PUBLIC HEALTH REPORTS

VOL. 42 APRIL 1, 1927 NO. 13

SHIP FUMIGATION DETERMINED BY OBSERVED RODENT INFESTATION

By C. V. AKIN, *Surgeon*, and G. C. SHERRARD, *Acting Assistant Surgeon, United States Public Health Service*

In the course of studies of various cyanogen fumigants undertaken at the New York quarantine station between February and June, 1926, it became apparent that many vessels were regularly or periodically fumigated, in accordance with the regulations, which did not yield rats. Careful investigation led to the conclusion that, in many instances at least, the fumigation was not at fault, as there appeared to be no rats on board.

The question naturally arose as to whether it would be possible to determine with satisfactory accuracy the degree of rat infestation of a vessel by inspection alone.

Preliminary to investigating this question the following hypotheses were assumed, and this report concerns the work carried on to determine the possibilities of the third assumption:

(1) For the purpose of plague control, vessels are fumigated only for the purpose of destroying rats and fleas.

(2) Vessels with no rats on board do not require fumigation to prevent the spread of plague.

(3) The presence of significant numbers of rats on board vessels can be determined by inspection.

In order to prove or disprove the third hypothesis, 100 vessels due for fumigation under the regulations were inspected immediately prior to fumigation. In view of the work previously done by an officer of the Public Health Service, tank steamers carrying liquid cargo in bulk were not included, as they have been made subject to special regulations on account of their usual freedom from rats.

Passenger and cargo vessels were taken without reference to their past rat record. A medical officer made a preliminary series of surveys of these vessels for the purpose of defining the scope and character of inspections to be made and to draw up an outline of inspection procedure. After a number of studies had been made to determine the methods of inspection, these methods were standardized and necessary inspection forms were drawn up. The inspector's report form devised and subsequently used and the medical officer's report form are reproduced herewith.

INSPECTOR'S REPORT TO MEDICAL OFFICER IN CHARGE OF FUMIGATION

NEW YORK QUARANTINE STATION

RAT INFESTATION REPORT

..... S. S. ..... Date .....

Location ..... Net tons .....

Type of vessel: Cargo—Passenger ..... Year built ..... Where built .....

Kind of cargo, present voyage .....

Customary cargo .....

Customary trade route .....

Compartments	Rat indications [1]	Extent of rat harborage [2]	Description of rat harborage [3]
Holds:			
No. 1			
No. 2			
No. 3			
No. 4			
No. 5			
No. 6			
No. 7			
Shelter deck space			
Bunker space			
Engineroom and shaft alley			
Forepeak and storeroom			
Afterpeak and storeroom			
Lifeboats			
Chart and wireless rooms			
Galley			
Pantry			
Provision storerooms			
Quarters (crews)			
Quarters (officers)			
Quarters (cabin passengers)			
Quarters (steerage)			

[1] None, old, or recent evidence of excreta, runs, or cutting.
[2] None, slight, moderate, or marked rat harborage.
[3] Describe harborage when present in marked amount.

Time taken for inspection ..... Estimated number of rats .....

Conclusions: Fumigate: Fumigations not indicated:

.....,
Inspector.

BACK OF INSPECTOR'S REPORT

PAST FUMIGATION AND TRAPPING RECORD

From ..... To .....

Fumigated ..... times, ... rats recovered.

Average of ..... rats per fumigation.

From ..... To .....

Trapped ..... Days..... Rats recovered.....

SUBSEQUENT FUMIGATION AND TRAPPING RECORD

Fumigation: Date ..... Rats recovered.....

Location: Holds Nos. 1 2 3 4 5 6 provision storeroom forepeak, poop, forecastle, living quarters, other places.

Trapping: Dates ..... Rats recovered.....

Location: Holds Nos. 1 2 3 4 5 6 provision storeroom forepeak, poop, forecastle, living quarters, other places.

METHOD OF PROCEDURE IN THE STUDY

Following usual quarantine inspection, vessels requiring fumigation under the regulations were so reported to the fumigation division. As orders to fumigate were received in the fumigation division, the names and dock location of the vessels to be fumigated were handed to the inspector. A careful rat-infestation inspection of the vessel was then made, but the results of inspection were not disclosed to the fumigators.

Following fumigation, the results of the rat-infestation inspection and of the fumigation and the past fumigation rat record of the vessel were compared. It was soon evident that the inspection foretold, in a reasonably constant manner, the amount of rat infestation, and would indicate whether or not the vessel should be fumigated for the destruction of rodents.

In Table 1 the results of the observations made on 100 vessels are analyzed, showing the relation of rat evidence to fumigation results.

TABLE 1.—*Relation of rat evidence to fumigation results*

Rat evidence	None	Old	Fresh			Total
			Slight	Moderate	Marked	
Number of vessels	24	9	26	34	7	100
Rats recovered by fumigation	2	1	73	495	353	924
Average rats per vessel	0.08	0.11	2.8	14.5	50.4	

As indicated by the figures of the above table there is a striking relationship between the amount and freshness of rat evidence and the number of rats on a given vessel.

CHARACTER OF RAT SIGNS SOUGHT IN DETERMINING THE FUMIGATION STATUS OF VESSELS

1. *Rat droppings* (excreta) are the most constant and dependable evidence of actual rat habitation. The number of rats on board can not be accurately estimated, but by careful inspection one may easily differentiate between the vessel with no rats, few rats, or many rats.

The distribution of evidence is of greatest value in estimating the degree of rat infestation. Five piles of droppings in widely separated parts of a vessel may be considered as sufficient indication of five rats, whereas the same amount of evidence in one hold or storeroom might suggest only one rat.

2. *Rat runs*, when plainly and freshly marked indicate the presence of rats, but do not denote numbers. Here again distribution is of value. It is sometimes difficult to distinguish between fresh and old runs and such marks may be painted out or otherwise obscured by the ship's crew.

3. *Gnawed woodwork* should be sought for and when found is proof of the presence of rats. Old cuts are easily distinguished from new.

4. *Damage to cargo*, such as cut sacks of coffee or grain, is obvious evidence, and the extent of damage indicates the degree of infestation.

5. *Rat nests, dead rats, and occasionally live rats* are encountered when vessels are inspected. Search of the bilges and inaccessible parts of vessels will repay diligence and care.

TABLE 2.—*Comparison of fumigation results of 100 vessels which had been inspected to determine the degree of rat infestation upon which to base a fumigation recommendation*

Total number of vessels 100
Passenger vessels 23
Cargo vessels 77

Type of vessel	Fumigation indicated by inspection			Fumigation not indicated by inspection		
	Number of vessels	Rats recovered	Average rats per vessel	Number of vessels	Rats recovered	Average rats per vessel
Passenger	12	375	31.2	11	15	1.36
Cargo	29	473	16.3	48	61	1.27
Total	41	848	20.6	59	76	1.29

NOTE: All vessels in above list were fumigated without regard to results of inspection.

The results recorded in Table 2 clearly indicate that the presence of a significant number of rats on a vessel can be determined with satisfactory accuracy by careful inspection.

In distinguishing between vessels requiring fumigation and those not requiring fumigation on the basis of inspection alone, the character and amount of rat evidence were the sole considerations. For the purposes of the study, evidence was classified as "none," "old," or "fresh." Fresh evidence was further classified as "slight," "moderate," or "marked." Vessels with no signs, old signs, or only slight fresh evidence were considered as not requiring fumigation. Evidence was considered "slight" when fresh signs indicated the presence of from 1 to 5 rats. On fumigation, 59 such vessels yielded 76 rats. Forty-one vessels showing moderate or marked amounts of fresh evidence yielded 848 rats after fumigation. Evidence was considered "moderate" when fresh signs indicated the presence of from 5 to 10 rats, and "marked" when the signs suggested the presence of more than 10 rats.

Approximately one-half of the vessels inspected did not show recent evidence of rats; and subsequent fumigation, while not to be considered as proof of the absence of rats, strengthens the contention that a considerable number of the vessels studied need not have been fumigated.

Subsequent to the completion of the study of 100 vessels, the system of inspection was put into routine use at the New York quarantine station. After a brief period of training, inspectors, who had long experience in ship surveys for rat proofing, were assigned to the inspection of vessels to determine the degree of rat infestation.

PROCEDURE IN PRACTICE

The method of procedure now followed is essentially that developed in the course of the study.

At the time vessels from foreign ports are boarded and inspected in quarantine, a fumigation order is issued in accordance with the requirements of the quarantine laws and regulations.

As soon as the fumigation division receives a copy of the order, the agents are communicated with and an inspection date is arranged after the complete discharge of cargo. Whether the vessel is fumigated or the period extended depends upon the findings of the inspector.

When vessels are to be fumigated, a transcript of the inspector's report showing the location and degree of rat infestation and the estimated number of rats is handed the medical officer in charge of the fumigation squad assigned to the vessel. Using this report as a guide, the yield of rats per fumigation has increased, as is shown by comparing these results with those of previous fumigations of the same vessels.

Table 3 lists the record of 200 inspections which resulted in the extension of the fumigation for 91 vessels, or 45.5 per cent of the vessels inspected.

TABLE 3.—*Results of the fumigation of 200 vessels in which treatment was based on the findings of inspection (none of these vessels are included in figures given in Tables 1 and 2.)*

Total number of vessels	200
Passenger vessels (26 per cent)	52
Cargo vessels (74 per cent)	148
Inspected and passed (45.5 per cent)	91
Inspected and fumigated (54.5 per cent)	109
Estimated number of rats (made before fumigation) (109 vessels)	1,796
Average number of rats estimated per vessel	16.47
Rats recovered by fumigation (109 vessels)	1,813
Average number of rats per vessel fumigated	16.63

CONCLUSIONS

The advantages of such a system of inspection are as follows:

(1) More efficient application of regulations regarding fumigation. When agents request extension of routine fumigation period, compliance can be based on the known absence of rats.

(2) More efficient fumigation of vessels. Knowledge of the whereabouts of rats and their approximate numbers stimulates fumigators to more diligent effort.

(3) Avoidance of expense and delay of shipping by avoiding unnecessary fumigation.

(4) Conservation of effort, equipment and material of quarantine station without relaxing essential precautions against dangerous vessels.

(5) Reduction in fumigating personnel through elimination of unnecessary fumigations.

(6) Definitely stimulates rat proofing of vessels and encourages trapping and other rat eradicative measures applied by steamship agencies which strive to obviate cost of fumigation and attendant delay.

RESPONSIBILITY OF INTERSTATE COMMON CARRIERS IN SUPPLYING SAFE DRINKING WATER TO PASSENGERS AND CREW

By ISADOR W. MENDELSOHN, *Associate Sanitary Engineer, United States Public Health Service*

Outbreaks of typhoid fever and other water-borne diseases due to impure drinking water on vessels on the Great Lakes and other bodies of water in the United States have been noted by Lumsden (1), de Valin (2, 3), Gorman (4), Connolly (5), and others; but no reference is found in scientific literature to any court action following such disease outbreaks or to the penalties imposed upon the delinquent common carriers.

The responsibility of companies transporting passengers in interstate traffic for the safety and welfare of the passengers and crew is clearly defined. As Tobey states (6):

> A private corporation is an individual entity and is liable for its wrongs, civil and criminal, just as is an individual. * * * Railroads, being common carriers, are required to take every reasonable precaution to insure the safety of their passengers, including their freedom from the possibility of catching disease. * * * Industrial concerns must provide their employees with safe and healthful surroundings in which to work. If they do not do so and a workman's health is impaired, the employer is liable. * * * Workmen's compensation acts in practically all the States provide for compensation for accidents arising out of the course of employment. * * * Typhoid fever, due to drinking polluted water supplied by the employer, has been held in several States to be an accident within the meaning of the law. * * * Whether workmen's compensation acts apply or not, the common law rule does, and that is to the effect that the employer is liable if disease results from causes over which he has control.

The interstate quarantine regulations of the United States require that water furnished for drinking or culinary purposes by interstate common carriers to passengers or crew be from an approved source and be handled in a sanitary manner. In the case of vessels, if such water is taken from overboard, it must be treated in an approved manner. The present interstate quarantine regulations were promulgated by the Secretary of the Treasury on May 3, 1921, pursuant to the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service," and an amendment to this act approved March 3, 1901, and other quarantine laws. The penalty for violation of these regulations is $500 or imprisonment for one year, or both.

A search made in law libraries and elsewhere for court decisions concerning outbreaks of water-borne disease due to polluted drinking water on vessels resulted in finding one case, regarding the steamship *South American*, which was decided definitely by the courts, and another which was settled out of court. Accounts of these cases, showing the responsibility of vessel companies and the financial losses involved because of the disease outbreaks, are given below.

OUTBREAK OF TYPHOID FEVER ON STEAMSHIP SOUTH AMERICAN (7)

The steamship *South American*, owned by the Chicago, Duluth & Georgian Bay Transit Co., proceeded on an excursion from Detroit to Houghton, Mich., in June, 1915. The vessel was provided with a pressure rapid sand filter and ultra-violet-ray sterilizer and, normally, only filtered and sterilized water was served to passengers. However, between 10.30 and 11 p. m. on June 6 the boat ran aground in Hay Lake (a broadened section of St. Marys River), about 12 miles below the Soo. The seacocks, through which water is supplied to the boat, were imbedded in the mud. The vessel was not released until between 4 and 5 a. m. of June 7. Meanwhile, the water in both ballast and fresh-water tanks had been exhausted for power purposes. When the boat was released, water was pumped directly from the river into the fresh-water system without being sterilized or even filtered, and without any attempt to remove the mud in the seacocks except by blowing out with steam. The fresh-water system supplied all stateroom faucets and the drinking fountains in the salon. The ship's officers recognized the river water taken aboard as unfit to drink and did not drink it. The crew were not allowed to drink it, and the faucet ordinarily available to them was wired up. The steward would not serve it on the table, and so no water was served at breakfast or luncheon on June 7. But neither the stateroom faucets nor the drinking fountains were sealed, nor were the passengers warned against drinking the water from them. The water, even though turbid, was drunk by many of the passengers, as no water was served at the table and no ice water was available.

The preponderance of evidence indicated that the water of St. Marys River at the point where the vessel took overboard water was unfit for human consumption. The reports of the International Joint Commission on the Pollution of Boundary Waters and of the Michigan State Board of Health were cited. In addition, it was shown that, in 1915, prior to the accident, eight cases of typhoid fever, one of which occurred on June 4, had been reported at Sault Ste. Marie, Mich.

Appellees, 11 in number, filed libels in rem for recovery of damages by reason of illnesses alleged to have been caused by tainted food and contaminated water asserted to have been served to libelants while passengers on the vessel at the time. Each of these passengers was ill on the vessel, and each on returning home developed a serious illness. The judge of the district court of the United States for the southern division of the eastern district of Michigan found that a comparatively small quantity of tainted duck and meat was negligently served to the passengers; but while expressing a suspicion that some of the illnesses on the boat may have been aggravated by eating the tainted food, the court was of the opinion that libelants had not sustained the burden of proving that such illnesses were caused thereby. It was, however, found that each of the libelants received from the contaminated water the disease germs which caused their illnesses after the return of the boat to Detroit. Nine of the libelants suffered from typhoid fever and the other two from an illness closely allied to typhoid. The district court held that the steamer was clearly negligent in not warning the passengers against drinking the impure lake water. There was an award of damages to each libelant.

The circuit court of appeals, sixth circuit, on June 30, 1919, affirmed the decrees for all except three libelants, holding that, during several hours at least, and through the steamer's negligence, contaminated water was provided for the passengers. The court held that "an award of $1,500 as actual compensation for pain and suffering is probably no more than would be given by either court or jury in a normal and individual case" and made this award to nine of the libelants. In addition, the court awarded damages for medical expenses, business losses, costs, etc., the total sum involved for all the libelants being over $38,000. The decision considers the illness of each libelant and the damages suffered in detail.

OUTBREAK OF TYPHOID FEVER ON STEAMSHIP (5) IN 1913 (8)

In 1913 an outbreak of typhoid fever occurred among the passengers and crew of an excursion vessel on the Great Lakes. An investigation of this epidemic was made by an officer of the United States Public Health Service. He reported that the vessel had taken on water from the lakes at a place where the water was likely to be contaminated. Aboard the steamer was a cook who might have been a typhoid carrier. Another investigation was made by a former official of a city health department, who rendered the opinion that

there was a close question as to whether the epidemic was due to the water taken on the steamer and served to the passengers for drinking purposes, or to the contact of the cook with the food which was served.

Forty-nine members of the excursion party claimed to have sustained injury by contracting typhoid fever, and after libeling the steamer in June, 1915, they filed claims for damages in the sum of $265,000. In addition to the libels in admiralty, six separate State court suits were brought by administrators of the estates of other persons who had died from illness alleged to have been contracted on the voyage in question.

Subsequently a number of other suits were brought, and upon motion by owners' attorneys, which motion was contested by the libelants, the Federal court consolidated the actions, holding that the cases should be tried as one. Limitation proceedings were then begun in an attempt to limit any recovery to the value of the vessel. The court, in accordance with usual practice, turned the vessel over to a trustee, in whose name it was kept insured during the pendency of the action. The court finally set May 1, 1917, as the date of sale of the steamer. In the meantime negotiations progressed, and the libelants' counsel finally offered to accept $110,000 in full settlement. The case was disposed of on this basis, and the steamer was sold.

REFERENCES

(1) Outbreak of Gastro-Enteritis and Typhoid Fever due to Drinking Water on Excursion Steamer. By L. L. Lumsden. Pub. Health Rep., Vol. XXVII, No. 48, Nov. 29, 1912. Reprint No. 104.
(2) Typhoid Fever and Gastroenteritis. By Hugh de Valin. Pub. Health Rep., Vol. XXVIII, No. 51, Dec. 19, 1913. Reprint No. 157.
(3) The Water Supplies of Ships. By Hugh de Valin. Pub. Health Rep., Vol. 29, No. 7, Feb. 13, 1914.
(4) Report of Conditions under which Drinking Water is Being Supplied on Vessels Operating in Interstate Traffic on the Great Lakes, with Reference to Typhoid Fever among Great Lakes Seamen. By A. E. Gorman. Public Health Bulletin No. 123, pp. 77–94, December, 1921.
(5) Epidemics from Steamboat Water Supplies. By Joel I. Connolly. Public Health Bulletin No. 123, pp. 56–64, December, 1921.
(6) Public Health Law. By James A. Tobey. Pp. 184–5.
(7) Chicago, Duluth & Georgian Bay Transit Co. *v.* Moore et al. 259 Fed. Reporter, 490, June 30, 1919.
(8) Correspondence dated Dec. 20, 1926, in the office of Interstate Sanitary District No. 3, United States Public Health Service, 4141 Clarendon Avenue, Chicago, Ill.

