis of all the facts; a careful judicial consideration of the equities of all interests involved, giving preponderant influence to questions affecting the public health; a decision which of necessity is of specific, not general application; and authority to enforce the decision against the political and commercial opposition which is sure to arise. Only by entrusting the necessary powers to a joint commission has it been possible to deal with this question in such a broad way upon the international boundary.

The problem of the interstate rivers presents less real difficulties but will likewise require for its satisfactory treatment, Federal jurisdiction, or its equivalent. It is significant of what may be done by suitable methods, that the international situation bids fair to be definitely settled upon a scientific and lasting basis in the very near future while the interstate situation presents, under present conditions, seemingly insurmountable obstacles to any solution whatever.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during December, 1916, to other State health departments by Department of Health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Smallpox:		
Minneapolis Health Department, Hennepin County.	18 miles from Williston, Williams County, N. Dak.	Came to Minnesota from North Dakota broken out with smallpox.
Tuberculosis:		
Mayo Clinic, Rochester, Olmsted County.	Ouray, Ouray County, Colo.; Lenox, Taylor County, Iowa; Iron River, Iron County, Mich.; McCarron, Chippewa County, Mich.; Trenton, Grundy County, Mo.; Morehouse, New Madrid County, Mo.; Milan, Sullivan County, Mo.; Great Falls, Cascade County, Mont. (2 cases); Lisbon, Ransom County, N. Dak.; Okreek, Todd County, S. Dak.; Bovina, Parmer County, Tex.; Montello, Marquette County, Wis.; Wausau, Marathon County, Wis.; La Crosse, La Crosse County, Wis.; Revelstoke, British Columbia, Canada; Winnipeg, Manitoba, Canada; Toronto, Ontario, Canada; Lafleche, Saskatchewan, Canada.	1 incipient, 1 apparently arrested, 1 active, 8 advanced, and 8 moderately advanced cases left Mayo Clinic for homes.
Pokegama Sanatorium, Pine County.	Bismarck, Burleigh County, N. Dak.	Open case left sanatorium for home.
St. Paul Bureau of Health, Ramsey County.	New Rockford, Eddy County, N. Dak.	Open case left Minnesota for North Dakota.
Typhoid fever:		
Duluth, St. Louis County.....	U. S. Public Health Service, Washington, D. C. (2 cases).	2 cases employed on Lake Superior steamships 3 weeks previous to first symptoms.
Eden Valley, Meeker County....	Scratch Gravel Gold Mine, Helena, Lewis and Clark County, Mont.	Employed as cook in boarding house where there had been 8 other typhoid cases in Montana 3 weeks before taken sick in Minnesota.
St. Paul Bureau of Health, Ramsey County.	Havre, Hill County, Mont.....	Employed on ranch at Havre, Mont., 3 weeks previous to first symptoms.
Brainerd, Crow Wing County...	Bismarck, Burleigh County, N. Dak.	Employed 3 weeks previous to first symptoms as freight checker in North Dakota.

ANTHRAX.

State Reports for December, 1916.

During the month of December, 1916, one case of anthrax was reported in Kansas, and two cases were reported in Camden, N. J.

CEREBROSPINAL MENINGITIS.

State Reports for December, 1916.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia	1	Minnesota:	
Kansas:		Chippewa County—	
Crawford County	1	Granite Falls Township	1
Miami County	1	Sparta Township	1
Sedgwick County—		Nicollet County—	
Wichita	1	Lake Prairie Townshp	1
Wyandotte County—		Ramsey County—	
Kansas City	1	St. Paul	1
Total	4	St. Louis County—	
		Virginia	1
		Wright County—	
		Silver Creek Township	1
		Total	6

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md		2	New Britain, Conn	1	
Coffeyville, Kans	1		New York, N. Y	3	2
Duluth, Minn	2		Norristown, Pa	1	
Fort Worth, Tex	1	1	Northampton, Mass	1	
Hartford, Conn	1		Pawtucket, R. I	1	
Kansas City, Mo	2		Philadelphia, Pa	1	2
Milwaukee, Wis	1	1	Pittsburgh, Pa	1	
Nashville, Tenn	1	1	Providence, R. I		1
New Bedford, Mass	1		St. Louis, Mo	1	1

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 186.

ERYSIPELAS.

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich	1		Kalamazoo, Mich	1	
Atlantic City, N. J	1	1	Los Angeles, Cal	2	
Baltimore, Md	1	1	Milwaukee, Wis	4	
Berkeley, Cal	1		Morristown, N. J	1	
Boston, Mass		2	Nanticoke, Pa	1	
Bridgeport, Conn	1		Newark, N. J	7	1
Brockton, Mass	1		New Castle, Pa	1	
Buffalo, N. Y	2		New York, N. Y		3
Chicago, Ill	34	3	Niagara Falls, N. Y	1	
Cincinnati, Ohio	2		Passaic, N. J	1	
Cleveland, Ohio	8	1	Philadelphia, Pa	11	3
Covington, Ky	1	1	Pittsburgh, Pa	14	3
Denver, Colo	4		Portland, Oreg		1
Detroit, Mich	8		Sacramento, Cal	2	
Duluth, Minn	1		St. Louis, Mo	8	
Erie, Pa	1		St. Paul, Minn	2	
Fall River, Mass		1	San Francisco, Cal	2	
Flint, Mich	2		Williamsport, Pa	2	
Harrisburg, Pa	1		York, Pa	1	
Jackson, Mich	2				

MALARIA.

New Jersey Report for December, 1916.

During the month of December, 1916, one case of malaria was reported in Essex County, N. J.

MEASLES.

Alaska—Ketchikan.

Acting Asst. Surg. Story reported that during the week ended January 13, 1917, 12 cases of measles were notified in Ketchikan, Alaska, making a total of 53 cases reported since the beginning of the present outbreak, about December 15, 1916.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 186.

PELLAGRA.

State Reports for December, 1916.

During the month of December, 1916, one case of pellagra was reported in the District of Columbia, and one case in Coffeyville, Montgomery County, Kans.

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.	1	...	Lynchburg, Va.	...	1
Charleston, S. C.	...	1	New York, N. Y.	...	1

PNEUMONIA.

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Binghamton, N. Y.	3	3	Los Angeles, Cal.	16	7
Braddock, Pa.	3	...	Manchester, N. H.	8	8
Butler, Pa.	2	...	Newark, N. J.	79	22
Canton, Ohio.	1	...	New Castle, Pa.	6	...
Chicago, Ill.	337	148	Newport, Ky.	1	1
Cleveland, Ohio.	52	25	Norristown, Pa.	2	2
Coffeyville, Kans.	1	...	Pasadena, Cal.	2	1
Detroit, Mich.	14	41	Pawtucket, R. I.	4	4
Dubuque, Iowa.	4	4	Philadelphia, Pa.	179	116
Flint, Mich.	9	3	Pittsburgh, Pa.	90	51
Galesburg, Ill.	1	1	Reading, Pa.	3	4
Grand Rapids, Mich.	9	9	Sacramento, Cal.	5	3
Hoboken, N. J.	4	...	Sandusky, Ohio.	1	...
Jackson, Mich.	6	...	Schenectady, N. Y.	6	3
Kalamazoo, Mich.	5	1	Steelton, Pa.	3	1
Kansas City, Mo.	12	20	Stockton, Cal.	3	2
Lancaster, Pa.	5	...	Toledo, Ohio.	1	3
Lexington, Ky.	1	2	York, Pa.	1	...

