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PROGRAM OF THE EIGHTH PAN AMERICAN SANITARY CONFERENCE, LIMA, OCTOBER 12–20, 1927

The Seventh Pan American Sanitary Conference, held in the City of Habana from the 5th to the 15th of November, 1924, designated the City of Lima as the place for the holding of the Eighth Conference. The Government of Peru has accepted such designation, and in accordance therewith has sent the following invitation to the countries of America in order that they may appoint delegates to this conference, which will be held from October 12 to 20 of the present year:

LIMA, PERU, *September 27, 1926.*

DEPARTMENT OF FOREIGN RELATIONS,

Mr. MINISTER: I have the honor to address Your Excellency, in the name of my Government and in compliance with a resolution of the Seventh Pan American Sanitary Conference, held in Habana, to invite Your Excellency's Government, to the end that it may be represented, by means of Delegates, at the Eighth Pan American Sanitary Conference which is to meet in Lima from October 12 to 20, 1927.

Considering the importance of the Conference referred to, I do not doubt that your esteemed Government will be good enough to participate therein through its respective delegates.

I hope, therefore, that the present invitation will merit favorable consideration by your Government, and, at the same time, I am very glad to advise Your Excellency that the documents concerning the holding of the Conference will be sent to you in due course.

I avail myself of this opportunity, Mr. Minister, to reiterate to you the assurances of my highest and most distinguished consideration.

(Signed) Pedro José Rada y Gamio.

TO HIS EXCELLENCY,
The Minister of Foreign Relations of the Republic of ————

The provisional program of this Eighth Conference, as prepared by the First Pan American Conference of National Directors of Health, held in the City of Washington from September 27 to 29, 1926, and by the Pan American Sanitary Bureau, in cooperation with

the organizing committee appointed by the Government of Peru, is as follows:

Provisional Program of the Eighth Pan American Sanitary Conference, Lima, October 12 to 20, 1927

(1) Consideration of the modification of the Pan American Sanitary Code in accordance with the following suggestions and recommendations:[1]

(*a*) That the interchange of information in so far as it relates to copies of laws and regulations pertaining to health and sanitation be made obligatory instead of facultative as in paragraph (*d*), article 1.

Art. 1, Par. (*d*). *The stimulation of the mutual interchange of information which may be of value in improving the public health and in combating the diseases of man.*

(*b*) That the last clause of article 4 be considered as referring only to such unnamed diseases as may exist in epidemic form.

Art. 4. *Each signatory Government agrees to notify adjacent countries and the Pan American Sanitary Bureau immediately by the most rapid available means of communication, of the appearance in its territory of authentic or officially suspected case or cases of plague, cholera, yellow fever, smallpox, typhus fever, or any other dangerous contagion liable to be spread through the intermediary agency of international commerce.*

(*c*) That the term "adjacent countries" as used in article 4 above be considered to mean all signatory powers.

(*d*) That article 15 of the Code be made immediately effective.

Art. 15. *The Pan American Sanitary Bureau shall prepare and publish standard forms for the reporting of deaths and cases of communicable disease, and all other vital statistics.*

(*e*) That article 26 of the Code be made immediately effective.

Art. 26. *It shall be the duty of the Pan American Sanitary Bureau to publish appropriate information which may be distributed by health officers, for the purpose of instructing owners, agents, and masters of vessels as to the methods which should be put in force by them for the prevention of the international spread of disease.*

(*f*) That smallpox be added to the list of diseases named in article 29 of the Sanitary Code, and that the words "or other pestilential disease in severe epidemic form" be omitted.

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[1] Translator's note: The text of the portion of the code which it is proposed to modify is printed in italics.

Art. 29. *An infected port is one in which any of the following diseases exist, namely, plague, cholera, yellow fever, or other pestilential disease in severe epidemic form.*

(*g*) That the provisions of Chapter IX of the Sanitary Code be made effective.

CHAPTER IX

The Pan American Sanitary Bureau

Functions and Duties

Art. 54. *The organization, functions, and duties of the Pan American Sanitary Bureau shall include those heretofore determined for the International Sanitary Bureau by the various International Sanitary and other Conferences of American Republics and such additional administrative functions and duties as may be hereafter determined by Pan American Sanitary Conferences.*

Art. 55. *The Pan American Sanitary Bureau shall be the central agency coordinating sanitary information to and from said Republics. For this purpose it shall, from time to time, designate representatives to visit and confer with the sanitary authorities of the various signatory Governments on public health matters; and such representatives shall be given all available sanitary information in the countries visited by them in the course of their official visits and conferences.*

Art. 56. *In addition, the Pan American Sanitary Bureau shall perform the following specific functions:*

To supply to the sanitary authorities of the signatory Governments, through its publications or in other appropriate manner, all available information relative to the actual status of the communicable diseases of man, new invasions of such diseases, the sanitary measures undertaken, and the progress effected in the control or eradication of such diseases; new methods for combating disease; morbidity and mortality statistics; public health organization and administration; progress in any of the branches of preventive medicine; and other pertinent information relative to sanitation and public health in any of its phases, including a bibliography of books and periodicals on public hygiene.

In order to discharge more efficiently its functions it may undertake cooperative epidemiological and other studies; may employ at headquarters and elsewhere experts for this purpose; may stimulate and facilitate scientific researches and the practical application of the results therefrom; and may accept gifts, benefactions, and bequests, which shall be accounted for in the manner now provided for the maintenance funds of the Bureau.

Art. 57. *The Pan American Sanitary Bureau shall advise and consult with the sanitary authorities of the various signatory Governments relative to public health problems and the manner of interpreting and applying the provisions of this Code.*

Art. 58. *Officials of the National health services may be designated as representatives ex officio of the Pan American Sanitary Bureau, in addition to their regular duties, and when so designated they may be empowered to act as sanitary representatives of one or more of the signatory Governments when properly designated and accredited to so serve.*

Art. 59. *Upon request of the sanitary authorities of any of the signatory Governments, the Pan American Sanitary Bureau is authorized to take*

the necessary preparatory steps to bring about an exchange of professors, medical and health officers, experts or advisers in public health of any of the sanitary sciences, for the purpose of mutual aid and advancement in the protection of the public health of the signatory Governments.

Art. 60. *For the purpose of discharging the functions and duties imposed upon the Pan American Sanitary Bureau, a fund of not less than $50,000 shall be collected by the Pan American Union, apportioned among the signatory Governments on the same basis as are the expenses of the Pan American Union.*

(*h*) That the form of the consular bill of health which may be issued to vessels be substantially that referred to in article 16 of the Sanitary Code.

Art. 16. *The master of any vessel or aircraft which proceeds to a port of any of the signatory Governments is required to obtain at the port of departure and ports of call a bill of health, in duplicate, issued in accordance with the information set forth in the Appendix and adopted as the standard bill of health.*

NOTE.—Following is the form of the International Standard Form Bill of Health as given in the Appendix of the Pan American Sanitary Code:

International Standard Form Bill of Health

INFORMATION CONCERNING THE VESSEL

I,_____(official title)_____
(the person authorized to issue the bill, at the port of_____)
do hereby state that the vessel hereinafter named clears (or leaves) from the port of_____
under the following circumstances:
Name of vessel_____; nationality_____;
Master_____; tonnage, gross_____;
net_____; name of medical officer_____;
Number of officers_____; of crew, including petty officers_____;
officers' families_____; passengers destined for_____
(Country of destination)
Embarking at this port_____; first cabin_____;
second cabin_____; steerage_____; total number
of passengers on board_____.
Ports visited within preceding four months_____
_____
_____
Location of vessel while in port—wharf_____; open
bay_____; distance from shore_____.
If any passengers or members of crew disembarked on account of sickness, state disease_____
Time vessel was in port (date and hour of arrival)_____
(date and hour of departure)_____
Character of communication with shore_____
Sanitary condition of vessel_____
Sanitary measures, if any, adopted while in port_____
Date of last fumigation for the destruction of rodents_____
Number of rodents obtained_____
Port where fumigated_____and officials supervising the fumigation_____
Method of fumigation used (for rodents)_____
(for mosquitoes)_____

INFORMATION CONCERNING THE PORT

Sanitary conditions of port and vicinity_____
Prevailing diseases at port and vicinity_____

*Number of cases of and deaths from the following-named diseases during the two weeks ending*_____

Diseases	Number of cases [1]	Number of deaths [1]	Remarks (Any conditions affecting the public health existing in the port or vicinity to be here stated)
Yellow fever			
Asiatic cholera			
Cholera nostras or cholerine			
Smallpox			
Typhus fever			
Plague			
Leprosy			

[1] When there are no cases or deaths, entry to that effect must be made.

Health Office of the port of_____(when practicable this certificate should be signed by the health officer of the port).
Date of last case of:
Cholera_____
Yellow fever_____
Human plague_____
Typhus_____
Rodent plague_____
Measures, if any, imposed by the municipality against rats during the last six months_____

_____
(Signature of port health officer)

I certify that the vessel has complied with the rules and regulations made under the terms of the Pan American Sanitary Code, and with the laws and regulations of the country of destination.
The vessel leaves this port bound for_____, via_____
Given under my hand and seal this_____day
of_____, 192____

_____
(Signature of consular officer)

_____

[SEAL.]
Countersigned by

_____
Medical Officer.

(*i*) That the Pan American Sanitary Bureau endeavor to induce those countries which have colonies or other territories in America to adhere to the provisions of the Pan American Sanitary Code.

(*j*) That in order to add to, modify, or derogate any of the provisions of the Pan American Sanitary Code it shall be necessary that one or more of the signatory powers shall have requested modification at least six months prior to the time such change is proposed for adoption, and to become effective the change must be approved by at least two-thirds of the delegates to the Sanitary Convention which meets first after notification of the desired change.

(*k*) That there be included in the Pan American Sanitary Code a provision asking all powers signatory or adherent to create in their principal ports a Commission on Infectious Diseases, which body shall be charged with the responsibility of making an official diagnosis in "suspicious" cases of quarantinable disease.

(2) Further recommendations and topics, etc., for consideration by the Eighth Pan American Sanitary Conference are as follows:

(*a*) That there be included (in the Sanitary Code) an article asking all signatory powers, for purposes of exportation, to regard as narcotics, or as heroic drugs, those preparations that are so considered by the country to which they are exported.

(*b*) The control of drug addiction.

(*c*) International regulation of commerce in drugs.

(*d*) Detention and treatment of drug addicts.

(*e*) The centralization of all (Federal) health activities in a ministry of health.

(*f*) The contribution of municipalities of funds for State health activities (exercised jointly in such cities).

(*g*) The study of bubonic plague from its nosological, epidemiological, and medico-social aspects, recommending to each government the creation of technical commissions, charged with the duty of investigating and reporting upon the different problems offered by this disease.

(*h*) Intensification in all countries of the campaign in favor of infant welfare in the triple concept of hygiene, of eugenics, and of homiculture, and a study of infant morbidity and mortality.

(*i*) Study of intestinal parasitology on the American continent.

(*j*) Municipal and other water supplies, their clarification and purification.

(*k*) Control and quarantine of diseases of plants.

(*l*) Detection, control, and treatment of human carriers of contagious disease.

(*m*) Cooperative control of venereal disease.

(*n*) Prophylaxis and treatment of leprosy and tuberculosis.

(*o*) Sex hygiene and related educational measures.

(*p*) Industrial hygiene.

(*q*) Vital statistics (morbidity and mortality).

(*r*) Fly eradication.

(*s*) Prophylaxis of trachoma.

(*t*) Study of "alastrim."

(*u*) Sanitary regulation of immigration.

(*v*) Study and control of malaria. Work of special committees in each country.

(*w*) Study of the geographical distribution of disease (America).

(*x*) The supplying of quinine in the different countries as related to the reduction and control of malaria (recommendation of the Seventh Conference).

(*y*) How may Governments impose the rat-proofing of vessels? (Suggested by the Pan American Sanitary Bureau.)

(*z*) How may the international agreements providing for the mutual reporting of contagious diseases best be made effective? (Proposed by the Pan American Sanitary Bureau.)

(*aa*) What is to be the future development of the Pan American Sanitary Bureau? (A paper is to be submitted entitled "Organization, Development, Functions, and Present Status of The Pan American Sanitary Bureau. Its Future.")

(*bb*) Progress reports on sanitation. (To be submitted by each country represented.)

(*cc*) Hospital facilities and administration in relation to health and sanitation (in America).

(NOTE.—It will be understood that this program may, by resolution, be amplified at the time of the meeting of the Conference.)

Organizing Committee

Dr. CARLOS ENRIQUE PAZ SOLDÁN, Provisional President of the Eighth Pan American Sanitary Conference; Vocal of the Pan American Sanitary Bureau, Washington, D. C.; and Professor of Hygiene of the Medical Faculty of Lima.

Dr. SEBASTIÁN LORENTE, Director of Public Health of Peru; President of the Council of Infant Welfare; and President of the Commission named by the First Pan American Conference of National Directors of Health, at Washington, to arrange the Program of the Eighth Conference.

Dr. BALTASAR CARAVEDO, Chief of the Hygiene and Industrial Welfare Service; member of the Board of Guardians for Minors; and Chief Physician of the Victor Larco Herrera Asylum.

All correspondence should be addressed (in Spanish) to:

Señor Presidente de la Comisión Organizadora de la VIII Conferencia Sanitaria Panamericana, Lima, Peru, Apartado No. 987.

COURT DECISIONS ON PASTEURIZATION[1]

By JAMES A. TOBEY, LL. B., Dr. P. H., *Scientific Consultant, The Borden Co., New York*

Courts of last resort in this country, including the United States Supreme Court and the State courts of appeals, have frequently had occasion to pass on the various legal aspects of the sanitary control of milk. In nearly every instance the courts have sustained the proper regulation of milk supplies, recognizing that reasonable control of such products is essential to the protection of the public health.[2]

These numerous court decisions now form a part of our public health jurisprudence; for law is court made, as well as the result of legislative action. Under our tripartite system of government, the legislature ascertains the need for statutes and passes those which it considers wise or expedient. These statutes and such necessary regulations as are authorized by them are enforced by the executive branch of government. When a cause of action is presented, whether based on the operation of statutes or not, the judicial branch applies the proper legal principles in the interests of justice, and this procedure often involves an interpretation of the written law and a determination of its constitutionality. In order to know what the law is, therefore, an examination of the decisions of courts must be made, in addition to a perusal of the statutes.

There are probably about 150 court decisions on the various phases of milk control. In 1924 the author collected 121 such decisions, and this list was published by the United States Public Health Service in Public Health Reports for July 18, 1924.[3] Of this number of decisions only six have been found dealing directly with the subject of Pasteurization. In all but one of these cases ordinances or regulations requiring Pasteurization under certain conditions have been sustained. A review of these decisions, with appropriate comments, will be of value in revealing the legal precedents on this subject, which is now so important to sanitarians.