STATE HEALTH DEPARTMENT SUPERVISION IN THE CONTROL OF TUBERCULOSIS

The National Tuberculosis Association has recently issued a 79-page pamphlet comparing the tuberculosis work of the different State departments of health as of the year 1924. The data were obtained by Dr. Robert E. Plunkett, director of the division of tuberculosis of the New York State Department of Health, by means of a questionnaire sent to all State and Territorial departments of health. The pamphlet contains a summary of all the official tuberculosis work as carried out by all States except Nevada, and by the District of Columbia, Alaska, Hawaii, Panama Canal Zone, and the Philippine Islands. In the first section, comprising the largest part of the pamphlet, there is set forth a detailed summary of the tuberculosis work of each of the State or Territorial health departments; the second part consists of tables which condense and summarize the information obtained in the survey; and the third part presents the data relating to the reporting of tuberculosis in New York State, exclusive of New York City.

The questionnaire on which the information was secured contained the following queries, most of which had several subdivisions:

1. Does the State health department or State board of health have a bureau or division of tuberculosis?
2. Is there a state-wide law in your State making compulsory the reporting of cases of tuberculosis by physicians and institutions?
3. Does your State have a State sanatorium or sanatoria?
4. Does your State have a system of county tuberculosis hospitals?
5. Does your State have any city tuberculosis hospitals?
6. Does your State provide any State aid toward meeting the county or city expenses for construction or maintenance of such hospitals or both?
7. Does the State or do individual localities within the State establish and operate dispensaries for the diagnosis and treatment of tuberculosis?
8. Does your bureau or division of tuberculosis have any of the following duties? (List of 12 supervisory and other duties.)
9. What is the total appropriation for tuberculosis work in the State health department or State board of health for the current fiscal year, exclusive of appropriations for hospitals?

No attempt is made to evaluate any of the methods of procedure of the various State health departments, for the obvious reason that conditions vary, and activities apparently necessary in one State may not be so in others. Nor was any attempt made to obtain or include reports of any work carried on by unofficial or private agencies, although Doctor Plunkett recognizes the place and lauds the work of unofficial organizations.

With regard to the reporting of cases of tuberculosis, of the 41 States for which the information is given, the highest ratio of reported cases for each death registered was 3.3, and the lowest 0.004.

The tables give an excellent summary, by States, of the information obtained from the questionnaire which is presented in more detail under each State in the first part of the report.

Information regarding this report may be had by addressing the National Tuberculosis Association, 370 Seventh Avenue, New York City.

THE NOMENCLATURE FOR MAN, THE CHIMPANZEE, THE ORANG-UTAN, AND THE BARBARY APE

Apes and monkeys are popularly viewed as interesting animals, the antics of which are enjoyed by children and adults who visit zoological gardens or who listen to hand organs. Some monkeys have been considered sacred and some are used as food. In scientific studies monkeys have played an important rôle for many years in comparative anatomy and in the theory of evolution.

Within recent years it has been discovered that a number of apes and monkeys can contract diseases which attack man, and this fact has enabled investigators to have laboratory patients for close observation during their studies of some of the important infectious diseases of man.

As soon as a group of animals passes from the rôle of popular or of academic interest to a rôle in applied science it becomes increasingly more important to classify them more exactly, to study them more carefully, and to have for them unambiguous names which enable investigators in all countries to know exactly what animals other students are using as basis for their work.

In classifying certain diseases of apes and monkeys with reference to the diseases of man, the difficulty has developed that the technical names of some of the animals are so confused that it is often uncertain just which animal an author is dealing with. For instance, the Latin name *Simia* is used by different authors to designate three entirely distinct groups of Primates, namely, the chimpanzee, the orang-utan, and the Barbary ape. This confusion, if continued, may result in loss of human life because of errors of interpretation of statements by various authors.

Confronted with this possibility, the United States Public Health Service has prepared a special bulletin (Hygienic Laboratory Bulletin No. 145) in an endeavor to straighten out the existing confusion. The authors, Dr. C. W. Stiles and Mabelle B. Orleman, have traced the literature of several of the higher apes back to 1551 and have tabulated the technical names used by authors for the animals in

question. This study shows how human beings have sometimes been mistaken for apes and apes have sometimes been mistaken for human beings.

The publication, which is illustrated by 14 pictures of considerable historical value, is highly technical. The numerous Latin names are quoted, and their original source of publication and their later history are given.

The chief cause of the existing confusion, the authors consider, is that college students who study zoology are not properly taught how to write scientific language, and as a result they do not in their later scientific careers write this language correctly. A plan for teaching zoological nomenclature, which is the grammar of zoological language, is proposed, and the application of the International Rules to the names is discussed.

The bulletin is now in the hands of the printer and will be off the press at an early date.

PUBLIC HEALTH ENGINEERING ABSTRACTS

Thermal Death Points of Pathogenic Bacteria in Milk. William H Park. *American Journal of Public Health*, vol. 17, No. 1, January, 1927, pp. 36–47. (Abstract by H. A. Kroeze.)

This article begins with a review of the results of experiments and conclusions of investigators on the thermal death points of pathogenic bacteria, especially tubercle bacilli, in milk under laboratory conditions. Laboratory experiments quite definitely fix these death points; but it is pointed out that additional heat must be applied to milk during commercial Pasteurization to allow for mechanical defects and so insure sufficient heating of every portion of the milk for the desired time. This is what is known as the margin of safety, and it varies in different machines according to the perfection of the construction and operation.

An interesting and important practical test conducted by Traum and Hart on naturally infected milk Pasteurized under commercial conditions is mentioned. This milk came from a herd of about 500 head of cattle, all of which were tuberculous, and which were under constant observation. The milk was allowed to be sold in Los Angeles after it had been Pasteurized. The conditions presented an ideal opportunity to study the effect of ordinary Pasteurization in a large modern city milk plant on tubercle bacilli in naturally infected milk.

The investigators concluded that the findings from this study indicate, first, that Pasteurization at 140° F. for 20 minutes kills tubercle bacilli in naturally infected milk and, second, that the Pasteurization of milk from nontuberculin tested cows by heating uniformly for 25 minutes at a temperature of 140° to 145° F., as

provided for in the new California State dairy law, will render such milk free from tuberculous infection.

Other experiments are mentioned wherein both bovine and human strains of tubercle bacilli were used and no appreciable difference was found in the thermal death point. A temperature of 140° F. for 20 minutes' exposure prevented milk infected with either type of bacilli from carrying infection to injected guinea pigs.

The author gives, in some detail, tests of commercial Pasteurization with defective and improved machines at Endicott made at the request of the Borden company. These experiments showed that satisfactory results were obtained with suitable machines with exposure to temperatures of 142° to 145° F. for 30 minutes, and that with improper apparatus some of the tubercle bacilli survived an apparent, but not a real, exposure of 30 minutes, not only at 142° but also 145° F.

In the opinion of the author, models of Pasteurizing plants should be submitted to sanitary engineers before they are built and should be inspected by trained inspectors in order to prevent the use of improperly and carelessly made machines; for without satisfactory equipment no practical regulation as to time and temperature of Pasteurization would be safe.

The Trend of Modern Methods in Water Purification. C. Arthur Brown, Engineer, American Steel & Wire Co. Paper presented at the Ninth Texas Water Works Short School, January 24–29, 1927, Dallas, Tex. (Abstract by W. H. Wendler.)

This paper reviews the progress in the art of water purification during the last 10 years, dividing the subject into seven parts—initial or low-lift pumping, preliminary sedimentation, chemical treatment, mixing sedimentation, filtration, and sterilization. The author again divides "chemical treatment" as follows: Measurement of flow to be treated, control of flow previous to, during, and following chemical treatment (including formation of coagulation and introduction of water into the settling basins), and nature of chemical treatment to be given. Attention is called to the fact that little progress has been made in two important parts of the work—sedimentation and the efficiency of the filters themselves. The paper states that little, if any, progress has been made in the designs of settling basins or the results secured by the use of such basins, some plants showing very low efficiency. Attention is also called to the fact that many plants are experiencing considerable difficulties with the filters. The trouble with such filtration is attributed to imperfect and faulty washing and this in turn to the design of filter bottoms as now constructed. It is stated that most of the trouble found in plants where settling basin efficiency is low and filtration efficiencies are unsatisfactory may be rightly attributed to the engineering and

not to the operation of such plants. A short history of all chemical processes employed in water purification is incorporated, with a brief statement as to their limitations. It is noted that there is a gradually increasing tightening of standards, that water purification methods have become more complex, and that the trend in this direction will probably result in higher standards of purification and more and more complicated chemical processes, creating new difficulties in design for the engineer and involving more skillful operation of the plants of the future.

Cross Connections (Present Status in Kansas Outlined in Kansas Municipalities). Anon. *Water Works*, Vol. 65, No. 12, December, 1926, pp. 577–578. (Abstract by E. A. Reinke.)

On June 1, 1925, the Kansas State Board of Health passed a regulation requiring the elimination of by-pass piping around purification plants and all cross connections between public and private water supplies, with certain exceptions, as follows: (1) When the private supply is submitted to regular inspection and analysis and water is found to be satisfactory and from a reasonably safe source; (2) for emergency protection, two valves with an open bleeder between, sealed by the water department, may be maintained under special permit signed by the chief engineer and the secretary of the State board of health.

A total of 138 cross connections have been listed and classed as follows:

Permits on satisfactory inspection and analysis	29
Double valve and bleeders	28
(Permits as above, 12.)	
Cross connection severed	35
Overhead discharge provided	2
Disposition pending	44

The Sanitary Organization of the City of Copenhagen, Denmark. Dr. I. P. Chrom, chief city medical officer of health, League of Nations Health Organization in Denmark, Dec. C. H./E. P. S./49 (issued by the Health Section), pp. 293–307. (Abstract by H. B. Hommon.)

The sanitary organization consists of the chief city medical officer of health and a health committee, consisting of physicians, veterinarians, and engineers, working under the direct supervision of the city medical officer. The sanitary regulations adopted in 1918 for the administration of the public health service are divided into sections, as follows:

Section I. This section deals with the members, staff, and procedure of the health committee.

Section II. The drainage system. The health committee interferes with the drainage system only when problems of public health are involved.

Section III. Public cleanliness, etc. The health committee exercises jurisdiction over the sweeping and watering of the streets, over courtyards, toilets, urinals, garbage disposal, etc., only when necessary to protect health.

Section IV. Latrines. The health committee determines what regulations should be enforced in regard to construction and operation of flush toilets, urinals, and privies.

Section V. Public nuisances. The health committee issues regulations to control establishments producing odors, noise, vibrations, or other conditions detrimental to public health.

Section VI. Articles of food. Comprehensive regulations have been adopted by the health committee in regard to the manufacture, handling, and sale of articles of food. They cover adulteration, examination of food handlers, cleanliness of buildings, equipment in stores, vehicles for transporting food, and the construction of wells.

Section VII. Dwellings. The health committee exercises jurisdiction over dwellings only in relation to matters pertaining to health.

Section VIII. Public houses and doss houses. For public houses (restaurants) the regulations of the health committee require for houses of one room a floor area of 40 square meters, and for houses of two rooms one floor must have at least 30 square meters. No room shall have a floor area less than 10 square meters, and the height of rooms must be at least 3 meters and no floor shall be more than 0.3 meter below street level. The aggregate window area must be one-sixth of the floor area, and one-third of the window area must be capable of being opened. Every restaurant must have attached a kitchen with floor area of not less than 10 square meters and a larder with floor of 1 square meter. Doss houses are lodgings in which beds are let for the night with two persons occupying one room. The rooms must have at least 8 cubic meters per bed. Double beds are not allowed.

Section IX. Schools, Orphanages, and Crèches. Special sanitary regulations prepared by the health committee cover these three classes of institutions.

STAFF OF THE HEALTH COMMITTEE

Divisional health officers.—There are four divisional health officers appointed for six years. The first, or chief, has supervision over all matters pertaining to children; the second, over sanitation of houses; the third, over food and water supplies; and the fourth, over venereal diseases, hospitals, and epidemiological studies.

Veterinary surgeons.—There are three veterinary surgeons. The first, or chief, issues all certificates and recommendations relating to veterinary questions and is in charge of milk inspection; the second inspects butchers' shops, and the third is assistant to the others.

Engineers.—The health committee employs a chief engineer and a second engineer, who advise the committee on sanitary questions of a technical nature. The chief engineer is also the head of the housing inspection service.

A New Mosquito Poison. *Science*, vol. 65, No. 1672, January 14, 1927. p. x. (supplement).

"E. Roubaud, of the Pasteur Institute in Paris, has recently announced that a formaldehyde compound manufactured in France offers advantages over anything previously used in the fight against mosquitoes.

"M. Roubaud is a man of such high scientific standing that United States Government entomologists are going to make tests, it is announced in the Bureau of Entomology. The new compound may prove to be a weapon in the hands of Americans who are handling the question of mosquito control over very large salt marsh areas. Even if this should prove impractical, it appears that the new substance will be available for easy treatment of small ponds, fountains, and the like.

"The preparation is said to be nonpoisonous to warm-blooded animals and fish and to have no injurious effect upon aquatic plants. It is in the form of an extremely light dust, readily driven by the wind. Settling upon the surface of the water, it brings about the almost immediate death of the larvae of the malarial mosquitoes, which are top feeders, and with a subsequent slight agitation of the water sinks slowly in suspension, where it is eaten by the larvae of other mosquitoes.

"Roubaud recommends a mixture by weight of one part of the powder with 50 parts of very dry sand. This mixture has been tried successfully by him on fields in Alsace inundated by the Rhine. The cost of this method of treatment compares favorably with that of the arsenical dusts used in this country. It is said to amount to 50 francs to 10 hectares of water surface, or about 8 cents an acre at the present exchange rate."

How the Cotton Belt Railway Cut Malaria Rate Ninety-seven Per Cent in Nine Years. H. W. Van Hovenberg. *Railway Engineering and Maintenance*, vol. 22, No. 10, October, 1926, pp. 382–390. (Abstract by J. A. LePrince.)

The sanitary engineering department of this railroad has reduced the number of employees admitted to hospital for malaria from 100 per 1,000 in 1917 to 3 in 1925. In addition, it has improved the railway station sanitation rating over 50 per cent by developing the interest and cooperation of station agents. Also, there has been achieved a marked improvement of appearance of station grounds, inspection and certification of water supplies, supervision of cleaning of passenger equipment, and a wide variety of laboratory analysis

work done. This department consists of a directing sanitary engineer, his assistant, a chemist, an entomologist, a malaria technician, and sanitary inspectors.

The malaria program was planned to give relief to both employees and dependents and to stimulate mosquito eradication campaigns in communities served by the railroad. The following methods were employed: Eradication of mosquitoes by drainage and oiling; the proper screening of living quarters; quinine prophylaxis; and educational campaigns. This pioneering work of the Cotton Belt Railway has been a means of furthering this character of work in many cities and on other railroads.

Studies of the Malaria Problem in Porto Rico. Anon. *Porto Rico Health Review*, vol. 2, No. 5, November, 1926, pp. 22–28. (Abstract by L. D. Fricks.)

In this paper, the sixth reporting these studies, the influence of vegetation and small fish on mosquito production is discussed. The grasses grow rapidly in the ditches and larger water courses and are generally favorable to mosquito production, presenting one of the biggest problems in controlling mosquitoes in Porto Rico. Hornwort, algae, and lemna are also mentioned as variable factors in mosquito production on the island.

The common fishes found in small streams and ditches are discussed and their influence upon mosquito production is considered questionable.

Garbage Disposal by Incineration in Stamford, Conn. C. P. Shattuck. *American City*, Vol. 36, No. 2, February, 1927, pp. 182–184. (Abstract by D. W. Evans.)

A Decarie incinerator of 70 tons capacity serving two tax districts of the city was installed in 1924. The building is a three-story brick structure located on the outskirts of the city. Trucks and wagons reach the third floor by a ramp, and the combustible materials are charged into the incinerator, which is located on the second floor. The bottom floor is devoted to dump from the grates.

The sanitary code, which is enforced by the health department, requires the householder to separate combustible and noncombustible waste material. The noncombustible and waste from the incinerator are used as fill near the plant.

Collections are made by eight wagons, two 1-ton trucks, one 2-ton truck, and one 3½-ton truck. A crew of four men accompany the larger trucks; one man delivers to the curb, one loads, one returns the containers, and one drives the truck. The route is speedily covered. Operating records show loads rather than weights; in July, 725 loads were handled. Maximum day load was 43; minimum day load was 15.

Refuse Disposal in Connecticut. *Public Works*, Vol. 58, No. 1, January, 1927, pp. 14–15. (Abstract by Dana E. Kepner.)

This article is an abstract of an address given before the New England Health Institute on October 1, 1926, by Warren J. Scott, director, Bureau of Sanitary Engineering, State Department of Health, Hartford, Conn.

From a limited survey made of refuse disposal conditions in various Connecticut communities in 1923, the following data were secured: Of 31 cities and towns, 23 required garbage separated from ashes and rubbish, 7 did not require separation, and 1 permitted garbage and rubbish together with ashes and can separate. None required wrapping of the garbage.

In places where all refuse is dumped, some trouble has been experienced with fires and with rats and cockroaches. One city had a municipal hog farm and 15 others were using hog feeding, letting out the disposal, and generally the collection, to private contractors. One incinerator and one reduction plant were in use.

Yearly per capita costs for complete refuse collection and disposal service varied from $0.15 to $3. In general, both hog feeding and incineration were found successful, but dumping and reduction generally unsatisfactory.

Garbage Collection and Incineration in Sewickley. John C. Hiteshew, borough manager, Sewickley, Pa. *Public Works*, Vol. 58, No. 1, January, 1927, pp. 11–13. (Abstract by Dana E. Kepner.)

The Borough of Swickley is a residential suburb of Pittsburgh. It has a population of 5,000 and is located on the northern bank of the Ohio River. Garbage, drained and wrapped, is placed by the householder in covered, galvanized iron pails having a capacity of 11 gallons each and furnished by the borough. These are collected weekly, and taken to an incinerator where they are dumped and washed, and are then returned to replace those collected the next week. Rubbish is collected separately at monthly intervals. The incinerator, built in 1924, comprises two Morse-Boulger Destruction Co. units, of 15 tons daily capacity each, housed in a two-story brick building 27 by 37 feet. Coal is used in burning the garbage at the rate of 150 pounds per ton. The cost of the incinerator complete was $41,500. The entire cost of garbage service per capita was $1.75 in 1925. The cost for collection in 1925 was $3.28 per ton; and that for incineration $2.90 per ton.

Garbage Collection and Disposal, Lansing, Mich. Edward D. Rich. Proceedings American Society of Civil Engineers, October, 1926, pp. 1656–1659. (Abstract by L. D. Mars.)

This is a brief account of what Lansing has done with hog feeding. An analysis of the cost for eight months showed a profit of over $9,000.

Improving Sewage Sludge Digestion. Willem Rudolfs, chief, Department of Sewage Disposal, New Jersey Agricultural Experiment Station. *Public Works*, Vol. 58, No. 1, January, 1927, pp. 19–23. (Abstract by Dana E. Kepner.)