POLIOMYELITIS (INFANTILE PARALYSIS).

West Virginia—Winter Outbreak.

Passed Asst. Surg. Leake reported in relation to poliomyelitis in West Virginia, as follows: During the seven days ended January 22, 1917, no new case was reported at Elkins. At Grafton 3 new cases were reported, making a total of 26 cases notified at that place. Four new cases occurred at Fairmont, making a total of 7 cases reported there. One case was notified at Morgantown.

State Reports for December, 1916.

Place.	New cases reported.	Place.	New cases reported.
Kansas:		Minnesota:	
Allen County	1	Clay County—	
Gray County	1	Keeno Township	1
Marion County	1	Le Sueur County—	
Montgomery County	1	Elysian	1
Coffeyville	1	McLeod County—	
Nemaha County	1	Glencoe	1
Saline County	1	Stearns County—	
Total	7	Oak Township	1
Michigan:		Todd County—	
Barry County—		Eagle Valley Township	2
Hastings	1	Total	6
Calhoun County—		New Jersey:	
Albion	1	Bergen County	1
Hillsdale County—		Burlington County	1
Jefferson Township	1	Cumberland County	2
Litchfield Township	1	Essex County	1
Kent County—		Somerset County	1
Grand Rapids	1	Union County	1
Macomb County—		Total	7
Chesterfield Township	1		
Saginaw County—			
Frankenmuth Township	1		
Richland Township	1		
Wayne County—			
Highland Park	1		
St. Clair Heights	1		
Detroit	4		
Total	14		

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass	1		Norristown, Pa		1
Chicago, Ill	2		Philadelphia, Pa	2	
Lawrence, Mass	1	1	San Francisco, Cal		1
Newark, N. J	1		Somerville, Mass	1	
New York, N. Y	1	1	Springfield, Ill	1	1

RABIES IN ANIMALS.

City Reports for Week Ended Jan. 6, 1917.

During the week ended January 6, 1917, one case of rabies in animals was reported in Detroit, Mich., and two cases were reported in Niagara Falls, N. Y.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 186.

SMALLPOX.

Connecticut.

Collaborating Epidemiologist Black reported that during the week ended January 20, 1917, 12 new cases of smallpox were notified in Connecticut as follows: 9 cases at Waterbury; 1 case each at Fairfield, Naugatuck, and Thomaston.

Minnesota.

Collaborating Epidemiologist Bracken reported that during the week ended January 20, 1917, five new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Hubbard County, Akeley 4; Ottertail County, Trondhjen Township 1; Redwood County, Johnsonville Township, 1; Todd County, Willard Township, 1; Yellow Medicine County, Wood Lake, 1.

Tennessee—Memphis.

Senior Surg. White reported January 23, 1917, that 21 cases of smallpox were notified at Memphis, Tenn, from January 2 to 21.

Texas—Waco—Virulent Smallpox.

Assistant Surg. Witte reported that during the week ended January 13, 1917, 7 cases of smallpox, with 3 deaths, were notified at Waco, Tex., making a total of 107 cases, with 21 deaths, reported at Waco since April 1, 1916.

State Reports for December, 1916.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Kansas:						
Atchison County—						
Atchison	1					1
Butler County	2					2
Chase County	11				11	
Cowley County	4				1	3
Crawford County	2			1		1
Doniphan County	26			2	21	3
Elk County	5			1	3	1
Ellis County	2				2	
Geary County	3				1	2
Gove County	1				1	
Jefferson County	21					21
Labette County—						
Parsons	2					2
Marion County	46		1	4	30	11
Marshall County	30					30

SMALLPOX—Continued.

State Reports for December, 1916—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Kansas—Continued.						
Nemaha County	6				2	4
Phillips County	1				1	
Reno County—						
Hutchinson	1				1	
Shawnee County	1					1
Topeka	5				2	3
Sumner County	8			1	6	1
Thomas County	1				1	
Wabaunsee County	1					1
Washington County	1				1	
Wyandotte County	2					2
Total	183		1	9	84	89
Michigan:						
Alcona County—						
Gustin Township	6				6	
Alger County—						
Au Train Township	1				1	
Allegan County—						
Allegan Township	1				1	
Alpena County—						
Alpena	14				14	
Barry County—						
Hastings	2				2	
Cheboygan County—						
Nunda Township	1				1	
Clinton County—						
Victor Township	1				1	
Ovid	2				2	
St. Johns	1				1	
Genesee County—						
Atlas Township	1				1	
Davison Township	1				1	
Genesee Township	1				1	
Mundy Township	1				1	
Flint	15				15	
Grand Traverse County—						
Blair Township	1				1	
Green Lake Township	1				1	
Ingham County—						
Delhi Township	2				2	
Lansing	1				1	
Mason	1				1	
Ionia County—						
Belding	1			1		
Iosco County—						
East Tawas	1			1		
Kalamazoo County—						
Kalamazoo	2			1	1	
Kent County—						
Grand Rapids	2				2	
Lapeer County—						
Lapeer Township	1				1	
Leelanau County—						
Solon Township	3		1		2	
Macomb County—						
Lenox Township	1				1	
Richmond	3			1	2	
Marquette County—						
Marquette	10				10	
Mecosta County—						
Big Rapids	1				1	
Midland County—						
Edenville Township	2					2
Monroe County—						
Petersburg	1				1	

SMALLPOX—Continued.

State Reports for December, 1916—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan—Continued.						
Muskegon County—						
Muskegon	2				2	
Oakland County—						
Bloomfield Township	1				1	
Pontiac	2				2	
Shiawassee County—						
Bennington Township	4				4	
Hazelton Township	3				3	
Venice Township	1				1	
Woodhull Township	1					1
Laingsburg	3				3	
Owosso	12				12	
Tuscola County—						
Millington	2				2	
Washtenaw County—						
Augusta Township	3				3	
Saline Township	1				1	
York Township	1				1	
Saline	1				1	
Ann Arbor	9				9	
Ypsilanti	3				3	
Wayne County—						
Highland Park	10				10	
Northville	6		2	1		3
River Rouge	2				1	1
Detroit	4				4	
Total	153		3	5	138	7
Minnesota:						
Anoka County—						
Anoka	13				13	
Becker County—						
Frazee	2				2	
Benton County—						
Sauk Rapids	1			1		
Blue Earth County—						
Mankato	1				1	
Cass County—						
Walker	1				1	
Chippewa County—						
Milan	1				1	
Granite Falls Township	1				1	
Crow Wing County—						
Brainerd	12			2	10	
Hennepin County—						
Minneapolis	48			5	43	
St. Louis Park	1				1	
Hubbard County—						
Akeley	3				3	
Akeley Township	1					1
Isanti County—						
Maple Ridge Township	6				5	1
Kandiyohi County—						
Willmar	1				1	
Lyon County—						
Westerheim Township	4			1	3	
Millelacs County—						
Milo Township	4				4	
Morrison County—						
Little Falls	166				166	
Royalton	4					4
Darling Township	1				1	
Pike Creek Township	1				1	

SMALLPOX—Continued.

