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WHAT THE LOCAL HEALTH OFFICER CAN DO IN THE PREVENTION OF TYPHOID FEVER.[a]

By L. L. LUMSDEN, Passed Assistant Surgeon, United States Public Health and Marine-Hospital Service.

The prevention of typhoid fever stands out clearly as one of the most important problems in sanitation now confronting us in America. The measures required to prevent the spread of this communicable disease are known, but the practical difficulties encountered in getting the known measures carried out constitute the problem.

The widespread and continued high rate of prevalence of this thoroughly preventable disease in the United States should be and is beginning to be considered a national disgrace.

According to the United States census report for 1900, the average typhoid fever death rate in the United States was 46.5 per 100,000 inhabitants. This means that in the census year, which may be taken as an average, there were about 500 cases of, and over 46 deaths from, typhoid fever among every 100,000 persons composing the American nation. The total number of deaths from typhoid fever recorded that year was 35,379, which gave typhoid fever fourth place on the mortality list.

The rate of prevalence of typhoid fever in the United States in comparison with the rates in other countries is high. Thus the annual typhoid death rate per 100,000 inhabitants for the period 1901–1905 was in Scotland, 6.2; in Germany, 7.6; in England and Wales, 11.2; in Belgium, 16.8; in Austria (1901–1904), 19.9; in Hungary, 28.3; in Italy, 35.2; while the rate in the United States during the same period was about 46 (estimated). Some of these European countries now having relatively low rates formerly had high rates. Their climatic conditions seem to be as favorable to typhoid infection as those of the United States as a whole. Therefore, it appears reasonable to conclude that their decidedly lower typhoid rates are due to better enforcement of the measures which prevent the disease.

ERRONEOUS AND FATALISTIC VIEWS IN REGARD TO TYPHOID FEVER.

The familiarity of the public with typhoid fever, besides having given rise to many erroneous views regarding the etiology of the disease, has caused an unfortunate tendency on the part of people gener-

[a] Read at the annual meeting of the municipal health officers of Ohio, held at Columbus, Ohio, January 20–21, 1910.

ally to accept the occurrence every year of a certain amount of typhoid fever as inevitable. For much of the popular ignorance in regard to the etiology of the disease, and for the too frequent adoption by the public of a fatalistic view in regard to its occurrence, the medical profession is largely responsible. It should be considered a duty incumbent upon practicing physicians, and upon health officers particularly, to embrace every opportunity to prevent or correct these erroneous views, and to convey to the layman such knowledge as will be useful in the prevention of disease and death.

Even at the present time it is not unusual to hear it said by those who should be better informed that typhoid fever "comes only from a run-down system," or that the disease is "infectious" but not "contagious." Not many years ago the disease was regarded rather generally as being wholly, or almost wholly, a water-borne disease, and the purity of a community's water supply was estimated from its typhoid death rate. By careful epidemiologic studies of the subject it has been learned that in some communities there may be a high typhoid death rate due largely, or even entirely, to factors other than water in the spread of the infection; and sanitarians now regard the rate of prevalence of typhoid fever in a given community as a fair measure of the sanitary intelligence exercised by that community, not only in regard to the water supply but in regard to all other factors concerned in the transmission of typhoid infection.

The occurrence of yellow fever at some place in the United States will attract widespread attention, and as a rule heroic measures will be adopted to eradicate it. It is probable that in the United States more deaths have been caused by typhoid fever every year in the last decade than have been caused by yellow fever in the last fifty years; yet in many communities in which typhoid fever is highly prevalent year after year nothing is done to lessen or eradicate it, simply because the people have become accustomed to having it and do not demand that anything be done to prevent it.

As the attention of children is attracted to new toys, so is the attention of grown-ups attracted to the new and diverted from the old, and perhaps vastly more important, problems.

From the results of recent investigations it is estimated that there are now in the United States about 5,000 cases of pellagra.[a] From the obtainable data it may be estimated that there have been in the past twelve months in the United States about 400,000 cases of typhoid fever. The occurrence of pellagra in our country is a comparatively recent discovery, and it has attracted widespread and keen popular interest, while typhoid fever, a disease which, at a conservative estimate, causes annually in the United States fifty times as many deaths as does pellagra, attracts little popular interest except in occasional instances of outbreaks, such as those caused by a bacillus carrier or by highly infected water or milk, which present unusual features.

In order to get sufficient interest aroused in our old problems of disease prevention, it seems necessary to present these problems in new attire, so that they will compel attention. The excellent effects on the campaign against tuberculosis which were accomplished by

[a] Lavinder, C. H.: "The prophylaxis of pellagra;" Public Health Reports, October 29, 1909, vol. 24, No. 44.

the International Tuberculosis Congress held in Washington in the fall of 1908 suggest the advisability of having some time in the near future at some place in the United States a typhoid fever congress, either national or international in scope, to be conducted on the same general plan as to exhibits, scientific papers, etc., as was the International Congress on Tuberculosis.

PRINCIPLES OF PREVENTION BASED ON PRESENT KNOWLEDGE OF THE DISEASE.

All the evidence obtained by epidemiologic studies of the disease seems to support the now quite generally accepted view that typhoid fever is a communicable disease spread from person to person, and that the disease is communicated when the germs in the excreta (feces, urine, and, in rare instances, the sputum) from infectious persons (typhoid fever patients and typhoid bacillus carriers) are conveyed in some way to the alimentary canals of other persons. There appears to be no longer any room for reasonable doubt that the disease is "contagious" or directly transmissible from the sick to the healthy, and that it is also "infectious" or indirectly transmissible from the sick to the healthy. If these views be correct, the actual infective agent must be parasitic in nature and dependent on man as its permanent host for its perpetuation. There is abundant evidence presented by the results of epidemiologic studies, however, that this agent will live for a variable time, depending on a number of different conditions, after being discharged from the human body. Its biological features, so far as they have been determined, correspond to those of the Eberth-Koch-Gaffky bacillus, or "typhoid bacillus," which organism for practical purposes may be, and at present should be, accepted as the specific causative agent of typhoid fever. Therefore, in the adoption of measures to prevent the disease we should consider not only the bodies of infectious persons as constituting primary sources of infection, but also the various vehicles, such as water, fingers, foods, flies, etc., which after receiving the specific organisms contained in the discharges from infectious persons may constitute immediate sources of infection.