Studies to determine how to improve and better to control the digestion of sludge in septic, Imhoff, and separate sludge digestion tanks indicated considerable change in the pH concentration of the sludge during digestion. For optimum digestion the pH concentration should be controlled by either the regular addition of fresh sludge or the addition of lime, or by heating. The colorimetric method for pH determination was found most successful. Bromthymol-blue and phenol red were the only indicators needed for domestic sewage, as the optimum values varied only from 6.2 to 8.2.

The amounts of hydrated lime necessary to change the reaction of domestic sewage sludge to a pH value of 7.3 are shown in a chart. Methods used in sampling and testing the sludge and in applying the lime, are included, and suggestions are given for correcting the operation of foaming tanks.

An Epitome of Sewage Treatment. George A. Johnson, Consulting Engineer, New York. *American City*, Vol. 36, No. 2, February, 1927, pp. 176–178. (Abstract by D. W. Evans.)

The different methods of sewage treatment are briefly discussed and the need for more research on the mechanical treatment is emphasized in order to get away from long outfall sewers and costly treatment areas.

Clarification can be attained by screens, sedimentation, chemical precipitation, or combination. Treatment of the clarified liquors is accomplished by filtering, activation, direct oxidation, or oxidation with an unstable compound such as calcium hypochlorite.

Treatment of the sludge produced has been the biggest question and one of complexity. It has been carried on by filtering, centrifuging, and heat treatment to remove the water. It is with the sludge treatment that the greatest need is felt for better mechanical processes. Nuisances which have accompanied the biological treatment, such as odors and insects, will be eliminated by the mechanical processes.

Irrigation with Treated Sewage in Western Texas. H. N. Roberts and Don L. Jones. *Engineering News-Record*, Vol. 97, No. 26, December 23, 1926, pp. 1026–1028. (Abstract by Frank Raab.)

Lubbock, Tex., formerly discharged its sewage into Double Mountain Fork Canyon, but the canyon nearly dried up and the complaints resulting forced the city to take other measures. The city was advised to purchase a 100-acre tract of tillable land and discharge its sewage from the Imhoff tanks and the sprinkling filters upon it. The land was purchased, a reservoir which holds a two-day supply,

was constructed, the land was subleased, and 80 acres of it were planted into crops varying from corn and cotton to watermelons. The experiment proved successful. At the time of this inspection no odor or any bad feature was observed. The article also contains tables showing the total expenditure, including original cost as well as equipment and operation.

The Rate of Atmospheric Reaeration of Sewage-Polluted Streams. H. W. Streeter. *Public Health Reports*, Vol. 41, No. 7, February 12, 1926, pp. 247–262. (Abstract by E. L. Filby.)

Observations and theoretical discussion of reaeration of sewage polluted streams such as Ohio and Illinois Rivers. Deductions of former investigations checked. Rates of reaeration are controlled by temperature, turbulence, and oxygen saturation deficit of the stream. Theories of reaeration carefully applied offer a working hypothesis for more rational treatment of stream sanitation problems.

POPULATION OF HOSPITALS FOR THE INSANE

Data for July, 1926

Reports for the month of July, 1926, were received from 147 institutions for the care and treatment of the insane.

There was an increase in the number of patients during the month of 0.60 per cent. The number in hospitals increased 0.33 per cent, and the number on parole increased 3.85 per cent.

First admissions constituted 77.1 per cent of the total admitted, readmissions, 15 per cent; and 7.9 per cent of the admissions were transfers or not accounted for.

Of the patients discharged, 23.3 per cent were recorded as recovered, 49.7 per cent as improved, 18.8 per cent as unimproved, 6.6 per cent as without psychosis, and 1.6 per cent were "otherwise discharged" or not accounted for.

There were 1,082 male patients per 1,000 females in the hospitals at the end of the month.

Seven and nine-tenths per cent of the patients were on parole or otherwise absent from the institutions on July 31.

The deaths for the month numbered 1,577, which gives an annual death rate of 88 per thousand patients under treatment.

Movement of patient population in 147 hospitals for the care of the insane during July, 1926

Number of institutions included:	
Public	125
Private	22
Total	147
Patients on books July 1, 1926:	
In hospitals	189, 753
On parole or otherwise absent but still on books	15, 669
Total	205, 422
Admitted during July:	
First admissions	4, 213
Readmissions	818
Admitted by transfer	424
Not accounted for	9
Total received during month	5, 464
Total on books during month	210, 886
Discharged during July:	
As recovered	525
As improved	1, 123
As unimproved	424
As without psychosis	150
Otherwise discharged	34
Not accounted for	2
Total discharged during July	2, 258
Transferred	404
Died	1, 577
Total discharged, transferred, and died during July	4, 239
Patients on books July 31, 1926:	
In hospitals	190, 374
On parole or otherwise absent but still on books	16, 273
Total	206, 647
Male patients	107, 392
Female patients	99, 255

INTERNATIONAL CONGRESS OF MILITARY MEDICINE AND INTERNATIONAL HYGIENE EXPOSITION AT WARSAW IN MAY AND JUNE

The Fourth International Congress of Military Medicine and Pharmacy will be held at Warsaw, Poland, from May 30 to June 4, 1927; and from May 30 to June 20 there will also be held in Warsaw an International Exposition of Hygiene and Technical Health Service Material.

The Congress of Military Medicine will have for consideration the following subjects, assigned by the General Assembly of the Paris Conference at its session of April 25, 1925:

1. Evacuation in war maneuvers.
2. Etiology and prophylaxis of grippe.
3. Sequellæ of traumatisms of the skull and their treatment.
4. The arseno-benzols—methods of analysis and chemical valuation.

The object of the hygiene exposition is to show the progress and new scientific equipment in the domain of general hygiene, as well as the development in the various industrial fields related to health and sanitation. The exposition will have the following sections:

1. Field health equipment—sanitary equipment, transportation, protection against gases, etc.
2. Hospitalization—diagnosis, therapy, infirmaries, first-aid kits, transportation of wounded, statistics, etc.
3. Sanitary installations.
4. Chemistry and pharmacy.
5. Medical and dental instruments and apparatus.
6. Hospital equipment—surgery, dressings, sick wards.
7. Veterinary medicine.

A jury will make awards to exhibitors in the nature of certificates of honor, and gold, silver, and bronze medals.

DEATHS DURING WEEK ENDED MARCH 19, 1927

Summary of information received by telegraph from industrial insurance companies for week ended March 19, 1927, and corresponding week of 1926. (From the Weekly Health Index, March 24, 1927, issued by the Bureau of the Census, Department of Commerce)

	Week ended Mar. 19, 1927	Corresponding week 1926
Policies in force	67, 030, 693	63, 694, 691
Number of death claims	13, 711	15, 314
Death claims per 1,000 policies in force, annual rate	10. 7	12. 5

Deaths from all causes in certain large cities of the United States during the week ended March 19, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926. *(From the Weekly Health Index, March 24, 1927, issued by the Bureau of the Census, Department of Commerce)*

City	Week ended Mar. 19, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate week ended Mar. 19, 1927 [2]
	Total deaths	Death rate [1]		Week ended Mar. 19, 1927	Corresponding week 1926	
Total (68 cities)	8,026	14.1	[3] 18.2	943	[3] 1,184	[4] 79
Akron	26			3	8	82
Albany [5]	42	18.3	24.5	5	4	104
Atlanta	100			12	13	
White	53			6	8	
Colored	47	(6)		6	5	
Baltimore [5]	302	19.2	17.8	31	28	96
White	220		15.3	21	19	81
Colored	82	(6)	32.4	10	9	156
Birmingham	73	17.7	18.8	9	14	
White	21		16.3	3	5	
Colored	52	(6)	22.6	6	9	
Boston	262	17.2	23.1	33	32	92
Bridgeport	27			2	10	37
Buffalo	189	17.9	16.2	29	23	122
Cambridge	34	14.3	21.4	3	4	53
Camden	44	17.2	21.1	6	11	103
Canton	32	14.8	15.6	11	3	261
Chicago [5]	734	12.3	17.7	75	149	65
Cincinnati	134	17.0	19.3	10	17	62
Cleveland	190	10.1	14.9	23	38	61
Columbus	72	12.9	15.7	5	7	47
Dallas	40	10.0	15.2	1	10	
White	29		13.9	1	8	
Colored	11	(6)	23.2	0	2	
Denver	86	15.5	15.0	8	7	
Des Moines	36	12.6	18.2	2	4	33
Detroit	336	13.1	20.6	58	113	92
Duluth	26	11.8	9.2	3	5	65
El Paso	33	15.1	15.8	4	4	
Erie	28			4	7	78
Fall River [5]	40	15.7	17.1	6	7	106
Flint	33	12.0	13.0	7	9	114
Fort Worth	40	12.7	11.2	2	2	
White	33		11.9	2	2	
Colored	7	(6)	5.5	0	0	
Grand Rapids	20	6.6	16.0	1	7	15
Houston	55			5	9	
White	40			5	4	
Colored	15	(6)		0	5	
Indianapolis	102	14.2	19.0	7	9	55
White	88		17.9	6	8	54
Colored	14	(6)	27.3	1	1	61
Jersey City	81	13.1	16.6	7	14	52
Kansas City, Kans	34	15.2	11.1	5	2	97
White	22		11.3	4	1	89
Colored	12	(6)	10.2	1	1	152
Kansas City, Mo	117	15.9	19.2	16	16	
Knoxville	17	8.7		3		
White	11			3		
Colored	6	(6)		0		
Los Angeles	270			18	20	52
Louisville	82	13.4	22.3	6	18	51
White	62		18.6	5	13	49
Colored	20	(6)	43.3	1	5	70
Lowell	26	12.3	18.4	4	11	77
Lynn	28	13.9	19.1	1	7	26
Memphis	88	25.6	19.1	6	6	
White	47		12.8	3	2	
Colored	41	(6)	30.6	3	4	
Milwaukee	125	12.4	12.0	13	26	61
Minneapolis	89	10.5	13.6	7	9	39
Nashville [5]	28	10.6	27.0	2	9	
White	15		22.3	1	4	
Colored	13	(6)	38.8	1	5	
New Bedford	28	12.2	16.6	1	6	17
New Haven	36	10.1	19.5	5	3	70

(Footnotes at end of table)

Deaths from all causes in certain large cities of the United States during the week ended March 19, 1927, infant mortality, annual death rate, and comparison with corresponding week of 1926—Continued

City	Week ended Mar. 19, 1927		Annual death rate per 1,000 corresponding week 1926	Deaths under 1 year		Infant mortality rate week ended Mar. 19, 1927
	Total deaths	Death rate		Week ended Mar. 19, 1927	Corresponding week 1926	
New Orleans	188	23.1	20.0	16	8	
White	120		16.0	11	4	
Colored	68	(6)	31.6	5	4	
New York	1,621	14.2	20.5	258	261	107
Bronx Borough	186	10.5	15.1	23	32	73
Brooklyn Borough	535	12.3	19.6	104	107	108
Manhattan Borough	684	19.6	27.0	107	102	126
Queens Borough	165	10.6	13.1	16	15	68
Richmond Borough	51	18.1	23.0	8	5	149
Newark, N. J	116	13.0	17.3	13	19	64
Norfolk	26	7.6	14.1	1	9	20
White	9		8.0	1	3	33
Colored	17	(6)	24.8	0	6	0
Oakland	56	10.9	11.2	4	5	47
Oklahoma City	21			0	4	
Omaha	51	12.1	10.6	4	2	44
Paterson	43	15.6	23.3	6	4	106
Philadelphia	658	16.9	21.6	58	73	77
Pittsburgh	184	14.9	19.1	23	36	80
Portland, Oreg	54			2	6	21
Providence	70	13.0	14.8	9	7	76
Richmond	61	16.6	16.6	8	12	106
White	42		13.2	3	6	61
Colored	19	(6)	24.6	5	6	190
Rochester	80	12.9	23.2	6	8	50
St. Louis	232	14.4	15.9	16	14	
St. Paul	66	13.8	13.5	7	4	64
Salt Lake City [4]	44	16.9	9.4	5	4	76
San Antonio	56	13.8	15.3	8	7	
San Diego	33	15.0	17.5	2	1	43
San Francisco	133	12.0	11.0	9	4	56
Schenectady	24	13.5	15.1	0	0	0
Seattle	79			5	6	52
Somerville	25	12.8	12.0	3	1	108
Spokane	18	8.6	20.6	3	0	75
Springfield, Mass	34	12.1	20.1	5	7	77
Syracuse	36	9.5	25.6	2	8	26
Tacoma	31	15.1	12.8	0	5	0
Toledo	76	13.0	13.3	14	9	135
Trenton	33	12.6	22.2	4	11	70
Utica	37	18.7	20.8	4	4	91
Washington, D. C	167	16.1	14.6	15	9	87
White	104		13.8	10	6	84
Colored	63	(6)	17.2	5	3	92
Waterbury	26			5	2	118
Wilmington, Del	28	11.6	16.4	8	5	198
Worcester	53	14.2	15.9	4	6	48
Yonkers	29	12.7	18.0	3	4	68
Youngstown	38	11.7	8.2	10	3	140

[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 67 cities.
[4] Data for 63 cities.
[5] Deaths for week ended Friday, Mar. 18, 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, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, 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 March 26, 1927

ALABAMA

	Cases
Cerebrospinal meningitis	1
Chicken pox	30
Diphtheria	25
Influenza	170
Lethargic encephalitis	2
Malaria	24
Measles	238
Mumps	32
Pellagra	6
Pneumonia	94
Poliomyelitis	1
Scarlet fever	13
Smallpox	51
Tetanus	5
Tuberculosis	185
Typhoid fever	23
Whooping cough	77

ARIZONA

Chicken pox	3
Influenza	6
Measles	31
Pneumonia	1
Scarlet fever	9
Tuberculosis	7
Typhoid fever	1

ARKANSAS

Chicken pox	33
Diphtheria	3
Influenza	102
Malaria	48
Measles	104
Mumps	38
Pellagra	12
Scarlet fever	22
Smallpox	9
Trachoma	1
Tuberculosis	10
Typhoid fever	5
Whooping cough	79

CALIFORNIA

	Cases
Cerebrospinal meningitis:	
Fort Bragg	1
Los Angeles	2
Marion County	1
Chicken pox	533
Diphtheria	128
Influenza	74
Leprosy:	
Los Angeles	1
Sacramento	1
Measles	3,490
Mumps	330
Poliomyelitis:	
Bakersfield	1
Santa Cruz	1
Scarlet fever	231
Smallpox	15
Tuberculosis	214
Typhoid fever	8
Whooping cough	206

COLORADO

Chicken pox	48
Diphtheria	5
German measles	3
Impetigo contagiosa	2
Influenza	1
Measles	349
Mumps	19
Pneumonia	4
Scarlet fever	193
Smallpox	8
Tuberculosis	6
Whooping cough	3

CONNECTICUT

Chicken pox	131
Diphtheria	20
German measles	11
Influenza	21
Measles	115
Mumps	45

CONNECTICUT—continued

	Cases
Paratyphoid fever	1
Pneumonia (all forms)	117
Scarlet fever	136
Septic sore throat	3
Tuberculosis (all forms)	33
Typhoid fever	1
Whooping cough	47

DELAWARE

Cerebrospinal meningitis	1
Chicken pox	3
Measles	22
Mumps	2
Pneumonia	5
Scarlet fever	31
Tuberculosis	6
Whooping cough	2

FLORIDA

Cerebrospinal meningitis	1
Chicken pox	91
Diphtheria	41
Influenza	13
Malaria	3
Measles	157
Mumps	19
Pneumonia	2
Scarlet fever	8
Smallpox	53
Typhoid fever	10
Whooping cough	13

GEORGIA

Chicken pox	68
Conjunctivitis	1
Diphtheria	21
Dysentery	7
Hookworm disease	2
Influenza	504
Malaria	18
Measles	86
Mumps	31
Pellagra	7
Pneumonia	57
Scarlet fever	13
Septic sore throat	6
Smallpox	111
Trachoma	1
Tuberculosis	12
Typhoid fever	8
Whooping cough	77

IDAHO

Chicken pox	2
Diphtheria	3
Measles	29
Mumps	2
Rocky Mountain spotted fever	1
Scarlet fever	14
Smallpox	8

ILLINOIS

Cerebrospinal meningitis—Cook County	6
Chicken pox	356
Diphtheria	114
Influenza	31

ILLINOIS—continued

	Cases
Measles	2,399
Mumps	613
Pneumonia	308
Poliomyelitis:	
Cass County	1
Putnam County	1
Scarlet fever	381
Smallpox	51
Tuberculosis	360
Typhoid fever	10
Whooping cough	225

INDIANA

Chicken pox	186
Diphtheria	25
Influenza	39
Measles	282
Pneumonia	12
Scarlet fever	226
Smallpox	152
Tuberculosis	33
Whooping cough	43

IOWA

Cerebrospinal meningitis:	
Cedar Rapids	1
Fort Dodge	1
Chicken pox	43
Diphtheria	22
Measles	602
Mumps	58
Pneumonia	1
Scarlet fever	49
Smallpox	30
Tuberculosis	15
Typhoid fever	20
Whooping cough	22

KANSAS

Chicken pox	125
Diphtheria	9
German measles	11
Influenza	2
Lethargic encephalitis	1
Malaria	1
Measles	1,114
Mumps	65
Pneumonia	43
Poliomyelitis—Burlingame	1
Rabies	2
Scarlet fever	149
Smallpox	32
Trachoma	1
Tuberculosis	55
Typhoid fever	1
Whooping cough	39

LOUISIANA

Cerebrospinal meningitis	1
Diphtheria	27
Influenza	11
Lethargic encephalitis	1
Malaria	3
Measles	140
Pneumonia	14
Scarlet fever	5
Smallpox	5

LOUISIANA—continued

	Cases
Tuberculosis	28
Typhoid fever	11
Whooping cough	28

MAINE

Chicken pox	30
German measles	66
Influenza	34
Measles	131
Mumps	16
Paratyphoid fever	8
Pneumonia	17
Scarlet fever	53
Tuberculosis	9
Typhoid fever	2
Vincent's angina	3
Whooping cough	42

MARYLAND [1]

Chicken pox	116
Diphtheria	40
Dysentery	2
German measles	3
Impetigo contagiosa	2
Influenza	151
Lethargic encephalitis	2
Measles	46
Mumps	29
Pneumonia (broncho)	64
Pneumonia (lobar)	63
Scarlet fever	66
Septic sore throat	2
Tetanus	2
Tuberculosis	49
Typhoid fever	7
Vincent's angina	1
Whooping cough	92

MASSACHUSETTS

Cerebrospinal meningitis	2
Chicken pox	274
Conjunctivitis (suppurative)	3
Diphtheria	89
German measles	19
Influenza	11
Lethargic encephalitis	3
Measles	241
Mumps	410
Ophthalmia neonatorum	37
Pneumonia (lobar)	110
Scarlet fever	540
Septic sore throat	2
Tuberculosis (pulmonary)	115
Tuberculosis (other forms)	36
Typhoid fever	14
Whooping cough	183

MICHIGAN

Diphtheria	114
Measles	305
Pneumonia	122
Scarlet fever	367
Smallpox	44
Tuberculosis	89
Typhoid fever	6
Whooping cough	108

[1] Week ended Friday.