The first decision on Pasteurization came in 1914, when the Supreme Court of Illinois upheld as valid an ordinance of the city of Chicago, which required continuous Pasteurizing machines to be equipped with apparatus so that records would be kept in a locked chamber under the control of the commissioner of health.[4] The power of the city to require Pasteurization was not questioned, but the stipu-

[1] Read before the Conference of State and Provincial Health Authorities of North America, Washington, D. C., May 14, 1927.

[2] For general discussion of legal aspects of milk control, see Public Health Law (1926). Williams and Wilkins, Baltimore.

[3] Issued in separate form as Reprint No. 939.

[4] Koy *v.* Chicago, 263 Ill. 122, 104 N. E. 1104, Ann. Cas. 1915, C. 67.

lation of a certain type of apparatus was challenged as unreasonable. On this point the court said:

> The city having power to require milk to be pasteurized is not limited to the imposition of a penalty for a violation of this requirement, but may prescribe the conditions under which the pasteurization shall be done in order to prevent an evasion of the ordinance and insure that the product shall be such as the ordinance requires.

This is an important principle and one which means that the city, in the interests of the public health, may impose restrictions and duties which are inconvenient and expensive to private business, but which, nevertheless, will not be considered oppressive or unreasonable, because they are for the common good.

Another municipal ordinance requiring Pasteurization was sustained in 1920, when the second case[5] on this subject was decided by the Supreme Court of Wisconsin. In one respect this case is even stronger than the first, for the court actually took judicial notice of the facts that milk is easily infected with germs, is unsuitable for human consumption when so infected, and that Pasteurization for 30 minutes at 145° F. destroys all germs of disease.

"In the light of these known facts and practices regarding the Pasteurization treatment of milk to destroy pathogenic germs," said the court in its opinion, "and the systems of inspection and certification to make it a healthful food and preserve it in that state in the process of distribution among the people of the city, it can not be said that the common council of the city have provided unreasonable and oppressive regulations for the promotion of the public health of the people, nor that the powers conferred on the health officer for the enforcement of the ordinance are unreasonable or prejudicial to the private rights and property interests of the plaintiffs and others similarly situated."

In this case, an ordinance of the city of Milwaukee required that all milk sold therein, except certified milk and inspected (tuberculin tested) milk, be Pasteurized by either the holding or flash system, the conditions for each being set forth. A group of milk dealers obtained a temporary injunction against the enforcement of the ordinance, but this was dissolved by the lower court, whose action was upheld on appeal.

Shortly after this Wisconsin decision, the regulations of local boards of health, adopted in conformity to State law, were sustained in two New York cases.[6] In one instance a health regulation of the city of Poughkeepsie in effect prohibited the sale therein of any milk, except that designated grade A raw and certified milk, unless Pas-

[5] Pfeffer *v.* City of Milwaukee, 171 Wis. 514, 177 N. W. 850, 10 A. L. R. 128.

[6] People ex rel Ogden *v.* McGowan, 118 Misc. Rep. 828, 195 N. Y. S. 286 (affirmed without opinion, 200 App. Div. 836, 191 N. Y. S. 946); Moll *v.* Lockport, 194 N. Y. S. 250.

teurized; while, in the other case, a health regulation of the city of Lockport went even farther and debarred all milk except "certified[,] grade A raw and grade A Pasteurized." In both cases the supreme court, which in New York is a court of general jurisdiction, held valid these regulations which were "among the many deemed necessary to provide for the people of the city a clean, pure, and wholesome supply of milk and cream, free from disease and germs."

"It is important to the whole community," said the court,[7] "that the supply of milk and cream should not be contaminated with impurities or infected with disease, and that those selling milk should use all the precautions that a scientific investigation of the proper methods of treating milk to secure the result has found to be useful and efficient. It is the duty of the health authorities to see that this is accomplished by the establishment of such reasonable regulations as may be necessary to meet existing conditions and ward off impending dangers to the public health. * * * The requirement that the lower grades of milk shall be Pasteurized is for the protection of public health, and every reasonable effort in this direction should be encouraged."

The fifth and last decision upholding Pasteurization is a brief North Carolina one, handed down in 1924.[8] The town of Tarboro in that State passed an ordinance to the effect that, after a certain date, it would be unlawful for any milk or cream to be sold for human consumption in Tarboro unless Pasteurized. The ordinance also required all milk sellers to secure a permit from the county health officer. Both of these provisions were pronounced valid by the supreme court, which relied on the previous decisions of Koy *v.* Chicago and Pfeffer *v.* Milwaukee, which are described above.

So far so good. Now we come to the latest and most destructive of the decisions, and one which is directly contrary to all of the others. This is a Missouri case, decided in 1926,[9] in which the court reached the conclusion, from the evidence offered, that raw milk, as a general thing, was a better food than Pasteurized milk, and that it was unreasonable to require milk in St. Louis to be Pasteurized. The cause of safe milk in that State is definitely retarded by this decision, because, of course, from a scientific standpoint, raw milk is not a better food than Pasteurized milk.

Legally there is justification for this particular decision. In the first place, the ordinance in question was defectively worded, and, in the second place, a reading of the opinion indicates that the arguments in favor of Pasteurization might have been much more effectively presented. A study of this decision ought to be of value in

[7] People ex rel Ogden *v.* McGowan, supra.
[8] State *v.* Edwards, 187 N. C. 259, 121 S. E. 444.
[9] State ex rel Knese *v.* Kinsey, 282 S. W 437.

helping to prevent similar results in other jurisdictions. If the case had been adequately presented, the court would perhaps have reached a different conclusion, for the opinion itself states that "It might be shown that under conditions existing in St. Louis raw milk can not be safely used; that to allow dairymen to sell it and deal in it is likely to be injurious to the health of the inhabitants of the city, and therefore the regulation requiring milk to be Pasteurized is a reasonable regulation. Without conceding the soundness of that proposition, in order to have any substantial basis it must be supported by facts."

Under authorization of State law St. Louis had passed an ordinance that purported to require all milk not certified to be Pasteurized. The printed ordinance as presented to the court was a jumble of words, with a sentence or more omitted, and the court properly said that it was difficult to attach any meaning to it. Several milk dealers refused to Pasteurize their milk, and, when permits to sell were refused them by the board of public service, brought an action of mandamus to compel the board to issue permits. The case was heard by a commissioner appointed by the court, who took a great volume of evidence.

The opinion states that the city introduced evidence to show that the dairies of these milk dealers were insanitary, that dust sifted down from lofts, and that chickens and geese wandered about, though how these contaminated the milk was not brought out. "There was more evidence of like character and inconclusiveness," said the court. The milk dealers not only denied these facts and presented evidence to show that their milk was pure, but brought in physicians, chemists, and bacteriologists, as experts, and the users of milk to support their contention. Their testimony was so compelling that the court decided that "From the great weight of the evidence it is plain that raw milk as a *general thing* is more nutritious, easier assimilated, and better food, especially for children, than Pasteurized milk, though it is probable that some individuals may thrive better on Pasteurized and boiled milk than on raw milk."

"There is nothing in the record," said the court further, "to show that it is impractical for the city to cause sufficient inspection and standardization of dairies so as to reasonably insure the production and distribution of wholesome raw milk free from dangerous bacteria, without the expense attending the production of certified milk." As a consequence of this view, the peremptory writ of mandamus was issued and the sale of raw milk was legally permitted in St. Louis. Education of the public to demand Pasteurized milk is about the only remedy left; though when the inevitable milk-borne epidemic occurs, and experience has often demonstrated that it will eventually

occur among the users of a raw-milk supply, Pasteurization will no doubt be adopted in St. Louis.

The great weight of legal authority is, as shown by the court decisions outlined, to the effect that the requirement that milk shall be Pasteurized in accordance with standards set by health authorities is reasonable and well calculated to protect the public health. This is the general rule of law, a rule which, apparently, does not apply in Missouri at present. Milk is the most important of the foods of man, and it is entirely proper that every possible sanitary safeguard should be employed in the endeavor to secure a pure supply. In putting into effect provisions for the safety of milk, the fact that those who produce or distribute milk are inconvenienced thereby does not render the regulations invalid, for the welfare of the whole is of more importance than the convenience of a few.

A SURVEY OF VENEREAL DISEASE PREVALENCE IN DETROIT [1]

FROM THE AMERICAN HYGIENE ASSOCIATION, IN COOPERATION WITH THE BOARD OF HEALTH OF DETROIT AND THE PUBLIC HEALTH COMMITTEE OF THE WAYNE COUNTY (MICH.) MEDICAL SOCIETY

A real lack of dependable information regarding the prevalence of venereal diseases has been felt by those carrying on work in this field. There is none for any general population group or locality in the United States. Such facts are necessary for intelligent understanding of many of the problems. For this purpose, cities of the United States typical of various conditions were selected for study. Detroit was chosen for the reason that it is a large city where industrial conditions have produced prosperity. There has been relatively little unemployment in Detroit; wages have been high; the municipal policy toward prostitution has tended toward regulation; and certain conditions have prevailed which are generally believed to have venereal diseases as an accompaniment.

The names of all the physicians were assembled, and 2,200 physicians and a group of 125 public and private hospitals and institutions and persons engaged in social work were visited. Osteopaths were included in this investigation. Of 2,180 physicians visited, 1,747 were found practicing medicine. A simple questionnaire was sent to these physicians and institutions, asking the number of cases of syphilis and gonorrhea actively under treatment or observation on May 15, 1926. Two groups each for male and female patients were made—those under 16 years of age and 16 years and over. A distinction was also made between acute and chronic cases. Cases of

[1] Abstract of an article by Walter M. Brunet, M. D., and Mary S. Edwards, statistician, appearing in Venereal Disease Information for June 20, 1927, issued by the division of venereal diseases, U. S. Public Health Service.

syphilis were defined as acute in which the infection had been contracted a year prior to the inquiry. The cases of gonorrhea were termed acute when six months and less had elapsed since infection.

The physicians were asked to give their opinion as to whether there had been an increase or a decrease in the prevalence of syphilis of late years.

There was some hesitancy on the part of some members of the profession to sign their name to the questionnaire; however, only eight, that is, less than one-half of 1 per cent, refused to give information. They were not specialists. The remainder cooperated, being assured that their information would be kept confidential. Of the 1,739 physicians who answered, 49 per cent reported one or more cases of venereal disease under their observation on the specified day. Thirty-five per cent of the hospitals and clinics of Detroit reported cases of venereal diseases among their patients.

A total of 16,735 cases, 13.47 per 1,000 of the city's population, were registered in this inquiry. Of this total, 8,665 (51.7 per cent) were syphilitic, a rate of 6.98 cases per 1,000 population, and 8,070 (48.3 per cent) gonorrheal, or 6.50 per 1,000 population.

About 95 per cent of the infections occurred among persons 16 years or over. During the years 1924 and 1925, 261 and 304, respectively, private physicians reported venereal diseases to the board of health. The totals of cases reported were 1,854 and 2,012, respectively, making an average number of cases of 7.1 and 6.6 per physician reporting. During the year ended May 31, 1926, 533 reports for syphilis were received from 145 physicians; during the six months ended May 31, 1926, 102 physicians reported 341 gonococcal infections. The total number reporting either or both diseases was 197.

Prevalence rate, per 1,000 population, of syphilis and of gonorrhea for males and females of two age groups—Cases reported as under observation on May 15, 1926, in Detroit, Mich.

	Male			Female		
	Total	Acute	Chronic	Total	Acute	Chronic
Total syphilis and gonorrhea:						
All ages	17.86	7.87	10.00	8.52	2.92	5.61
Under 16 years	1.64	.87	.77	2.33	1.06	1.27
16 years and over	24.29	10.64	13.66	11.37	3.77	7.60
Syphilis:						
All ages	8.29	3.14	5.15	5.50	1.69	3.81
Under 16 years	1.30	.68	.62	1.44	.70	.74
16 years and over	11.05	4.11	6.94	7.37	2.15	5.22
Gonorrhea:						
All ages	9.58	4.73	4.85	3.02	1.23	1.80
Under 16 years	.34	.19	.16	.89	.36	.53
16 years and over	13.24	6.52	6.71	4.01	1.63	2.38

Doctor Brunet states that it is not possible to arrive at a definite conclusion regarding the proportion of cases seen by private physicians and those which they actually report to local boards of health.

According to the answers to the questionnaire, 50 per cent were treating such cases. In Detroit, where the clinics are considered exceptionally well organized, the physicians still share largely in the treatment of venereal disease. This is shown by the fact that of 1,739 physicians of Detroit who cooperated, 49 per cent reported one or more cases.

Regarding the trend of venereal-disease incidence, 387 physicians, 313 of whom were treating these diseases and 74 of whom were not, voiced their opinion. Fifty-three per cent of those treating cases reported a general increase in the incidence of syphilis and gonorrhea, 19 per cent a general decrease, 23 per cent believed it stationary, while 5 per cent of the answers could not be classified under the restricted groups of the inquiry. The physicians who registered increase had been treating an average of 19 cases; those reporting decrease, an average of 10 cases; those considering the number stationary treated an average of 12. Into this personal impression enter features of error, such as not appreciating that an increase in reputation may have helped them, or an increase of reputation of some man new in the neighborhood may have decreased the clientele. The authors do not think that the impression gained by more than 50 per cent of the profession is reliable for the above reasons. Of 74 physicians who had no cases under treatment, 39 reported a decrease, 15 an increase, and 18 no change. One physician reported a decrease in old cases, the number of new cases remaining the same.

The board of health, which examined almost 20,000 individuals in 1925, believes that venereal infections are decreasing. The reason for their conviction is that the percentage of positive diagnoses in the total number of individuals examined is decreasing. Among the reasons for the opinions given by those physicians who believed that an increase was occurring are lower morals in the younger generation, migration to the cities, with lower morals, neglect and ignorance of prophylaxis, and failure to control prostitution. Some physicians stated that a larger number of cases are detected than formerly, making an apparent rather than an actual increase. A large number of those finding a decrease attribute it to education of the people regarding dangers from venereal disease, the advocating of treatment, and the knowledge of prophylaxis. One physician, on the basis of 3,000,000 case records of employees and test results, sees a decline. He is not willing to pronounce on gonorrhea incidence in the same sense.