Preventive measures carried out in accordance with this view have, in every instance in which sufficient thoroughness has been exercised, proved successful.

It is possible that there are some as yet entirely unknown factors in the etiology of typhoid fever, particularly among those concerned in the establishment of individual susceptibility to the infection, which if known might have a practical bearing on measures to prevent the disease; but in the science of sanitation, as in other sciences, there is no justification for postponing the application of present knowledge because the future may hold important discoveries.

The methods of preventing typhoid fever which are now considered the best may appear some time in the future to be crude, but such speculation affords no excuse for failing to carry out these methods provided they are justified by the promised results. There is no longer any room for reasonable doubt that preventive measures based on present knowledge of the subject are effective, and as the expenses and inconveniences incident to their enforcement are insignificant when compared with the beneficial results which they have

been proved to accomplish, there seems to be no excuse for any community to fail to have these measures thoroughly carried out.

For the local health officer the two principal plans of action to prevent typhoid fever in his community should be as follows:

(1) The prevention of the spread of the infection from persons in the community who harbor the infectious organisms (typhoid fever patients and typhoid bacillus carriers);

(2) The prevention of the introduction of infection into the community from without through various channels, such as the water supply, the milk supply, and the general food supply.

In efforts to carry out either of these plans of action a number of practical difficulties will be encountered, but the ability of the health officer to overcome just such difficulties is the best index of his efficiency. It has been said that every community under a democratic form of government has as good public officials as it deserves. There is no public official who can do more to make his community more deserving in respect to the usefulness of his office than can the health officer.

FUNCTIONS OF THE LOCAL HEALTH OFFICER.

The functions of the local health officer are administrative and educative. In fulfilling one of these functions he necessarily, to some extent, fulfills the other, and in fulfilling either the factors of personal equation are all important. Given similar situations, one man as health officer will accomplish practically nothing for the advancement of sanitation, while another will accomplish a great deal.

The qualifications of a local health officer necessary for success are diligence, conscientiousness, thorough acquaintance with his community, an up-to-date knowledge of the best measures to prevent infectious disease, and the ability to use common sense methods in the application of such knowledge. Either perfunctoriness or a too strict attention to legal technicalities on the part of the health officer may explain the failure to get desirable results.

In no part of the whole field of medicine is specialism better justified than in that of sanitation or disease prevention. The health officer may be well qualified to practice medicine or surgery, but if he does so a certain amount of his time will be taken away from his public-health work, and besides he will not get the same support from his professional brothers as he would if he were not a competitor for private practice.

The position of health officer in all instances should carry, and in the vast majority of instances does carry, duties and responsibilities which are sufficiently important and extensive to keep the incumbent thoroughly occupied; and it should also carry a salary sufficiently ample to make the engaging by an efficient incumbent in pursuits other than those of his official position unwarranted.

At the present time there are few if any positions, public or private, which are so poorly compensated as that of health officer. That this is the case is largely the fault of the health officers themselves. Many health officers do not sufficiently advertise their wares. The community is willing to pay for convincing results but not for good intentions. The proper administration of laws for the prevention of infectious diseases in a community will have an educative effect because the people will eventually see and appreciate the results accomplished, and so a popular demand may be created for the enact-

ment of better or more drastic laws. Thus the opportunities of the office expand, and the health officer is to a large extent the creator of his own future. Of the widely prevalent infectious diseases none promises better results from equivalent amounts of intelligent effort at prevention than does typhoid fever, and in the prevention of this disease, therefore, the local health officer has a great opportunity.

WHAT THE LOCAL HEALTH OFFICER CAN DO IN THE PREVENTION OF TYPHOID FEVER.

(1) *Become informed as to the best known methods of prevention.*—As the methods of preventing typhoid fever consist largely of proper care of the excreta from sick persons and of proper general sewage disposal, they are embraced to a considerable degree in the elementary principles of general sanitation, and should be known by everyone in this age and generation holding the position of health officer. When a health officer does not know these methods it is the fault of the system by which he has been appointed and by which he holds his position, and it is his plain duty to correct the error of the appointing authority either by becoming equipped with the necessary knowledge or by resigning in favor of someone who is already so equipped. Such knowledge is now readily available, and there is no excuse for any health officer not to possess it. The community also is to blame for incompetency on the part of the health officer. The average intelligent citizen will consider carefully the reputed skill of the surgeon to whom he is to submit himself or some member of his family for a surgical operation, but as a rule will pay little or no attention to the administration of the health office, on which the health of his whole household in a way depends continually, so long as such administration does not interfere with his business or cause him some personal inconvenience. It is human nature to take steps to avoid immediate and evident dangers, but to trust blindly to chance to avoid those which are apparently remote but no less real.

(2) *Secure the prompt report of recognized cases and of suspected cases, so that preventive measures may be begun early.*—In many cases of typhoid fever a positive diagnosis can not be made from the symptomatology alone until the end of the second week of illness or later. In some cases, running a mild or an irregular course, the most skilled clinician, without the assistance of laboratory tests, may not be able to make a perfectly positive diagnosis even after having had the cases under observation throughout the attack. In frequent instances infection is discharged from typhoid fever patients from the very beginning of illness. Therefore it is highly important to begin precautionary measures early. This can not be done in many cases if the establishment of a positive clinical diagnosis is waited for. The early adoption of prophylactic measures in one or two undiagnosed cases may prevent an epidemic. The health officer should endeavor to get the physicians or other persons in charge of a person suffering from or presenting symptoms suggestive of typhoid fever to report the case to the health office as one of recognized or suspected typhoid fever within twenty-four or forty-eight hours after taking charge of such person.

The early report of cases and suspected cases should be made a legal requirement if possible. If it is not possible to secure such action by

legal requirement the health officer should endeavor by moral suasion and by every possible bond of professional ethics to secure it. Whenever practicable, the health officer should furnish without cost clinical consultants and laboratory facilities to aid in the early diagnosis of cases.