State Reports for December, 1916—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Minnesota—Continued.						
Nobles County—						
Adrian	1				1	
Olmsted County—						
Rochester	1				1	
Ottertail County—						
Orwell Township	1				1	
Ramsey County—						
St. Paul	7				7	
Rice County—						
Faribault	2				2	
Swift County—						
Torning Township	6				6	
Todd County—						
Long Prairie	1				1	
Wabasha County—						
Plainview	5				5	
Gilford Township	1				1	
Wadena County—						
Orton Township	3				3	
Wilkin County—						
Breckenridge	2				2	
Kent	3		2	1		
McCauleyville Township	1				1	
Nordick Township	3				3	
Roberts Township	1				1	
Winona County—						
Winona	1				1	
Yellow Medicine County—						
Hazel Run	4				4	
Total	315		2	10	297	6

Miscellaneous State Report.

During the month of December, 1916, one case of smallpox was reported in Essex County, N. J.

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich	2		Milwaukee, Wis	1	
Braddock, Pa	1		Minneapolis, Minn	4	
Butte, Mont	2		New Orleans, La	10	
Chicago, Ill	7		Omaha, Nebr	3	
Cleveland, Ohio	6		Pittsburgh, Pa	1	
Danville, Ill	5		Portland, Oreg	7	
Detroit, Mich	6		Rockford, Ill	1	
Flint, Mich	2		St. Louis, Mo	2	
Grand Rapids, Mich	1		St. Paul, Minn	1	
Indianapolis, Ind	9		Toledo, Ohio	12	
Kalamazoo, Mich	1		Wilmington, Del	1	
Little Rock, Ark	2				

TETANUS.

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Cleveland, Ohio	1	1	New York, N. Y.		1
Detroit, Mich.	1		Philadelphia, Pa.	1	

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 186.

TYPHOID FEVER.

State Reports for December, 1916.

Place.	New cases reported.
District of Columbia	10
Kansas:	
Allen County	3
Barton County	1
Bourbon County	1
Butler County	3
Chautauqua County	3
Cherokee County	1
Cheyenne County	1
Coffey County	1
Comanche County	3
Cowley County	1
Crawford County	2
Dickinson County	7
Doniphan County	1
Douglas County	5
Elk County	2
Ellis County	4
Franklin County	5
Greenwood County	2
Hamilton County	4
Harper County	1
Harvey County	6
Jackson County	1
Jefferson County	1
Jewell County	1
Johnson County	3
Kearny County	7
Kingman County	1
Kiowa County	1
Labette County	1
Leavenworth County	2
Linn County	3
Lyon County	1
Montgomery County	3
Coffeyville	2
Morris County	1
Neosho County	2
Pawnee County	1
Rice County	1
Riley County	6
Russell County	2
Saline County	1
Sedgwick County—	
Wichita	4
Shawnee County	1
Topeka	13
Smith County	3
Stafford County	1
Sumner County	3
Wabaunsee County	1
Wallace County	1
Washington County	1
Wyandotte County—	
Kansas City	4
Total	130

Place.	New cases reported.
Michigan:	
Alpena County—	
Alpena	14
Bay County—	
Bay City	4
Benzie County—	
Benzonia Township	2
Frankfort	1
Berrien County—	
Benton Township	1
Calhoun County—	
Bedford Township	2
Marengo Township	1
Chippewa County—	
Sault Ste Marie	4
Eaton County—	
Grand Ledge	1
Genesee County—	
Flint	9
Gladwin County—	
Grout Township	1
Gogebic County—	
Ervin Township	1
Ironwood	3
Gratiot County—	
Lafayette Township	2
Alma	1
Hillsdale County—	
Hillsdale	1
Houghton County—	
Stanton Township	1
Ingham County—	
Dansville	1
Lansing	3
Iosco County—	
East Tawas	3
Isabella County—	
Denver Township	1
Kalamazoo County—	
Portage Township	1
Kent County—	
Grand Rapids	5
Lapeer County—	
Elba Township	1
Leelanau County—	
Leland Township	1
Livingston County—	
Howell	1
Mackinac County—	
St. Ignace	1
Macomb County—	
Chesterfield Township	1
Mount Clemens	1
Manistee County—	
Bear Lake Township	1
Onekama Township	1
Manistee	1
Marquette County—	
Marquette	9

TYPHOID FEVER—Continued.

State Reports for December, 1916—Continued.

Place.	New cases reported.
Michigan—Continued.	
Mecosta County—	
Hinton Township	3
Missaukee County—	
Lake City	2
Monroe County—	
Monroe	1
Montcalm County—	
Lakeview	1
Osceola County—	
Reed City	1
Saginaw County—	
Albee Township	1
Saginaw Township	2
Saginaw	1
St. Clair County—	
Cottrellville Township	6
Marine City	1
St. Clair	1
St. Joseph County—	
Burr Oak Township	1
Tuscola County—	
Guilford Township	2
Washtenaw County—	
Ann Arbor	1
Wayne County—	
Wyandotee	2
Total	107
Minnesota:	
Anoka County—	
Anoka	1
Beltrami County—	
Bemidji	1
Bigstone County—	
Almond Township	1
Blue Earth County—	
Vernon Center	1
Chisago County—	
Nessel Township	1
Clay County—	
Moorehead	1
Crow Wing County—	
Brainerd	1
Faribault County—	
Minnesota Lake	1
Goodhue County—	
Red Wing	1
Hennepin County—	
Minneapolis	7
Wayzata	1
Isanti County—	
Braham	1
Spencer Brook Township	1
Itasca County—	
Bovey	1
Trout Lake Township	1
Lake County—	
Two Harbors	1

Place.	New cases reported.
Minnesota—Continued.	
Lyon County—	
Tracy	1
Mahnomen County—	
Waubon	3
Marshall County—	
Oslo	1
Warren	1
Meeker County—	
Eden Valley	1
Ottertail County—	
Fergus Falls	2
Maine Township	2
Pennington County—	
Thief River Falls	1
Polk County—	
Queen Township	1
Ramsey County—	
St. Paul	2
New Canada Township	3
St. Louis County—	
Aurora	2
Buhl	1
Duluth	8
Ely	2
Hibbing	2
Virginia	1
Fayal Township	1
Wadena County—	
Verndale	4
Washington County—	
Forest Lake	1
Watenwan County—	
Butterfield Township	1
Winona County—	
Winona	1
Total	64
New Jersey:	
Atlantic County	7
Bergen County	3
Camden County	10
Cumberland County	1
Essex County	5
Gloucester County	1
Hudson County	7
Hunterdon County	2
Mercer County	4
Middlesex County	2
Monmouth County	1
Morris County	1
Ocean County	3
Passaic County	4
Salem County	2
Union County	4
Warren County	1
Total	58

City Reports for Week Ended Jan. 6, 1917.