THE ACCURACY OF MORTALITY RECORDS

Much has been done in the past 35 years to establish order and system in the classification of diseases and causes of death. In 1893 no two countries in the world were using exactly the same forms and

methods for statistical classification of causes of death; whereas at the present time most of the civilized countries of the world have adopted the International List for their mortality records. In spite of the general use of this list, however, there still exist serious limitations to the accuracy of death statistics, which become especially apparent to the mathematician through failure of the purported causes of death to conform to the tendencies of errors in scientific observation. These limitations are due largely to difficulties of diagnosis—combinations of causes of death, changes in current diagnostic practice, a temporary focus of attention on some particular disease, etc.—and to a failure on the part of vital-statistics officers of health departments to strive for a higher degree of accuracy by investigating cases in which the causes given on the death certificate should arouse suspicion. An interesting discussion of these difficulties and of the manner in which some of them are obviated in Boston is contained in an article published in the Monthly Bulletin of the Health Department of Boston, Mass., for May, 1927.

It is practically impossible for a death to occur in Boston without being recorded at the health department. With few exceptions, deaths come to the knowledge of the division of vital statistics through application for a burial permit, which is issued only upon the presentation of a death certificate satisfactory to the department of health. If the certificate is unsatisfactory, the case is referred to the medical staff for investigation.

Broncho-pneumonia is not always regarded as a satisfactory sole cause of death. It may be allowed to pass unchallenged in a young child, but in an adult an effort is made to disclose a contributory cause. Even lobar pneumonia is often suspected because of a tendency to use it when other cause is not apparent.

In myocarditis the data on the death certificate relating to age, contributory causes, their duration, etc., must be consistent with the condition justifiably referred to as "myocarditis."

Undertakers no longer obtain burial permits in Boston on a certificate of death from "acute indigestion."

A critical attitude toward causes of deaths of infants has indicated to the Boston health officials that in infant deaths attributed to gastroenteritis, and other acute infection as well, there is often something biologically wrong with the infant, and vital statistics are failing to show the extent to which infant mortality is a problem of eugenics rather than of feeding.

Investigation of maternal deaths has shown that differences of opinion of qualified investigators have been frequent enough to be a matter of serious statistical importance. It has been made evident that there is an underlying cause not yet understood, contributing to vulnerability to infection. An almost constant annual ratio of

7 deaths per 1,000 births obtains in Boston, mostly from puerperal septicemia; and it seems mathematically improbable that those who escaped puerperal septicemia avoided the exposure which proved fatal to the other seven.

Many cases in which death was certified as being due to encephalitis lethargica (a few years ago) and to pulmonary embolism (immediately following the death of ex-President Roosevelt) were found, on investigation, to have been erroneously diagnosed, the diagnoses having been influenced by the temporary focus of medical attention on these conditions.

Death certificates for certain acute conditions, such as anthrax, tetanus, or diphtheria, for example, are reasonably accurate, whereas for other acute diseases—whooping cough, for example—are found untrustworthy. On the other hand, a large proportion of deaths of human beings are not the result of acute illness; but death, even in comparatively young persons, marks the termination of a considerable period of symptoms of improper biological functioning.

The article concludes by noting that, in spite of inaccuracies, conventional vital-statistics data can be used in many ways to furnish reliable conclusions, and cautions biometricians regarding an intelligent use of such data, based on a thorough understanding of the method of compilation and a knowledge of the purpose which they may be intended to serve.

COURT DECISIONS RELATING TO PUBLIC HEALTH

Injunction to restrain enforcement of ordinance for prevention of pollution of source of city's water supply, located in United States forest reservation, denied.—(Washington Supreme Court; Brown *v.* City of Cle Elum, 255 P. 961; decided April 28, 1927.) The city of Cle Elum, under contract with the United States, took its water supply from a lake outside the city and within the limits of a United States forest reservation. The city, pursuant to statutory authority, passed an ordinance designed to prevent the pollution of the source of its water supply. This ordinance, among other things, prohibited swimming, fishing, and boating in the said lake. The United States had rented cottage sites along part of the lake, and the plaintiff in this case was a tenant of the United States. He sought to restrain the defendant city from enforcing or attempting to enforce the ordinance, particularly in so far as it prohibited or attempted to prohibit swimming, fishing, or boating in the lake. The validity of the ordinance was attacked on two grounds: (1) That its enactment was an attempted exercise of the police power of the city over lands and waters owned by the United States, and (2) that it was unreasonable.

Regarding the first contention, the supreme court said:

The ordinance being enacted in pursuance of the police power expressly granted to the city by the terms of the statutes above quoted, we must start with the presumption that its enactment is a valid exercise of that power. * * * The argument seems to be that, because the lands in question are the property of the United States and in its forest reservation, and because of its water appropriation, the city can not lawfully exercise over them the police power it has assumed to do. We can not agree with this view of the law. The forest reservations are not like military reservations over which the United States usually reserves governmental jurisdiction. Our forest reservations are generally but withdrawals by the Unites States, for purposes of conservation, of certain designated public lands from sale or disposition into private ownership, certain acts of Congress making regulations with reference to their use; the United States exercising dominion over such lands as owner almost wholly in its proprietary, rather than in its governmental, capacity.

The court then quoted certain sections of the United States laws concerning jurisdiction over persons within national forests and concerning the use of waters therein, and proceeded to state:

We think this language plainly evidences a legislative intent on the part of Congress to leave to the States full freedom in the exercise of their ordinary police power over the territory of forest reservations, as well as elsewhere within the territorial limits of the respective States; in any event, in so far as the exercise of the police power has to do with the restraining of acts of private citizens, looking to the preservation of public health, as well as the preservation of peace and good order in other respects. We are of the opinion, therefore, that the plaintiff, being a private citizen seeking only the exercise and protection of what he conceives to be his private property rights, is in no position to challenge the police power of the State here granted to the city, upon the ground that the city has no jurisdiction to exercise that power over these lands and waters merely because title thereto is in the United States.

Concerning the second contention, the court stated as follows:

It is further contended that the ordinance is void because of its unreasonableness. We do not see our way clear to so decide in this case, in view of the circumstances here appearing. We are in this case only called upon to determine the reasonableness or unreasonableness of the ordinance in its particular prohibitions of respondent's swimming, fishing, and boating in and upon the lake. In view of the comparatively inferior nature of the property right in respondent, if he have any property right, to do any of the particular prohibited acts in question, the only ones which he claims that he is unlawfully deprived of the right to do, we think he is not entitled to injunctive relief looking to the preventing of the city's attempting to enforce its ordinance by the usual criminal proceedings.

City sewage-disposal plant held to be a nuisance and injunctive relief granted.—(Texas Court of Civil Appeals; City of Marlin *v.* Criswell et al., 293 S. W. 910; decided March 24, 1927.) A suit was brought by resident property owners in the town of Marlin against the city of Marlin to restrain the operation of the city's sewage-disposal plant and the enlargement of said plant, and also to require the city to move its plant to some other locality. The property owners alleged that

the use of the plant caused offensive odors and gases to emanate therefrom, which were detrimental to health and which rendered it practically impossible for the said owners to occupy their residences with any comfort. It was also alleged that the city had voted bonds to rebuild its sewage-disposal plant, and that the said plant could not be built on the ground where the existing plant was located in such a way as to remove the objections lodged against the existing plant. The cause was submitted on special issues, and by the judgment of the trial court the city was permanently restrained from maintaining its existing sewage-disposal plant and enjoined from enlarging said plant at the place where it was then located, and was also required within six months to remove its existing plant to some other place. The trial court's judgment was affirmed by the court of civil appeals, which said:

* * * The evidence shows beyond controversy that the present system is exceedingly offensive to all of the appellees, as well as a large number of other citizens of Marlin. * * * We think the evidence is sufficient to support the jury's finding that the proposed plant which the city is preparing to erect will cause the same offensive odors and that the same objections may be urged against it. * * *

* * * It seems to be the settled law of this State that a city may, the same as a private individual, be restrained from maintaining a nuisance. * * *

DEATH RATES IN A GROUP OF INSURED PERSONS

Rates for Principal Causes of Death for April, 1927

The accompanying table is taken from the Statistical Bulletin for May, 1927, published by the Metropolitan Life Insurance Co., and presents the mortality experience of the industrial insurance department of the company for April, 1927, as compared with that for March and for April, 1926. The rates for this year are based on a strength of approximately 18,000,000 insured persons of the industrial populations of the United States and Canada.

The death rate for April among these insured persons was 9.5 per 1,000—the lowest rate for that month on the records of the company. For the fourth successive month this year the death rate for this group registered a decline from that for the corresponding month of 1926. The decline in April, however, was more pronounced than for any of the three preceding months, and amounted to 21.6 per cent. There was also the usual seasonal decline from the mortality for March.

Every important cause of death, except typhoid fever, diphtheria, accidents (including automobile fatalities), and suicides, recorded a lower rate in April than in the same month of 1926. The most conspicuous declines were those for measles, whooping cough, in-

fluenza, heart disease, pneumonia, and chronic nephritis. The continued low rate for tuberculosis is gratifying and gives ground for the renewed hope that a new minimum death rate for this disease will be registered this year. Puerperal conditions have shown declines in the first four months of 1927.

The high death rate for typhoid fever—the highest April mortality ever recorded for this group—was not the result of a general prevalence of the disease, but was brought about by the outbreak in Montreal, Canada, 80 of the 99 actual deaths for the month having occurred in Canada.

The diphtheria situation, while still less favorable than during the early months of last year, is improving.

The automobile fatality rate (15.7) compares very unfavorably with that for April last year (13.7), showing an increase of nearly 15 per cent.

Death rates (annual basis) for principal causes per 100,000 lives exposed, April and March, 1927, and April and year, 1926

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death	Rate per 100,000 lives exposed [1]			
	Apr., 1927	Mar., 1927	Apr., 1926	Year 1926 [2]
Total, all causes	954.1	1028.5	1216.8	942.7
Typhoid fever	6.7	3.0	2.5	4.2
Measles	7.5	7.9	21.6	10.2
Scarlet fever	3.8	4.9	5.1	3.4
Whooping cough	7.6	8.3	15.6	9.6
Diphtheria	9.7	11.3	9.1	9.7
Influenza	27.1	32.3	92.6	31.0
Tuberculosis (all forms)	107.2	114.1	116.5	98.7
Tuberculosis of respiratory system	95.0	100.3	100.9	86.5
Cancer	77.0	77.2	78.2	73.5
Diabetes mellitus	17.5	19.2	20.4	16.7
Cerebral hemorrhage	56.6	58.9	62.1	55.5
Organic diseases of heart	137.3	149.4	174.3	133.9
Pneumonia (all forms)	110.7	119.9	193.7	97.9
Other respiratory diseases	16.6	19.9	19.9	13.1
Diarrhea and enteritis	15.2	16.3	18.0	29.8
Bright's disease (chronic nephritis)	66.1	79.6	83.8	73.2
Puerperal state	14.7	17.2	18.2	15.3
Suicides	8.9	9.9	7.7	7.6
Homicides	6.0	8.1	7.7	7.0
Other external causes (excluding suicides and homicides)	54.8	55.9	53.8	62.2
Traumatism by automobiles	15.7	12.3	13.7	16.7
All other causes	203.2	215.0	215.7	190.4

[1] All figures include infants insured under 1 year of age.
[2] Based on provisional estimate of lives exposed to risk in 1926.

PATIENTS IN INSTITUTIONS FOR THE FEEBLE-MINDED

Data for December, 1926

Reports for the month of December, 1926, were received from 32 institutions for the care of the feeble-minded.

The following tables give a summary and analysis of the reports:

Movement of patient population of 32 institutions for the feeble-minded, December, 1926

	Male	Female	Total
Number of institutions included:			
Public			31
Private			1
Total			32
Patients on books Dec. 1, 1926:			
In institutions	15,105	14,708	29,813
On temporary leave	2,123	1,645	3,768
Total	17,228	16,353	33,581
Admitted during December:			
First admissions	158	128	286
Readmissions	10	14	24
Not accounted for	3	1	4
Total received during December	171	143	314
Total on books during month	17,399	16,496	33,895
Discharged or placed on indefinite parole during December	39	36	75
Died during month of December	46	41	87
Not accounted for	3	0	3
Total discharged, died, and not accounted for	88	77	165
Patients on books Dec. 31, 1926:			
In institutions	14,824	14,569	29,393
On temporary leave	2,487	1,850	4,337
Total	17,311	16,419	33,730

Analysis of movement of patient population of 32 institutions for the feeble-minded, December, 1926

	Male	Female	Total
Per cent change in number of patients during December:			
Total (increase)	0.48	0.40	0.44
In institutions (decrease)	1.86	.95	1.41
On temporary leave (increase)	17.15	12.46	15.19
Per cent of total patients absent on temporary leave:			
Dec. 1	12.32	10.06	11.22
Dec. 31	14.37	11.27	12.86
Per cent of total admissions (excluding cases not accounted for) which were:			
First admissions	94.05	90.14	92.26
Readmissions	5.95	9.86	7.74
Per cent of total patients discharged during December (based on average number for month)	.23	.22	.22
Male patients per 1,000 females, Dec. 31			1,054
Deaths per 1,000 under treatment (annual basis)	31.13	29.26	30.22

PUBLIC HEALTH ENGINEERING ABSTRACTS

Studies of the Malaria Problem of Porto Rico. Anon. *Porto Rico Health Review*, Vol. II, No. 7, January, 1927, pp. 30–32. (Abstract by H. A. Johnson.)

This is a part of a report of malaria studies (Paper VIII) carried on in the island during the years 1924 and 1925 by the International Health Board.

The breeding of *A. grabhamii* seemed to go through a well-defined cycle of prolific and light intensity during the year. Prolific breeding occurred from December to April, with a peak coming at the end of January. During the remainder of the year *A. grabhamii* breeding was very light and somewhat restricted to certain areas. This was the reverse of the breeding cycle of *A. albimanus*, the generally accepted vector of malaria in the island.

A. grabhamii seemed to be somewhat more restricted in its choice of breeding areas than did *A. albimanus*. Shaded ditches and ditches densely overgrown with aquatic vegetation, especially grasses, were the conditions of choice, although there was hardly a single natural water deposit that did not yield *A. grabhamii* at some time during the year. The author lays considerable stress on the suitability of cool shade for the prolific production of the species. Algæ seemed to be of no importance, as breeding occurred irrespective of the amount present. Salinity of the water is mentioned as having possibly a slight deterrent effect, although the larvæ of this species was found associated with *A. albimanus* in water with a salt content of 2.5 per cent. The effect of H ion concentration requires more study before a conclusion can be drawn.

In view of the character of the breeding places attractive to *A. grabhamii*, minnows or other fish appear to be of little use in controlling breeding of this species.