(3) *Advise and have carried out at the patient's bedside efficient methods of prevention.*—In communities where the greater part of the infection is not introduced from without through water supplies, milk supplies, etc., the bedsides of patients as a rule constitute the principal source of infection. The Typhoid Fever Board of the Public Health and Marine-Hospital Service reports [a] that of the cases of typhoid fever originating in the District of Columbia during the seasons (May 1 to November 1) of 1907 and 1908 about 20 per cent gave a history of direct or indirect association with previous cases in the febrile stage of the disease, and were attributed to contact infection. Similar findings, no doubt, could be obtained in other communities in which the infection now is regarded as being almost entirely, if not entirely, water-borne.

The destruction of the infection at the patient's bedside is a comparatively simple undertaking, but once the infection is allowed to escape from the patient's room, the tracing of it and the destruction of it are, under the complex conditions of urban life, very difficult, if not impossible.

The local health officer should endeavor to secure the enforcement of proper prophylactic measures at the bedside of every typhoid fever patient in his community. The patient should be reasonably isolated and efficient disinfectants should be used in an efficient manner. If these things can not be done properly at the patient's residence, the patient should be sent to a hospital for treatment. The health officer should be legally empowered to have these measures carried out; if he is not so empowered he can accomplish a great deal by the use of moral suasion on the family and the attending physician of the patient.

Practicing physicians, as a body, should not be depended on to advise and have carried out the prophylactic measures. Some practicing physicians are not properly informed on the subject; others will not take the time and trouble; and some, fortunately a decided minority, will inform the family that the use of disinfectants is unnecessary because "the medicine being given kills the germs in the patient."

Of about 2,000 cases treated at private residences and investigated in the District of Columbia during 1906, 1907, and 1908, the use of disinfectants in stools and urine was efficient for only about one-third.[b] All of these cases were attended by and had been reported by physicians. The figures make a rather poor showing, yet probably a better one than would figures similarly obtained from the average community in the United States. A health officer in visiting a home for the purpose of preventing the spread of infection from a typhoid-fever patient should make his instructions to the family plain and

[a] Report No. 2 on the "Origin and prevalence of typhoid fever in the District of Columbia, 1907," by M. J. Rosenau, L. L. Lumsden, and J. H. Kastle, Hygienic Laboratory Bulletin No. 44; Report No. 3, 1908, same authors, Hygienic Laboratory Bulletin No. 52.

[b] Hygienic Laboratory Bulletin No. 52, p. 154.

practicable. He should become assured that the disinfectant solutions are made properly and used properly. In many instances by making two or more visits to the home he can accomplish results which at his first visit appeared highly improbable.

(4) *Have preventive measures continued as long as the dejecta are infective.*—The majority of typhoid fever convalescents, by the time they are able to walk around, no longer discharge typhoid bacilli in their dejecta. Some persons, apparently entirely recovered from the disease, however, continue to discharge typhoid bacilli in their urine or feces, or in both, for months or even years. From the results of rather extensive bacteriologic examinations by Lentz, [a] Klinger, [b] von Drigalski [c] and others, it may be estimated that about 3 per cent of persons who have typhoid fever become chronic bacillus carriers.

Specimens of feces and urine from 307 persons who had had typhoid fever in the five years previous were examined bacteriologically at the Hygienic Laboratory in Washington during 1909, and 8, or about 2.5 per cent, of these persons were determined to be bacillus carriers.

Probably a good many more than 3 per cent of persons recovered from typhoid fever continue to discharge typhoid bacilli for two or three weeks after convalescence is established. On general principles the use of disinfectants in the stools and urine of typhoid convalescents should be continued for at least two weeks after defervescence, and, whenever practicable, bacteriologic examinations of the dejecta should be made and the convalescent not discharged from the supervision of the health officer until at least two such examinations have given negative results for the typhoid bacillus. Such bacteriologic examinations should be made a requirement for all cases treated in hospitals, cities, towns, and other places where properly equipped laboratories are available. Every city health office should have a laboratory equipped for such examinations. If a law requiring the examination of specimens from typhoid convalescents can not be secured immediately, the health officer can obtain the specimens in the vast majority of instances after properly explaining to the patient, the family, and the physician the importance of having the examination made.

(5) *Discover bacillus carriers and safeguard against the spread of infection from them.*—Typhoid bacillus carriers in a community may be discovered (1) by making bacteriologic examinations of specimens of feces and urine from all persons who have typhoid fever and who on request will submit specimens. The typhoid fever board of the Public Health and Marine-Hospital Service and the health department of the District of Columbia, acting cooperatively, have had very good success by this method in Washington; (2) by the epidemiologic study of cases of typhoid fever. A series of cases in a household, with some of the intervals between cases too long for the cases to be accounted for by contact between patients, is suggestive, and specimens should be obtained from those who have had typhoid previous to the case under investigation. An unusual occurrence of cases among persons supplied with foods or beverages from certain grocery stores, bakeries, or dairies should direct attention to the personnel of

[a] Lentz; Hyg. Rundschau, 1906, vol. 16, p. 1068.
[b] Klinger; Arb. a. d. k. Gesundhts., 1906, vol. 24, p. 91.
[c] von Drigalski; Deut. Vrtljhr. f. off. Gesundheitspflege, 1906, vol. 38, p. 19.

such places. In the course of the study a directory of the house servants employed in the homes of cases should be kept, and if it is found that typhoid frequently occurs in homes at which certain servants are employed specimens from such servants should be examined.

After bacillus carriers are discovered, what to do with them becomes a difficult problem. These persons, as a rule, are in apparently good health and able to pursue their vocations and avocations. To require a strict isolation or quarantine of them as a class would be decidedly radical, almost as radical, in fact, as it would be to require the isolation of all cases of incipient pulmonary tuberculosis. The health officer should be given legal authority (1) to place and hold in quarantine any typhoid bacillus carrier who will not take or who from lack of intelligence can not be expected to take the necessary precautions prescribed by the health officer, to minimize to a reasonable degree the likelihood of infection being spread from the excreta of the bacillus carrier; and (2) to prohibit any typhoid bacillus carrier whatsoever from engaging in certain occupations, such as will involve the handling by such persons of foods and beverages for public sale and which are usually eaten or drunk without cooking subsequent to purchase. In lieu of such authority the health officer here again can use moral suasion to good advantage in the vast majority of instances. The intelligent and conscientious person who is a bacillus carrier, if properly informed as to his condition, will take precautions to keep from spreading the infection. The average intelligent person, with an understanding of the danger from bacillus carriers, will not employ a bacillus carrier to work in a bakery, restaurant, dairy, grocery store, or in the dining room, kitchen, or nursery of his family. It would certainly seem no more than fair to have legal provision made for reasonable compensation of any bacillus carrier who on account of the restrictions imposed would be seriously hindered in the earning of a livelihood.