Place.	Cases.	Deaths.
Ann Arbor, Mich	1	
Baltimore, Md	5	1
Bayonne, N. J	1	
Beaver Falls, Pa	1	
Boston, Mass	3	2
Buffalo, N. Y	2	
Charleston, S. C	3	
Chicago, Ill	6	2
Cleveland, Ohio	11	
Coffeyville, Kans	1	
Cumberland, Md	1	
Detroit, Mich	3	
Evansville, Ind		1
Fall River, Mass	3	
Galesburg, Ill	1	
Grand Rapids, Mich	3	
Harrison, N. J	1	
Hartford, Conn		1

TYPHOID FEVER—Continued.

City Reports for Week Ended Jan. 6, 1917—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Haverhill, Mass.	1	.....	Pasadena, Cal.	1	.....
Indianapolis, Ind.	1	.....	Philadelphia, Pa.	7	2
Kansas City, Mo.	3	.....	Pittsburgh, Pa.	4	1
Long Beach, Cal.	1	.....	Portland, Me.	1	.....
Los Angeles, Cal.	5	.....	Portland, Oreg.	10	.....
Lynchburg, Va.	1	1	Reading, Pa.	1	.....
Lynn, Mass.	1	.....	Richmond, Va.	1	.....
Medford, Mass.	1	1	Sacramento, Cal.	2	.....
Minneapolis, Minn.	1	.....	Saginaw, Mich.	5	.....
New Bedford, Mass.	1	.....	St. Louis, Mo.	3	.....
New Britain, Conn.	.....	1	St. Paul, Minn.	1	.....
New Castle, Pa.	2	.....	San Francisco, Cal.	2	.....
New Haven, Conn.	1	.....	San Jose, Cal.	1	.....
New Orleans, La.	5	2	South Bend, Ind.	1	.....
Newton, Mass.	1	.....	Taunton, Mass.	1	.....
New York, N. Y.	25	1	Toledo, Ohio	1	.....
Norristown, Pa.	1	.....	Trenton, N. J.	2	.....
North Adams, Mass.	.....	1	Washington, D. C.	5	1
Omaha, Nebr.	1	.....	York, Pa.	1	.....

TYPHUS FEVER.

California—Clovis.

The secretary of the State Board of Health of California reported by telegraph January 16, 1917, that a case of typhus fever had occurred at Clovis, Fresno County, Cal.

Colorado—La Junta and Trinidad.

Asst. Surg. Galloway reported January 13, 1917, that during the period from June 3 to December 17, 1916, 10 cases of typhus fever had been notified in the State of Colorado. Eight of the cases occurred at La Junta and 2 at Trinidad.

City Reports for Week Ended Jan. 6, 1917.

During the week ended January 6, 1917, two cases of typhus fever were reported in El Paso, Tex., and one case in New York, N. Y.

PREVENTABLE DISEASES.

Massachusetts Report for Week Ended Jan. 13, 1917.

	Cases reported.		Cases reported.
Cerebrospinal meningitis	3	Scarlet fever	140
Chicken pox	197	Septic sore throat	4
Diphtheria	200	Trachoma	2
German measles	11	Tuberculosis (pulmonary)	191
Measles	428	Tuberculosis (other forms)	26
Mumps	97	Typhoid fever	17
Ophthalmia neonatorum	49	Whooping cough	48
Poliomyelitis (infantile paralysis)	3		

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for December, 1916.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
District of Columbia	60	13	63	Michigan	656	391	827
Kansas	180	351	206	Minnesota	183	202	416
				New Jersey	458	.....	319

City Reports for Week Ended Jan. 6, 1917.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	589,621	206	30	2	3	.....	12	.....	34	28
Boston, Mass.	756,476	317	61	6	43	.....	25	.....	37	30
Chicago, Ill.	2,497,722	878	267	30	206	4	318	14	194	73
Cleveland, Ohio.	674,073	148	34	4	41	.....	10	.....	26	11
Detroit, Mich.	571,784	296	92	4	10	.....	84	4	28	16
Los Angeles, Cal.	503,812	.....	5	.....	23	.....	8	.....	43	19
New York, N. Y.	5,602,841	1,895	226	24	152	5	112	2	351	219
Philadelphia, Pa.	1,709,518	780	44	5	8	.....	26	1	92	77
Pittsburgh, Pa.	579,090	246	26	4	73	.....	9	.....	31	21
St. Louis, Mo.	757,309	307	108	7	53	1	48	.....	38	19
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.	468,558	93	22	2	9	.....	6	.....	13	5
Cincinnati, Ohio.	410,476	141	21	1	3	.....	12	1	28	14
Jersey City, N. J.	306,345	.....	3	.....	.....	.....	8	.....	22	.....
Milwaukee, Wis.	436,535	105	27	3	6	.....	67	.....	15	6
Minneapolis, Minn.	363,454	.....	31	.....	8	.....	24	.....	.....	.....
Newark, N. J.	408,894	.....	19	1	5	.....	14	.....	39	19
New Orleans, La.	371,747	.....	8	1	816	1	3	1	32	26
San Francisco, Cal.	463,516	194	29	1	65	.....	24	1	.....	18
Washington, D. C.	363,980	.....	16	.....	2	.....	10	.....	17	11
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.	214,878	73	8	.....	52	1	3	.....	9	4
Denver, Colo.	260,800	86	5	.....	38	.....	2	.....	.....	14
Indianapolis, Ind.	271,708	.....	29	.....	6	.....	9	.....	8	.....
Kansas City, Mo.	297,847	105	8	2	7	.....	27	.....	8	9
Portland, Oreg.	295,463	54	4	.....	73	1	10	.....	7	3
Providence, R. I.	254,960	97	18	3	4	.....	12	1	.....	7
St. Paul, Minn.	247,232	80	4	.....	.....	.....	13	.....	13	7
From 100,000 to 200,000 inhabitants:										
Birmingham, Ala.	181,762	44	.....	.....	2	.....	.....	.....	7	5
Bridgeport, Conn.	121,579	78	8	.....	16	.....	4	.....	1	.....
Cambridge, Mass.	112,981	46	15	1	6	.....	5	1	5	7
Camden, N. J.	106,233	.....	5	.....	.....	.....	4	.....	3	.....
Fall River, Mass.	128,366	41	1	.....	54	1	3	.....	12	8
Fort Worth, Tex.	104,562	25	.....	.....	3	.....	2	.....	.....	2
Grand Rapids, Mich.	128,291	46	2	.....	22	.....	12	.....	4	1
Hartford, Conn.	110,900	76	4	1	2	.....	4	.....	2	.....
Lawrence, Mass.	100,560	22	1	.....	1	.....	.....	.....	.....	2
Lowell, Mass.	113,245	53	6	1	32	.....	2	.....	4	3
Lynn, Mass.	102,425	19	5	.....	1	.....	2	.....	2	.....
Nashville, Tenn.	117,057	34	3	1	117	2	1	.....	7	2
New Bedford, Mass.	118,158	33	5	.....	11	.....	5	.....	2	1
New Haven, Conn.	149,685	.....	5	2	14	.....	.....	.....	4	1
Omaha, Nebr.	165,470	30	1	1	1	.....	12	.....	.....	4
Reading, Pa.	109,381	35	.....	.....	.....	.....	1	.....	13	.....
Richmond, Va.	156,687	68	5	1	2	.....	5	.....	5	6
Springfield, Mass.	105,942	34	2	1	.....	.....	3	.....	8	2
Syracuse, N. Y.	155,624	.....	9	2	6	1	11	.....	7	3
Toledo, Ohio.	191,554	58	1	.....	7	.....	51	2	9	6
Trenton, N. J.	111,593	52	1	.....	.....	1	1	.....	7	5
Worcester, Mass.	163,314	55	7	1	3	1	13	.....	4	6