Construction and Use of the Fly Trap Stand. Maj. H. B. McMurdo, Medical Corps, U. S. Army. *Military Surgeon*, Vol. 60, No. 4, April, 1927, pp. 423–424. (Abstract by J. L. Robertson.)

This fly-trap stand is constructed of three 1-inch boards nailed together at right angles forming two sides and a flooring. The floor board is 4 inches from ground, with 2 by 4 inch block nailed to free angle to supply third leg. The advantages of the stand are noted: (1) Sharp angle pointed to windward provides sheltered and comfortable landing place; (2) bait protected from sand and dirt, remains in better condition; (3) trap protected from breakage; (4) trap becomes an entity inviting attention; (5) trap movable, still retaining stand advantages; (6) lower portion of trap slightly shaded, leaving upper portion lighter by contrast; (7) stand appears to increase in value after few days use, probably because the boards absorb to some degree odors from bait.

Tests have shown traps with stands more efficient than traps without stands.

Effects on Mosquito Larvæ of a Queensland Nitelia. E. W. I. Buhot, an inspector of Queensland Department of Public Health. Proceedings of the Royal Society of Queensland, Vol. 38, No. 6, September, 1926. From *Health*, Commonwealth of Australia, Vol. 5, No. 1, January, 1927, pp. 24–25.

"Mr. Buhot notes the previous work of Cabellero, of Spain (1919), Blow of Madagascar (1924), and the negative findings of McGregor (1924) in connection with the effects of various species of Characeae on mosquito larvæ. The results are given of experiments carried out at Brisbane with a fresh-water plant obtained locally from various creeks, and provisionally named *Nitella phauloteles* by Groves. This plant grows prolifically beneath the surface in either running or stagnant water, reproduces freely, and is easily transplanted. Grown in an aquarium, it caused a green surface scum and a thin oil-like film on the water. In the aquarium in which this *Nitella* was growing, larvæ of *Culex quinquefasciatus* (*C. fatigans*) were killed. When mosquitoes were kept in cages over this aquarium no eggs were laid on the water by *Aëdes argenteus* (*Stegomyia fasciatus*), *Culex quinquefasciatus*, or *Anopheles nyssorhynchus*. Female mosquitoes were continually found dead on the surface of the water. In control aquaria, without *Nitella* but with other water plants, over which these mosquitoes were similarly caged, eggs were freely laid on the water.

"Whatever properties are imparted to the water by this *Nitella*, the water is not poisonous to animals or man. Rats given only this water to drink were not affected, and, after being killed, showed healthy internal organs on examination. Fish and water slugs thrived in the water. Two glasses of water were drunk daily by Mr. Buhot from the aquarium over a period of two months. Mr. Buhot's conclusions are that the introduction of this plant should prove of great

utility in eliminating mosquito breeding from ornamental ponds and from swamps and lagoons."

Philadelphia's Yellow Fever Epidemic—an Historical Sketch. W. L. Stevenson, Chief Engineer, Pennsylvania State Health Department. *The Listening Post*, Pennsylvania State Dept. of Health, Vol. 5, No. 2, March–April, 1927, pp. 11–18. (Abstract by W. A. Hardenbergh.)

In 1793 Philadelphia was rich, the metropolis and the capital of the United States, with a population of 50,000. Trade from all over the world came to its docks. Yellow fever had appeared in the West Indies in the early summer, and, inevitably, it was brought to Philadelphia. The first cases appeared in July; by the latter part of August it had reached epidemic form, and Thomas Mifflin, the governor, wrote to Doctor Falconer, health officer, asking for facts as to the progress of the disease, its cause, and methods of correction. After conference with Dr. Benjamin Rush, the health officer ascribed the disease to a pile of rotting coffee. The College of Physicians issued a report recommending the avoidance of unnecessary intercourse, the marking of infected houses, cleanliness and fresh air, the avoidance of fatigue and intemperance, and the use of gunpowder, camphor, and vinegar. One-third of the people in the city fled, but the deaths increased. By early October there were 120 funerals per day, but by November 14 the health of the city was again normal, as would be expected from our present knowledge of the disease. In fact, this epidemic, in which 4,031 people died, was so typical that, knowing the cause and methods of spread, we can chart the progress of the disease without the reports. The article presents a fine story of heroism and unselfishness, while bringing forcefully to our mind the great advances in sanitation in the 134 years since that epidemic occurred.

Fourth Annual Report of Provincial Bureau of Health of the Province of Quebec, 1925-1926. Report of the Engineer, Chief of Division of Sanitary Engineering, pp. 125–129. (Abstract by S. D. Collins.)

Filtration and chlorination plants in the Province of Quebec are controlled by the Provincial Health Bureau by repeated visits and frequent water tests. The results are good, but certain operators neglect simple repairs and, in general, are not sufficiently interested in keeping the plants in order. To remedy this situation it is suggested that the provincial bureau examine operators of filtration and chlorination plants and issue a certificate of competency to operators who evidence the knowledge required and understand the responsibility entailed in their work, thus building up a class of qualified operators. Membership in this class would be sought by every filter operator.

These inspections also revealed that many country wells give unsatisfactory results upon examination, because they are not protected from surface wash. Cementing the first 6 or 8 feet of the walls of the wells, to prevent surface water from entering the well before being effectively filtered by passage through the soil, would usually suffice.

Many villages or parts of parishes still take their water supply from rivers without previous treatment. These waters are dangerous, because rivers constitute natural sewers for the farms and communities on their watersheds. Epidemics of typhoid fever are now limited to these small centers, the more important municipalities being protected by filtration or chlorination of their supplies.

The filtration plants in these small places would often cost more than the waterworks, and the water companies are not ready to incur an expense which would necessitate a very considerable increase in the water rates. Because these small polluted water supplies constitute sources of infection for the whole population, particularly since automobile touring has become so general, the Government in some cases assists in the improvement of small water supplies.

Ultra-violet Rays as Test of Water Purity. Anon. *Public Works*, Vol. 58, No. 2, February, 1927, p. 60. (Abstract by E. C. Sullivan.)

Messrs. Duclaux and Jeautet, in a communication to the Académie des Sciences, have suggested that the transparency of pure water to ultra-violet rays may be used as an index of its potability. They state that chemically pure water for lengths of 10 cm. is transparent to wave lengths as small as 1,900 A., i. e., well down in the ultra-violet.

"It is remarkable that all the substances ordinarily found in what is called pure water—that is to say, mineral salts—fail to diminish sensibly this transparency, provided that their concentration does not exceed that usually occurring in springs. On the other hand, substances under suspicion that water may contain render it opaque, and, in general, the more so the more serious or the more recent the contamination which they betray."

Algae Growth Control in Impounding Reservoirs. A. B. Cameron. Water Works Issue, *Engineering and Contracting*, Vol. 65, No. 12, December, 1926, pp. 618–620. (Abstract by C. C. Ruchhoft.)

Dosing the impounding reservoirs once or twice each summer month with from 0.25 to 0.40 p.p.m. of $CuSO_4$ was effective in preventing short filter runs, use of excessive wash water, and bad tastes at Bucyrus, Ohio. The necessity for dosing the reservoirs was determined by the noting of littoral organisms in the plant, length of filter run, and frequent microscopical examination.

A New Water-Sterilizing Process. Anon. *The Engineer*, Vol. 143, No. 3712, March 4, 1927, pp. 234, 235. (Abstract by Arthur P. Miller.)

The Bunau-Varilla method of sterilizing water with chlorine is now claiming much attention in France. Its inventor first used his scheme during the war at Verdun, and later studied it further. Apparatus of his design is now reported as being successfully used at Rheims, Carcassone, and a few other places.

Bunau-Varilla reported effective sterilization with as small a dose of chlorine as 3.2 ounces per million gallons. This caused him to think the action was physical and not chemical and his studies made him finally conclude that sterilization was due to ultra-violet or other similar rays. One proof of the ultra-violet ray theory is that the water after sterilization by his process assumes a radio active quality which is of sufficient proportions to kill bacteria introduced into the treated water.

A brief description of his apparatus follows: From the suction side of the pump, a tube, A, is taken off and leads to the bottom of a receptacle, B, holding 50 liters of chlorine solution. B receptacle is hermetically closed except for a tube of small diameter which is open at the top to the atmosphere and which goes down in the receptable almost to the bottom. In tube A there are two jets or nozzles, C and D, the first of which has a tapering restricted orifice of 5/10 mm. and the second, D, 8/10 mm. in diameter. Tube A has a branch which leads to a control tank, E, and just above the point of branching, a further tube, F, of smaller diameter, is sealed inside of A. Where this sealing is done, tube A is glass. The orifice of this latter tube, F, points downward and reaches well below the branch leading to control tank, E. This tube F the inventor terms "Bifurcateur Trompe," and it is, in effect, an ejector.

From the delivery side of the pump, pipe G, controlled by valve H, leads to control tank, E. Valve H is operated by a chain from the spindle of the stop valve of the engine driving the pump. When the pump is not running, H is closed and no water goes to control tank, E, but H opens as soon as steam is given to the pump. The delivery of the pipe G is in excess of the water which the drain tube from control tank, E, can carry away, and, therefore, the level in the control tank rises until the overflow level is reached, with the result that the outlet from the control tank leading to the "Bifurcateur Trompe" is submerged. At

each pump suction stroke water is drawn from the control tank into tube A and at the same time a minute dose of chlorine solution is drawn from receptacle B through orifices C and D and "Bifurcateur Trompe" F into the tube A and thence into the body of water going into the pump. To avoid a stoppage of orifices C and D, there is a small funnel arrangement on tube A and above them which permits the introduction of a small amount of hydrochloric acid.

What Chicago has done to end big cross-connection problem. Arthur E. Gorman. *Water Works Engineering*, Vol. 80, No. 7, March 30, 1927, p. 404. (Abstract by F. C. Dugan.)

In two years nearly 500 illegal connections with the city water supply system were found and a wide diversity of solution was met with. The success of this campaign resulted from the man-to-man policy of the Chicago Department of Health and from common-sense methods applied to securing remedies.

Chlorinating Operations at Ashokan Headworks. William W. Brush, Chief Engineer, Department of Water Supply, New York City. *Water Works Magazine*, Vol. 66, No. 4, April, 1927, pp. 130–133. (Abstract by H. B. Hommon.)

The New York department of water supply has been using 1-ton containers of liquid chlorine for two years. Special cars were designed to carry 15 cylinders, each weighing 3,400 pounds. It is stated that by using the 1-ton cylinders and special cars the freight rates are reduced, since with the large containers no freight either way is charged for them or the special cars; whereas with the 150-pound cylinders, freight has to be paid both ways on the containers. The saving in freight is 1½ cents per pound of chlorine. The total saving per year with an average chlorine consumption of 1,000 pounds per day was $8,700.

It is claimed that there is less danger in handling the 1-ton containers than the 150-pound cylinders, and that with suitable equipment the large containers can be handled as easily as the small cylinders.

Other advantages claimed for the 1-ton containers are (1) less cost for repairs for small valves and tubing; (2) less tare weight per ton of chlorine; (3) greater ease and simplicity in making connections to chlorine machines, one man being able to make complete change of large containers in six and one-half minutes; and (4) more uniform rate of discharge.

The Clarification of Colored Waters. Lewis B. Miller, Chemist, Hygienic Laboratory, U. S. Public Health Service. *Water Works Magazine*, Vol. 66, No. 4, April, 1927, pp. 150–152. (Abstract by H. B. Hommon.)

A number of samples of water containing "color" of the humic-acid type from different sources were studied in detail by (1) dialysis, (2) cataphoresis, and (3) by the effects of various chemical reagents upon the stability of the "color" in solution.

In the conclusions it is stated that the studies made with small samples in the laboratory suggest that the coagulating power of the trivalent aluminum ion acting upon the negatively charged colloid "color" is the important factor. It causes the formation of what may be called a "color floc." "Alum floc," which is so important in clarification, plays an unimportant rôle.

Concerning the practical application of the results of the studies to color removal at filtration plants, it is stated that, "considering the probable differences in the coloring matter itself in different natural waters and the infinity of possible variations among the other components of the waters, it became evident early in this work that no detailed procedure could be advanced for treatment of colored waters in waterworks practice from a laboratory study of them. An investigation with such an object in view must be conducted in the field over a long period of time and under a wide variety of conditions."

What Water Men Should Know Concerning Well Water Supplies. Paul S. Fox, *Water Works Engineering*, Vol. 80, No. 8, April 13, 1927, p. 508. (Abstract by Frank Raab.)

Hardness in water is the result of high CO_2 which dissolves calcium and magnesium from limestone encountered. The amount of hardness depends upon the acidity of the water and the character of the limestone. Calcium and magnesium carbonates and bicarbonates cause temporary hardness, while calcium and magnesium sulphates cause permanent hardness.

Pumps should be installed on a pump-room floor which is higher than the surrounding level of the ground. Wherever pumps have to be installed in pits, the walls of the pits should be constructed of water-tight material. Well pits should be provided with sumps which can be drained; but under no condition should these drains be connected with sanitary sewers. Pits may be provided with pumps or ejectors for removing seepage or waste water.

The curbing or casing of a well should be higher than the surrounding ground level and should be graded so that the drainage is away from the well. There should be a water-tight connection between the pump and the casing. No pumping equipment which requires the care of the attendant should be installed so that it can not receive attention.

Do not permit a connection between a pump pit or a subground level pump pit which is subject to back flow. Provide water-tight connections on cased wells to close annular openings between well casing and suction pipe. Provide a water-tight top for bored and dug wells. Properly locate and protect the air inlet for air-lift pumping systems.

A water-tight casing should be installed around the well pit and it should extend deep enough to prevent entrance into the pit of contaminated surface water or shallow ground water. The bottom of this casing should be effectively sealed into a solid formation and should be tested so as to make sure that it excludes contaminated water.

Screw-joint steel or wrought-iron pipe is the standard well casing for drilled wells, and it should be installed water-tight when new. Care should be taken that the bottom of each size of casing is effectively sealed so as to exclude all water which may collect around the outside of the pipe. The outside well casing should not be used either as a suction or a discharge pipe because frequently the water is corrosive and as a result the life of the casing is shortened.

Prevent all surface pollution and, if necessary, exclude from the well all waters other than those from the strata which supplies the well.