(6) *Secure proper disposal of sewage.*—Typhoid fever may be spread from the dejecta (1) of persons in the early stages of the disease and who have not become ill enough to take to bed; (2) of persons who remain ambulant throughout the attack; (3) of convalescents (acute bacillus carriers); and (4) of persons who, though apparently in good health, are either temporary or chronic bacillus carriers. In order to safeguard the family and the community against these sources of infection, it is necessary to have the sewage of all persons—the sick and the well—properly disposed of. The report of the United States Army Commission[a] on the prevalence of typhoid fever in the national encampments during the Spanish-American war of 1898, if read with understanding, is throughout a most eloquent appeal for proper sewage disposal. Among 107,973 men in these encampments there were 20,738 cases of and 1,580 deaths from typhoid fever. In 90 per cent of the volunteer regiments the disease broke out within eight weeks after camp was occupied. Intelligent disposal of sewage in the encampments would have prevented, at a conservative estimate, over 75 per cent of this occurrence of sickness and death.

[a] Report on the Origin and Spread of Typhoid Fever in the United States Military Camps during the Spanish War of 1898; by Walter Reed, Victor C. Vaughan, and Edward O. Shakespeare. 2 vols., Washington, 1904.

The lack of water-closets or privies and the use of faulty water-closets or privies in a community constitute a grave menace to public health. Infection in excreta improperly disposed of may be carried by drainage or seepage, or on the feet of chickens, hogs, dogs, cats, etc., to the local water supply. It may be conveyed by flies and other insects, and by fingers directly to foods in the kitchen or dining room or to the mouths of persons. The scattering of human excreta along railway lines from the very faulty "sanitary" arrangements on passenger coaches [a] constitutes an entirely unnecessary danger which should be corrected by legislative enactment. In communities unprovided with good water-carriage sewerage systems, health officers should strive unceasingly to secure the adoption of safe methods of sewage disposal. If the pail system or the dry-earth closet system has to be used, a model privy should be kept on exhibition at the health office. The health officer, by all means, should have at his own home a properly constructed and managed privy. What the health officer does to protect his own family frequently will impress the people more than his official proclamations.

(7) *Prevent the introduction of infection from without through the water supply, the milk supply, and the general food supply.*—To determine the importance of these supplies as factors in the spread of typhoid infection careful, and in some instances prolonged, epidemiologic studies are necessary. The results of bacteriologic examinations of the water and milk supplies may give helpful information, but as a rule more can be gained by a field investigation, including a sanitary inspection of the watershed, the milk shed, the truck farms, and the oyster beds, and by an investigation of the individual cases of typhoid fever to determine the sources of water, milk, vegetables, shellfish, etc., used prior to illness.

The health officer can, and should, make these investigations, and by doing so he will be able as a rule to determine the principal sources of infection. A number of very practical obstacles may be encountered in trying to have the infection from without the community safeguarded against, but by persistently keeping the facts before the public the health officer can succeed in the vast majority of instances in securing the sinews of sanitation—money—necessary to the establishment of such safeguards, even if the safeguard necessary be a costly filtration plant or a municipal pasteurizing plant.

(8) *Secure the cooperation of practicing physicians.*—It is well for the members of the local medical profession to have something to do with the appointment of the local health officer. In some instances the antagonism of the physicians in a community to the health officer is due partly to the fact that they regard him as an outsider not familiar with local problems. If the health officer has been appointed on the recommendation of the local medical profession, the physicians naturally will be inclined to support him in his work. Without the support of the practicing physicians in the community, the local health officer will be seriously handicapped in doing effective work. From ancient times the medical man has been accredited by his tribe with possessing unusual wisdom, and the practicing physician advertently or inadvertently may remove in a moment from the minds of a

[a] Barringer, P. B.: "An unappreciated source of typhoid infection." Medical Record, 1903, vol. 64, pp. 971–974.

family a perfectly correct impression in regard to some matter of sanitation which the health officer in his campaign of education has taken months or perhaps years to create. By just and equitable dealing with practicing physicians and by making his office a help rather than a hindrance to them in their practice, the health officer can win the support of certainly the majority of the members of the local medical profession. If the individual health officer deserves it, he will come to be regarded by the medical profession as a specialist in his line, and his opinions will be treated with due deference.

(9) *Exercise an influence in the local medical society so that the society may be a school of instruction in the principles of prevention as well as of the cure of disease.*—Here the local problems of sanitation can be considered from the different standpoints of the different physicians. Every local medical society should have a committee on disease prevention, with the local health officer as an active member of it, to bring before the meetings for discussion and resolution the problems at hand.

(10) *Make the health office educative.*—Under a republican form of government "law can successfully enact only the strong convictions of a strong majority," and, therefore, on popular education depends advancement in sanitation. Every health office should contain conspicuously displayed maps, charts, pictures, and other exhibits graphically presenting lessons in sanitation. The public should be encouraged to visit the office for the purpose of receiving instruction. The health officer should employ every possible agency to get and keep popular interest attracted to local problems of sanitation. He should have health bulletins for public distribution issued frequently. He can usually get a good audience to attend popular lectures with exhibits or stereopticon demonstrations. He should give such lectures in public halls, and particularly in public schools, as frequently as the circumstances warrant; and often he can have popular interest kindled by having a sanitarian come from some other community to discuss the local problems. If the articles are properly prepared, the columns of the local newspaper can be made a most potent influence for the advancement of sanitation. In the campaign of education the health officer should devote especial attention to the physicians, the business men, and the legislators of the community.

Such are some of the things that the local health officer can do and should do in the prevention of typhoid fever. Summed up, they mean just this: He can and should do his best, and so place the burden of responsibility for whatever failures there may be upon the people whom he serves.

UNITED STATES.

PLAGUE-PREVENTION WORK.

Passed Assistant Surgeon McCoy reports:

ALAMEDA COUNTY, CAL. (Exclusive of Oakland.)

Last case of human plague sickened 2 miles southwest of Sunol, September 24, 1909. Last plague-infected rodent found January 11, 1910. Total number of ground squirrels found infected to date, 55. One infected wood rat was also found.