MINNESOTA

	Cases
Cerebrospinal meningitis	8
Chicken pox	187
Diphtheria	26
Influenza	1
Lethargic encephalitis	1
Measles	265
Pneumonia	3
Scarlet fever	256
Smallpox	1
Tuberculosis	66
Typhoid fever	4
Whooping cough	39

MISSISSIPPI

Diphtheria	6
Scarlet fever	7
Smallpox	5
Typhoid fever	5

MISSOURI

(Exclusive of Kansas City)

Cerebrospinal meningitis	2
Chicken pox	71
Diphtheria	45
Influenza	21
Measles	141
Mumps	79
Ophthalmia neonatorum	1
Pneumonia	4
Scarlet fever	123
Septic sore throat	21
Smallpox	232
Tetanus	1
Trachoma	1
Tuberculosis	40
Typhoid fever	1
Whooping cough	52

MONTANA

Cerebrospinal meningitis	4
Chicken pox	24
Diphtheria	2
German measles	1
Influenza	1
Measles	53
Mumps	25
Scarlet fever	64
Smallpox	7
Tuberculosis	3
Whooping cough	1

NEBRASKA

Chicken pox	27
Diphtheria	4
German measles	52
Influenza	3
Measles	323
Mumps	80
Pneumonia	7
Scarlet fever	72
Septic sore throat	10
Smallpox	32
Whooping cough	16

NEW JERSEY

	Cases
Cerebrospinal meningitis	1
Chicken pox	346
Diphtheria	100
Influenza	20
Measles	68
Pneumonia	195
Scarlet fever	401
Trachoma	1
Typhoid fever	3
Whooping cough	223

NEW MEXICO

Cerebrospinal meningitis	1
Chicken pox	26
Conjunctivitis	4
Diphtheria	23
German measles	74
Measles	76
Mumps	26
Pneumonia	7
Rabies	2
Scarlet fever	14
Smallpox	1
Tuberculosis	12
Whooping cough	13

NEW YORK

(Exclusive of New York City)

Cerebrospinal meningitis	1
Chicken pox	307
Diphtheria	70
German measles	241
Lethargic encephalitis	2
Measles	721
Mumps	537
Pneumonia	295
Scarlet fever	322
Septic sore throat	3
Smallpox	13
Trachoma	1
Typhoid fever	12
Vincent's angina	14
Whooping cough	215

NORTH CAROLINA

Chicken pox	151
Diphtheria	29
German measles	15
Measles	564
Scarlet fever	27
Smallpox	88
Typhoid fever	4
Whooping cough	1,108

OKLAHOMA

(Exclusive of Oklahoma City and Tulsa)

Cerebrospinal meningitis:	
Marshall County	1
Pawnee County	1
Chicken pox	31
Diphtheria	14
Influenza	116
Measles	[2] 275

OKLAHOMA—continued

	Cases
Mumps	28
Pneumonia	62
Scarlet fever	60
Smallpox	31
Typhoid fever	14

OREGON

Cerebrospinal meningitis	1
Chicken pox	16
Diphtheria	16
Influenza	97
Measles	180
Mumps	21
Pneumonia	[3] 6
Scarlet fever	43
Tuberculosis	10
Typhoid fever	1
Whooping cough	17

PENNSYLVANIA

Cerebrospinal meningitis—Northumberland County	1
Chicken pox	765
Diphtheria	181
German measles	130
Impetigo contagiosa	8
Measles	691
Mumps	514
Ophthalmia neonatorum	4
Pneumonia	296
Poliomyelitis—Philadelphia	1
Rabies	1
Scabies	8
Scarlet fever	589
Tetanus	1
Tuberculosis	188
Typhoid fever	15
Whooping cough	257

RHODE ISLAND

Chicken pox	10
Diphtheria	11
German measles	1
Mumps	3
Ophthalmia neonatorum	1
Pneumonia	5
Scarlet fever	20
Trachoma	1
Tuberculosis	3
Whooping cough	12

SOUTH CAROLINA

Chicken pox	101
Diphtheria	19
Hookworm disease	34
Influenza	1,893
Malaria	104
Measles	76
Paratyphoid fever	1
Pellagra	59
Scarlet fever	2
Smallpox	16
Tuberculosis	50
Typhoid fever	7
Whooping cough	162

[2] Includes 96 cases in delayed report from Kay County. [3] Deaths.

SOUTH DAKOTA

	Cases
Chicken pox	16
Diphtheria	4
Influenza	7
Measles	216
Mumps	6
Pneumonia	5
Scarlet fever	73
Smallpox	21
Whooping cough	11

TENNESSEE

Cerebrospinal meningitis:	
Lewis County	1
Nashville	3
Chicken pox	36
Diphtheria	11
Influenza	196
Malaria	6
Measles	131
Mumps	15
Pellagra	4
Pneumonia	75
Poliomyelitis—Hamilton County	1
Scarlet fever	21
Smallpox	16
Tetanus	1
Tuberculosis	34
Typhoid fever	15
Whooping cough	70

TEXAS

Chicken pox	50
Diphtheria	53
Influenza	25
Measles	211
Mumps	7
Pellagra	1
Pneumonia	8
Scarlet fever	26
Smallpox	29
Trachoma	1
Tuberculosis	28
Typhoid fever	22
Whooping cough	20

UTAH

Chicken pox	45
Diphtheria	4
German measles	23
Influenza	8
Measles	172
Mumps	10
Pneumonia	8
Scarlet fever	36
Smallpox	3
Whooping cough	12

VERMONT

Chicken pox	24
Diphtheria	1
Measles	17
Mumps	53
Scarlet fever	8
Whooping cough	11

VIRGINIA

	Cases
Smallpox	1

WASHINGTON

Cerebrospinal meningitis	4
Chicken pox	114
Diphtheria	25
German measles	427
Influenza	12
Measles	392
Mumps	134
Pneumonia	2
Scarlet fever	92
Smallpox	64
Tuberculosis	40
Typhoid fever	2
Whooping cough	51

WEST VIRGINIA

Chicken pox	69
Diphtheria	10
Influenza	81
Measles	197
Smallpox	25
Tuberculosis	16
Typhoid fever	10
Whooping cough	101

WISCONSIN

Milwaukee:	
Cerebrospinal meningitis	4
Chicken pox	98
Diphtheria	19
German measles	1
Influenza	4
Measles	78
Mumps	74
Pneumonia	23
Scarlet fever	52
Smallpox	1
Tuberculosis	9
Whooping cough	49
Scattering:	
Cerebrospinal meningitis	2
Chicken pox	115
Diphtheria	19
German measles	15
Influenza	119
Lethargic encephalitis	1
Measles	657
Mumps	269
Ophthalmia neonatorum	1
Pneumonia	16
Poliomyelitis	1
Scarlet fever	136
Smallpox	6
Tuberculosis	32
Typhoid fever	2
Whooping cough	128

WYOMING

Chicken pox	3
German measles	13
Measles	50
Mumps	34
Scarlet fever	19
Smallpox	3
Whooping cough	2

Reports for Week Ended March 19, 1927

DISTRICT OF COLUMBIA

	Cases
Chicken pox	65
Diphtheria	28
Influenza	10
Measles	2
Pneumonia	29
Scarlet fever	29
Tuberculosis	35
Typhoid fever	1
Whooping cough	31

NORTH DAKOTA

	Cases
Cerebrospinal meningitis	1
Chicken pox	20
Diphtheria	1
German measles	1
Measles	319
Mumps	6
Pneumonia	10
Poliomyelitis	2
Scarlet fever	83
Smallpox	7
Tuberculosis	3
Typhoid fever	3
Whooping cough	7

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
January, 1927										
California	19	702	172	2	6,683	2	13	1,164	163	51
New Hampshire	0	10	4				1	69	0	1
February, 1927										
Georgia	2	90	732	62	553	4	2	84	442	28
Illinois	11	532	205	1	8,469	1	5	1,584	118	61
Indiana	2	172	219		933		0	1,342	586	13
Iowa	3	101			2,545		1	339	38	0
Louisiana	2	89	82	21	506	6	1	53	21	32
Maine	1	9	36		735	1	1	105	0	10
Maryland	1	208	618		112		1	341	1	41
Minnesota	9	162	13		1,300		2	1,136	37	17
Missouri	5	229	170	3	1,633		3	693	79	27
New Hampshire	0	3	2				1	53	0	0
Ohio	14	692	99		604		7	2,063	206	23
Oklahoma [1]	6	85	939	46	796	7	2	201	166	49
Rhode Island	1	48	24		5		0	116	0	1
South Carolina	0	181	3,679	319	93	125	10	46	67	31
Tennessee	10	72	387	14	775	14	2	213	71	43
West Virginia	3	107	231		632		0	254	97	72
Wisconsin	19	171	353		3,099		3	929	58	10
Wyoming	0	7	2		938		0	103	1	1

[1] Exclusive of Tulsa and Oklahoma City.

January, 1927

California:

	Cases
Chicken pox	2,122
Dysentery (amebic)	3
Dysentery (bacillary)	3
German measles	123
Jaundice (epidemic)	5
Leprosy	3
Lethargic encephalitis	5
Mumps	840
Paratyphoid fever	2
Rabies in animals	27
Tetanus	1
Trachoma	11
Trichinosis	8
Whooping cough	381

February, 1927

Actinomycosis:

	Cases
Minnesota	1

Anthrax:

	Cases
Georgia	1
Oklahoma	1

Chicken pox:

	Cases
Georgia	266
Illinois	1,630
Indiana	630
Iowa	235
Louisiana	78
Maine	201
Maryland	630
Minnesota	656
Missouri	524
Ohio	1,859
Oklahoma	226
Rhode Island	126
South Carolina	427
Tennessee	390
West Virginia	391

Chicken pox—Continued.	Cases
Wisconsin	1,107
Wyoming	43
Conjunctivitis:	
Georgia	4
Maine	5
Dengue:	
South Carolina	4
Dysentery:	
Georgia	3
Illinois	28
Louisiana	7
Maryland	3
Minnesota	2
Ohio	2
Oklahoma	16
German measles:	
Georgia	4
Illinois	108
Iowa	3
Maine	167
Maryland	9
Ohio	124
Rhode Island	4
Wisconsin	160
Wyoming	100
Hookworm disease:	
Georgia	9
Louisiana	12
Oklahoma	1
South Carolina	92
Impetigo contagiosa:	
Maryland	1
Lead poisoning:	
Illinois	28
Missouri	1
Ohio	20
Leprosy:	
Louisiana	1
Lethargic encephalitis:	
Illinois	11
Maryland	4
Minnesota	3
Ohio	5
Tennessee	1
West Virginia	2
Milk sickness:	
Illinois	1
Mumps:	
Georgia	107
Illinois	1,623
Indiana	8
Iowa	62
Louisiana	54
Maine	40
Maryland	116
Missouri	212
Ohio	431
Oklahoma	93
Rhode Island	54
South Carolina	3
Tennessee	33
Wisconsin	910
Wyoming	42
Ophthalmia neonatorum:	
Illinois	32
Maryland	4
Missouri	1
Ohio	92
Rhode Island	1

Paratyphoid fever:	Cases
Georgia	1
Louisiana	1
Maine	1
Ohio	1
South Carolina	2
West Virginia	2
Wisconsin	2
Wyoming	1
Puerperal septicemia:	
Illinois	11
Rabies in animals:	
Maryland	9
Missouri	4
South Carolina	19
Rabies in man:	
Georgia	2
Scabies:	
Maryland	5
Oklahoma	3
Septic sore throat:	
Georgia	36
Illinois	11
Iowa	3
Maine	1
Maryland	22
Missouri	18
Ohio	62
Oklahoma	1
Rhode Island	2
Tetanus:	
Georgia	1
Illinois	3
Missouri	2
Oklahoma	1
Trachoma:	
Illinois	9
Minnesota	1
Ohio	5
Oklahoma	13
Wisconsin	1
Trichinosis:	
Minnesota	1
Typhus fever:	
Georgia	6
Vincent's angina:	
Maine	9
Maryland	6
Oklahoma	1
Whooping cough:	
Georgia	139
Illinois	896
Indiana	247
Iowa	52
Louisiana	87
Maine	188
Maryland	420
Minnesota	107
Missouri	190
Ohio	1,039
Oklahoma	64
Rhode Island	41
South Carolina	431
Tennessee	385
West Virginia	477
Wisconsin	586
Wyoming	2

Number of Cases of Certain Communicable Diseases Reported for the Month of January, 1927, by State Health Officers

	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Smallpox	Tuberculosis	Typhoid fever	Whooping cough
Alabama	343	235	276	87	122	241	234	51	172
Arizona	57	14	68	3	36	0	120	1	7
Arkansas	190	58	45	76	44	20	[1] 35	41	156
California	2,122	702	6,683	840	1,164	163	662	51	381
Colorado [2]									
Connecticut	507	140	145	143	430	0	131	12	242
Delaware	12	18	6		167	0	[1] 17	0	20
District of Columbia	278	85	8		123	1	90	0	44
Florida	143	179	78	31	97	169	128	52	32
Georgia	162	175	303	75	94	385	63	38	160
Idaho	146	18	1,115	59	284	51	[1] 10	5	19
Illinois	2,117	568	6,041	1,016	1,567	172	1,518	52	779
Indiana	818	349	692	2	1,108	729	150	12	261
Iowa	252	139	1,179	57	310	45	36	1	48
Kansas	863	100	1,155	115	802	220	130	11	198
Kentucky [3]									
Louisiana	90	97	362	23	66	48	[1] 116	42	33
Maine	342	12	929	58	160	0	19	5	277
Maryland	713	267	116	83	358	1	204	38	463
Massachusetts	1,729	461	719	1,272	2,150	0	501	36	641
Michigan	1,234	496	526	325	1,435	175	647	26	564
Minnesota	1,155	182	1,026		1,219	19	257	22	111
Mississippi	935	97	1,306	521	104	129	294	60	1,361
Missouri	570	311	1,160	113	776	81	244	18	168
Montana	102	19	435	81	514	41	52	3	11
Nebraska	237	28	425	144	256	107	5	6	46
Nevada [4]									
New Hamsphire		10			69			1	
New Jersey	1,520	517	201		1,311	0	470	14	821
New Mexico [2]									
New York	3,593	1,448	3,594	2,478	2,997	55	1,540	122	1,411
North Carolina	860	190	689		304	276		24	1,814
North Dakota	91	24	513	14	295	33	16	1	16
Ohio	2,803	789	382	386	1,946	222	775	44	914
Oklahoma [5]	155	154	378	34	236	119	87	43	48
Oregon	278	74	277	107	316	167	67	28	26
Pennsylvania	3,873	928	3,452	1,008	2,477	0	445	92	1,399
Rhode Island	64	61	7	23	100	0	33	5	49
South Carolina	515	110	284		70	69	189	53	313
South Dakota	146	21	572	30	359	34	4	9	61
Tennessee	397	151	768	26	341	46	136	132	436
Texas [2]									
Utah [3]									
Vermont	166	10	529	129	42	0	[1] 8	1	227
Virginia	1,044	250	1,032		351	229	[1] 110	47	1,562
Washington	560	123	1,157	265	572	252	149	28	84
West Virginia	393	113	381		242	29	61	59	387
Wisconsin	1,550	218	3,713	816	934	92	146	23	809
Wyoming	42	18	681	79	142	0		0	22

[1] Pulmonary.
[2] Report not received at time of going to press.
[3] Reports received weekly.
[4] Reports received annually.
[5] Exclusive of Oklahoma City and Tulsa.

Case Rates per 1,000 Population (Annual Basis) for the Month of January, 1927

	Chicken pox	Diphtheria	Measles	Mumps	Scarlet fever	Smallpox	Tuberculosis	Typhoid fever	Whooping cough
Alabama	1.58	1.09	1.27	0.40	0.56	1.11	[1]0.08	0.24	0.79
Arizona	1.46	.36	1.74	.08	.92	.00	3.08	.03	.18
Arkansas	1.16	.36	.28	.47	.27	.12	[1]1.21	.25	.96
California	5.64	1.86	17.75	2.23	3.09	.43	1.76	.14	1.01
Colorado [2]									
Connecticut	3.65	1.01	1.04	1.03	3.09	.00	.94	.09	1.74
Delaware	.58	.87	.29		8.09	.00	[1]1.82	.00	.97
District of Columbia	6.06	1.85	.17		2.68	.02	1.96	.00	.96
Florida	1.24	1.55	.67	.27	.84	1.46	1.11	.45	.28
Georgia	.60	.65	1.13	.28	.35	1.43	.23	.14	.59
Idaho	3.22	.40	24.58	1.30	6.26	1.12	[1]1.22	.11	.42
Illinois	3.42	.92	9.75	1.64	2.53	.28	2.45	.08	1.26
Indiana	3.06	1.30	2.59	.01	4.14	2.73	.56	.04	.98
Iowa	1.22	.67	5.72	.28	1.51	.22	.17	.00	.23
Kansas	5.56	.64	7.44	.74	5.17	1.42	.84	.07	1.28
Kentucky [3]									
Louisiana	.55	.59	2.20	.14	.40	.29	[1]1.71	.26	.20
Maine	5.08	.18	13.79	.86	2.38	.00	.28	.07	4.11
Maryland	5.26	1.97	.86	.61	2.64	.01	1.50	.28	3.41
Massachusetts	4.80	1.28	2.00	3.53	5.97	.00	1.39	.10	1.78
Michigan	3.24	1.30	1.38	.85	3.76	.46	1.70	.07	1.48
Minnesota	5.06	.80	4.50		5.34	.08	1.13	.10	.49
Mississippi	6.15	.64	8.59	3.43	.68	.85	1.93	.39	8.95
Missouri	1.91	1.04	3.89	.38	2.60	.27	.82	.06	.56
Montana	1.68	.31	7.17	1.34	8.48	.68	.86	.05	.18
Nebraska	2.00	.24	3.58	1.21	2.16	.90	.04	.05	.39
Nevada [4]									
New Hampshire		.26			1.79			.03	
New Jersey	4.77	1.62	.63		4.12	.00	1.48	.04	2.58
New Mexico [3]									
New York	3.70	1.49	3.71	2.55	3.09	.06	1.59	.13	1.43
North Carolina	3.50	.77	2.80		1.24	1.12		.10	7.37
North Dakota	1.67	.44	9.42	.26	5.42	.61	.29	.02	.29
Ohio	4.92	1.38	.67	.68	3.42	.39	1.36	.08	1.60
Oklahoma [5]	.86	.85	2.10	.19	1.31	.66	.48	.24	.27
Oregon	3.68	.98	3.66	1.42	4.18	2.21	.89	.37	.34
Pennsylvania	4.69	1.12	4.18	1.22	3.00	.00	.54	.11	1.69
Rhode Island	1.07	1.02	.12	.38	1.67	.00	.55	.08	.82
South Carolina	3.29	.70	1.81		.45	.44	1.21	.34	2.00
South Dakota	2.47	.36	9.68	.51	6.07	.58	.07	.15	1.03
Tennessee	1.88	.72	3.64	.12	1.62	.22	.64	.63	2.07
Texas [3]									
Utah [3]									
Vermont	5.55	.33	17.67	4.31	1.40	.00	[1]1.27	.03	7.58
Virginia	4.83	1.16	4.77		1.62	1.06	[1]1.51	.22	7.22
Washington	4.22	.93	8.72	2.00	4.31	1.90	1.12	.21	.63
West Virginia	2.73	.78	2.64		1.68	.20	.42	.41	2.69
Wisconsin	6.25	.88	14.98	3.29	3.77	.37	.59	.09	3.26
Wyoming	2.05	.88	33.27	3.86	6.94	.00		.00	1.07

[1] Pulmonary.
[2] Report not received at time of going to press.
[3] Reports received weekly.
[4] Reports received annually.
[5] Exclusive of Oklahoma City and Tulsa.