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

City Reports for Week Ended Jan. 6, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants:										
Atlantic City, N. J.	57,660	14	2	.....	7	.....	1	.....	3	2
Bayonne, N. J.	69,893	.....	2	.....	.....	.....	.....	.....	4	.....
Berkeley, Cal.	57,653	13	.....	.....	3	.....	1	.....	.....	2
Binghamton, N. Y.	53,973	17	10	.....	14	.....	6	.....	1	1
Brockton, Mass.	67,449	15	3	.....	.....	.....	1	.....	.....	2
Canton, Ohio.	60,852	13	.....	2	.....	.....	6	.....	.....	.....
Charleston, S. C.	60,734	23	3	.....	.....	.....	3	.....	.....	1
Covington, Ky.	57,144	24	.....	.....	.....	.....	2	.....	1	2
Duluth, Minn.	94,495	.....	.....	.....	2	.....	4	.....	3	.....
El Paso, Tex.	63,705	51	3	1	13	.....	.....	.....	.....	12
Erie, Pa.	75,195	.....	1	.....	1	.....	3	.....	7	38
Evansville, Ind.	76,078	23	3	.....	2	.....	.....	.....	3	2
Flint, Mich.	54,772	23	3	2	.....	.....	5	.....	4	2
Harrisburg, Pa.	72,015	14	5	.....	1	.....	.....	.....	.....	2
Hoboken, N. J.	77,214	29	5	.....	.....	.....	1	.....	8	.....
Lancaster, Pa.	50,853	.....	.....	.....	2	.....	.....	.....	.....	.....
Little Rock, Ark.	57,343	9	.....	.....	2	.....	1	.....	.....	.....
Malden, Mass.	51,155	19	3	.....	4	.....	2	.....	4	.....
Manchester, N. H.	78,283	22	3	.....	2	.....	.....	.....	.....	.....
New Britain, Conn.	53,794	8	1	.....	.....	.....	1	.....	.....	2
Norfolk, Va.	89,612	2	.....	.....	2	.....	.....	.....	.....	1
Oklahoma City, Okla.	92,943	14	.....	.....	27	1	3	.....	.....	.....
Passaic, N. J.	71,744	26	4	.....	1	.....	2	.....	6	1
Pawtucket, R. I.	59,411	22	8	.....	.....	.....	.....	.....	1	1
Portland, Me.	63,867	34	1	.....	.....	.....	1	.....	.....	.....
Rockford, Ill.	55,185	7	2	.....	2	.....	.....	.....	2	.....
Sacramento, Cal.	66,895	19	.....	.....	.....	.....	.....	.....	.....	3
Saginaw, Mich.	55,642	23	8	.....	.....	.....	8	.....	.....	.....
San Diego, Cal.	53,330	37	3	1	.....	.....	.....	.....	17	2
Schenectady, N. Y.	99,519	26	2	1	27	1	2	.....	.....	.....
Somerville, Mass.	87,039	19	4	1	5	.....	2	.....	2	.....
South Bend, Ind.	68,948	12	1	.....	1	.....	10	.....	.....	1
Springfield, Ill.	61,120	19	8	.....	6	.....	2	.....	.....	3
Troy, N. Y.	77,916	.....	1	.....	30	.....	2	.....	3	3
Wilkes-Barre, Pa.	76,776	18	2	.....	.....	.....	5	.....	3	2
Wilmington, Del.	94,265	46	2	.....	.....	.....	4	.....	.....	.....
York, Pa.	51,656	.....	4	.....	2	.....	.....	.....	1	.....
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,732	8	.....	.....	.....	.....	4	.....	1	.....
Brookline, Mass.	32,730	12	1	.....	1	.....	.....	.....	.....	1
Butler, Pa.	27,632	5	1	.....	.....	.....	3	.....	.....	2
Butte, Mont.	43,425	.....	.....	.....	4	.....	.....	5	.....	.....
Chelsea, Mass.	46,192	12	1	.....	1	.....	.....	.....	.....	1
Chicopee, Mass.	29,319	10	1	.....	.....	.....	1	.....	2	1
Cumberland, Md.	26,074	15	1	.....	1	.....	2	.....	.....	.....
Danville, Ill.	32,261	10	1	1	1	.....	.....	.....	2	2
Davenport, Iowa.	48,811	.....	.....	.....	.....	.....	3	.....	.....	.....
Dubuque, Iowa.	39,873	.....	.....	.....	11	.....	.....	.....	.....	.....
East Orange, N. J.	42,458	6	2	.....	.....	.....	1	.....	2	.....
Elgin, Ill.	28,203	6	1	.....	7	.....	2	.....	.....	.....
Everett, Mass.	39,233	4	3	.....	4	.....	5	.....	2	2
Everett, Wash.	35,486	3	.....	.....	27	.....	2	.....	2	.....
Fitchburg, Mass.	41,781	12	5	1	.....	.....	3	.....	1	1
Galveston, Tex.	41,863	10	3	.....	.....	.....	.....	.....	.....	.....
Haverhill, Mass.	48,477	19	2	.....	2	.....	.....	.....	8	3
Jackson, Mich.	35,363	14	2	.....	15	.....	1	.....	.....	1
Kalamazoo, Mich.	48,886	19	.....	.....	.....	.....	9	.....	.....	.....
Kenosha, Wis.	31,576	5	.....	.....	.....	.....	1	.....	.....	.....
Kingston, N. Y.	26,771	11	4	.....	.....	.....	.....	.....	.....	.....
La Crosse, Wis.	31,677	4	1	.....	.....	.....	.....	.....	.....	.....
Lexington, Ky.	41,097	25	2	.....	1	.....	2	.....	3	1
Lima, Ohio.	35,384	10	2	.....	.....	.....	3	.....	.....	1
Lincoln, Nebr.	46,515	14	4	1	3	.....	2	.....	.....	.....
Long Beach, Cal.	27,587	6	.....	.....	.....	.....	.....	.....	2	.....
Lorain, Ohio.	36,964	.....	1	.....	1	.....	4	.....	.....	.....
Lynchburg, Va.	32,940	10	.....	.....	23	.....	.....	.....	2	2
Madison, Wis.	30,699	.....	.....	.....	.....	.....	7	.....	.....	.....
Medford, Mass.	26,234	8	2	.....	20	.....	1	.....	.....	.....
Montclair, N. J.	26,318	5	2	.....	1	.....	.....	.....	1	.....
Newburgh, N. Y.	29,603	12	1	.....	.....	.....	1	.....	1	.....
New Castle, Pa.	41,133	.....	.....	.....	4	.....	.....	.....	.....	.....