Week ended January 15, 1910. Ranches inspected, 9. Ground squirrels found dead, 9. Poisons placed, 3,260. Ground squirrels examined bacteriologically, 9. One plague-infected ground squirrel was found January 11 at Pacific Improvement Company Tract, North Brae.

CONTRA COSTA COUNTY, CAL.

Last case of human plague sickened July 21, 1908. Last plague-infected rodent found January 15, 1910. Total number of ground squirrels found infected to date 242.

Week ended January 15, 1910. Dead inspected, 1. Ranches inspected, 7. Ground squirrels shot, 296. Ground squirrels examined bacteriologically, 296. Ground squirrels found infected, 2. Of these 1 was found January 10 at H. D. Irwin ranch, near Cerrito Creek, and 1 January 15 at Keller's ranch, near Clayton.

FRESNO COUNTY, CAL.

There is no record of human or rodent plague in Fresno County.

Week ended January 15, 1910. Ranches inspected, 7. Ground squirrels shot, 176. Ground squirrels trapped alive, 13. Rabbits trapped, 3. Ground squirrels examined bacteriologically, 187. No plague-infected squirrels found.

MARIPOSA COUNTY, CAL.

There is no record of human or rodent plague in Mariposa County.

Week ended January 15, 1910. Ranches inspected, 13. Ground squirrels shot, 58. Ground squirrels examined bacteriologically, 55. No plague-infected squirrels found.

MERCED COUNTY, CAL.

There is no record of human or rodent plague in Merced County.

Week ended January 15, 1910. Ranches inspected, 26. Ground squirrels shot, 206. Rabbits shot, 12. Ground squirrels found dead, 1. Ground squirrels trapped alive, 12. Ground squirrels examined bacteriologically, 207. No plague-infected squirrels found.

MONTEREY COUNTY, CAL.

There is no record of human or rodent plague in Monterey County.

Week ended January 15, 1910. Ranches inspected, 28. Ground squirrels shot, 212. Ground squirrels found dead, 1. Ground squirrels trapped alive, 14. Ground squirrels examined bacteriologically, 209. No plague-infected squirrels found.

SAN JOAQUIN COUNTY, CAL.

There is no record of human or rodent plague in San Joaquin County.

Week ended January 15, 1910. Ranches inspected, 15. Ground squirrels shot, 8. Ground squirrels trapped alive, 6. Ground squirrels examined bacteriologically, 8. No plague-infected squirrels found.

SAN LUIS OBISPO COUNTY, CAL.

There is no record of human or rodent plague in San Luis Obispo County.

Week ended January 15, 1910. Ranches inspected, 48. Ground squirrels shot, 276. Rabbits shot, 5. Ground squirrels found dead, 2. Ground squirrels trapped alive, 3. Ground squirrels examined bacteriologically, 277. No plague-infected squirrels found.

SAN MATEO COUNTY, CAL.

There is no record of human or rodent plague in San Mateo County.

Week ended January 15, 1910. Ranches inspected, 10. Ground squirrels shot, 58. Ground squirrels examined bacteriologically, 58. No plague-infected squirrels found.

SANTA BARBARA COUNTY, CAL.

There is no record of human or rodent plague in Santa Barbara County.

Week ended January 15, 1910. Ranches inspected, 16. Ground squirrels shot, 103. Ground squirrels trapped alive, 1. Ground squirrels examined bacteriologically, 102. No plague-infected squirrels found.

SANTA CRUZ COUNTY, CAL.

There is no record of human plague in Santa Cruz County. Last plague-infected rodent was found November 6, 1909. Total number of plague-infected rodents found to date, 1.

Week ended January 15, 1910. Ranches inspected, 11. Ground squirrels shot, 44. Rabbits shot, 1. Owls shot, 1. Ground squirrels examined bacteriologically, 40. No plague-infected squirrels found.

TULARE COUNTY, CAL.

No record of human or rodent plague in Tulare County.

Week ended January 15, 1910. Ranches inspected, 20. Ground squirrels shot, 241. Rats shot, 1. Rabbits shot, 7. Ground squirrels trapped alive, 1. Ground squirrels examined bacteriologically, 239. No plague-infected squirrels found.

VENTURA COUNTY, CAL.

There is no record of human or rodent plague in Ventura County.

Week ended January 15, 1910. Ranches inspected, 12. Ground squirrels shot, 72. Ground squirrels found dead, 1. Ground squirrels trapped alive, 4. Field mice trapped alive, 3. Ground squirrels examined bacteriologically, 68. No plague-infected squirrels found.

Passed Assistant-Surgeon Glover reports:

SEATTLE, WASH.

No case of human plague since October 30, 1907. The last plague-infected rat was found September 26, 1908. Total plague-infected rats found to date, 21.

Week ended January 15, 1910. Rats received, 930. Rats necropsied, 818. No plague-infected rats were found.

SMALLPOX IN THE UNITED STATES.

Reports Received During Week Ended February 4, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Birmingham	Jan. 16–22	7		
Mobile	Jan. 16–22	3		
Montgomery	Jan. 16–22	37		
California:				
San Francisco	Jan. 9–22	2		
Louisiana:				
New Orleans	Jan. 16–22	7		
Mississippi:				
Gulfport	Jan. 26	6		
Natchez	Jan. 16–22	7	1	
Missouri:				
Joplin	Jan. 16–22	1		
Kansas City	Jan. 16–22	2		
St. Louis	Jan. 16–22	4		
New York:				
Cattaraugus County	Dec. 1–31	1		
Cayuga County	Dec. 1–31	1		
Erie County	Dec. 1–31	17		
Jefferson County	Dec. 1–31	1		
Lewis County	Dec. 1–31	1		
Niagara County	Dec. 1–31	31		
Oneida County	Dec. 1–31	1		
North Dakota:				
Cass County	Dec. 1–31	1		
McLean County	Dec. 1–31	2		
Oklahoma:				
Beckham County	Nov. 1–30	1		
Coal County	July and Sept.	11		
Comanche County	Nov. 1–30	1		
Creek County	Nov. 1–30	1		
Ellis County	July 1–31	1		
Garfield County	Nov. 1–30	1		
Jackson County	Sept. and Nov.	14		
Kay County	July 1–31	5		
Kiowa County	July 1–31	4		
McIntosh County	Sept. 1–30	2		
Muskogee County	July 1–31	1		
Oklahoma County	July, Sept. and Nov.	16		
Osage County	Sept. 1–30	1		
Pottawatomie County	Sept. and Nov.	5		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended February 4, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Oklahoma—Continued.				
Pushmataha County	Sept. 1-30	1		
Seminole County	Nov. 1-30	4		
Sequoyah County	Sept. 1-30	1		
Tulsa County	Nov. 1-30	3		
Washington County	July and Nov	2		
Woodward County	Nov. 1-30	1		
South Carolina:				
Clover	Jan. 23-29	3		
Tennessee:				
Chattanooga	Jan. 16-22	7		
Knoxville	Jan. 9-22	14		
Virginia:				
Portsmouth	Jan. 16-22	1		
Richmond	Dec. 1-31	1		
Washington:				
Seattle	Jan. 2-22	6		
Spokane	Jan. 9-15	3		