RECIPROCAL NOTIFICATIONS

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

Referred by—	Actinomycosis	Dysentery	Encephalitis	Scarlet fever	Smallpox	Trachoma	Tuberculosis	Typhoid fever
California							1	
Connecticut				1				
Illinois					7	1	6	1
Massachusetts								1
Minnesota	1	2	1	2			26	
New York				1				2
Rhode Island							1	

INFLUENZA IN THE UNITED STATES, FEBRUARY 13 TO MARCH 12, 1927

The following table gives a summary of the cases of influenza reported by State health officers during four weeks in February and March of the years 1925, 1926, and 1927. Similar tables for preceding weeks appear in the PUBLIC HEALTH REPORTS February 18, 1927, page 503, and February 25, 1927, page 571.

Influenza cases reported by State health officers for the seventh to eleventh weeks (inclusive) of 1925, 1926, and 1927

State	Week ended—											
	Feb. 21, 1925	Feb. 20, 1926	Feb. 19, 1927	Feb. 28, 1925	Feb. 27, 1926	Feb. 26, 1927	Mar. 7, 1925	Mar. 6, 1926	Mar. 5, 1927	Mar. 14, 1925	Mar. 13, 1926	Mar. 12, 1927
Alabama	1,353	848	61	866	1,735	76	897	1,956	82	619	1,922	133
Arizona	------	220	------	------	3	1	------	11	1	4	38	------
Arkansas	359	214	74	406	437	149	399	557	51	522	284	93
California	146	291	55	105	383	79	120	136	101	146	63	86
Colorado	------	16	2	1	5	1	14	18	------	5	6	1
Connecticut	27	13	14	22	22	18	5	20	7	15	99	27
Delaware	(1)	------	------	------	35	------	------	15	------	------	34	------
District of Columbia	3	30	24	1	58	7	1	8	21	2	1	18
Florida	29	38	7	14	37	17	23	175	10	10	64	68
Georgia	1,264	1,275	99	1,022	818	298	961	1,107	222	1,174	1,332	374
Idaho	(1)	5	------	(1)	8	------	(1)	2	------	(1)	8	------
Illinois	35	41	59	36	71	29	57	123	44	90	521	63
Indiana	50	79	78	226	158	46	270	217	27	244	374	41
Kansas	18	26	36	24	182	11	41	102	7	101	58	13
Louisiana	95	152	7	73	1,317	15	213	519	17	76	537	24
Maine	4	14	6	------	2	10	13	6	8	98	8	15
Maryland	69	576	162	100	526	226	68	291	356	75	273	455
Massachusetts	49	------	14	61	14	18	65	31	23	57	65	19
Minnesota	2	4	3	2	2	3	------	1	1	3	3	5
Missouri	238	6	8	60	9	26	75	31	------	69	42	2
Montana	------	52	------	------	3	1	------	347	------	------	12	------
Nebraska	------	------	1	4	23	14	------	------	27	1	------	1
New Jersey	43	16	41	58	44	34	42	202	36	42	243	42
New Mexico	12	86	2	41	69	2	76	72	2	5	24	3
North Dakota	------	------	------	------	8	------	------	27	------	------	117	------
Oklahoma [2]	543	846	274	491	1,291	162	489	1,539	214	258	1,846	149
Oregon	1	281	460	16	224	478	4	251	270	31	199	210
Rhode Island	(1)	2	(1)	(1)	(1)	4	(1)	(1)	------	(1)	55	1
South Carolina	(1)	(1)	636	(1)	(1)	157	(1)	(1)	979	(1)	(1)	1,352
South Dakota	------	------	1	------	------	14	------	------	17	------	------	4
Tennessee	(1)	221	58	(1)	195	84	(1)	424	47	(1)	646	264
Texas	2,829	1,789	17	1,468	974	23	1,862	3,523	71	388	1,162	329
Utah	(1)	31	5	(1)	12	4	(1)	14	8	(1)	10	8
Vermont	------	------	------	------	------	------	------	------	------	------	9	------
Washington	------	------	2	------	------	3	------	------	8	------	1	1
West Virginia	------	------	50	------	6	56	------	------	86	------	------	69
Wisconsin	37	37	98	50	58	80	79	103	46	51	115	76
Wyoming	------	8	------	1	------	------	------	38	1	2	44	------

[1] No report.
[2] Exclusive of Oklahoma City and Tulsa.

DEATHS FROM INFLUENZA AND PNEUMONIA IN LARGE CITIES

The following table shows the deaths from influenza and pneumonia in 79 large cities of the United States from January 2 to March 19, 1927. The figures are from the Weekly Health News, issued by the Bureau of the Census, issue of March 24, 1927. A table showing the deaths during the period January 2 to February 12 by weeks was published in the PUBLIC HEALTH REPORTS February 25, 1927, pages 571–572.

Deaths from influenza and pneumonia in 79 large cities of the United States, January 2 to March 19, 1927

City	Influenza						Pneumonia					
	Jan. 2 to Feb. 12, inclusive	For week ended—					Jan. 2 to Feb. 12, inclusive	For week ended—				
		February		March				February		March		
		19	26	5	12	19		19	26	5	12	19
Total	684	155	155	158	171	160	6,576	958	1,048	1,084	1,173	1,078
Akron	2						39	6	4	5	7	
Albany	3	1	0	0	1	0	47	3	6	5	7	5
Atlanta	5	6	4	6	7	8	62	7	6	7	12	17
Baltimore	24	4	9	12	14	14	255	50	54	59	78	67
Birmingham	17	7	4	1	3	6	45	5	3	11	5	5
Boston	4	0	2	1	2	2	191	30	35	29	34	33
Bridgeport	8	1	2	0	0	0	30	3	4	5	3	5
Buffalo		5	0	1	2	1	117	16	17	17	15	29
Cambridge		0				0	27	4	6	6	4	8
Camden	2	0	2	1	4	1	17	5	8	7	5	13
Canton	3	0	1	1	2	0	20	2	1	8	0	4
Chicago	70	11	11	17	6	10	480	55	88	65	100	79
Cincinnati	8	5	0				94	13	14	12	8	10
Cleveland	14	1	0	2	0	4	129	25	31	36	20	24
Columbus	9	0	2	2	1	3	42	8	7	5	5	8
Dallas	15	1	0	1	0	0	26	9	5	5	5	6
Dayton		1	0	1	0		40	1	2	1	5	
Denver	6	3	4	5	5	2	68	11	5	8	15	7
Des Moines		0				1	22	0	1	1	1	1
Detroit	29	3	6	7	7	5	205	48	33	40	42	41
Duluth	0	0	0	0	0	1	17	3	2	0	0	2
El Paso	12	2	2	4	4	1	19	1	4	5	3	2
Erie	9				1		21	7	5	2	5	7
Fall River			0	1	2		22	3	8	4	4	7
Flint	1	1	1				24	4	7	5	6	7
Fort Worth	1	2	0	0	3	1	26	8	4	4	6	6
Grand Rapids	4	1	0	0	3	0	21	2	3	1	3	0
Houston	1	0	1	0	2	0	44	7	7	6	7	10
Indianapolis	1	0	2	0	0	2	75	8	8	10	12	15
Jersey City	5	0	3	0	2	1	68	8	13	12	15	6
Kansas City, Kans	4	0	1	0	2	0	27	7	4	5	9	1
Kansas City, Mo	11	5	2	1	3	3	84	10	16	13	11	11
Knoxville							40	8	6	8	6	1
Los Angeles	4	1	4	4	2	2	157	37	23	19	27	15
Louisville		0	1	0	0	0	85	6	7	17	11	12
Lowell		0	0	0	0	0	18	3	3	6	5	3
Lynn		0	0	0	0	0	20	2	5	5	5	4
Memphis	8	1	4	3	7		39	12	3	10	11	
Milwaukee	2	2	1	0	0	1	101	9	14	14	30	14
Minneapolis	2	3	1	6	1	3	70	8	7	9	10	9
Nashville	4	0	0	0	4	1	42	8	6	9	5	2
New Bedford	1		1				30	4	2	4	2	2
New Haven		0	1	0	0	0	54	3	10	14	9	5
New Orleans	40	4	5	5	7	4	114	22	16	18	14	19
New York	138	25	23	27	19	33	1,345	185	210	228	263	242
Newark, N. J	2	2	0	1	0	1	86	14	3	12	19	19
Norfolk							38	4	6	7	7	4
Oakland	1	2			1	1	43	8	4	2	1	2
Oklahoma City	1	1	2				35	4	6	3	4	3
Omaha					1	1	32	7	8	7	3	10
Paterson	2	0	0	0	0	1	36	3	4	2	5	7
Philadelphia	61	14	11	17	17	18	432	52	66	66	85	104
Pittsburgh	30	5	6	1	3	7	218	16	36	34	41	37
Portland, Oreg	7	4	5	4	1	0	65	14	20	7	6	5
Providence	1	1	0	1	1	4	40	7	6	8	12	8
Richmond	12	1	1	0	2	0	32	10	7	4	3	8
Rochester	2	1	0	1	1	0	41	7	6	7	6	8
St. Louis	3	2	0	1	2	1	126	13	12	18	17	17
St. Paul	5	1	0	1	1	0	44	7	4	9	2	8
Salt Lake City	1	0	1	1	0	0	37	4	5	4	2	4
San Antonio							46	6	6	8	7	
San Diego	5	0	1	3	0	0	23	3	8	2	5	1
San Francisco	9	4	1	3	2	3	93	14	10	18	14	7
Schenectady		1	1	1	0	0	9	5	3	0	1	4
Seattle	15	5	6	5		1	29	3	5	11	3	4
Somerville			1	0	0	1	18	5	3	3	3	1
Spokane	11	6	4	3	2	0	24	5	4	3	2	
Springfield, Mass	1	0	1	2	0	1	22	4	3	5	3	5
Syracuse	1	0	0	0	9	0	44	5	6	5	6	2

Deaths from influenza and pneumonia in 79 large cities of the United States, January 2 to March 19, 1927—Continued

City	Influenza						Pneumonia					
	Jan. 2 to Feb. 12, inclusive	For week ended—					Jan. 2 to Feb. 12, inclusive	For week ended—				
		February		March				February		March		
		19	26	5	12	19		19	26	5	12	19
Tacoma							20	6	4	3	5	
Toledo	8	4	3	2	1	0	59	5	6	7	10	3
Trenton	6	1	1	1	3	1	36	3	3	10	5	4
Utica	1	0	0	0	1	1	30	0	9	3	5	4
Washington, D. C	24	3	9	1	6	6	131	24	35	34	15	13
Waterbury	6	1	0	0	0		11	2	4	2	5	5
Wilmington, Del	1	2	0	0	0	0	36	5	7	0	4	2
Worcester							53	7	6	8	5	4
Yonkers	1		0	0	1	1	23	3	4	5	4	6
Youngstown		0	1	0		1	45	7	6	7	8	4

Blank spaces indicate that no report has been received.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 95 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 30,000,000. The estimated population of the 90 cities reporting deaths is more than 29,700,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended March 12, 1927, and March 13, 1926

	1926	1927	Estimated expectancy
Cases reported			
Diphtheria:			
42 States	1,281	1,709	
95 cities	644	1,073	911
Measles:			
40 States	20,397	15,522	
95 cities	9,492	4,526	
Poliomyelities:			
41 States	15	10	
Scarlet fever:			
42 States	4,483	6,328	
95 cities	1,706	2,514	1,277
Smallpox:			
42 States	907	902	
95 cities	232	163	142
Typhoid fever:			
42 States	175	226	
95 cities	31	45	38
Deaths reported			
Influenza and pneumonia:			
90 cities	2,218	1,234	
Smallpox:			
90 cities	13	0	
Los Angeles	13	0	

City reports for week ended March 12, 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 how many cases of the disease under consideration 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 nonepidemic 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	5	1	1	0	0	1	0	0
New Hampshire:									
Concord	22,546	0	0	1	0	0	9	0	3
Manchester	83,097	0	2	0	0	1	0	0	3
Vermont:									
Barre	10,008	0	0	0	0	0	8	8	0
Burlington	24,089	1	0	0	0	0	0	0	0
Massachusetts:									
Boston	779,620	86	58	41	12	2	52	169	34
Fall River	128,993	8	4	1	2	2	0	4	4
Springfield	142,065	7	3	2	0	0	0	6	3
Worcester	190,757	13	4	0	0	0	2	4	5
Rhode Island:									
Pawtucket	69,760	3	1	1	0	0	1	0	4
Providence	267,918	0	9	1	1	1	0	0	12
Connecticut:									
Bridgeport	(1)	2	8	5	2	0	10	8	2
Hartford	160,197	13	8	2	0	0	2	7	5
New Haven	178,927	17	2	0	0	0	0	3	9
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	25	12	12	----	2	7	26	15
New York	5,873,356	343	195	324	87	19	37	639	263
Rochester	316,786	7	9	4	----	1	7	0	6
Syracuse	182,003	16	6	0	----	0	9	11	6
New Jersey:									
Camden	128,642	10	5	24	4	4	0	0	5
Newark	452,513	67	17	6	17	1	11	46	24
Trenton	132,020	0	4	3	2	3	1	0	5
Pennsylvania:									
Philadelphia	1,979,364	116	75	67	----	17	34	127	85
Pittsburgh	631,563	63	20	26	----	3	53	2	41
Reading	112,707	16	3	2	----	0	3	39	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	10	9	4	0	3	2	29	8
Cleveland	936,485	153	26	45	4	0	4	41	20
Columbus	279,836	22	4	6	1	1	5	0	5
Toledo	287,380	48	6	4	2	1	17	8	10
Indiana:									
Fort Wayne	97,846	6	3	1	0	0	38	0	5
Indianapolis	358,819	79	7	11	0	0	23	6	13
South Bend	80,091	2	1	3	0	0	30	0	0
Terre Haute	71,071	3	0	0	0	0	32	0	0
Illinois:									
Chicago	2,995,239	101	87	98	34	6	1,311	184	100
Peoria	81,564	5	1	0	0	0	37	4	3
Springfield	63,923	5	0	1	4	4	105	0	1
Michigan:									
Detroit	1,245,824	125	58	53	8	7	22	128	42
Flint	130,316	25	5	2	0	0	7	1	6
Grand Rapids	153,698	6	3	0	0	3	0	2	3

[1] No estimate made.

City reports for week ended March 12, 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	7	2	0	0	0	111	42	0
Madison	46,385		0						
Milwaukee	509,192	130	16	20	0	0	42	87	30
Racine	67,707	25	2	3	0	0	13	27	0
Superior	39,671	0	0	0	0	0	8	0	3
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	8	1	0	0	0	35	0	0
Minneapolis	425,435	114	15	19	0	1	7	0	10
St. Paul	246,001	55	15	8	0	1	14	1	4
Iowa:									
Davenport	52,469	0	1	1	0		8	1	
Des Moines	41,441	1	2	0	0		25	2	1
Sioux City	76,411	11	1	2	0		55	4	
Waterloo	36,771	5	0	1	0		234	1	
Missouri:									
Kansas City	367,481		8						
St. Joseph	78,342	1	1	1	0	0	1	0	7
St. Louis	821,543	40	44	29	1	1	33	73	
North Dakota:									
Fargo	26,403		1						
Grand Forks	14,811	0	0	0	0		0	0	
South Dakota:									
Aberdeen	15,036	7	0	0	0		185	0	
Sioux Falls	30,127	0	1	1	0		4	0	
Nebraska:									
Lincoln	60,941	12	1	1	0	0	41	3	0
Omaha	211,768	7	4	3	1	1	95	44	3
Kansas:									
Topeka	55,411	14	1	0	0	1	31	0	1
Wichita	88,367	39	2	0	0	0	2	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	2	2	3	0	0	0	0	4
Maryland:									
Baltimore	796,296	160	26	34	313	14	9	8	78
Cumberland	33,741	0	2	1	3	1	2	0	2
Frederick	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	497,906	75	12	24	18	10	7	0	15
Virginia:									
Lynchburg	30,395	14	1	2	0	0	18	0	3
Norfolk	(1)	33	1	0	6	0	132	6	7
Richmond	186,403	6	3	2	4	2	112	1	2
Roanoke	58,208	8	1	1	0	2	2	0	5
West Virginia:									
Charleston	49,019	5	0	1	2	0	0	0	4
Wheeling	56,208	4	1	4	0	0	3	1	6
North Carolina:									
Raleigh	30,371	24	0	3	0	0	1	0	0
Wilmington	37,061	6	1	0	0	0	1	4	4
Winston-Salem	69,031	9	0	2	0	1	0	22	2
South Carolina:									
Charleston	73,125	6	0	0	36	0	15	0	2
Columbia	41,225	1	1	0	0		0	9	
Greenville	27,311	0	0	0	0	0	0	1	0
Georgia:									
Atlanta	(1)	6	2	6	181	7	67	5	12
Brunswick	16,809	0	0	0	0	0	2	2	0
Savannah	93,134	0	1	0	26	2	0	2	3
Florida:									
Miami	69,754	23	3	8	1	0	2	7	1
St. Petersburg	26,847		0			0			0
Tampa	94,743	6	1	3	0	0	63	0	2

[1] No estimate made.