DEATHS DURING WEEK ENDED JUNE 18, 1927

Summary of information received by telegraph from industrial insurance companies for week ended, June 18, 1927, and corresponding week of 1926. (From the Weekly Health Index, June 22, 1927, issued by the Bureau of the Census, Department of Commerce)

	Week ended June 18, 1927	Corresponding week 1926
Policies in force	62, 918, 546	64, 764, 403
Number of death claims	11, 891	12, 166
Death claims per 1,000 policies in force, annual rate	9. 9	9. 8

Deaths from all causes in certain large cities of the United States during the week ended June 18, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926. (From the Weekly Health Index, June 22, 1927, issued by the Bureau of the Census, Department of Commerce)

City	Week ended June 18, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended June 18, 1927 [2]
	Total deaths	Death rate [1]		Week ended June 18, 1927	Corresponding week 1926	
Total (65 cities)	6,495	11.6	[3] 11.8	710	[3] 751	[4] 59
Akron	27			3	3	32
Albany [5]	25	10.9	14.5	3	2	63
Atlanta	63			11	14	
White	31			7	9	
Colored	32	(6)		4	5	
Baltimore [5]	192	12.2	12.4	22	24	68
White	135		11.4	13	16	50
Colored	57	(6)	18.4	9	8	140
Birmingham	62	15.0	14.6	8	8	
White	28		10.6	4	3	
Colored	34	(6)	20.7	4	5	
Boston	215	14.1	11.7	36	21	101
Bridgeport	21			1	2	19
Buffalo	132	12.5	12.8	17	23	71
Cambridge	21	8.8	8.5	1	5	18
Camden	31	12.2	7.2	1	3	17
Canton	26	12.0	8.1	4	3	95
Chicago [5]	671	11.3	11.7	77	81	67
Cincinnati	111	14.0	16.2	8	13	50
Cleveland	189	10.0	10.7	13	19	34
Columbus	67	12.0	12.6	3	5	28
Dallas	39	9.7	12.3	8	8	
White	31		10.7	6	5	
Colored	8	(6)	23.2	2	3	
Dayton	41	11.9	13.8	1	2	16
Denver	86	15.5	9.1	7	6	
Des Moines	34	11.9	12.5	7	2	117
Detroit	275	10.7	12.4	51	52	81
Duluth	19	8.6	14.8	1	5	22
El Paso	32	14.6	12.4	3	6	
Erie	32			2	4	39
Fall River [5]	26	10.2	12.7	2	4	35
Flint	27	9.8	6.9	6	2	98
Fort Worth	32	10.2	5.6	5	5	
White	25		4.5	3	4	
Colored	7	(6)	13.7	2	1	
Grand Rapids	31	10.2	9.0	1	5	15
Houston	40			8	3	
White	27			2	2	
Colored	13	(6)		1	1	
Indianapolis	86	12.0	15.3	4	14	81
White	62		14.0	1	12	9
Colored	24	(6)	24.9	3	2	183
Jersey City	70	11.3	8.0	8	5	60
Kansas City, Kans	34	15.2	13.4	4	2	78
White	29		9.7	3	1	67
Colored	5	(6)	30.5	1	1	152
Kansas City, Mo	79	10.8	11.8	6	10	
Knoxville	22	11.2		3		
White	17			3		
Colored	5	(6)		0		
Los Angeles	267			21	17	60
Louisville	59	9.6	12.1	1	3	9
White	39		10.5	1	3	10
Colored	20	(6)	21.1	0	0	0
Lowell	29	13.7	12.3	4	0	77
Lynn	11	5.5	14.5	1	3	26
Memphis	65	18.9	18.9	9	8	
White	34		14.6	4	7	
Colored	31	(6)	26.5	5	1	
Milwaukee	88	8.6	11.9	12	10	56
Minneapolis	96	11.3	12.1	9	15	51
Nashville [5]	44	16.6	15.2	4	8	
White	26		11.2	2	6	
Colored	18	(6)	25.4	2	2	
New Bedford	14	6.1	7.9	2	4	35
New Haven	34	9.6	9.2	2	7	28

(Footnotes at end of table)

Deaths from all causes in certain large cities of the United States during the week ended June 18, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926—Continued

City	Week ended June 18, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate, week ended June 18, 1927 [2]
	Total deaths	Death rate [1]		Week ended June 18, 1927	Corresponding week 1926	
New Orleans	151	18.6	17.3	30	18	----------
White	87	----------	13.5	15	8	----------
Colored	64	(6)	28.2	15	10	----------
New York	1,301	11.4	11.2	146	143	60
Bronx Borough	156	8.8	9.6	13	11	41
Brooklyn Borough	437	10.0	9.4	60	54	62
Manhattan Borough	524	15.1	15.5	56	59	66
Queens Borough	139	9.0	7.7	13	16	56
Richmond Borough	45	16.0	13.5	4	3	74
Newark, N. J	111	12.4	9.9	15	12	74
Oakland	46	9.0	10.0	5	3	59
Oklahoma City	28	----------	----------	2	2	----------
Omaha	55	13.1	10.1	6	3	67
Paterson	34	12.3	10.2	6	3	106
Philadelphia	444	11.4	11.2	41	35	55
Pittsburgh	164	13.3	13.3	17	17	59
Portland, Oreg	50	----------	----------	2	2	21
Providence	48	8.9	11.8	4	7	34
Richmond	49	13.3	14.6	3	8	40
White	25	----------	10.5	1	5	20
Colored	24	(6)	24.6	2	3	76
Rochester	69	11.1	10.1	12	3	101
St. Louis	196	12.2	11.6	16	12	----------
St. Paul	39	8.1	10.7	2	5	18
Salt Lake City [4]	28	10.7	12.9	1	2	15
San Antonio	46	11.4	17.0	4	22	----------
San Diego	29	13.1	16.1	5	2	106
San Francisco	150	13.6	15.0	8	9	50
Seattle	63	----------	----------	9	1	94
Somerville	12	6.1	8.9	0	1	0
Spokane	30	14.4	8.6	1	2	25
Springfield, Mass	28	9.9	9.7	4	4	62
Syracuse	51	13.5	10.1	6	6	77
Tacoma	23	11.2	7.9	1	3	24
Trenton	38	14.5	11.3	3	5	52
Washington, D. C	126	12.2	14.1	7	19	40
White	74	----------	11.5	0	11	0
Colored	52	(6)	21.8	7	8	129
Waterbury	21	----------	----------	2	4	47
Wilmington, Del	18	7.4	10.1	0	3	0
Worcester	52	13.9	14.9	6	3	72
Yonkers	21	9.2	10.8	3	3	68
Youngstown	21	6.5	9.5	4	5	56

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.
[3] Data for 64 cities.
[4] Data for 60 cities.
[5] Deaths for week ended Friday, June 17, 1927.
[6] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Week Ended June 25, 1927

DIPHTHERIA	Cases
Alabama	11
Arizona	1
Arkansas	4
California	98
Colorado	12
Connecticut	34
Delaware	2
Florida	7
Georgia	10
Idaho	1
Illinois	112
Indiana	22
Kansas	14
Louisiana	12
Maine	2
Maryland [1]	52
Massachusetts	84
Michigan	88
Minnesota	12
Mississippi	3
Missouri [2]	18
Montana	4
Nebraska	12
New Jersey	91
New Mexico	3
New York [3]	72
North Carolina	5
Oklahoma [4]	8
Oregon	10
Pennsylvania	149
Rhode Island	15
South Carolina	6
South Dakota	1
Tennessee	3
Texas	17
Utah [1]	7
Vermont	2
Washington	6
West Virginia	17
Wisconsin	32

INFLUENZA	Cases
Alabama	7
Arkansas	17
California	12
Georgia	13
Illinois	6
Indiana	2
Kansas	2
Louisiana	16
Maine	3
Massachusetts	9
Michigan	1
Minnesota	2
New Jersey	3
Oklahoma [4]	37
Oregon	4
South Carolina	150
Tennessee	10
Texas	19
West Virginia	8
Wisconsin	25

MEASLES	
Alabama	142
Arkansas	73
California	402
Colorado	54
Connecticut	68
Delaware	6
Florida	36
Georgia	27
Idaho	6
Illinois	416
Indiana	68
Kansas	257
Louisiana	67
Maine	55
Maryland [1]	14
Massachusetts	351
Michigan	106
Minnesota	62

[1] Week ended Friday.
[2] Exclusive of Kansas City.
[3] Exclusive of New York City.
[4] Exclusive of Oklahoma City and Tulsa.

MEASLES—continued

	Cases
Missouri [2]	58
Montana	9
Nebraska	60
New Jersey	26
New Mexico	31
New York [3]	739
North Carolina	759
Oklahoma [4]	255
Oregon	115
Pennsylvania	449
Rhode Island	2
South Carolina	269
South Dakota	6
Tennessee	17
Texas	80
Utah [1]	11
Vermont	30
Washington	371
West Virginia	145
Wisconsin	710
Wyoming	36

MENINGOCOCCUS MENINGITIS

California	2
Florida	2
Georgia	1
Illinois	8
Kansas	1
Michigan	2
Minnesota	2
Montana	2
New Jersey	3
New York [3]	2
North Carolina	1
Oregon	2
Pennsylvania	2
Tennessee	1
Washington	4
Wisconsin	4

POLIOMYELITIS

Alabama	3
Arizona	1
Arkansas	1
California	24
Florida	2
Georgia	1
Illinois	1
Indiana	1
Kansas	1
Louisiana	1
Massachusetts	3
Michigan	1
Minnesota	1
New Jersey	3
New Mexico	1
New York [3]	2
Oklahoma [4]	3
South Carolina	5
Tennessee	4
Texas	4
Wisconsin	2

SCARLET FEVER

	Cases
Alabama	12
Arizona	1
Arkansas	1
California	108
Colorado	60
Connecticut	48
Florida	4
Georgia	12
Idaho	3
Illinois	205
Indiana	48
Kansas	38
Louisiana	4
Maine	19
Maryland [1]	33
Massachusetts	362
Michigan	214
Minnesota	98
Mississippi	2
Missouri [2]	27
Montana	8
Nebraska	8
New Jersey	202
New Mexico	5
New York [3]	179
North Carolina	13
Oklahoma [4]	8
Oregon	8
Pennsylvania	305
Rhode Island	18
South Carolina	3
South Dakota	11
Tennessee	6
Texas	6
Utah [1]	8
Vermont	2
Washington	42
West Virginia	25
Wisconsin	76
Wyoming	13

SMALLPOX

Alabama	6
Arkansas	1
California	8
Colorado	2
Florida	12
Georgia	6
Idaho	9
Illinois	25
Indiana	96
Kansas	20
Louisiana	4
Michigan	32
Minnesota	1
Mississippi	1
Missouri [2]	27
Montana	14
Nebraska	6
New York [3]	4
North Carolina	25
Oklahoma [4]	59

[1] Week ended Friday.
[2] Exclusive of Kansas City.
[3] Exclusive of New York City.
[4] Exclusive of Oklahoma City and Tulsa.

SMALLPOX—continued

	Cases
Oregon	17
Pennsylvania	1
South Carolina	3
South Dakota	9
Tennessee	4
Texas	10
Utah [1]	3
Washington	26
West Virginia	28
Wisconsin	10
Wyoming	1

TYPHOID FEVER

Alabama	69
Arizona	1
Arkansas	30
California	16
Colorado	3
Delaware	1
Florida	4
Georgia	49
Idaho	1
Illinois	19
Indiana	7
Kansas	4

TYPHOID FEVER—continued

	Cases
Louisiana	26
Maine	1
Maryland [1]	11
Massachusetts	4
Michigan	5
Minnesota	3
Mississippi	30
Missouri [2]	10
Montana	2
Nebraska	4
New Jersey	1
New Mexico	4
New York [3]	13
North Carolina	52
Oklahoma [4]	47
Oregon	5
Pennsylvania	14
South Carolina	97
South Dakota	1
Tennessee	82
Texas	33
Washington	3
West Virginia	14
Wisconsin	3

[1] Week ended Friday.
[2] Exclusive of Kansas City.
[3] Exclusive of New York City.
[4] Exclusive of Oklahoma City and Tulsa.

Reports for week ended June 18, 1927

DIPHTHERIA

	Cases
District of Columbia	17
North Dakota	4

INFLUENZA

District of Columbia	1

MEASLES

District of Columbia	2
North Dakota	26

POLIOMYELITIS

	Cases
North Dakota	1

SCARLET FEVER

District of Columbia	12
North Dakota	19

SMALLPOX

District of Columbia	12

TYPHOID FEVER

District of Columbia	2

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
April, 1927										
Maryland [1]	-------	181	270	2	116	-------	0	285	0	43
May, 1927										
Illinois	32	466	174	16	4,562	-------	5	1,043	150	52
Iowa	2	84	-------	-------	1,282	-------	1	125	39	4
Maine	2	27	35	-------	410	-------	0	146	0	4
Maryland	2	197	68	-------	119	-------	0	266	0	25
Michigan	-------	368	17	1	1,177	-------	0	1,100	187	24
Minnesota	11	140	13	-------	611	-------	3	758	6	13
New York	30	2,042	-------	13	3,889	-------	8	3,943	41	70
Ohio	5	470	35	-------	870	-------	0	1,279	204	48
Rhode Island	1	46	4	-------	16	-------	1	77	0	1
West Virginia	1	44	35	-------	638	-------	0	137	116	32
Wisconsin	38	125	183	-------	2,954	-------	4	589	147	13
Wyoming	1	5	3	-------	467	-------	0	99	13	-------

[1] Corrected report.