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

City Reports for Week Ended Jan. 6, 1917—Continued.

City.	Population as of July 1, 1916 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Newport, Ky	31,927	7							1	1
Newport, R. I	30,108	9	1				1			1
Newton, Mass	43,715	10			12					
Niagara Falls, N. Y	37,353	15			20				1	
Norristown, Pa	31,401	13	2				1			
Ogden, Utah	31,404	12			360	2	5			
Orange, N. J	33,080	19					1			1
Pasadena, Cal	46,450	15					2		1	2
Perth Amboy, N. J	41,185		9		1				4	
Pittsfield, Mass	38,629	16	2				1			
Portsmouth, Va	39,651	13	2		1		2			4
Quincy, Ill	36,798	17								1
Quincy, Mass	38,136	18	2	1					4	1
Racine, Wis	46,486	11	2				2			1
Roanoke, Va	43,284	17	3		15				3	2
San Jose, Cal	38,902	10					1			1
Steubenville, Ohio	27,445	12								
Stockton, Cal	35,358	22	3		30					1
Superior, Wis	46,226	6	1		1					2
Taunton, Mass	36,283	19					1			2
Waltham, Mass	30,570	8	1		1					1
West Hoboken, N. J	43,139	9	1						2	1
Wheeling, W. Va	43,377	13	2		2		2			1
Williamsport, Pa	33,809		2		1		1			
Zanesville, Ohio	30,863	9						2		
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich	15,010	14			1		2		1	1
Beaver Falls, Pa	13,532		1							
Braddock, Pa	21,685	2	7	2			1			
Cairo, Ill	15,794	12			3		1			1
Clinton, Mass	[1] 13,075	4	1							
Coffeyville, Kans	17,548		3							
Concord, N. H	22,669	11	3		2					
Galesburg, Ill	24,276	5	1				1			
Harrison, N. J	16,950		1						1	
Kearny, N. J	23,539	5							4	2
Kokomo, Ind	20,930	4	2		26				3	
Long Branch, N. J	15,395	4	1						3	
Marinette, Wis	[1] 14,610	5								2
Morristown, N. J	13,284	8	1		1					1
Muscatine, Iowa	17,500				17					1
Nanticoke, Pa	23,126	6	2				1			
Newburyport, Mass	15,243	4			5		2		1	
New London, Conn	20,985	6	1		1		1		2	
North Adams, Mass	[1] 22,019	13								
Northampton, Mass	19,926	11							3	1
Plainfield, N. J	23,805	9	1						2	
Portsmouth, N. H	11,666				7					
Rutland, Vt	14,831	6	2		8	2				
Sandusky, Ohio	20,193				5					1
Steelton, Pa	15,548	5							4	
Wilkinsburg, Pa	23,228	18	1	1					2	
Woburn, Mass	15,969	6								

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

FOREIGN.

CHINA.

Examination of Rats—Shanghai.

During the two weeks ended December 9, 1916, 620 rats were examined at Shanghai. No plague infection was found. The last plague-infected rat at Shanghai was reported found during the week ended May 6, 1916.

Plague-Infected Rats—Hongkong.

Plague-infected rats have been reported found at Hongkong as follows: During the week ended November 18, 1916, out of 2,250 rats examined, 4 found plague infected, and during the week ended December 2, 1916, out of 2,361 rats examined, 4 found plague infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Dec. 21-31, 1916.		Remaining under treatment Dec. 31, 1916.
	New cases.	Deaths.	
Diphtheria	8	.....	4
Leprosy	.....	.....	250
Malaria	54	.....	94
Measles	13	.....	12
Paratyphoid fever	.....	.....	2
Scarlet fever	3	.....	5
Typhoid fever	15	1	33
Typhus fever	[1] 1	.....	1
Varicella	3	.....	2

[1] From Europe.

Smallpox from Vessels.

Habana newspapers reported the occurrence of four cases of smallpox during the period from January 9 to 12, 1917, in passengers landed at Habana from vessels arrived from ports in Spain. Of these cases, one developed at Casa Blanca, Habana Bay, in a passenger from the steamship *Alfonso XII* from Santander, Spain, which arrived at Habana December 1, 1916. The case was reported January 12, 1917. Three cases occurred in passengers from the steamship *Montevideo*

from Barcelona, Spain, via Las Palmas, Canary Islands, and Porto Rico, one case occurring at Guanabacoa, vicinity of Habana, reported January 9, and two cases reported January 10, one occurring at Encrucijada, Santa Clara Province, and one at Mariel quarantine station, Habana.

On January 29, 1917, the occurrence of a second case of smallpox at Mariel quarantine station was reported. The case occurred in a passenger from the *Montevideo*, making a total of five cases in persons arriving by the steamships *Alfonso XII* and *Montevideo*.

The *Montevideo* gave a history of a case of smallpox left at San Juan, Porto Rico. The vessel left San Juan January 2, and arrived at Habana January 6, 1917.

JAPAN.

Taiwan Island (Formosa) and Korea Free from Cholera.

The island of Taiwan (Formosa) was reported free from cholera, January 20, 1917.

Korea was reported free from cholera January 19, 1917. The outbreak began August 1, 1916.