Smallpox in Arkansas.

Acting Assistant Surgeon Gibson reports, January 24:

The annual recrudescence of smallpox in the State of Arkansas has occurred. During the month of December, 1909, smallpox prevailed in and about Monticello, Drew County, where about 15 cases were reported. It is now prevalent in Desha County. Forty-six cases have been reported near Scott Station, Lonoke County. Of these about 13 are in Pulaski County and the others in Lonoke County. Cases are reported in Pulaski County at Argenta, Sweet Home, and Fourche Dam. Cases are reported at Brinkley, Monroe County.

It is probable that smallpox has existed continuously in southeast Arkansas since it made its first appearance there more than 10 years ago. The disease has usually been of light form, its prevalence decreasing with warm weather and increasing and spreading annually with the advent of cold weather.

Reports Received from January 1 to January 28, 1910.

[For reports received from June 25, 1909, to December 31, 1909, see PUBLIC HEALTH REPORTS for December 31, 1909. In accordance with custom the tables of epidemic diseases are terminated semiannually and new tables begun.]

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Birmingham	Jan. 9-15	2		
Montgomery	Dec. 19-Jan. 15	153		
Total for State		155		
California:				
Berkeley	Dec. 26-Jan. 1	1		
Oakland	Dec. 26-Jan. 1	1		
Sacramento	Dec. 12-18	2		
San Francisco	Dec. 19-Jan. 8	5		
Total for State		9		
Colorado:				
Boulder	Dec. 19-25	1		
Fruita District	Dec. 26-Jan. 1	3		
Rocky Ford	Jan. 9-15	1		
Total for State		5		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from January 1 to January 28, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
District of Columbia	Dec. 19–Jan. 15	3		
Total for District		3		
Illinois:				
Chicago	Dec. 19–25	2		
Total for State		2		
Indiana:				
Adams County	Oct. 1–31	4		
Allen County	Oct. 1–Dec. 31	156	1	
Carroll County	Nov. 1–30	1		
Clark County	Dec. 1–31	19		
Clinton County	Dec. 1–31	4		
Daviess County	Nov. 1–Dec. 31	8		
Dekalb County	Dec. 1–31	2		
Delaware County	Oct. 1–Nov. 30	20		
Grant County	Oct. 1–Dec. 31	28		
Greene County	Oct. 1–31	6		
Jefferson County	Nov. 1–30	1		
Knox County	Oct. 1–31	7		
Laporte County	Dec. 1–31	1		
Marion County	Dec. 1–31	1		
Marshall County	Oct. 1–Dec. 31	40		
Noble County	Nov. 1–Dec. 31	2		
Randolph County	Oct. 1–31	1		
St. Joseph County	Oct. 1–Dec. 31	17		
Shelby County	Dec. 1–31	1		
Steuben County	Nov. 1–Dec. 31	3		
Tippecanoe County	Dec. 1–31	1		
Vanderburg County	Oct. 1–31	8		
Warren County	Nov. 1–30	1		
Wayne County	Nov. 1–30	1		
Total for State		333		
Iowa:				
Cedar Rapids	Dec. 1–31	7		
Sioux City	Dec. 1–31	2		
Total for State		9		
Kansas:				
Clay County	Nov. 1–30	1		
Cloud County	Nov. 1–30	1		
Cowley County	Nov. 1–30	3		
Decatur County	Nov. 1–30	2		
Graham County	Nov. 1–30	20		
Lane County	Nov. 1–30	1		
Montgomery County	Nov. 1–30	6		
Norton County	Nov. 1–30	30		
Reno County	Nov. 1–30	16		
Scott County	Nov. 1–30	2		
Shawnee County—				
Topeka	Nov. 1–30	1		
Sheridan County	Nov. 1–30	5		
Sumner County	Nov. 1–30	9		
Wabaunsee County	Nov. 1–30	3		
Wilson County	Nov. 1–30	2		
Total for State		102		
Kentucky:				
Hartford	Dec. 12–18	2		
Lexington	Dec. 12–Jan. 15	3		
Paducah	Jan. 5–11	1		
Total for State		6		
Louisiana:				
New Orleans	Dec. 26–Jan. 15	12		
Total for State		12		
Maryland:				
Baltimore	Dec. 26–Jan 1	1		
Dorchester County	Dec. 1–31	1		
Total for State		2		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from January 1 to January 28, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Michigan:				
Alcona County	Nov. 1–30	12		
Antrim County	Nov. 1–30	11		
Arenac County	Nov. 1–30	66		
Bay County	Nov. 1–30	4		
Bay City	Dec. 5–11	15		
Emmet County	Nov. 1–30	2		
Genesee County	Nov. 1–30	60		
Gladwin County	Nov. 1–30	1		