April, 1927

	Cases
Maryland:	
Chicken pox	438
Dysentery	4
German measles	10
Impetigo contagiosa	3
Mumps	133
Rabies in animals	11
Septic sore throat	13
Vincent's angina	5
Whooping cough	367

May, 1927

Anthrax:	
New York	2
Chicken pox:	
Illinois	1,058
Iowa	111
Maine	55
Maryland	382
Michigan	1,175
Minnesota	735
New York	2,426
Ohio	1,551
Rhode Island	59
West Virginia	109
Wisconsin	913
Wyoming	34
Conjunctivitis:	
Maine	1
Dysentery:	
Illinois	36
Maryland	2
Minnesota	5
New York	5
German measles:	
Illinois	166
Maine	165
Maryland	37
New York	1,248
Ohio	585
Rhode Island	8
Wisconsin	157
Wyoming	65
Impetigo contagiosa:	
Maryland	1
Lead poisoning:	
Illinois	12
Ohio	13
Leprosy:	
Minnesota	1
Lethargic encephalitis:	
Illinois	14
Maryland	1
Michigan	2
Minnesota	2
New York	35
Ohio	6
Wisconsin	1
Mumps:	
Illinois	2,085
Iowa	146
Maine	37
Maryland	134
Michigan	1,140
New York	2,711

May, 1927—Continued

	Cases
Mumps—Continued.	
Ohio	749
Rhode Island	27
Wisconsin	1,257
Wyoming	2
Ophthalmia neonatorum:	
Illinois	35
New York	2
Ohio	101
Rhode Island	1
Paratyphoid fever:	
Maine	4
New York	2
Puerperal septicemia:	
Illinois	8
New York	13
Rabies in animals:	
Maryland	8
New York	46
Rabies in man:	
Michigan	2
New York	1
Rocky Mountain spotted or tick fever:	
Wyoming	30
Scabies:	
Maryland	1
Septic sore throat:	
Illinois	10
Maine	1
Maryland	11
Michigan	26
New York	19
Ohio	73
Rhode Island	1
Tetanus:	
Illinois	5
Maryland	1
New York	6
Trachoma:	
Illinois	5
Ohio	6
Tularaemia:	
Wyoming	3
Typhus fever:	
New York	2
Vincent's angina:	
Illinois	2
Maine	7
Maryland	2
New York	75
Whooping cough:	
Illinois	906
Iowa	90
Maine	125
Maryland	303
Michigan	759
Minnesota	100
New York	1,178
Ohio	736
Rhode Island	8
West Virginia	216
Wisconsin	516
Wyoming	12

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of May, 1927, to other State health departments by departments of health of certain States

Disease	Referred by—					
	California	Connecticut	Illinois	Minnesota	New York	Washington
Diphtheria			1			
Dysentery				2		
German measles					1	
Leprosy				1		
Malaria				1		
Malta fever				1		
Measles		1			1	
Paratyphoid fever			1			
Rocky Mountain spotted fever						1
Scarlet fever		1		2	2	
Smallpox			3		2	
Tuberculosis	2			75		
Typhoid fever			2	3	3	

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 100 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 30,900,000. The estimated population of the 94 cities reporting deaths is more than 30,260,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended June 11, 1927, and June 12, 1926

	1927	1926	Estimated expectancy
Cases reported			
Diphtheria:			
41 States	1,493	1,255	
100 cities	960	792	767
Measles:			
40 States	8,816	16,698	
100 cities	2,529	5,427	
Poliomyelitis:			
42 States	30	20	
Scarlet fever:			
41 States	8,044	3,187	
100 cities	1,428	1,519	836
Smallpox:			
42 States	606	524	
100 cities	120	96	108
Typhoid fever:			
41 States	466	326	
100 cities	66	71	81
Deaths reported			
Influenza and pneumonia:			
94 cities	577	598	
Smallpox:			
94 cities	0	2	
Omaha	0	2	

City reports for week ended June 11, 1927

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1918 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	75,333	2	1	1	0	0	5	0	0
New Hampshire:									
Concord	22,546	0	0	0	0	0	5	0	3
Manchester	83,097	0	1	0	0	0	1	0	2
Vermont:									
Barre	10,008	1	0	0	0	0	0	0	0
Massachusetts:									
Boston	779,620	56	46	39	0	0	152	56	19
Fall River	128,993	8	3	1	0	0	10	0	1
Springfield	142,065	7	2	8	0	0	2	8	0
Worcester	190,757	24	3	0	0	0	0	6	5
Rhode Island:									
Pawtucket	69,760	2	0	0	0	0	0	0	2
Providence	267,918	0	6	0	0	0	1	0	4
Connecticut:									
Bridgeport	(1)	0	5	7	1	0	4	2	0
Hartford	160,197	3	5	1	0	0	5	13	2
New Haven	178,927	16	1	0	0	0	13	4	2
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	6	8	12	----	0	12	11	15
New York	5,873,356	220	216	357	15	5	68	241	123
Rochester	316,786	9	9	17	----	0	21	13	2
Syracuse	182,003	33	4	0	----	0	234	14	4
New Jersey:									
Camden	128,642	8	5	15	1	1	5	2	3
Newark	452,513	96	12	13	0	0	9	104	7
Trenton	132,020	0	3	3	0	0	0	1	2
Pennsylvania:									
Philadelphia	1,979,364	97	58	60	----	2	65	145	48
Pittsburgh	631,563	53	14	24	----	2	116	8	22
Reading	112,707	6	2	1	----	0	76	13	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	7	7	4	0	0	4	5	3
Cleveland	936,485	78	18	50	2	1	4	91	14
Columbus	279,836	8	2	6	0	0	0	0	6
Toledo	287,380	96	4	3	1	1	28	3	5
Indiana:									
Fort Wayne	97,846	1	2	8	0	0	9	0	3
Indianapolis	358,819	11	3	3	0	0	11	68	9
South Bend	80,091	1	1	1	0	0	3	0	1
Terre Haute	71,071	0	1	0	0	0	3	0	2
Illinois:									
Chicago	2,995,239	83	75	60	4	0	116	140	61
Springfield	63,923	0	1	1	0	0	0	1	1
Michigan:									
Detroit	1,245,824	63	43	34	3	4	9	130	22
Flint	130,316	8	2	2	0	0	26	0	4
Grand Rapids	153,698	4	2	0	0	1	27	1	2

[1] No estimate made.

City reports for week ended June 11, 1927—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha	50,891	15	1	0	0	0	2	41	1
Milwaukee	509,192	74	11	13	0	0	226	126	9
Racine	67,707	15	0	6	0	0	1	22	0
Superior	39,671	0	1	0	0	0	2	0	1
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	14	0	0	0	0	7	0	0
Minneapolis	425,435	130	13	9	0	1	5	0	8
St. Paul	246,001	45	12	7	0	0	19	1	3
Iowa:									
Davenport	52,469	3	1	0	0	-------	0	1	-------
Des Moines	141,441	0	1	0	0	-------	0	0	-------
Sioux City	76,411	4	0	0	0	-------	32	1	-------
Waterloo	36,771	0	0	1	0	-------	1	1	-------
Missouri:									
Kansas City	367,481	16	4	1	0	1	28	6	3
St. Joseph	78,342	0	0	0	0	0	11	0	3
St. Louis	821,543	14	35	20	0	0	13	64	-------
North Dakota:									
Fargo	26,403	0	1	0	0	0	0	0	0
Grand Forks	14,811	1	0	0	0	-------	0	0	-------
South Dakota:									
Aberdeen	15,036	3	0	0	0	-------	1	0	-------
Sioux Falls	30,127	0	0	0	0	-------	52	0	-------
Nebraska:									
Lincoln	60,941	3	1	1	0	0	42	5	0
Omaha	211,768	6	2	2	0	0	9	6	4
Kansas:									
Topeka	55,411	4	1	0	0	0	36	0	0
Wichita	88,367	4	1	1	0	0	27	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	1	2	0	0	0	0	0	3
Maryland:									
Baltimore	796,296	79	16	47	1	2	3	14	11
Cumberland	33,741	0	0	0	0	0	0	1	1
Frederick	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	497,906	11	8	13	0	0	3	0	4
Virginia:									
Lynchburg	30,395	2	0	1	0	0	14	0	1
Norfolk	(1)	10	0	1	0	0	74	4	3
Richmond	186,403	0	1	1	0	0	0	0	2
Roanoke	58,208	4	1	0	0	0	0	0	0
West Virginia:									
Charleston	49,019	0	0	0	0	1	5	0	0
Wheeling	56,208	2	1	0	0	0	4	0	2
North Carolina:									
Raleigh	30,371	1	0	0	0	0	71	0	1
Wilmington	37,061	1	0	0	0	0	70	5	2
Winston-Salem	69,031	2	0	0	0	0	149	11	2
South Carolina:									
Charleston	73,125	0	1	1	10	0	4	0	0
Columbia	41,225	1	0	0	0	-------	23	2	3
Greenville	27,311	-------	0	-------	-------	-------	-------	-------	-------
Georgia:									
Atlanta	(1)	2	1	1	8	1	14	7	2
Brunswick	16,809	0	0	0	0	0	0	19	0
Savannah	93,134	0	0	0	0	1	14	3	0
Florida:									
Miami	69,754	3	3	1	0	0	1	3	0
St. Petersburg	26,847	-------	0	-------	-------	0	-------	-------	0
Tampa	94,743	0	0	3	0	0	17	0	1

[1] No estimate made.

City reports for week ended June 11, 1927—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,309	0	0	0	0	0	0	0	1
Louisville	305,935	1	3	1	1	0	1	11	6
Tennessee:									
Memphis	174,533	0	1	1	0	0	9	0	3
Nashville	136,220	2	0	1	0	0	0	0	4
Alabama:									
Birmingham	205,670	11	1	1	0	2	15	0	6
Mobile	65,955	0	1	0	0	0	4	0	2
Montgomery	46,481	0	0	0	0	0	2	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	0	1	0	0	----	4	1	----
Little Rock	74,216	5	0	0	0	0	20	0	1
Louisiana:									
New Orleans	414,493	0	5	2	7	4	6	0	16
Shreveport	57,857	0	0	0	0	0	14	6	0
Oklahoma:									
Oklahoma City	(1)	3	1	0	0	0	18	0	6
Tulsa	124,478	0	----	0	0	----	2	0	----
Texas:									
Dallas	194,450	----	2	3	0	0	47	----	0
Galveston	48,375	0	0	0	0	0	0	0	0
Houston	164,954	2	2	2	0	0	7	1	1
San Antonio	198,069	0	1	4	0	2	3	0	6
MOUNTAIN									
Montana:									
Billings	17,971	4	0	0	0	1	0	0	1
Great Falls	29,883	4	0	0	0	0	6	3	0
Helena	12,037	0	0	0	0	0	0	0	3
Missoula	12,668	0	0	0	0	0	1	0	1
Idaho:									
Boise	23,042	1	0	0	0	0	0	0	0
Colorado:									
Denver	280,911	18	9	33	----	0	19	1	3
Pueblo	43,787	4	1	1	0	0	32	0	0
New Mexico:									
Albuquerque	21,000	0	0	0	0	0	9	1	0
Utah:									
Salt Lake City	130,948	42	3	7	0	0	5	1	2
Nevada:									
Reno	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	(1)	24	5	0	0	----	231	22	----
Spokane	108,897	10	2	2	0	----	1	0	----
Tacoma	104,455	23	1	2	0	0	62	0	2
Oregon:									
Portland	282,383	7	5	2	0	0	107	2	3
California:									
Los Angeles	(1)	35	36	34	8	0	91	14	18
Sacramento	72,260	6	3	1	0	0	3	3	3
San Francisco	557,530	54	17	9	3	2	47	75	1

[1] No estimate made.

City reports for week ended June 11, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	2	2	0	0	0	1	0	1	0	5	19
New Hampshire:											
Concord	1	0	0	0	0	0	0	0	0	0	15
Manchester	0	0	0	0	0	0	0	0	0	0	17
Vermont:											
Barre	1	0	0	0	0	0	0	0	0	0	2
Massachusetts:											
Boston	44	95	0	0	0	16	2	0	0	4	215
Fall River	2	6	0	0	0	3	1	0	0	0	33
Springfield	4	1	0	0	0	3	1	0	0	9	38
Worcester	6	6	0	0	0	2	1	0	0	11	59
Rhode Island:											
Pawtucket	1	2	0	0	0	2	0	0	0	2	15
Providence	5	6	0	0	0	3	0	0	0	0	53
Connecticut:											
Bridgeport	8	7	0	0	0	1	0	0	0	1	22
Hartford	2	12	0	0	0	1	0	1	1	6	26
New Haven	4	2	0	0	0	2	1	0	0	0	31
MIDDLE ATLANTIC											
New York:											
Buffalo	16	20	0	0	0	5	1	0	0	18	128
New York	161	403	0	0	0	[1] 107	11	9	1	133	1,092
Rochester	11	11	0	0	0	4	0	2	0	3	71
Syracuse	6	2	0	0	0	1	0	0	0	5	45
New Jersey:											
Camden	4	5	0	0	0	1	0	0	0	0	32
Newark	16	23	0	0	0	5	0	1	0	58	109
Trenton	2	1	0	0	0	6	0	0	0	1	43
Pennsylvania:											
Philadelphia	67	100	1	0	0	40	4	1	0	23	453
Pittsburgh	27	14	0	1	0	10	1	0	0	11	177
Reading	1	3	0	0	0	2	0	0	0	1	27
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	10	19	2	0	0	9	1	1	0	0	117
Cleveland	26	18	1	0	0	21	1	2	0	22	204
Columbus	6	12	2	1	0	3	0	0	0	16	77
Toledo	9	13	1	0	0	9	1	0	0	25	64
Indiana:											
Fort Wayne	2	3	1	1	0	0	0	0	0	7	40
Indianapolis	7	10	10	22	0	4	1	0	0	17	105
South Bend	2	2	1	1	0	1	0	0	0	2	12
Terre Haute	2	0	1	0	0	0	0	0	0	1	16
Illinois:											
Chicago	83	96	2	0	0	59	3	2	1	120	677
Springfield	1	4	0	3	0	0	0	0	0	0	21
Michigan:											
Detroit	57	108	2	0	0	29	3	1	1	73	272
Flint	4	22	0	0	0	0	0	0	0	0	17
Grand Rapids	5	14	0	3	0	1	1	2	0	7	35
Wisconsin:											
Kenosha	1	1	1	0	0	0	0	0	0	5	14
Milwaukee	16	56	2	0	0	4	0	1	0	18	101
Racine	4	1	1	0	0	0	0	0	0	6	10
Superior	2	4	2	0	0	2	0	0	0	0	15
WEST NORTH CENTRAL											
Minnesota:											
Duluth	5	19	2	0	0	2	0	0	0	2	14
Minneapolis	26	39	8	0	0	5	1	5	0	1	107
St. Paul	19	16	3	0	0	3	0	1	0	7	60

[1] Pulmonary tuberculosis only.