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

Reports Received During the Week Ended Jan. 26, 1917.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay	Nov. 26–Dec. 2	3	1	
Calcutta	Nov. 19–25		10	
Japan:				
Fukuoka	Jan. 19	33		
Osaka	Jan. 6–16	9		
Philippine Islands:				
Manila	Nov. 26–Dec. 2	30	9	Not previously reported: Cases, 1; deaths, 1.
Provinces				Nov. 26–Dec. 2, 1916: Cases, 273; deaths, 175.
Albay	Nov. 26–Dec. 2	25	13	
Bataan	do	20	14	
Bohol	do	5	3	
Bulacan	do	8	8	
Camarines	do	7	4	
Capiz	do	12	11	
Cavite	do	20	10	
Iloilo	do	24	14	
Leyte	do	49	37	
Misamis	do	16	7	
Negros Occidental	do	77	46	
Rizal	do	1		
Sorsogon	do	8	8	
Zambales	do	1		

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

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

Reports Received During the Week Ended Jan. 26, 1917—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo	Nov. 19-25	6	5	
China:				
Amoy, vicinity	Nov. 19-Dec. 2			Present.
Ecuador				Sept. 1-Nov. 30, 1916: Cases, 156; deaths, 57.
Duran	Oct. 1-31	1		
Guayaquil	Sept. 1-30	21	7	
Do	Oct. 1-31	43	13	
Do	Nov. 1-30	88	35	
Milagro	do	1		
Nobol	Oct. 1-31	1	1	
Santa Rosa	Sept. 1-30	1	1	
Egypt				Jan. 1-Dec. 14, 1916: Cases, 1,709; deaths, 825.
Port Said	Dec. 11	1		
India				Nov. 19-25, 1916: Cases, 10,330; deaths, 7,579.
Bombay	Nov. 26-Dec. 2	8	6	
Madras Presidency	do	671	451	
Rangoon	Nov. 19-25	2	2	
Japan:				
Yokkaichi	Nov. 12-Dec. 9	9	4	

SMALLPOX.

Austria-Hungary:				
Austria—				
Vienna	Nov. 19-Dec. 9	7	1	
Hungary—				
Budapest	do	41	1	
China:				
Amoy	do		5	
Chungking	Nov. 12-Dec. 2			Present.
Foochow	Nov. 12-18			Do.
Hongkong	Nov. 26-Dec. 2	27	19	Received out of date.
Cuba:				
Casa Blanca	Jan. 12	1		Vicinity of Habana. Case landed Jan. 1, 1917, from s. s. Alfonso XII, from Santander, Spain.
Encrucijada	Jan. 10	1		In Santa Clara Province. Case landed from s. s. Montevideo from Barcelona, via Las Palmas, Canary Islands, and Porto Rico; arrived at Habana Jan. 6, 1917.
Guanabacoa	Jan. 9	1		Vicinity of Habana. Case landed from s. s. Montevideo.
Habana	Jan. 10-20	2		At Mariel quarantine station. From s. s. Montevideo.
Ecuador:				
Guayaquil	Nov. 1-30	10	1	
Egypt:				
Cairo	July 16-Aug. 12	25	5	
India:				
Madras	Nov. 26-Dec. 2	3	2	
Rangoon	Nov. 19-25	5		
Mexico:				
Mexico City	Dec. 17-23	10		
Portuguese East Africa:				
Lourenco Marques	Sept. 1-30		1	
Russia:				
Moscow	Oct. 16-Dec. 18	43	12	
Petrograd	Nov. 5-11	15	3	
Spain:				
Valencia	Dec. 17-23	1		
Tunisia:				
Tunis	Dec. 9-15	14	12	
Turkey in Asia:				
Trebizond	Nov. 11-18	1		

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

Reports Received During the Week Ended Jan. 26, 1917—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria Hungary:				
Austria—				
Vienna	Nov. 26–Dec. 9	3	1	
Egypt:				
Alexandria	do	10	3	
Cairo	July 16–Aug. 12	90	48	
Port Said	do	1	3	
Germany:				
Berlin	Nov. 26–Dec. 2		2	
Königsberg	Dec. 2–9	1		
Mexico:				
Aguascalientes	Dec. 22			Epidemic.
Durango	Dec. 12			Present.
Mexico City	Dec. 17–23	202		
Russia:				
Moscow	Oct. 16–Nov. 18	43	1	
Petrograd	Nov. 5–11	44	22	
Turkey in Asia:				
Haifa	Oct. 16–22	1		

YELLOW FEVER.

Ecuador:				
Babahoyo	Nov. 1–30	1	1	
Chobo	do	1		
Duran	Oct. 1–31	1		
Guayaquil	Sept. 1–30	17	5	
Do	Oct. 1–31	15	12	
Do	Nov. 1–30	6	3	
Milagro	Sept. 1–30	1		
	Oct. 1–31	2	1	

Reports Received from Dec. 30, 1916, to Jan. 19, 1917.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay	Nov. 5–25	6	7	
Calcutta	Oct. 15–Nov. 18		33	
Madras	Nov. 5–11	2		
Indo-China				June 1–July 31, 1916: Cases, 3,578; deaths, 2,578.
Provinces—				
Anam	June 1–July 31	904	691	
Cambodia	do	8	6	
Cochin-China	do	231	144	
Kouang-Tcheou-Wan	July 1–31	83	62	
Laos	June 1–July 31	433	417	
Tonkin	June 1–30	1,276	775	
Japan:				
Nagasaki	Nov. 27–Dec. 3	9	4	
Osaka	Nov. 16–Dec. 5	8	11	Aug. 13–Dec. 5, 1916: Cases, 966; deaths, 625.
Taiwan Island—				
Keelung	Nov. 13–Dec. 9	5	4	
Taihoku	do	13	3	
Yokohama	Nov. 6–Dec. 3	5	3	
Districts	do	1	1	
Philippine Islands:				
Manila	Oct. 29–Nov. 25	14	4	Not previously reported: Cases, 10.
Provinces				Oct. 29–Nov. 18, 1916: Cases, 2,158; deaths, 1,366.
Albay	Oct. 29–Nov. 25	189	112	
Antique	Nov. 18–25	8	7	
Bataan	Oct. 29–Nov. 25	68	58	
Batangas	do	1	1	
Bohol	do	40	14	

[1] For reports received from July 1 to Dec. 29, 1916, see Public Health Reports for Dec. 29, 1916. The tables of epidemic diseases are terminated semiannually and new tables begun.

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

Reports Received from Dec. 30, 1916, to Jan. 19, 1917—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands—Continued.				
Provinces—Continued.				
Bulacan	Oct. 29-Nov. 25	28	21	
Camarines	Oct. 29-Nov. 18	47	28	
Capiz	Oct. 29-Nov. 25	28	22	
Cavite	do	120	91	
Iloilo	do	186	113	
Laguna	Nov. 5-25	12	10	
Leyte	Oct. 29-Nov. 25	31	22	
Misamis	do	110	72	
Negros Occidental	do	709	422	
Rizal	do	24	14	
Samar	Nov. 5-18	13	10	
Sorsogon	Oct. 29-Nov. 25	123	63	
Tayabas	Nov. 5-18	1	1	
Zambales	Oct. 29-Nov. 18	6	8	
Straits Settlements:				
Singapore	Oct. 22-28	2	2	
Turkey in Asia	Sept. 22-Nov. 3	189	81	
Turkey in Europe:				
Constantinople	Oct. 1-29	6	1	

PLAGUE.