Gratiot County	Nov. 1–30	1		
Houghton County	Nov. 1–30	11		
Ionia County	Nov. 1–30	23		
Lapeer County	Nov. 1–30	2		
Livingston County	Nov. 1–30	7		
Marquette County	Nov. 1–30	1		
Mason County	Nov. 1–30	1		
Montcalm County	Nov. 1–30	3		
Ontonagon County	Nov. 1–30	2		
Sanilac County	Nov. 1–30	2		
Wayne County—				
Detroit	Dec. 26–Jan. 1	1		
Total for State		225		
Minnesota:				
Beltrami County	Dec. 21–27	1		
Benton County	Dec. 14–20	7		
Blue Earth County	Dec. 21–27	1		
Carver County	Dec. 7–Jan. 3	4		
Goodhue County	Dec. 28–Jan. 3	1		
Hennepin County	Dec. 28–Jan. 3	5		
Itasca County	Dec. 14–20	1		
Kandiyohi County	Dec. 7–13	1		
Mower County	Dec. 28–Jan. 3	1		
Ottertail County	Dec. 21–27	2		
Polk County	Dec. 7–13	1		
Red Lake County	Dec. 7–13	1		
Renville County	Dec. 7–13	1		
Rock County	Dec. 7–27	13		
Roseau County	Dec. 7–Jan. 3	12		
St. Louis County	Dec. 7–27	3		
Sibley County	Dec. 7–13	4		
Todd County	Dec. 28–Jan. 3	1		
Wabasha County	Dec. 7–13	1		
Watonwan County	Dec. 28–Jan. 3	1		
Wright County	Dec. 7–Jan. 3	14		
Total for State		76		
Mississippi:				
Biloxi	Jan. 2–15	3		
Holly Springs	Jan. 2–8	2		
Natchez	Dec. 26–Jan. 15	32		
Claiborne County—				
Port Gibson	Dec. 19–25	1		
Total for State		38		
Missouri:				
Kansas City	Jan. 2–8	4		
St. Joseph	Jan. 2–15	5		
St. Louis	Dec. 26–Jan. 15	3		
Total for State		12		
Montana:				
Dawson County	Nov. 1–30	1		
Flathead County	Oct. 1–Nov. 30	6		
Jefferson County	Nov. 1–30	1		
Lewis and Clark County	Oct. 1–Nov. 30	3		
Missoula County	Oct. 1–Nov. 30	22		
Park County	Nov. 1–30	1		
Powell County	Nov. 1–30	1		
Ravalli County	Nov. 1–30	2		
Silver Bow County	Oct. 1–Nov. 30	15		
Butte	Dec. 19–31	14		
Total for State		66		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from January 1, to January 28, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Nebraska:				
South Omaha	Dec. 5–11	3		
Total for State		3		
New York (entire State)	Sept. 1–Nov. 30	33	1	
North Carolina:				
Catawba County	Oct. 1–31	2		
Chowan County	Oct. 1–31	1		
Currituck County	Oct. 1–31	2		
Davidson County	Oct. 1–31	4		
Forsyth County	Oct. 1–31	4		
Franklin County	Oct. 1–31	15		
Jones County	Oct. 1–31	3		
Robeson County	Oct. 1–31	1		
Surry County	Oct. 1–31	1		
Union County	Oct. 1–31	2		
Yadkin County	Oct. 1–31	1		
Total for State		36		
North Dakota:				
Bottineau County	Oct. 1–31	1		
Total for State		1		
Ohio:				
Cleveland	Dec. 19–26	1		
Stryker	Dec. 19–25	1		
Total for State		2		
Oklahoma:				
Blaine County	Dec. 1–31	7		
Creek County	Oct. 1–31	2		
Jackson County	Oct. 1–31	2		
Kingfisher County	Oct. 1–31	2		
Le Flore County	Oct. 1–31	1		
Marshall County	Oct. 1–31	1		
Muskogee County	Oct. 1–31	1		
Okfuskee County	Oct. 1–31	1		
Osage County	Oct. 1–31	8		
Pottawatomie County	Oct. 1–31	36		
Seminole County	Oct. 1–31	3		
Total for State		64		
Oregon:				
Portland	Nov. 1–30	2		
Total for State		2		
Pennsylvania (entire State)	Dec. 1–31	2		
Tennessee:				
Chattanooga	Dec. 26–Jan. 15	9		
Knoxville	Jan. 2–8	2		
Memphis	Nov. 1–30	20		
Dekalb County	Dec. 12–Jan. 1	9		
Washington County	Dec. 26–Jan. 1	7		
Total for State		47		
Texas:				
El Paso	Nov. 1–Jan. 1	3		
Fort Worth	Nov. 1–Dec. 31	5		
San Antonio	Dec. 5–25	5		
Denton County	Dec. 26–Jan. 1	9		
Total for State		22		
Washington:				
Spokane	Dec. 19–Jan. 8	5		
Tacoma	Jan. 2–8	1		
Wahkeakum County	Dec. 1–31	8		
Total for State		14		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from January 1, to January 28, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Wisconsin:				
La Crosse	Dec. 19–Jan. 1	2		
Milwaukee	Dec. 19–Jan. 1	2		
Superior	Dec. 19–Jan. 1	6		
Total for State		10		
Grand total for the United States		1,291	1	

MORBIDITY AND MORTALITY.

WEEKLY MORBIDITY AND MORTALITY TABLE, CITIES OF THE UNITED STATES.

[For smallpox see special tables.]