City reports for week ended June 11, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—continued											
Iowa:											
Davenport	0	0	4	0	-------	-------	0	0	-------	0	-------
Des Moines	4	4	3	4	-------	2	0	0	-------	0	34
Sioux City	1	1	2	5	-------	-------	0	0	-------	9	-------
Waterloo	1	1	0	0	-------	-------	0	0	-------	1	-------
Missouri:											
Kansas City	5	3	0	3	0	9	1	0	0	22	137
St. Joseph	0	2	0	6	0	2	0	0	0	4	29
St. Louis	22	10	3	1	0	8	2	0	0	37	194
North Dakota:											
Fargo	1	1	0	0	0	0	0	0	0	0	-------
Grand Forks	1	0	0	0	-------	-------	0	0	-------	0	-------
South Dakota:											
Aberdeen	3	2	0	0	-------	-------	0	0	-------	0	-------
Sioux Falls	0	2	0	0	-------	-------	0	0	-------	0	-------
Nebraska:											
Lincoln	1	2	1	0	0	0	0	0	0	2	11
Omaha	3	5	6	1	0	3	0	0	0	3	49
Kansas:											
Topeka	1	0	1	0	0	2	0	0	0	-------	12
Wichita	1	1	3	0	0	1	1	1	0	16	25
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	2	0	0	0	2	1	0	0	0	24
Maryland:											
Baltimore	23	21	1	0	0	16	3	1	0	55	191
Cumberland	0	0	0	0	0	0	0	0	0	0	7
Frederick	1	0	0	0	0	0	0	0	0	0	1
District of Columbia:											
Washington	15	21	2	2	0	17	2	1	0	8	134
Virginia:											
Lynchburg	0	0	1	0	0	0	0	0	0	1	7
Norfolk	1	7	0	0	0	1	1	0	0	5	-------
Richmond	2	2	0	0	0	2	1	0	0	2	64
Roanoke	0	0	1	0	0	1	0	0	0	5	7
West Virginia:											
Charleston	0	0	0	0	0	0	1	0	0	1	11
Wheeling	2	3	0	0	0	0	1	1	0	1	18
North Carolina:											
Raleigh	0	0	1	0	0	1	1	0	1	8	9
Wilmington	0	0	0	0	0	1	0	0	0	2	9
Winston-Salem	1	0	2	1	0	0	1	0	0	35	16
South Carolina:											
Charleston	0	0	0	3	0	3	1	0	0	2	34
Columbia	0	0	1	0	-------	-------	2	0	-------	28	12
Greenville	0	-------	0	-------	-------	-------	1	-------	-------	-------	-------
Georgia:											
Atlanta	3	3	4	3	0	7	1	5	0	17	67
Brunswick	0	0	0	1	0	1	1	0	0	1	4
Savannah	0	0	0	1	0	2	2	2	0	0	32
Florida:											
Miami	0	0	-------	0	0	2	1	2	0	17	17
St. Petersburg	0	-------	0	-------	0	0	0	-------	1	-------	8
Tampa	0	1	0	0	0	0	1	0	0	0	24
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	1	0	0	0	0	0	0	0	0	10
Louisville	5	8	1	6	0	3	1	0	0	18	75
Tennessee:											
Memphis	3	3	0	7	0	4	1	0	0	16	54
Nashville	2	0	1	0	0	8	2	1	0	1	47
Alabama:											
Birmingham	1	1	6	7	0	4	3	4	2	24	53
Mobile	0	0	1	0	0	3	1	3	0	2	25
Montgomery	0	0	1	1	0	0	1	0	0	5	-------

City reports for week ended June 11, 1927—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0			0	4		4	
Little Rock	1	0	1	0	0	0	0	1	0	0	
Louisiana:											
New Orleans	3	3	1	0	0	18	3	1	0	8	145
Shreveport	0	0	1	1	0	1	0	1	0	0	17
Oklahoma:											
Oklahoma City	1	1	4	2	0	3	0	3	0	4	29
Tulsa		6		0				1		0	
Texas:											
Dallas	2	1	2	1	0	5	1	0	0		43
Galveston	0	0	0	0	0	2	0	0	0	0	16
Houston	0	3	1	0	0	5	2	0	0	0	56
San Antonio	0	1	0	0	0	5	2	1	1	1	53
MOUNTAIN											
Montana:											
Billings	1	1	1	0	0	1	0	0	0	4	8
Great Falls	1	1	1	0	0	0	0	0	0	0	11
Helena	1	1	0	0	0	0	0	0	0	0	6
Missoula	1	0	0	0	0	0	0	0	0	0	6
Idaho:											
Boise	0	0	1	0	0	0	0	0	0	1	4
Colorado:											
Denver	9	33	1	0	0	7	0	0	0	1	62
Pueblo	1	28	0	0	0	1	0	0	0	0	14
New Mexico:											
Albuquerque	0	1	0	0	0	2	0	0	0	0	8
Utah:											
Salt Lake City	2	16	1	3	0	2	1	0	0	25	27
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	5
PACIFIC											
Washington:											
Seattle	10	20	4	2			1	0		27	
Spokane	3	7	2	7			0	0		5	
Tacoma	2	3	3	19	0	2	1	0	0	8	27
Oregon:											
Portland	6	2	6	5	0	8	1	0	0	5	72
California:											
Los Angeles	19	23	6	0	0	23	2	3	0	11	245
Sacramento	1	2	0	6	0	3	0	3	0	0	24
San Francisco	12	23	1	1	0	6	1	2	2	32	131

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
New Hampshire:									
Concord	0	0	1	1	0	0	0	0	0
Massachusetts:									
Boston	1	0	0	0	0	0	0	1	0
Fall River	0	0	0	1	0	0	1	0	0
Worcester	0	0	0	0	0	0	0	1	0
Connecticut:									
Bridgeport	0	0	1	0	0	0	0	0	0

City reports for week ended June 11, 1927—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York	3	0	3	2	0	0	1	0	0
New Jersey:									
Newark	0	0	0	0	0	0	0	2	0
Trenton	1	0	0	1	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	0	2	0	0	0	0	0	0	0
Cleveland	2	1	1	0	0	0	0	0	0
Columbus	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago	7	1	2	0	0	0	0	0	0
Michigan:									
Detroit	2	0	2	0	0	0	0	0	0
Wisconsin:									
Milwaukee	8	5	0	0	0	0	0	0	0
Racine	0	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
Kansas City	1	1	0	0	0	0	0	0	0
SOUTH ATLANTIC [1]									
Maryland:									
Baltimore	0	0	0	1	0	0	1	0	0
District of Columbia:									
Washington	0	0	1	1	0	0	0	0	0
Virginia:									
Richmond	0	0	0	0	0	1	0	0	0
North Carolina:									
Raleigh	1	0	0	0	0	1	0	0	0
South Carolina:									
Charleston [2]	0	0	0	0	1	1	0	0	0
Georgia:									
Atlanta	0	0	0	0	1	3	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	1	1	0	0	0	0	0	0	0
Alabama:									
Birmingham	0	0	0	0	3	0	0	0	0
Mobile	0	0	0	0	0	2	0	0	0
Montgomery	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans	0	0	0	0	3	3	0	1	0
Shreveport	0	0	0	0	0	2	0	0	0
Texas:									
Dallas	0	0	0	0	1	1	0	0	0
PACIFIC									
Washington:									
Spokane	1	----	0	----	0	----	0	0	----
Oregon:									
Portland	0	0	0	1	0	0	0	0	1
California:									
Los Angeles	0	0	0	0	0	0	0	2	0
San Francisco	0	1	0	0	0	0	0	0	0

[1] Typhus fever: 2 cases at Tampa, Fla.

[2] Dengue: 9 cases at Charleston, S. C.

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended June 11, 1927, compared with those for a like period ended June 12, 1926. The population figures used in computing the rates are approximate estimates as of July 1,

1926 and 1927, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had estimated aggregate populations of approximately 30,445,000 in 1926 and 30,966,000 in 1927. The 95 cities reporting deaths had nearly 29,785,000 estimated population in 1926 and nearly 30,296,000 in 1927. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, May 8 to June 11, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	May 15, 1926	May 14, 1927	May 22, 1926	May 21, 1927	May 29, 1926	May 28, 1927	June 5, 1926	June 4, 1927	June 12, 1926	June 11, 1927
101 cities	120	175	118	174	122	171	117	158	136	[2] 162
New England	87	104	78	153	80	160	78	160	68	132
Middle Atlantic	135	282	138	268	145	234	135	235	156	248
East North Central	95	132	118	160	108	145	119	124	146	126
West North Central	202	135	147	105	165	91	210	81	234	81
South Atlantic	76	116	71	111	95	145	47	127	60	[2] 124
East South Central	52	82	36	36	41	97	16	61	26	20
West South Central	82	113	47	50	64	84	56	67	47	46
Mountain	182	99	128	108	128	144	109	180	128	369
Pacific	174	94	163	105	158	196	131	128	158	126

MEASLES CASE RATES

101 cities	1,525	604	1,393	622	1,266	550	1,005	448	930	[2] 426
New England	1,196	346	1,073	416	1,061	434	726	313	658	457
Middle Atlantic	1,200	298	1,135	324	957	366	752	282	708	299
East North Central	1,213	451	1,215	493	1,189	373	1,067	324	1,026	296
West North Central	4,181	935	3,465	955	3,086	655	2,231	461	2,051	373
South Atlantic	1,917	1,553	1,645	1,544	1,529	1,364	1,203	1,005	1,093	[2] 851
East South Central	3,449	346	2,989	357	2,368	321	1,655	382	1,391	158
West South Central	155	575	142	629	112	466	86	503	125	424
Mountain	1,394	1,304	1,385	908	1,303	1,052	1,249	620	921	566
Pacific	675	1,262	688	1,217	798	1,063	691	1,097	589	1,139

SCARLET FEVER CASE RATES

101 cities	326	340	308	310	274	295	230	220	260	[2] 241
New England	311	439	288	432	257	365	248	288	255	323
Middle Atlantic	249	475	256	416	212	364	209	256	195	287
East North Central	356	290	341	268	337	302	245	212	333	247
West North Central	871	320	720	288	700	246	419	236	627	195
South Atlantic	220	149	194	101	158	121	188	78	158	[2] 110
East South Central	202	153	176	132	171	138	124	102	78	66
West South Central	155	21	172	34	116	25	163	21	86	34
Mountain	246	728	173	989	100	899	219	782	118	719
Pacific	257	202	292	168	179	209	169	186	236	204

SMALLPOX CASE RATES

101 cities	26	21	18	26	19	29	15	22	16	[2] 20
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	1	0	0	0	0	0
East North Central	20	20	18	37	13	49	9	33	12	21
West North Central	36	26	28	48	44	42	40	24	28	32
South Atlantic	39	38	24	36	28	40	34	33	37	[2] 20
East South Central	119	56	62	76	62	61	83	92	52	107
West South Central	116	59	98	17	99	29	43	17	24	8
Mountain	55	9	18	45	36	27	27	36	46	27
Pacific	67	92	51	71	32	84	24	69	54	92

[1] The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1926 and 1927, respectively.
[2] Greenville, S. C., not included.

Summary of weekly reports from cities, May 8 to June 11, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	May 15, 1926	May 14, 1927	May 22, 1926	May 21, 1927	May 29, 1926	May 28, 1927	June 5, 1926	June 4, 1927	June 12, 1926	June 11, 1927
101 cities	8	8	11	10	10	9	9	13	12	[1] 11
New England	0	5	9	5	7	9	0	9	17	5
Middle Atlantic	10	5	7	6	5	6	9	5	6	6
East North Central	5	3	5	5	9	7	5	7	4	7
West North Central	2	2	8	6	4	4	8	12	6	14
South Atlantic	4	9	32	13	26	18	32	29	26	[1] 18
East South Central	0	66	10	56	31	31	10	61	57	41
West South Central	43	25	26	46	13	25	9	38	52	34
Mountain	9	9	9	9	0	18	9	9	9	0
Pacific	8	10	19	10	11	8	8	26	13	21

INFLUENZA DEATH RATES

95 cities	16	13	15	12	12	9	8	7	10	[1] 6
New England	5	14	12	14	9	9	2	2	12	0
Middle Atlantic	17	14	16	10	11	8	6	9	9	5
East North Central	18	11	18	12	11	4	8	4	10	4
West North Central	6	4	8	8	13	12	8	6	4	4
South Atlantic	17	24	11	11	11	13	8	17	6	[1] 9
East South Central	31	31	36	41	26	25	36	5	36	10
West South Central	26	13	22	26	9	26	13	17	18	26
Mountain	18	9	0	9	9	9	18	0	9	9
Pacific	4	7	4	0	11	3	4	3	0	7

PNEUMONIA DEATH RATES

95 cities	149	122	141	109	119	100	105	93	95	[1] 94
New England	165	144	144	100	123	144	116	116	101	88
Middle Atlantic	166	151	173	119	145	116	131	108	110	112
East North Central	146	97	133	104	107	85	98	79	87	93
West North Central	82	71	95	58	84	87	51	58	59	50
South Atlantic	183	125	149	145	110	86	79	110	96	[1] 65
East South Central	181	122	171	107	171	61	124	51	124	112
West South Central	128	134	84	103	102	90	93	82	88	103
Mountain	91	54	82	63	91	36	146	72	82	90
Pacific	92	114	53	121	64	100	67	97	67	83

[1] Greenville, S. C., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1926 and 1927, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1926	1927	1926	1927
Total	101	95	30,443,800	30,966,700	29,783,700	30,295,900
New England	12	12	2,211,000	2,245,900	2,211,000	2,245,900
Middle Atlantic	10	10	10,457,000	10,567,000	10,457,000	10,567,000
East North Central	16	16	7,650,200	7,810,600	7,650,200	7,810,600
West North Central	12	10	2,585,800	2,636,600	2,470,600	2,510,000
South Atlantic	21	20	2,799,500	2,878,100	2,757,700	2,835,700
East South Central	7	7	1,008,300	1,023,500	1,008,300	1,023,500
West South Central	8	7	1,213,800	1,243,300	1,181,500	1,210,400
Mountain	9	9	572,100	580,000	572,100	580,000
Pacific	6	4	1,946,400	1,991,700	1,475,300	1,512,800

FOREIGN AND INSULAR

THE FAR EAST

Report for week ended May 28, 1927.—The following report for the week ended May 28, 1927, was transmitted by the eastern bureau of the health section of the secretariat of the League of Nations, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Smallpox		Maritime towns	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Ceylon: Colombo	2	2	0	0	0	0	French Indo-China:						
British India:							Saigon and Cholon	0	0	9	7	0	0
Karachi	0	0	0	0	----	2	Haiphong	0	0	91	91	0	0
Bombay	----	5	----	0	47	29	China:						
Vizagapatam	----	0	----	0	1	0	Canton	0	0	1	0	10	0
Calcutta	----	0	----	31	37	28	Hong Kong	0	0	0	0	1	0
Madras	----	0	----	0	1	0	Tientsin	0	0	0	0	1	0
Negapatam	----	0	----	8	----	1	Manchuria:						
Rangoon	----	4	----	1	13	3	Changchun	0	0	0	0	2	0
Bassein	----	3	0	0	0	0	Mukden	0	0	0	0	3	0
Siam: Bangkok	0	0	5	1	0	1	Egypt: Alexandria	0	0	0	0	3	0
Straits Settlements: Singapore	0	0	0	0	1	1							
Federated Malay States: Port Swettenham	0	0	0	0	1	0							

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

ASIA

Arabia.—Jeddah, Perim, Kamaran, Aden.

Iraq.—Basra.

Persia.—Mohammerah, Bender-Abbas, Bushire, Lingah.

British India.—Chittagong, Cochin, Tuticorin, Moulmein.