City reports for week ended March 12, 1927—Continued

Division, State, and city	Population July 1, 1926, 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		1						
Louisville	305,935	19	6	3	0	0	1	3	11
Tennessee:									
Memphis	174,533	16	5	1	0	7	9	3	11
Nashville	136,220	6	1	1	0	4	0	0	5
Alabama:									
Birmingham	205,670	16	2	14	23	3	43	13	5
Mobile	65,955		0						
Montgomery	46,481	8	1	1	0	0	4	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	3	0	2	0		85	8	1
Little Rock	74,216	4	0	0	0	0	0	0	2
Louisiana:									
New Orleans	414,493	2	10	16	10	7	129	0	14
Shreveport	57,857	5	0	0	0	0	1	17	0
Oklahoma:									
Oklahoma City	(1)	2	1	1	8	0	0	1	4
Texas:									
Dallas	194,450	10	5	8	0	0	70	1	5
Galveston	48,375	0	0	1	0	0	0	0	2
Houston	164,954	3	2	12	2	2	0	2	7
San Antonio	198,069	1	2	7	1	2	2	1	7
MOUNTAIN									
Montana:									
Billings	17,971	0	0	1	0	0	4	0	0
Great Falls	29,883	2	1	0	0	1	8	0	1
Helena	12,037	0	0	2	0	0	0	0	0
Missoula	12,668	3	0	0	0	0	0	19	0
Idaho:									
Boise	23,042	0	0	1	0	0	2	1	0
Colorado:									
Denver	280,911		9			5			15
Pueblo	43,787	17	1	1	0	0	23	0	1
New Mexico:									
Albuquerque	21,000	3	1	0	0	0	40	16	1
Arizona:									
Phoenix	38,669	0	0	0	0	0	1	0	3
Utah:									
Salt Lake City	130,948	16	2	4	5	0	64	1	2
Nevada:									
Reno	12,665	1	0	3	0	0	1	0	0
PACIFIC									
Washington:									
Seattle	(1)	36	5	4	0		24	74	
Spokane	108,897	5	3	1	0		28	0	
Tacoma	104,455	18	2	3	0	0	46	1	5
Oregon:									
Portland	282,383	9	6	11	3	1	75	4	6
California:									
Los Angeles	(1)	96	37	50	35	2	999	17	27
Sacramento	72,260	4	1	3	0	0	33	5	3
San Francisco	557,530	40	21	15	7	0	115	102	8

[1] No estimate made.

City reports for week ended March 12, 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	4	2	0	0	0	0	0	1	0	8	28
New Hampshire:											
Concord	0	4	0	0	0	1	0	0	0	2	18
Manchester	3	3	0	0	0	0	0	0	0	0	15
Vermont:											
Barre	1	0	0	0	0	1	0	0	0	1	2
Burlington	1	0	1	0	0	0	0	0	0	3	7
Massachusetts:											
Boston	69	168	0	0	0	25	1	2	0	11	267
Fall River	3	3	0	0	0	0	0	0	0	3	32
Springfield	7	4	0	0	0	2	0	1	0	6	38
Worcester	9	24	0	0	0	2	0	0	0	12	62
Rhode Island:											
Pawtucket	1	0	0	0	0	0	0	0	0	0	22
Providence	8	17	0	0	0	4	0	0	0	5	84
Connecticut:											
Bridgeport	11	13	0	0	0	3	0	0	0	0	38
Hartford	6	14	0	0	0	1	0	0	0	0	33
New Haven	11	5	0	0	0	4	0	1	1	0	51
MIDDLE ATLANTIC											
New York:											
Buffalo	21	31	0	0	0	9	1	0	0	2	143
New York	270	915	0	0	0	[1] 130	7	9	1	98	1,705
Rochester	16	18	0	0	0	3	0	0	0	4	91
Syracuse	15	11	0	0	0	1	1	2	1	1	51
New Jersey:											
Camden	4	6	0	0	0	4	0	0	0	1	46
Newark	26	50	0	0	0	7	1	0	0	39	140
Trenton	5	2	0	0	0	4	0	0	0	3	51
Pennsylvania:											
Philadelphia	80	130	0	0	0	34	3	2	1	20	617
Pittsburgh	30	19	0	0	0	7	0	3	0	1	194
Reading	4	3	0	0	0	0	0	0	0	1	21
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	15	30	2	2	0	9	0	1	1	6	142
Cleveland	46	55	0	0	0	9	1	0	0	21	186
Columbus	12	14	3	1	0	4	0	0	0	15	75
Toledo	14	13	4	0	0	7	1	1	1	48	77
Indiana:											
Fort Wayne	5	6	1	3	0	2	0	0	0	1	25
Indianapolis	11	30	13	26	0	4	0	0	0	37	83
South Bend	4	1	1	4	0	0	0	0	1	0	14
Terre Haute	3	2	1	0	0	0	0	0	1	2	18
Illinois:											
Chicago	125	145	3	2	0	36	2	1	1	72	759
Peoria	4	2	1	0	0	2	0	0	0	0	18
Springfield	2	3	0	0	0	1	0	0	0	0	28
Michigan:											
Detroit	94	142	2	0	0	22	1	0	1	58	333
Flint	6	30	1	13	0	1	0	0	0	1	28
Grand Rapids	10	15	1	0	0	1	0	0	0	5	44
Wisconsin:	3	6	1	0	0	0	0	0	0	5	6
Kenosha	3	6	1	0	0	0	0	0	0	5	6
Madison	3		0				0				
Milwaukee	28	59	3	0	0	8	0	0	0	40	131
Racine	4	4	1	0	0	0	0	0	0	4	9
Superior	3	6	5	0	0	1	1	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth	8	7	1	0	0	2	0	0	0	0	23
Minneapolis	45	67	9	0	0	0	1	0	0	0	89
St. Paul	33	44	7	1	0	6	1	0	0	18	65

[1] Pulmonary tuberculosis only.

City reports for week ended March 12, 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—contd.											
Iowa:											
Davenport	2	3	2	0			0	0		0	
Des Moines	6	15	2	0		3	0	0		0	27
Sioux City	2	5	1	3			0	0		9	
Waterloo	2	1	1	0			0	0		1	
Missouri:											
Kansas City	11		2				0				
St. Joseph	2	11	0	0	0	0	1	0	0	1	31
St. Louis	31	40	5	0	0	0	1	2	0	35	238
North Dakota:											
Fargo	2		0				0				
Grand Forks	0	8	0	0			0	0		0	
South Dakota:											
Aberdeen	3	7	0	0			0	0		0	
Sioux Falls	3	1	0	0			0	0		0	
Nebraska:											
Lincoln	2	3	0	0	0	0	0	0	0	4	15
Omaha	4	20	10	2	0	2	0	0	0	0	54
Kansas:											
Topeka	2	5	1	7	0	3	0	0	0	15	13
Wichita	2	5	1	0	0	2	0	0	0	2	29
SOUTH ATLANTIC											
Delaware:											
Wilmington	4	17	0	0	0	1	0	0	0	9	32
Maryland:											
Baltimore	39	29	0	0	0	26	2	1	1	49	314
Cumberland	0	0	0	0	0	0	0	0	1	0	14
Frederick	1	1	0	0	0	0	0	0	0	0	6
District of Columbia:											
Washington	28	14	1	0	0	11	1	0	0	10	178
Virginia:											
Lynchburg	0	2	0	0	0	1	0	0	0	1	10
Norfolk	2	10	0	0	0	4	0	0	0	16	
Richmond	3	3	0	0	0	5	0	0	0	5	58
Roanoke	0	1	1	1	0	1	0	0	0	0	30
West Virginia:											
Charleston	1	3	1	1	0	2	0	0	1	3	
Wheeling	2	3	0	0	0	1	0	0	0	3	19
North Carolina:											
Raleigh	0	7	0	0	0	1	0	0	0	49	6
Wilmington	0	2	1	0	0	0	0	0	0	5	13
Winston-Salem	1	1	4	0	0	2	0	1	0	56	17
South Carolina:											
Charleston	0	0	0	0	0	1	0	2	0	0	33
Columbia	0	2	0	2			0	0		15	
Greenville	0	1	1	1	0	1	0	0	0	0	8
Georgia:											
Atlanta	4	7	3	22	0	5	1	1	0	16	91
Brunswick	0	1	1	0	0	1	0	0	0	0	6
Savannah	1	0	0	3	0	1	0	0	0	1	31
Florida:											
Miami	2	1		1	0	0	1	1	0	5	29
St. Petersburg	0		0		0	0	0		0		19
Tampa	0	3	0	0	0	0	1	1	0	4	30
EAST SOUTH CENTRAL											
Kentucky:											
Covington	2		0				0				
Louisville	5	17	1	2	0	2	0	1	0	60	78
Tennessee:											
Memphis	4	26	2	10	0	7	0	0	0	13	69
Nashville	3	5	2	0	0	6	0	1	0	4	54
Alabama:											
Birmingham	2	1	9	3	0	5	1	3	0	12	67
Mobile	0		2				0				
Montgomery	0	2	0	1	0	0	0	1	0	6	23

City reports for week ended March 12, 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	0	0	1	1			0	0		18	6
Little Rock	1	3	0	0	0	2	0	0	0	0	
Louisiana:											
New Orleans	6	8	2	0	0	13	2	2	0	6	159
Shreveport	0	0	1	1	0	2	0	0	0	3	18
Oklahoma:											
Oklahoma City	2	0	3	0	0	1	0	0	0	0	25
Texas:											
Dallas	2	10	6	11	0	2	0	1	1	2	37
Galveston	0	0	1	0	0	2	0	0	0	0	13
Houston	1	3	2	4	0	2	0	1	0	0	45
San Antonio	1	5	0	0	0	6	0	0	0	0	61
MOUNTAIN											
Montana:											
Billings	1	3	0	0	0	1	0	0	0	0	4
Great Falls	1	6	1	0	0	1	0	0	0	0	7
Helena	0	0	0	0	0	0	0	0	0	0	0
Missoula	1	8	0	0	0	0	0	0	0	0	3
Idaho:											
Boise	0	0	1	0	0	0	0	0	0	1	
Colorado:											
Denver	14		2		0	8	0		0		104
Pueblo	1	7	0	0	0	2	1	0	0	0	14
New Mexico:											
Albuquerque	1	0	0	0	0	4	0	0	0	0	16
Arizona:											
Phoenix	0	3	0	0	0	15	0	0	0	0	35
Utah:											
Salt Lake City	3	8	1	0	0	0	0	0	0	9	19
Nevada:											
Reno	0	0	1	0	0	0	0	0	0	0	3
PACIFIC											
Washington:											
Seattle	10	11	4	1			1	1		24	
Spokane	5	21	4	14			0	0		7	
Tacoma	3	8	3	20	0	0	1	0	0	4	34
Oregon:											
Portland	6	12	9	2	0	3	0	1	0	4	65
California:											
Los Angeles	25	36	7	0	0	35	2	0	1	19	276
Sacramento	2	4	1	1	0	0	1	1	0	0	29
San Francisco	14	29	6	0	0	13	1	2	0	15	147

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									
Massachusetts:									
Boston	0	0	3	1	0	0	0	0	0
Worcester	0	0	0	0	0	0	0	1	0
Rhode Island:									
Providence	1	0	0	0	0	0	0	1	0
MIDDLE ATLANTIC									
New York:									
New York	4	4	5	2	0	0	1	1	1
New Jersey:									
Newark [1]	3	0	0	0	0	0	0	0	0

[1] Dengue: 1 case at Newark, N. J.

City reports for week ended March 12, 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—continued									
Pennsylvania:									
Philadelphia	0	0	1	0	0	0	0	0	0
Pittsburgh	0	0	0	0	0	0	0	0	1
Reading	1	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	1	0	0	0	0	0	0	0	0
Cleveland	1	0	0	1	0	0	0	0	0
Columbus	0	0	0	1	0	0	0	0	0
Illinois:									
Chicago	3	1	3	0	0	0	1	0	0
Michigan:									
Detroit	0	1	0	0	0	0	0	1	0
Wisconsin:									
Milwaukee	5	3	0	0	0	0	1	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	0	1	0	0	0	0	0	0	0
Minneapolis	0	1	0	0	0	0	0	0	0
St. Paul	0	0	1	0	0	0	0	0	0
Missouri:									
St. Louis	1	0	0	0	0	0	1	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore	0	0	0	1	0	0	0	0	0
Virginia:									
Richmond	0	0	0	0	0	1	0	0	0
South Carolina:									
Charleston	0	0	3	0	1	0	0	0	0
Georgia:									
Savannah[1]	0	0	0	0	1	1	0	0	0
Florida:									
Miami	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville	0	0	0	0	0	0	0	1	0
Tennessee:									
Nashville	0	0	0	0	1	1	0	0	0
Alabama:									
Birmingham	0	0	0	0	1	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	2	0	0	0
Louisiana:									
New Orleans	1	0	0	0	1	1	0	1	1
Texas:									
Dallas	0	0	0	0	1	0	0	0	0
San Antonio	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Great Falls	1	0	0	0	0	0	0	0	0
Utah:									
Salt Lake City	2	1	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	1	----	0	----	0	----	0	0	----
Spokane	2	----	0	----	0	----	0	0	----
Oregon:									
Portland	0	1	0	0	0	0	0	0	0
California:									
Los Angeles	1	1	0	0	0	0	1	0	0
Sacramento	0	0	1	1	0	0	0	0	0

[1] Typhus fever: 1 case at Savannah, Ga.

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended March 12, 1927, compared with those for a like period ended March 13, 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 30,440,000 in 1926 and 30,960,000 in 1927. The 95 cities reporting deaths had nearly 29,780,000 estimated population in 1926 and nearly 30,290,000 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, February 6 to March 12, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Feb. 13, 1926	Feb. 12, 1927	Feb. 20, 1926	Feb. 19, 1927	Feb. 27, 1926	Feb. 26, 1927	Mar. 6, 1926	Mar. 5, 1927	Mar. 13, 1926	Mar. 12, 1927
101 cities	[2] 136	178	157	204	134	179	[3] 124	182	[2] 114	[4] 186
New England	123	174	116	132	101	149	94	163	78	128
Middle Atlantic	141	188	132	277	119	200	111	224	113	231
East North Central	[2] 132	179	134	169	141	198	123	177	[2] 107	[3] 166
West North Central	171	155	206	165	246	109	[3] 241	115	216	[5] 148
South Atlantic	134	223	104	192	73	192	108	196	86	156
East South Central	47	61	57	87	52	117	47	82	26	[6] 116
West South Central	116	151	90	172	116	197	103	151	103	193
Mountain	173	153	219	162	210	72	73	234	109	[7] 215
Pacific	139	168	204	188	214	152	188	134	147	199

MEASLES CASE RATES

101 cities	[2] 1,719	642	1,995	784	2,066	843	[3] 1,884	858	[2] 1,686	[4] 784
New England	2,342	339	2,703	181	2,184	228	2,441	172	1,964	197
Middle Atlantic	1,514	45	1,917	69	2,044	75	1,843	68	1,716	80
East North Central	[2] 2,637	738	2,933	899	3,084	930	2,695	1,078	[2] 2,135	[3] 1,104
West North Central	551	685	676	566	901	963	[3] 842	955	1,603	[5] 1,193
South Atlantic	3,086	361	3,248	795	3,269	654	2,675	797	2,248	786
East South Central	729	453	957	469	1,231	464	1,319	540	1,407	[6] 360
West South Central	13	457	9	570	9	600	17	730	39	1,204
Mountain	109	7,866	137	9,691	82	10,653	210	8,154	337	[7] 1,828
Pacific	166	2,225	201	2,780	161	2,872	276	3,037	324	3,259

SCARLET FEVER CASE RATES

101 cities	[2] 298	392	309	439	285	424	[3] 289	419	[2] 303	[4] 436
New England	361	536	361	469	354	541	347	423	333	590
Middle Atlantic	197	424	208	582	187	532	185	533	192	585
East North Central	[2] 359	327	372	323	340	365	346	398	[2] 371	[3] 364
West North Central	782	500	782	542	706	447	[3] 807	445	903	[5] 482
South Atlantic	169	259	149	250	199	219	162	181	149	194
East South Central	114	224	243	245	171	183	186	219	140	[6] 296
West South Central	107	75	107	67	112	117	90	67	112	122
Mountain	219	1,250	237	1,250	100	1,196	337	1,079	219	[7] 573
Pacific	308	390	330	340	311	314	311	330	249	285

[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] Madison, Wis., not included.
[3] Kansas City, Mo., not included.
[4] Madison, Wis., Kansas City, Mo., Fargo, N. Dak., Covington, Ky., Mobile, Ala., and Denver, Colo., not included.
[5] Kansas City, Mo., and Fargo, N. Dak., not included.
[6] Covington, Ky., and Mobile, Ala., not included.
[7] Denver, Colo., not included.

Summary of weekly reports from cities, February 6 to March 12, 1927—Annual rates per 100,000 population, compared with rates for the corresponding period of 1926—Continued

SMALLPOX CASE RATES

	Week ended—									
	Feb. 13, 1926	Feb. 12, 1927	Feb. 20, 1926	Feb. 19, 1927	Feb. 27, 1926	Feb. 26, 1927	Mar. 6, 1926	Mar. 5, 1927	Mar. 13, 1926	Mar. 12, 1927
101 cities	[2] 53	26	41	33	41	25	[3] 50	22	[2] 40	[4] 28
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	1	0	0	0	0	0	0	0	0	0
East North Central	[2] 23	15	33	28	18	15	23	21	[2] 19	[2] 34
West North Central	32	71	65	81	79	64	61	54	67	[5] 31
South Atlantic	80	63	50	60	65	45	99	53	48	54
East South Central	52	82	103	132	52	71	67	122	67	[6] 93
West South Central	112	67	142	63	133	50	193	50	142	71
Mountain	73	18	36	27	46	0	36	0	18	[7] 0
Pacific	458	76	193	94	244	105	300	13	260	94

TYPHOID FEVER CASE RATES

101 cities	[2] 6	7	7	9	5	8	[3] 10	9	[2] 8	[4] 8
New England	5	5	7	2	5	9	12	2	5	12
Middle Atlantic	6	5	4	10	2	1	4	5	7	8
East North Central	[2] 4	2	5	4	1	6	5	6	[2] 4	[2] 1
West North Central	4	6	6	10	2	8	[5] 0	10	4	[5] 5
South Atlantic	15	18	4	24	11	29	6	24	7	11
East South Central	10	10	5	31	10	25	10	41	5	[6] 35
West South Central	0	13	21	8	30	4	39	8	4	17
Mountain	0	0	18	0	18	18	146	9	146	[7] 0
Pacific	13	18	16	3	8	8	16	8	0	10

INFLUENZA DEATH RATES

95 cities	[2] 33	24	50	23	46	22	[3] 51	25	[2] 71	[8] 27
New England	19	2	2	9	19	12	12	9	24	12
Middle Atlantic	15	28	27	25	39	22	68	24	105	25
East North Central	[2] 11	22	11	19	14	17	14	23	[2] 32	[2] 16
West North Central	4	15	19	23	23	10	[5] 5	17	36	[5] 12
South Atlantic	64	24	138	31	96	42	47	48	78	72
East South Central	62	36	160	41	134	41	259	20	197	[6] 81
West South Central	282	39	278	39	212	26	124	39	97	47
Mountain	128	72	109	27	100	54	109	54	146	54
Pacific	35	21	95	17	35	17	32	17	21	7

PNEUMONIA DEATH RATES

95 cities	[2] 212	148	259	146	259	164	[3] 269	172	[2] 326	[8] 189
New England	156	165	175	102	165	183	186	202	217	188
Middle Atlantic	212	174	290	149	317	177	358	193	461	223
East North Central	[2] 161	128	181	120	179	146	206	134	[2] 289	[2] 159
West North Central	78	96	127	91	108	91	[5] 97	104	148	[5] 70
South Atlantic	408	171	490	239	454	257	342	234	303	278
East South Central	222	112	295	168	300	117	310	260	388	[6] 186
West South Central	516	146	516	207	353	164	362	185	238	159
Mountain	328	144	173	189	410	135	237	126	301	171
Pacific	110	114	173	176	141	131	117	121	92	148