Brazil:				
Bahia	Nov. 5-25	11	7	Jan. 1-Nov. 11, 1916: Cases, 14; deaths, 7. Nov. 5-11: Cases, 4; deaths, 2.
Joazeiro				June 1-Nov. 6, 1916: Cases, 67; deaths, 51.
Ceylon:				
Colombo	Oct. 28-Nov. 18	4	2	July 23-29, 1916: Cases, 9; deaths, 8.
China:				
Kansu Province—				
Taochow	Oct. 1-24		20	Pneumonic. Reported present in other localities in Province.
Egypt				Jan. 1-Nov. 23, 1916: Cases, 1,698; deaths, 825.
Alexandria	Nov. 12-22	2	1	1 case on s. s. Proton, arrived Nov. 16, 1916, from Sidi Barand and Sollum.
India				Oct. 15-Nov. 18, 1916: Cases, 29,479; deaths, 22,682.
Bassein	Oct. 22-28		1	
Bombay	Nov. 5-25	29	21	Oct. 8-14, 1916: Cases, 13; deaths, 7. Received out of date. Original report lost on s. s. Arabia.
Karachi	Oct. 29-Nov. 25	2	1	
Madras	Nov. 19-25	1		Oct. 8-14, 1916: Cases, 1; deaths, 1.
Madras Presidency	Nov. 5-25	1,814	1,202	Oct. 8-14, 1916: Cases, 534; deaths, 353. Sept. 17-23, 1916: Cases, 429; deaths, 280.
Mandalay	Oct. 28-Nov. 18		2	
Prome	Oct. 22-Nov. 18		43	
Rangoon	Oct. 28-Nov. 18	12	10	Oct. 1-7, 1916: Cases, 9; deaths, 9.
Toungoo	Oct. 22-Nov. 18		8	
Indo-China				June 1-July 31, 1916: Cases, 168, deaths, 104.
Provinces—				
Anam	June 1-July 31	44	29	
Cambodia	do	35	33	
Cochin-China	do	62	36	
Kouang-Tcheou-Wan	July 1-31	27	6	
Saigon	Nov. 6-19	3	1	
Java:				
East Java—				
Kediri Residency	Aug. 26-Sept. 22	12	10	
Pasoeroean Residency	do	2	2	
Surabaya Residency	do	3	3	
Siam:				
Bangkok	Oct. 22-Nov. 18	4	3	
Straits Settlements:				
Singapore	Oct. 22-Nov. 11	4	5	

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

Reports Received from Dec. 30, 1916, to Jan. 19, 1917—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria—				
Vienna	Nov. 12-18	1		
Hungary—				
Budapest	Nov. 5-18	28		
Brazil:				
Bahia	Nov. 12-18	3		
Rio de Janeiro	Nov. 12-Dec. 9	32	6	
China:				
Amoy	Oct. 31-Nov. 20			Present.
Chungking	Oct. 28-Nov. 11			Present.
Dairen	Nov. 5-18	26	3	
Foochow	Oct. 29-Nov. 4			Present.
Harbin	Nov. 6-12	1		
Hongkong	Oct. 28-Dec. 9	78	62	
Nanking	Nov. 12-25			Present.
Egypt:				
Cairo	June 11-July 15	65	28	
Port Said	June 11-17	1	1	
France:				
Marseille	Oct. 1-31		5	
India:				
Bombay	Oct. 8-14	3	3	Received out of date. Original report lost on s. s. Arabia.
Calcutta	Nov. 5-11		1	
Madras	Nov. 5-25	9	3	
Moulmein	Oct. 28-Nov. 4		4	
Rangoon	Oct. 28-Nov. 18	3		
Indo-China				June 1-July 31, 1916: Cases, 111, deaths, 35.
Provinces—				
Anam	June 1-July 31	14	6	
Cambodia	do	21	7	
Cochin-China	do	48	16	
Tonkin	do	28	6	
Saigon	Nov. 6-19	11	4	
Japan:				
Kobe	Dec. 4-10	1	1	
Java:				
East Java	Sept. 16-29	17	1	
Mid-Java	do	26	3	
West Java	Sept. 29-Oct. 12	135	28	
Batavia	do	10	1	
Mexico:				
Mexico City	Dec. 10-16	2		
Nuevo Laredo	do	1		
Portugal:				
Lisbon	Nov. 19-Dec. 2	6		
Russia:				
Archangel	Nov. 25-Dec. 8	5		
Petrograd	Oct. 8-Nov. 4	48	11	
Spain:				
Seville	Nov. 1-30		22	
Valencia	Nov. 19-Dec. 2	4	1	
Straits Settlements:				
Penang	Oct. 28-Nov. 11	2		
Tunisia:				
Tunis	Nov. 25-Dec. 8	37	15	

TYPHUS FEVER.

Austria-Hungary:			
Austria—			
Vienna	Nov. 5-18	8	
Hungary—			
Budapest	do	1	
Belgium:			
Ghent	Oct. 29-Nov. 4		1
Liege	do		1
China:			
Antung	Nov. 27-Dec. 10	6	
Hankow	Nov. 12-18	1	
Tientsin	Oct. 29-Nov. 4	1	
Cuba:			
Santiago	Dec. 7-13	1	1

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

Reports Received from Dec. 30, 1916, to Jan. 19, 1917—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
Alexandria	Nov. 12–18	1	.....	
Cairo	June 11–July 15	391	201	
Port Said	June 11–July 8	23	12	
Germany:				
Berlin	Oct. 15–Nov. 18	.....	2	
Bremen	Oct. 22–Nov. 18	1	2	
Frankfort-on-Main	Nov. 12–18	.....	1	
Königsberg	Nov. 12–Dec. 2	3	4	
Nuremberg	Oct. 29–Nov. 11	3	.....	
Great Britain:				
Glasgow	Dec. 3–9	3	.....	
Greece:				
Saloniki	Nov. 7–13	.....	7	
Java:				
East Java	Sept. 16–22	2	.....	
Mid-Java	Sept. 16–29	11	2	
West Java	Sept. 29–Oct. 12	24	1	
Batavia	.....do	21	1	
Mexico:				
Mexico City	Dec. 3–16	456	.....	
Nuevo Laredo	Dec. 10–16	4	.....	July 1–Dec. 16, 1916: Cases, 28.
Netherlands:				
Rotterdam	Nov. 26–Dec. 2	6	.....	
Russia:				
Archangel	Nov. 25–Dec. 8	10	4	
Petrograd	Oct. 8–Nov. 4	21	1	
Sweden:				
Stockholm	Nov. 28–Dec. 4	1	.....	
Switzerland:				
Zurich	Dec. 3–9	1	.....	