Portuguese India.—Nova Goa.

Straits Settlements.—Penang.

Dutch East Indies.—Batavia, Sabang, Belawan-Deli, Pontianak, Semarang, Menado, Cheribon, Palembang, Makassar, Balikpapan, Tarakan, Padang, Surabaya.

Sarawak.—Kuching.

British North Borneo.—Sandakan, Jesselton, Kudat, Tawao.

Portuguese Timor.—Dilly.

French Indo-China.—Tourane.

Philippine Islands.—Manila, Iloilo, Jolo, Cebu, Zamboanga.

China.—Amoy, Shanghai.

Macao.

Formosa.—Keelung, Takao.

Chosen.—Chemulpo, Fusan.

Manchuria.—Yingkow, Antung, Harbin.

Kwangtung.—Port Arthur, Dairen.

Japan.—Yokohama, Nagasaki, Niigata, Shimonoseki, Moji, Tsuruga, Kobe, Osaka, Hakodate.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island, Cairns.

New Guinea.—Port Moresby.

New Britain Mandated Territory.—Rabaul and Kokopo.

New Zealand.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

Samoa.—Apia.

New Caledonia.—Noumea.

Fiji.—Suva,

Hawaii.—Honolulu.

Society Islands.—Papeete.

AFRICA

Egypt.—Port Said, Suez.

Anglo-Egyptian Sudan.—Port Sudan, Suakin.

Eritrea.—Massaua.

French Somaliland.—Djibouti.

British Somaliland.—Berbera.

Italian Somaliland.—Mogadiscio.

Zanzibar.—Zanzibar.

Kenya.—Mombasa.

Tanganyika.—Dar-es-Salaam.

Seychelles.—Victoria.

AFRICA—continued

Portuguese East Africa.—Mozambique, Beira, Lourenço-Marques.
Union of South Africa.—East London, Port Elizabeth, Cape Town, Durban.
Reunion.—Saint Denis.

AFRICA—continued

Mauritius.—Port Louis.
Madagascar.—Majunga, Tamatave, Diego-Suarez.

AMERICA

Panama.—Colon, Panama.

Reports had not been received in time for publication from:

Dutch East Indies.—Bandjermasin, Samarinda.
U. S. S. R.—Vladivostock.

Belated information:

Week ended May 21: *Pondicherry*, 1 fatal smallpox case; *Karikal*, nil.
Week ended May 14: *Colombo*, 2 plague cases.

Other epidemiological information

Steam Ship *St. François Xavier* arrived at Noumea from Haiphong having cases of measles among coolies on board.

ANGOLA

Epidemic influenza—March 16–April 15, 1927.—Epidemic influenza has been reported in Angola as follows: March 16–31, 1927–436 cases with 17 deaths. April 1–15, 1927, 630 cases. During the latter period six deaths from influenza were reported at Benguela and Ambriz.

Other communicable diseases.—During the period March 16 to 31, 1927, 13 cases of dysentery, 20 of malaria, 17 of pneumonia, 19 of tuberculosis, and 80 of venereal diseases were reported in Angola.

CANADA

Typhoid fever—Montreal—January 2–June 18, 1927.—The following table gives the cases of typhoid fever and deaths from this disease reported at Montreal, Quebec, Canada, since January 1, 1927:

Week ended—	Cases	Deaths	Week ended—	Cases	Deaths
Jan. 8, 1927	3	1	Apr. 2, 1927	649	48
Jan. 15, 1927	4	3	Apr. 9, 1927	386	40
Jan. 22, 1927	1	2	Apr. 16, 1927	175	38
Jan. 29, 1927	3	1	Apr. 23, 1927	125	43
Feb. 5, 1927	1	0	Apr. 30, 1927	105	23
Feb. 12, 1927	0	0	May 7, 1927	106	19
Feb. 19, 1927	1	2	May 14, 1927	367	16
Feb. 26, 1927	1	1	May 21, 1927	770	26
Mar. 5, 1927	9	1	May 28, 1927	353	38
Mar. 12, 1927	203	4	June 4, 1927	239	37
Mar. 19, 1927	383	14	June 11, 1927	128	36
Mar. 26, 1927	568	22	June 18, 1927	80	----

CZECHOSLOVAKIA

Communicable diseases—April, 1927.—During the month of April, 1927, communicable diseases were reported in the Republic of Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax	3	----	Puerperal fever	34	13
Cerebrospinal meningitis	27	15	Rabies	1	1
Diphtheria	496	35	Scarlet fever	970	19
Dysentery	18	----	Trachoma	278	----
Malaria	28	----	Typhoid fever	348	30
Paratyphoid fever	3	----	Typhus fever	21	----

EGYPT

Plague—May 21–27, 1927.—During the week ended May 27, 1927, a case of plague was reported in Egypt, occurring in Tanta District.

Summary—January 1–May 27, 1927.—During the period January 1 to May 27, 1927, 40 cases of plague were reported in Egypt, as compared with 43 cases reported for the corresponding period of the year 1926.

ESTONIA

Communicable diseases—April, 1927.—During the month of April, 1927, communicable diseases were reported in the Republic of Estonia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Tuberculosis	233
Diphtheria	39	Typhoid fever	33
Measles	349	Typhus fever	1
Scarlet fever	767		

Population: 1,114,630 (estimated).

GERMANY

Vital statistics—Third quarter, 1926—Comparisons with previous years.—Preliminary vital statistics for the third quarter of 1926, comprising July, August, and September, are given as follows:

Marriages	112,745
Births	301,579
Deaths [1]	166,671
Still-born	9,445

The number of births is the lowest on record since the third quarter of 1918. Comparative figures giving the number of births per 1,000 inhabitants, calculated on the basis of one year, are shown in the following table:

	1913	1924	1925	1926
First quarter	27.2	21.7	21.9	20.4
Second quarter	26.8	20.6	21.8	20.2
Third quarter	27.3	19.6	20.0	19.2
Fourth quarter	26.3	20.0	19.1	----
Average	26.9	20.5	20.7	----

During the period under consideration the mortality figure shows a decrease. The following table gives the figure per 1,000 inhabitants calculated on the basis of one year for the years 1913, 1924, 1925, and the available period of 1926:

[1] Excluding still-born.

	1913	1924	1925	1926
First quarter	15.9	14.2	12.6	13.1
Second quarter	15.0	12.3	12.0	12.0
Third quarter	14.3	10.8	11.0	10.6
Fourth quarter	14.2	11.6	12.2	
Average	14.8	12.2	11.9	

The mortality of infants under 1 year per 100 births and on the basis of one year, is given in the following comparative table:

	1913	1924	1925	1926
First quarter	14.3	11.2	11.0	10.8
Second quarter	14.7	10.5	9.5	9.9
Third quarter	16.6	10.9	10.7	10.0
Fourth quarter	14.8	10.6	10.9	
Average	15.1	10.8	10.5	

The excess of births over deaths during the third quarter of 1926 shows a further decrease. It amounted to 134,908, or 8.6 per 1,000 of the population, as compared with 140,605, or 9 per 1,000, during the corresponding period of 1925.

GREAT BRITAIN

Vital statistics—England and Wales—January 1–March 31, 1927.—Births and deaths in England and Wales for the period January 1 to March 31, 1927, were reported by the registrar general as follows:

Estimated population	39,067,000	Annual death rate per 1,000 population from—	
Births	167,126		
Annual birth rate per 1,000 population	17.3	Diphtheria	0.08
Deaths	168,770	Influenza	1.86
Annual death rate per 1,000 population	17.5	Measles	.10
Deaths under 1 year	16,640	Scarlet fever	.02
Deaths under 1 year per 1,000 births	100	Typhoid fever	.01
		Whooping cough	.21

Nineteen deaths from smallpox were reported in England and Wales during the quarter.

Influenza was stated to be either a primary or contributory cause of death in 17,931 cases, or 10.62 per cent of the total number of deaths. This number is greater than in any previous first quarter since 1919.

Cases of communicable diseases—13 weeks ended April 2, 1927.—The following table is made up from figures given in the Quarterly Return of the Registrar-General of England and Wales. It gives the number of cases of certain communicable diseases reported in England and Wales during 13 weeks ended April 2, 1927.

	Cases		Cases
Diphtheria	12,872	Puerperal pyrexia	1,677
Ophthalmia neonatorum	1,650	Scarlet fever	17,508
Pneumonia	32,577	Smallpox	6,156
Puerperal fever	523	Typhoid fever	432

MADAGASCAR

Plague—March 16–31, 1927.—During the period March 16 to 31, 1927, 96 cases of plague with 86 deaths were reported in the island of Madagascar. The distribution of occurrence by Provinces was as follows: Ambositra—cases, 15; deaths, 10. Antisirabe—1 case, 1 death. Miarinarivo (Itasy)—cases, 27; deaths, 27. Moramanga—cases, 6; deaths, 6. Tananarive—cases, 43; deaths, 38. Tananarive Town—cases, 4; deaths, 4. Distribution according to type of disease was as follows: Bubonic, 42 cases; pneumonic, 21; septicemic, 33.

TUNISIA

Plague—May 20, 1927.—Under date of May 20, 1927, 15 fatal cases of plague were reported in Tunisia, occurring in the districts of Sfax and Susa. The outbreak was stated to be a recrudescence of a previous outbreak in February, 1927.

UNION OF SOUTH AFRICA

Plague—Cape Province—May 1–7, 1927.—During the week ended May 7, 1927, a fatal case of plague, occurring in a native, was reported in the Maraisburg District, Cape Province, Union of South Africa.

VIRGIN ISLANDS

Communicable diseases—May, 1927.—During the month of May, 1927, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chancroid	3	
Chicken pox	1	
Gonorrhea	3	
Syphilis	2	Secondary and tertiary, one case each.
St. Croix:		
Chicken pox	4	
Gonorrhea	1	
Filariasis	2	Bancrofti.
Leprosy	1	
Schistosomiasis	1	Mansoni.
Syphilis	6	Secondary.
Uncinariasis	1	Necator americanus.

CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended July 1, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
India				Apr. 17–23, 1927: Cases, 5,949; deaths, 3,226.
Bombay	May 8–14	1		
Calcutta	do	119	85	
Indo-China (French):				
Saigon	Apr. 30–May 6	54	37	Including Cholon.
Siam				May 1–7, 1927: Cases, 32; deaths, 16.
Bangkok	May 1–7	9	1	Apr. 1–May 7, 1927: Cases, 426; deaths, 296.

PLAGUE

Ceylon:				
Colombo	May 1–7	1	1	
Egypt				May 21–27, 1927: Cases, 1. Total from Jan. 1–May 27, 1927: Cases, 40; corresponding period, 1926: Cases, 43.
Tanta District	May 21–27	1		
Greece:				
Patras	May 30–June 5	1		
India				Apr. 17–23, 1927: Cases, 2,189; deaths, 1,480.
Bombay	May 8–14	25	23	
Java:				
Batavia	May 1–7	16	16	Province.
East Java and Madura—				
Pasoerocan Residency	May 9			Outbreak reported at Ngadiwono.
Surabaya	Apr. 17–23	11	12	
Madagascar				Mar. 16–31, 1927: Cases, 96; deaths, 86. Bubonic, 42; pneumonic, 21; septicemic, 33.
Province—				
Ambositra	Mar. 16–31	15	10	Bubonic, 11; pneumonic, 1; septicemic, 3.
Antisirabe	do	1	1	Septicemic.
Miarinarivo (Itasy)	do	27	27	Bubonic, 3; pneumonic, 9; septicemic, 15.
Moramanga	do	6	6	Bubonic, 3; septicemic, 3.
Tananarive	do	43	38	Bubonic, 24; pneumonic, 11; septicemic, 8.
Tanarive Town	do	4	4	Bubonic, 1; septicemic, 3.
Siam				Apr. 1–May 7, 1927: Cases, 7; deaths, 6.
Tunisia	Reported May 20	15		In districts of Sfax and Susa.
Turkey:				
Constantinople	May 13–19	1		
Union of South Africa:				
Cape Province—				
Maraisburg District	May 1–7	1	1	Native.

SMALLPOX

Algeria:				
Algiers	May 11–20	4		
Oran	May 21–31	15		
British South Africa:				
Northern Rhodesia	Apr. 30–May 6	1		Native.
Canada:				
British Columbia—				
Vancouver	May 23–29	2		
Manitoba—				
Winnipeg	June 12–18	4		
Ontario—				
Ottawa	do	4		

[1] From medical officers of the Public Health Service, American consuls, and other sources. For reports received from January 2 to June 24, 1927, see Public Health Reports for June 24, 1927. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

Reports Received During Week Ended July 1, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China:				
Amoy	May 8–14	1		
Hong Kong	do	4	2	
Manchuria—				
Saupingkai	do	1		
Chosen:				
Chinnampo	Apr. 1–30	1		
Fusan	do	1		
Seishin	do	1		
Egypt:				
Alexandria	May 21–27	3	1	
Great Britain:				
England and Wales	May 22–June 4			Cases, 520.
London	May 15–21	1		
Scotland—				
Dundee	May 29–June 4	3		
India				Apr. 17–23, 1927: Cases, 8,604; deaths, 1,956.
Bombay	May 8–14	58	33	
Calcutta	do	64	47	
Karachi	May 15–21	4	1	
Mexico:				
San Luis Potosi	May 29–June 4		2	
Tampico	June 1–10	1	1	
Netherlands India:				
Borneo—				
Holoe Soengei	Apr. 21			Epidemic in two localities.
Persia:				
Teheran	Feb. 21–Mar. 21		1	
Poland	Apr. 10–16	1		
Portugal:				
Lisbon	May 29–June 4	3		
Siam				May 1–7, 1927: Cases, 6; deaths, 3.
Bangkok	May 1–7	2	2	
Spain:				
Valencia	May 29–June 4	2		
Union of South Africa:				
Transvaal—				
Barberton District	May 1–7			Outbreaks.

TYPHUS FEVER

Algeria:				
Algiers	May 11–20	9		
Oran	May 21–31	4		
Chosen:				
Seoul	Apr. 1–30	1		
Czechoslovakia				Apr. 1–30, 1927: Cases, 21.
Egypt:				
Alexandria	May 21–27	1		
Estonia				Apr. 1–30, 1927: Case, 1.
Mexico:				
Mexico City	May 29–June 4	2		Including municipalities in Federal District.
Palestine:				
Mahnaim	May 17–23	1		In Safad District.
Safad	do	1		
Portugal:				
Lisbon	May 29–June 4	1		
Turkey:				
Constantinople	May 13–19		2	
Union of South Africa:				
Cape Province—				
Glen Grey District	May 1–7			Outbreaks.
Qumbu District	do			Do.