[2] Madison, Wis., not included.
[3] Kansas City, Mo., not included.
[4] Madison, Wis., Kansas City, Mo., Fargo, N. Dak., Covington, Ky., Mobile, Ala., and Denver, Colo., not included.
[5] Kansas City, Mo., and Fargo, N. Dak., not included.
[6] Covington, Ky., and Mobile, Ala., not included.
[7] Denver, Colo., not included.
[8] Madison, Wis., Kansas City, Mo., Fargo, N. Dak., Covington, Ky., and Mobile, Ala., 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	30,438,500	30,960,600	29,778,400	30,289,800
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	7,644,900	7,804,500	7,644,900	7,804,500
West North Central	12	10	2,585,500	2,626,600	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 March 5, 1927.—The following report for the week ended March 5, 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	3	2	0	0	0	0	Siam: Bangkok	1	1	13	11	10	3
British India:							French Indo-China:						
Karachi	----	0	----	0	1	0	Saigon	1	0	0	0	0	0
Bombay	----	4	----	0	71	37	China: Shanghai	0	0	0	0	----	2
Calcutta	----	0	----	35	248	170	Hongkong	0	0	0	0	11	11
Rangoon	----	5	----	4	43	7	Manchuria: Mukden	0	0	0	0	0	1
Madras	----	0	----	1	32	----	Kwantung: Dairen	0	0	0	0	2	0
Negapatam	----	0	----	0	1	1	Madagascar: Tamatave	1	0	0	0	0	0
Vizagapatam	----	0	----	0	1	1	Kenya: Mombasa	2	0	0	0	0	0
Dutch East Indies:													
Surabaya	2	2	0	0	0	0							
Makassar	1	1	0	0	0	0							

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

ASIA

Arabia.—Aden, Jeddah, Kamaran, Perim.
Iraq.—Basrah.
Persia.—Mohammerah, Bender-Abbas, Bushire, Lingah.
British India.—Chittagong, Cochin, Tuticorin.
Portuguese India.—Nova Goa.
Federated Malay States.—Port Swettenham.
Straits Settlements.—Penang.
Dutch East Indies.—Batavia, Sabang, Belawan-Deli, Pontianak, Semarang, Menado, Banjermasin, Cheribon, Padang, Palembang, Tarakan, Balikpapan.
Sarawak.—Kuching.
British North Borneo.—Sandakan, Jesselton, Kudat, Tawao.
Portuguese Timor.—Dilly.
French Indo-China.—Haiphong, Turane.
Philippine Islands.—Manila, Iloilo, Jolo, Cebu, Zamboanga.
China.—Amoy.
Macao.
Formosa.—Keelung.
Chosen.—Chemulpo, Fusan.
Manchuria.—Harbin, Antung, Yingkow, Changchun.
Kwantung.—Port Arthur.
Japan.—Yokohama, Nagasaki, Niigata, Hakodate, Shimonoseki, Moji, Tsuruga, Osaka, Kobe.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnavon, Thursday Island, Cairns.
New Guinea.—Port Moresby.
New Britain Mandated Territory.—Rabaul and Kokopo.
New Zealand.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.
New Caledonia.—Noumea.
Fiji.—Suva.
Hawaii.—Honolulu.
Society Islands.—Papeete.

AFRICA

Egypt.—Port Said, Suez, Alexandria.
Anglo-Egyptian Sudan.—Port Sudan, Suakin.
Eritrea.—Massaua.
French Somaliland.—Jibuti.
British Somaliland.—Berbera.
Italian Somaliland.—Mogadiscio.
Zanzibar.—Zanzibar.
Tanganyika.—Dar-es-Salaam.
Seychelles.—Victoria.
Portuguese East Africa.—Mozambique, Beira, Lourenço Marques.
Union of South Africa.—East London, Port Elizabeth, Cape Town, Durban.
Reunion.—St. Denis.
Mauritius.—Port Louis.
Madagascar.—Majunga.

Reports had not been received in time for publication from:

Dutch East Indies.—Samarinda.
U. S. S. R.—Vladivostok.

Movement of infected ships:

Tamatave.—The S. S. *Leconte-de-l'Isle* arrived on February 23 from St. Denis infected with plague.

Capetown.—The S. S. *Bendalla* arrived from London on February 25 with 50 influenza cases on board. Her next port of call is Fremantle.

Hongkong.—The S. S. *Kwai-Sang* arrived from Amoy on March 9 infected with smallpox.

INFLUENZA IN FOREIGN COUNTRIES

A telegram from the health section of the secretariat of the League of Nations received March 25, 1927, states that influenza continued to decrease except in Yugoslavia, where 467 deaths from influenza occurred during the first week of March. In 105 great towns of England there were 342 deaths from influenza during the week ended March 12. In the Union of Socialist Soviet Republics a mild outbreak of the disease reached its maximum about the last of February.

CANADA

Communicable diseases—Week ended March 12, 1927.—The Canadian Ministry of Health reports cases of certain communicable diseases from seven Provinces of Canada for the week ended March 12, 1927, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal meningitis			2	1	2	2		7
Influenza	41			3	1			45
Lethargic encephalitis					1			1
Smallpox				12	1	3	22	38
Typhoid fever			141	6				147

Communicable diseases—Ontario—February, 1927.—During the month of February, 1927, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	February, 1927		February, 1926	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis	5	4	3	2
Chicken pox	641		785	
Diphtheria	341	18	201	18
German measles	607		511	
Gonorrhea	110		190	
Influenza	74	15		31
Lethargic encephalitis	1	1	2	1
Measles	1,899		1,988	
Mumps	198		588	
Pneumonia		195		227
Scarlet fever	745	8	820	4
Septic sore throat			2	
Smallpox	104		87	
Syphilis	114		162	
Tuberculosis	135	49	163	79
Typhoid fever	49	1	26	
Whooping cough	369		420	2

Smallpox.—Smallpox was reported present in the Province of Ontario during the month of February, 1927, at 25 localities, the greatest number of cases, viz, 22, being reported at Toronto. Seven localities reported one case each.

Epidemic typhoid fever—Montreal.—During the week ended March 12, 1927, 203 cases of typhoid fever with 4 deaths were reported at Montreal, Canada, as compared with 9 cases with 1 death reported for the week ended March 5, 1927. Later information states that the outbreak began March 4. From that date to March 25, 1,093 cases of typhoid fever were reported, the greatest number in any one day being 114 cases, on March 21.

Water supply not incriminated—One infected dairy.—It was stated that the water supply of the city was found on examination not to be the source of infection. One infected dairy was reported found. The type of the disease was stated to be mild.

The United States Government has placed an embargo on the shipment of milk into the United States from the vicinity of Montreal.

ECUADOR

Plague—Guayaquil—January 16–31, 1927, and February 1–15, 1927.—Plague has been reported at Guayaquil, Ecuador, as follows: January 16 to 31, 1927—cases, 12; deaths, 3; February 1–15, 1927—cases, 26; deaths, 4.

Plague-infected rats.—From January 16 to 31, 1927, of 13,411 rats taken 51 were found plague infected; from February 1 to 15, 1927, of 12,452 rats taken 25 were found infected.

Smallpox.—During the period January 16 to 31, 1927, a case of smallpox was reported at Guayaquil.

MADAGASCAR

Plague—December 16–31, 1926.—During the period December 16 to 31, 1926, 152 cases of plague with 141 deaths were reported in the island of Madagascar from six Provinces. The distribution of occurrence according to type was: Bubonic, cases, 80; pneumonic, 34; septicemic, 38. Urban occurrence was reported as follows: Antisirabi, cases, 2; Tananarive town cases, 5.

Plague—Year 1926.—During the calendar year 1926 there occurred throughout the island of Madagascar 2,146 cases of plague, 1,966 of which were fatal, as compared with 1,779 cases, of which 1,586 were fatal, in 1925, representing a 24 per cent increase in deaths in 1926. The year 1926 is also notable for the largest number of plague deaths of Europeans ever known in the colony, namely, seven, all of which occurred between August 15 and October 15, 1926.

Plague cases and deaths in Madagascar, 1926

Month	Cases				Deaths			
	Bubonic	Pulmonary	Septicemic	Total	Bubonic	Pulmonary	Septicemic	Total
January	175	98	61	334	149	94	60	303
February	143	82	52	277	129	81	52	262
March	71	77	38	186	66	77	38	181
April	28	35	38	101	22	35	38	95
May	10	11	10	31	10	11	10	31
June	15	46	5	66	14	32	5	51
July	7	10		17	6	10		16
August	63	39	40	142	52	39	40	131
September	102	47	34	183	90	47	34	171
October	87	97	72	256	67	93	72	232
November	141	82	56	279	107	76	56	239
December	131	72	71	274	112	71	71	254
Total	973	696	477	2,146	824	666	476	1,966

Births and deaths—Comparative.—In 1925 the total number of births among the native population was 74,244, and of deaths 74,850, as compared with 75,654 births and 65,983 deaths in 1924. Figures for 1926 are not yet available.

VIRGIN ISLANDS

Communicable diseases—February, 1927.—During the month of February, 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	1	
Gonorrhea	8	
Leprosy	1	
Syphilis	4	Primary, 2; secondary, 2.
St. Croix:		
Filariasis	3	Bancrofti.
Gonorrhea	5	
Leprosy	2	
Tetanus	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW 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 April 1, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
French Settlements in India	Dec. 5–18	1	1	
India	Jan. 9–22			Cases, 5,949; deaths, 3,306.
Calcutta	Jan. 30–Feb. 5	32	29	
Rangoon	do	1	1	
Siam				Jan. 30–Feb. 5, 1927: Cases, 43; deaths, 32. Apr. 1, 1926–Feb. 5, 1927: Cases, 7,982; deaths, 5,263.
Bangkok	Jan. 30–Feb. 5	1		

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

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

Reports Received During Week Ended April 1, 1927—Continued

PLAGUE

Place	Date	Cases	Deaths	Remarks
Argentina	Jan. 9-15	5		
Canary Islands:				
Las Palmas	Feb. 12	1		
Ceylon:				
Colombo	Feb. 6-12	1	1	Plague-infected rats, 3.
Ecuador:				
Guayaquil	Jan. 16-Feb. 15	38	7	Rats taken, 25,863; found infected, 76.
India	Jan. 9-22			Cases, 2,768; deaths, 1,847.
Bombay	Jan. 30-Feb. 12	2	2	
Madras Presidency	Jan. 23-29	102	66	
Rangoon	Jan. 30-Feb. 5	6	6	
Iraq:				
Baghdad	Jan. 23-29	1	1	
Java:				
Batavia	Jan. 30-Feb. 5	22	21	Province.
East Java and Madura	Jan. 16-22	1	1	
Madagascar				Dec. 16-31, 1926: Cases, 152; deaths, 141. Bubonic, 80; pneumonic, 34; septicemic, 38.
Antisirabi town	Dec. 16-31	2	2	Pneumonic.
Ambositra Province	do	10	10	Bubonic.
Itasy Province	do	14	14	Bubonic, 5; pneumonic, 4; septicemic, 5.
Majunga Province	do	3	1	Bubonic, 2; septicemic, 1 case, 1 death.
Moramanga Province	do	18	14	Bubonic—cases, 10; deaths, 6; Pneumonic—cases, 1; Septicemic, 7.
Tamatave Province	do	1	1	Bubonic.
Tananarive Province	do	104	99	Bubonic—cases, 52; deaths, 48. Pneumonic—cases, 27; deaths, 26. Septicemic—cases, 25; deaths, 25.
Tananarive town				Dec. 16-31, 1926: Cases, 4; deaths, 4.
Nigeria	Nov. 1-30	134	127	
Siam				Jan. 30-Feb. 5, 1927: Cases, 3; deaths, 3. Apr. 1, 1926-Feb. 5, 1927: Cases, 35; deaths, 26.

SMALLPOX

Algeria	Dec. 21-31	99		
Do	Jan. 1-20	86		
Brazil:				
Rio de Janeiro	Feb. 6-12	3	3	
Canada	Mar. 6-12			Cases, 38.
Alberta	do	22		
Manitoba	do	1		
Ontario	do	12		
Do	Feb. 1-28	104		
Ottawa	Mar. 13-19	1		
Toronto	Mar. 6-12	4		
Saskatchewan	do	3		
Chosen	Nov. 1-30	6	3	
France	Dec. 1-31	79		
Paris	Feb. 11-20	4		
French settlements in India	Dec. 4-18	10	10	
Gold Coast	Nov. 1-30	2		
Great Britain:				
England—				
Sheffield	Feb. 20-Mar. 5	63		
India	Jan. 9-22			Cases, 9,958; deaths, 2,467.
Bombay	Jan. 30-Feb. 12	79	29	
Calcutta	Jan. 30-Feb. 5	77	66	
Madras	Feb. 13-19	36		
Rangoon	do	3	2	
Iraq:				
Baghdad	Jan. 23-29	1		
Italy	Nov. 14-Jan. 1	12		
Japan	Dec. 5-25	19		
Java:				
East Java and Madura	Jan. 16-22	1	1	

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

Reports Received During Week Ended April 1, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Mexico	Oct. 1-31			Deaths, 121.
Mexico City	Feb. 20-26	1		Including municipalities in Federal District.
Torreon	Feb. 27-Mar. 5		3	
Nigeria	Nov. 1-30	5		Cases, 2; deaths, 1.
Poland	Dec. 26-31			One death.
Do	Jan. 1-8			
Portugal:				
Lisbon	Feb. 20-26	3		
Siam				Jan. 30-Feb. 5, 1927: Cases, 7; deaths, 3. Apr. 1, 1926-Feb. 5, 1927: Cases, 731; deaths, 280.
Bangkok	Jan. 30-Feb. 5	5	3	
Spain:				
Valencia	Feb. 27-Mar. 5	2		
Tunisia	Jan. 1-20	8		

TYPHUS FEVER

Algeria	Jan. 1-20			Cases, 21.
Algiers	Feb. 11-20	5		
Argentina:				
Rosario	Jan. 25-31		3	
Bulgaria	Dec. 1-31	6		
Chosen	Nov. 1-30	36		
Seoul	Jan. 1-31	2	1	
Egypt:				
Alexandria	Jan. 22-28	1		
Greece:				
Athens	Feb. 1-28	4		For all Greece: Cases, 5; deaths, 1.
Lithuania	Dec. 1-31	17	1	
Mexico	Oct. 1-31			Deaths, 22.
Mexico City	Feb. 20-Mar. 5	5		Including municipalities in Federal District.
Poland	Jan. 1-15	115	4	
Tunisia	Jan. 1-20	21		

YELLOW FEVER

Gold Coast	Nov. 1-30	2	2	
Nigeria	do	3	3	

Reports Received from January 1 to March 25, 1927 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Canton	Nov. 1-30	10	3	
Chungking	Nov. 14-20			Present.
Do	Jan. 2-8			Do.
Tsingtao	Nov. 14-Dec. 11			Do.
Chosen	Sept. 1-Oct. 31	252	159	
French Settlements in India	Aug. 29-Dec. 4	130	96	
India	Oct. 10-Jan. 1			Cases, 20,298; deaths, 3,507.
Do	Jan. 2-8			Cases, 3,080; deaths, 1,757.
Bombay	Jan. 9-29	2	1	
Calcutta	Oct. 31-Jan. 1	385	313	
Do	Jan. 2-29	283	215	
Madras	Dec. 26-Jan. 1	2	2	
Do	Jan. 2-8	8	6	
Rangoon	Nov. 21-Jan. 1	11	7	
Do	Jan. 2-29	3	3	

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

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

Reports Received from January 1 to March 25, 1927—Continued

CHOLERA—Continued

Place	Date	Cases	Deaths	Remarks
Indo-China	July 1-31			Cases, 2,204; deaths, 1,350. European, 1.
Saigon	Oct. 31-Nov. 13	2	2	
Province—				
Annam	July, 1926	215	178	July, 1925: Cases, none.
Cambodia	do	571	352	1 European, fatal. July, 1925: Cases, 3.
Cochin-China	do	390	317	July, 1925: Cases, 6; deaths, 2.
Kwang-Chow-Wan	do	220		July, 1925: Cases, 22; deaths, 15.
Laos	do	24	21	July, 1925: Case, 1.
Tonkin	do	784	482	July, 1925: Cases, 3; death, 1.
Japan:				
Hiogo	Nov. 14-20	3		
Philippine Islands:				
Manila	Oct. 31-Nov. 6	1		
Russia	Aug. 1-Sept. 30	8		
Siam	Apr. 1-Jan. 1			Cases, 7,847; deaths, 5,164.
Do	Jan. 2-29	92	67	
Bangkok	Oct. 31-Jan. 1	16	5	
Do	Jan. 9-29	6	2	
Straits Settlements	July 25-Oct. 16		60	
Singapore	Nov. 21-Jan. 1	14	8	

PLAGUE

Algeria:				
Algiers	Reported Nov. 16	1		
Bona	Jan. 11-19	3	2	
Oran	Nov. 21-Dec. 10	32	22	
Tarafaraoui	Nov. 1-Dec. 9	10	9	Near Oran.
Angola:				
Benguela district	Oct. 1-Dec. 31	17	10	
Cuanza Norte district	Dec. 1-31	18	10	
Mossamedes district	Dec. 16-31	10		
Azores:				
St. Michael's Island—				
Furnas	Nov. 3-17	4	1	27 miles distant from port.
Brazil:				
Porto Alegre	Jan. 23	2	2	
Rio de Janeiro	Nov. 28-Dec. 4	2	2	
Do	Dec. 26-Jan. 1	1	1	On vessel in harbor.
Do	Jan. 2-8	1		
Sao Paulo	Nov. 1-14	1	1	
British East Africa:				
Kenya—				
Kisumu	Jan. 16-22	1	1	
Tanganyika Territory	Nov. 21-Dec. 18		12	
Uganda	Sept. 1-Oct. 31	162	152	
Canary Islands:				
Atarfe	Dec. 20	1	1	Vicinity of Las Palmas.
Las Palmas	Jan. 8	1		
San Miguel	do	1		Vicinity of Santa Cruz de Teneriffe.
Celebes:				
Makassar	Dec. 22			Outbreak.
Ceylon:				
Colombo	Nov. 14-Dec. 11	3	1	2 plague rodents.
Do	Jan. 2-Feb. 5	20	9	5 plague rodents.
China:				
Mongolia	Reported Dec. 21	500		
Nanking	Oct. 31-Dec. 18			Prevalent.
Ecuador:				
Guayaquil	Nov. 1-Dec. 31	26	8	Rats taken, 50,615; found infected, 184.
Do	Jan. 1-15	5	3	Rats taken, 10,261; found infected, 53.
Egypt	Jan. 1-Dec. 9			Cases, 149.
Do	Jan. 1-28			Cases, 13.
Alexandria	Nov. 19-Dec. 2	2		
Charkia Province	Jan. 5	1	1	At Zagazig (Tel el Kebir).
Gharbia Province	Jan. 4	1	1	
Kafr el Sheikh	Dec. 3-9	2		
Marsa Matrah	Dec. 23-29	10		
Do	Jan. 27	1		
Tanta district	Nov. 19-Dec. 20	3		

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

Reports Received from January 1 to March 25, 1927—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Greece	Nov. 1-30	10	1	Athens and Piræus.
Athens	Nov. 1-Dec. 31	9	4	
Patras	Nov. 28-Dec. 4		1	
Pravi	Nov. 27	1	1	Province of Drama-Kavalla.
India	Oct. 10-Jan. 1			Cases, 16,162; deaths, 9,905.
Do	Jan. 2-8			Cases, 1,766; deaths, 1,200.
Bombay	Nov. 21-27	1	1	
Do	Jan. 16-22	2	2	
Madras	Oct. 31-Jan. 1	581	324	
Do	Jan. 2-22	333	210	
Rangoon	Nov. 14-Dec. 25	11	9	
Do	Jan. 2-29	16	15	
Indo-China	July 1-31			Cases, 24; deaths, 10.
Province—				
Cambodia	July, 1926	6	6	July, 1925: Cases, 16; deaths, 13
Cochin-China	do	8	4	July, 1925: No cases.
Kwang-Chow-Wan	do	10		July, 1925: Cases, 22; deaths, 15.
Iraq:				
Baghdad	Jan. 30-Feb. 5	1		
Java:				
Batavia	Nov. 7-Jan. 1	91	90	Province.
Do	Jan. 2-29	101	97	
East Java and Madura	Dec. 19-Jan. 1	3	3	
Do	Jan. 2-15	3	3	
Surabaya	Oct. 24-Dec. 18	14	14	
Madagascar:				
Province—				
Analalava	Oct. 16-31	1	1	Bubonic.
Itasy	Oct. 16-Dec. 15	25	25	
Maevatanana	Oct. 16-31	10	10	
Moramanga	Oct. 16-Dec. 15	74	53	
Tamatave	Oct. 16-Nov. 30	14	1	
Tananarive	Oct. 16-Dec. 15			Cases, 429; deaths, 398.
Town—				
Tamatave	Nov. 16-30	2		
Tananarive	Oct. 16-Dec. 15	44	30	
Mauritius:				
Plaines Wilhems	Oct. 1-Nov. 30	3	3	
Port Louis	do	20	18	
Nigeria	Aug. 1-Oct. 31	865	775	
Peru	Nov. 1-Dec. 31			Cases, 90; deaths, 26.
Do	Jan. 1-31	47	10	
Departments—				
Ancash	Dec. 1-31	6	6	
Do	Jan. 1-31			Present.
Cajamarca	do	36	6	
Ica—				
Chincha	Nov. 1-30	1		
Lambayeque	do			Present in Province.
Chiclayo	do	3		
Do	Jan. 1-31	2		
Libertad	Dec. 1-31	2		
Do	Jan. 1-31	1		
Lima	Nov. 1-Dec. 31	42	14	
Do	Jan. 1-31	46	10	
Portugal:				
Lisbon	Nov. 23-26	3	2	In suburb of Balem.
Russia	May 1-June 30	44		
Do	July 1-Sept. 30	64		
Senegal	July 1-31	178	162	
Diourbel	Nov. 20-30	12	1	
Tivaouane	Dec. 19-25	6	2	In interior.
Siam	Apr. 1-Jan. 1			Cases, 30; deaths, 22
Do	Jan. 16-29			Cases, 2; death, 1.
Syria:				
Beirut	Nov. 11-Dec. 20	4		
Tunisia	Dec. 1-31			Cases, 43.
Do	Jan. 12-26			Cases, 34.
Acheche district	Feb. 11-14	14	14	Pneumonic.
Bousse	Jan. 12-26	8		
Djeneniana	do	8		
Kairouan	do	3		
Mahares	do	15		
Sfax	Oct. 1-Dec. 31	304	128	
Turkey:				
Constantinople	Dec. 15-25	1		

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

Reports Received from January 1 to March 25, 1927—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Union of South Africa:				
Cape Province—				
De Aar district	Nov. 21-27	1		Native.
Craddock district	Jan. 2-8	2	1	
Hanover district	Nov. 14-Jan. 1	3	2	
Do	Jan. 2-8	1	1	
Middleburg district	Dec. 5-11	1	1	Do.
Orange Free State	do			Cases, 12; deaths, 2.
Bothaville district	Dec. 5-18	2	1	
Hoopstad district	Nov. 7-13	1	1	Native.
Do	Dec. 5-25	2	1	Do.
Do	Jan. 2-22	3		
Vredefort district	Dec. 19-25	10	5	First case occurred Dec. 1, 1926. Reported Dec. 17.

SMALLPOX

Algeria	Sept. 21-Dec. 20			Cases, 698.
Algiers	Dec. 11-31	4		
Do	Jan. 1-Feb. 10	3		
Angola	Oct. 1-15			Present in Congo district.
Cuanza Norte	Nov. 1-15			Present.
Arabia:				
Aden	Dec. 12-18	1		Imported.
Belgium	Oct. 1-10	1		
Brazil:				
Bahia	Oct. 30-Dec. 18	12	8	
Para	Oct. 31-Nov. 6		1	
Do	Feb. 5-12		1	
Pernambuco	Oct. 17-Dec. 25	58	4	
Rio de Janeiro	Year 1926			Cases, 4,083; deaths, 2,180.
Do	Jan. 2-Feb. 5	48	22	
Sao Paulo	Aug. 23-Dec. 5	34	18	
British East Africa:				
Tanganyika Territory	Oct. 31-Nov. 20	2		
Do	Jan. 2-15	34	7	
Zanzibar	Oct. 1-31	23	12	
British South Africa:				
Northern Rhodesia	Nov. 27-Dec. 3			Cases, 200. In natives.
Bulgaria	Nov. 1-30	1		
Canada	Dec. 5-Jan. 1			Cases, 155.
Do	Jan. 2-Mar. 5			Cases, 378.
Alberta	Dec. 5-Jan. 1	132		
Do	Jan. 2-Mar. 5	98		
Calgary	Nov. 28-Dec. 25	12		
Do	Jan. 2-29	12		
Edmonton	Dec. 1-31	4		
Do	Jan. 1-31	5		
British Columbia—				
Vancouver	Jan. 31-Mar. 6	6		
Manitoba	Dec. 5-Jan. 1	9		
Do	Jan. 2-Mar. 5	19		
Winnipeg	Dec. 19-25	1		
Do	Jan. 2-Mar. 5	7		
New Brunswick	Feb. 13-26	2		
Ontario	Dec. 5-Jan. 1	96		
Do	Jan. 2-Feb. 26	217		
Kingston	Jan. 1-Feb. 19	3		
Ottawa	Dec. 12-31	5		
Do	Jan. 9-29	4		
Toronto	Dec. 14-25	14		
Do	Jan. 1-Mar. 5	58	1	
Saskatchewan	Dec. 5-Jan. 1	18		
Do	Jan. 2-Mar. 5	42		
Regina	Jan. 16-22	1		
Chile:				
Concepcion	Dec. 26-Jan. 1		5	
China:				
Amoy	Jan. 1-15	1		
Canton	Nov. 1-30	1		
Chungking	Nov. 7-Dec. 25			Present.
Do	Jan. 2-31			Do.
Foochow	Nov. 7-Dec. 25			Do.
Hankow	Nov. 6-30			Do.
Hongkong	Jan. 23-Mar. 8	33	22	

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

Reports Received from January 1 to March 25, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Manchuria—				
Harbin	Dec. 16–31	3		
Mukden	Dec. 5–11	1		
Nanking	Dec. 12–25			Present.
Do	Jan. 2–15			Do.
Shanghai	Dec. 12–18		1	
Do	Jan. 30–Feb. 5		1	
Swatow	Nov. 21–27			Do.
Tientsin	Jan. 16–22	2		
Chosen	Aug. 1–Oct. 31	47	16	
Seoul	Nov. 1–30	2		
Egypt:				
Alexandria	Jan. 8–14	1		
Cairo	June 11–Aug. 26	27	4	
Estonia	Oct. 1–30	2		
France	Sept. 1–Nov. 30	214		
Paris	Dec. 1–31	10	3	
Do	Jan. 1–Feb. 10	13	3	
French Settlements in India	Aug. 29–Dec. 4	108	108	
Germany:				
Stuttgart	Nov. 28–Dec. 4	7		
Gold Coast	Aug. 1–Oct. 31	57	14	
Great Britain:				
England and Wales	Nov. 14–Jan. 4			Cases, 2,262.
Do	Jan. 2–Feb. 19			Cases, 3,524.
Bradford	Jan. 9–22	2		
Cardiff	Feb. 13–19	1		
Monmouthshire	Feb. 25	22		
Newcastle-on-Tyne	Dec. 5–13	2		
Do	Jan. 2–Feb. 19	15		
Normanton	Dec. 30	1		9 miles from Leeds.
Sheffield	Nov. 28–Jan. 1	60		
Do	Jan. 2–Feb. 19	421		
Wakefield	Jan. 30–Feb. 2	2		
Greece	Nov. 1–Dec. 31	25		
Athens	Dec. 1–31	14	2	
Guatemala:				
Guatemala City	Nov. 1–Dec. 31		15	
Do	Jan. 1–31		23	
India	Oct. 10–Jan. 1			Cases, 22,946; deaths, 6,009.
Do	Jan. 2–8			Cases, 4,270; deaths, 1,028.
Bombay	Nov. 7–Jan. 1	37	26	
Do	Jan. 2–29	61	45	
Calcutta	Oct. 31–Jan. 1	449	311	
Do	Jan. 2–29	484	356	
Karachi	Dec. 19–25	1	1	
Do	Jan. 2–Feb. 12	26	24	
Madras	Nov. 21 Jan. 1	32	2	
Do	Jan. 2–Feb. 12	95	6	
Rangoon	Nov. 28–Jan. 1	2	2	
Do	Jan. 2–29	9	5	
Indo-China	July 1–31			Cases, 29; deaths, 10.
Province—				
Annam	July, 1926	6	3	July, 1925: Cases, 39; deaths, 7.
Cambodia	do	11	4	July, 1925: Cases, 62; deaths, 18.
Cochin-China	do	6	1	July, 1925: Cases, 12; deaths, 7.
Laos	do	3	1	July, 1925: Cases, none.
Tonkin	do	3	1	July, 1925: Cases, 31; deaths, 3.
Saigon	Dec. 26–Jan. 1	3		
Iraq:				
Baghdad	Oct. 31–Dec. 4	7	4	
Barsa	Nov. 7–13	1	1	
Italy	Aug. 29–Nov. 13	16		
Genoa	Dec. 30–31	1		
Do	Jan. 1–10	2		
Jamaica	Nov. 26–Jan. 1	37		Reported as alastrim.
Do	Jan. 2–Feb. 5	45		
Japan	Oct. 24–Dec. 4	6		
Kobe	Nov. 14–20	1		
Do	Jan. 23–Feb. 5	2		
Yokohama	Nov. 27–Dec. 3	2		
Java:				
Batavia	do	2		Province.
East Java and Madura	Dec. 17–25	1		
Do	Jan. 2–8	1	2	
Surabaya	Oct. 24–Nov. 27	10	1	

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

Reports Received from January 1 to March 25, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Lithuania	Nov. 1-30	2		
Luxemburg	Nov. 1-Dec. 31	2		
Mexico	July 1-Sept. 30		413	
Chihuahua	Dec. 31			Several cases; mild.
Do	Jan. 31-Feb. 6			Present.
Ciudad Juarez	Dec. 14-27		2	
Manzanillo	Mar. 5	6		
Mazatlan	Feb. 14-20		2	
Mexico City	Nov. 23-Dec. 25	6		Including municipalities in Federal District.
Do	Dec. 26-Feb. 19	4		Do.
Nuevo Leon State:				
Cerralvo	Mar. 11			Epidemic.
Montemorelos	Feb. 24			Reported present.
Monterey	do			About 60 cases reported in one hospital; other cases stated to exist.
Parral	Jan. 31-Feb. 6			Cases, 25. Unofficially reported.
Piedras Negras district	Feb. 25	68		At Nueva Rosita.
Saltillo	Feb. 6-12		1	
San Luis Potosi	Nov. 12-Dec. 18		3	
Do	Jan. 9-Mar. 5		17	
Tampico	Jan. 21-31	1		
Torreon	Nov. 28-Jan. 1		12	
Do	Jan. 2-Feb. 26		9	
Victoria	Feb. 24			Present.
Netherlands East Indies	Dec. 14			Island of Borneo; epidemic in two villages.
Nigeria	Aug. 1-Oct. 31	73	4	
Peru:				
Arequipa	Dec. 1-31		1	
Do	Jan. 1-31		1	
Laredo	Dec. 1			Severe outbreak; vicinity of Trujillo.
Poland	Oct. 11-Dec. 25			Cases, 30; deaths, 2.
Portugal:				
Lisbon	Nov. 22-Jan. 1	43	4	
Do	Jan. 2-Feb. 19	19		
Rumania	Jan. 1-Sept. 30	7	1	
Russia	May 1-June 30	705		
Do	July 1-Sept. 30	884		
Senegal:				
Dakar	Jan. 9-15	1		
Siam	Apr. 1, 1926-Jan. 1, 1927.			Cases, 711; deaths, 268.
Do	Jan. 2-29			Cases, 13; deaths, 9.
Bangkok	Oct. 31-Jan. 1	28	10	
Do	Jan. 2-29	13	9	
Sierra Leone:				
Nanowa	Dec. 1-15	1		Pendembu district.
Spain	July 1-Sept. 30		9	
Valencia	Feb. 8-21	2		
Straits Settlements:				
Singapore	Oct. 31-Jan. 1	12	2	
Do	Jan. 2-15	3	3	
Tunisia	Oct. 1-Dec. 31	9		
Tunis	Jan. 1-10	1		
Turkey:				
Constantinople	Feb. 1-7		1	
Union of South Africa:				
Cape Province—				
Albany district	Jan. 23-29			Outbreaks.
Caledon district	Dec. 5-11			Do.
Steynsburg district	do			Do.
Stutterheim district	Nov. 21-27			Do.
Natal—				
Durban district	Nov. 7-27	9		Including Durban municipality: Total from date of outbreak: Cases, 62; deaths, 16.
Orange Free State	Nov. 14-27			Outbreaks.
Bothaville district	Nov. 21-27			Do.
Transvaal	Nov. 7-20	2		Europeans.
Bethal district	Jan. 23-29			Outbreaks.
Johannesburg	Nov. 14-20	1		

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

Reports Received from January 1 to March 25, 1927—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
West Africa:				
French Guinea—				
Kissidougou	Feb. 19			Present.
French Sudan—				
Kayes	do			Do.
Yugoslavia	Nov. 1-Dec. 31	4	1	
Do	Jan. 1-31	3		

TYPHUS FEVER

Algeria	Sept. 21-Dec. 20	59	2	
Algiers	Feb. 1-10	7		
Argentina:				
Rosario	Dec. 1-31		1	
Bulgaria	July 1-Nov. 30	33	5	
Chile:				
Concepcion	Jan. 23-29		1	
Valparaiso	Nov. 21-Dec. 25	6		
Do	Jan. 2-22	4	1	
China:				
Antung	Nov. 22-Dec. 5	4		
Chefoo	Oct. 24-Nov. 6			Present.
Chungking	Dec. 25-31			Do.
Chosen	Aug. 1-Oct. 30	17	2	
Seoul	Nov. 1-30	1		
Czechoslovakia	Oct. 1-Dec. 31	10		
Egypt:				
Alexandria	Dec. 3-9		1	
Cairo	Oct. 29-Nov. 4	1	1	
Esthonia	Dec. 1-31	1		
France	Nov. 1-30	1		
Gold Coast	Sept. 1-30	1	1	
Greece	Nov. 1-30			Cases, 12.
Athens	Nov. 1-Dec. 31	19	2	
Drama	Dec. 1-31	2		
Kavalla	do	2		
Patras	Jan. 23-29		1	
Ravokan	do	1		
Saloniki	Jan. 25-31	1		
Ireland:				
Clare County—				
Tulla district	Jan. 9-15	1		Suspect.
Italy	Aug. 29-Sept. 23	3		
Japan:				
Tokyo Prefecture	Dec. 5-25	9		
Tokyo city	do	5	1	
Lithuania	Sept. 1-Nov. 30	24	3	
Mexico	July 1-Aug. 31			Deaths, 46.
Aguascalientes	Jan. 9-Feb. 5	2		
Durango	Jan. 1-31		1	
Guadalajara	Jan. 25-31		1	
Mexico City	Dec. 5-11	3		Including municipalities in Federal district.
Do	Jan. 2-Feb. 19	53		Do.
Parral	Jan. 30-Feb. 5	1		
Nigeria	Sept. 1-30	1		
Palestine:				
Acre	Dec. 29-Jan. 3	1		
Beisan	Dec. 21-27	1		
Haifa	Nov. 23-Dec. 13	5		
Do	Dec. 28-Feb. 7	7		
Jaffa	Nov. 23-Dec. 27	7		
Do	Jan. 11-Feb. 21	3		
Majdal	Dec. 28-Jan. 3	1		
Nazareth	Nov. 16-Jan. 3	12		
Ramleh	Jan. 31-Feb. 7	1		
Safad	Dec. 21-Jan. 3	2		
Peru:				
Arequipa	Dec. 1-31		2	
Poland	Oct. 11-Dec. 25			Cases, 341; deaths, 27.
Rumania	Aug. 1-Nov. 30	255	11	
Russia	May 1-June 30	6,043		
Do	July 1-Aug. 31	3,060		
Spain	July 1-Sept. 30		4	

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

Reports Received from January 1 to March 25, 1927—Continued

TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Tunisia	Oct. 1-Dec. 27	30		
Tunis	Jan. 21-31	1		
Turkey:				
Constantinople	Dec. 12-25	3		
Do	Jan. 16-22			1 death reported by press.
Union of South Africa	Oct. 1-Dec. 31			Cases, 233; deaths, 30.
Cape Province	do	47	7	
Do	Jan. 16-22			Outbreaks.
East London	Nov. 21-27	1		Native. Imported.
Port St. Johns district	Dec. 5-11			Outbreaks. On farm.
Natal	Oct. 1-31	1		
Orange Free State	Oct. 1-Dec. 31	31	2	
Do	Jan. 16-22			Outbreaks.
Transvaal	Oct. 1-31	1		
Yugoslavia	Nov. 1-Dec. 31	30	2	
Do	Jan. 1-31	43	3	

YELLOW FEVER

French Sudan	Dec. 19-25	1	1	
Gold Coast	Aug. 1-Sept. 30	8	3	
Nigeria	Sept. 1-31	1		
Senegal	Dec. 19-25	3	3	
Diourbel	Dec. 6	1	1	
Do	Jan. 1-20	1	1	At N'Bake.
Guinguineo	Dec. 7	1	1	
Rufisque	Nov. 27-Dec. 29	2	1	In European.
Do	Jan. 2-8	3	3	
Upper Volta:				
Gaoua district	Oct. 25	2		