Cities.	Week ended—	Estimated population, 1909.	Total deaths from all causes.	Tuberculosis.		Typhoid fever.		Scarlet fever.		Diphtheria.		Measles.		Whooping cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Altoona, Pa.	Jan. 22	50,814	12	....	....	1	....	....	....	1	....	....	....	....	....
Ashtabula, Ohio	...do	16,648	7	....	....	....	....	....	....	....	....	....	....	....	....
Baltimore, Md.	...do	576,023	233	116	23	12	2	24	1	19	1	23	1	14	....
Bath, Me.	...do	12,055	....	....	....	....	....	....	....	9	....	....	....	....	....
Bayonne, N. J.	...do	49,894	....	2	....	1	....	10	....	2	....	....	....	2	....
Beaver Falls, Pa.	...do	10,341	0	....	....	....	....	....	....	....	....	6	....	....	....
Berkeley, Cal.	Jan. 1	[a] 19,700	11	....	1	....	....	1	....	....	....	6	....	1	....
Do.	Jan. 15	....	11	....	1	1	....	4	....	1	....	12	....	....	....
Biddeford, Me.	Jan. 22	17,676	6	....	....	....	....	....	....	....	....	....	....	1	1
Binghamton, N. Y.	...do	45,855	23	....	5	....	1	1	....	....	....	2	....	....	....
Birmingham, Ala.	Jan. 15	49,553	44	4	4	1	....	11	....	1	....	....	....	....	....
Do.	Jan. 22	....	36	1	6	6	....	10	1	1	1	1	....	....	....
Boulder, Colo.	Jan. 15	....	3	....	1	....	....	3	....	1	....	....	....	....	....
Bradford, Pa.	Jan. 22	17,349	8	....	....	....	....	1	....	1	....	2	....	....	....
Bridgeport, Conn.	Jan. 15	90,913	31	2	3	....	....	18	2	2	2	1	....	....	....
Cambridge, Ohio	Jan. 22	11,733	4	....	....	....	....	....	....	....	....	5	....	5	....
Camden, N. J.	...do	89,305	26	....	1	....	....	3	....	7	3	1	....	....	....
Canton, Ohio	...do	40,037	9	....	....	1	....	3	....	4	1	....	....	....	....
Carbondale, Pa.	...do	15,698	7	....	....	....	....	3	....	....	....	19	....	....	....
Chattanooga, Tenn.	Jan. 15	34,654	....	1	....	....	....	1	....	1	....	....	....	....	....
Chelsea, Mass.	Jan. 22	39,862	13	1	....	....	....	2	....	2	....	4	....	....	....
Chicago, Ill.	...do	2,224,491	674	84	74	11	11	182	9	97	8	156	3	59	1
Chicopee, Mass.	...do	20,010	8	1	....	....	....	....	....	1	....	4	....	....	....
Cleveland, Ohio	Jan. 21	506,938	138	19	13	9	1	14	2	24	1	226	1	....	....
Clinton, Mass.	Jan. 22	12,656	6	1	....	....	....	1	....	2	1	....	....	....	....
Columbus, Ga.	...do	17,893	2	....	....	....	....	....	....	....	....	....	....	....	....
Concord, N. H.	Jan. 15	21,997	9	....	1	....	....	....	....	6	....	9	....	....	....
Covington, Ky.	Jan. 22	51,715	16	....	....	....	....	2	....	1	1	1	....	2	....
Danville, Ill.	...do	27,387	8	2	2	....	....	2	....	3	....	4	....	....	....
Detroit, Mich.	...do	384,855	128	....	....	....	....	26	2	17	2	....	....	....	....
Elmira, N. Y.	...do	35,765	14	1	....	2	....	8	....	11	1	5	....	....	....
El Paso, Tex.	Jan. 15	22,911	26	5	6	2	....	....	....	1	....	5	....	12	....
Erie, Pa.	Jan. 22	63,652	16	4	2	1	....	10	....	3	2	6	....	....	....
Evansville, Ind.	...do	66,948	24	3	2	....	....	2	....	2	1	....	....	....	....
Everett, Wash.	Jan. 15	32,931	6	....	....	....	....	2	....	....	....	....	....	....	....
Fall River, Mass.	Jan. 22	106,481	35	5	2	....	....	3	....	2	....	....	....	1	1
Freeport, Ill.	...do	19,200	1	....	....	....	....	....	....	....	....	6	....	....	....
Galesburg, Ill.	...do	21,615	5	....	....	....	....	1	....	1	....	....	....	....	....
Galveston, Tex.	Jan. 8	36,964	4	....	2	1	2	....	....	2	....	....	....	....	....
Do.	Jan. 22	....	3	1	3	1	....	....	....	....	....	....	....	....	....
Gloucester, Mass.	...do	25,923	4	....	1	....	....	....	....	....	....	....	....	....	....
Grand Rapids, Mich.	...do	105,909	35	3	2	2	1	29	1	....	....	2	....	....	....
Hartford, Conn.	Jan. 15	103,808	25	2	3	....	....	6	....	5	....	....	....	....	....
Homestead, Pa.	Jan. 14	17,145	13	....	....	....	....	1	....	....	....	3	....	....	....
Hyde Park, Mass.	Jan. 22	15,522	8	1	....	....	....	....	....	1	....	....	....	....	....
Jacksonville, Fla.	...do	40,798	24	1	2	....	....	1	....	1	....	....	....	....	....
Johnstown, Pa.	...do	46,520	16	....	1	1	1	3	....	1	1	31	....	3	....

[a] Estimated population 1906. No estimate 1909.

MORBIDITY AND MORTALITY—Continued.

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

Cities.	Week ended—	Estimated population, 1909.	Total deaths from all causes.	Tuberculosis.		Typhoid fever.		Scarlet fever.		Diphtheria.		Measles.		Whooping cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Kansas City, Mo.	Jan. 15	191,685	86	3	12	44	6	32	2	19	....	58	....	2	....
Kearny, N. J.	Jan. 22	15,765	8	....	3	....	....	3	1	....	....	8	....	....	....
Kingston, N. Y.	Jan. 15	20,110	4	....	....	....	....	2	....	1	....	....	....	....	....
Do	Jan. 22	.....	8	....	....	....	....	....	....	....	....	....	....	....	....
Lafayette, Ind.	...do....	19,801	9	....	....	....	....	1	....	....	....	....	....	....	....
Lancaster, Pa.	...do....	49,962	19	....	....	1	....	5	....	1	....	15	....	....	....
Lebanon, Pa.	...do....	20,295	5	....	....	....	....	....	....	....	....	....	....	....	....
Lexington, Ky.	Jan. 15	30,690	15	....	....	1	....	2	....	1	....	3	....	....	....
Do	Jan. 22	.....	....	....	1	....	....	1	....	3	....	....	....	....	....
Los Angeles, Cal.	Jan. 15	[a] 103,000	98	23	19	4	....	8	....	6	....	343	5	....	....
Lowell, Mass.	Jan. 22	95,125	50	5	3	2	....	3	....	7	2	47	....	....	....
Lynchburg, Va.	...do....	29,457	.....	....	....	1	....	....	....	....	....	....	....	....	....
Lynn, Mass.	Jan. 15	83,865	24	....	1	....	....	4	....	3	....	2	....	....	....
Malden, Mass.	...do....	41,535	13	3	1	....	....	3	....	2	....	12	....	1	1
Manchester, N. H.	Jan. 22	68,561	31	4	4	....	....	....	....	12	3	22	....	....	....
Manistee, Mich.	...do....	10,788	.....	....	....	....	....	2	....	7	....	....	....	....	....
Mansfield, Ohio.	...do....	21,390	.....	....	....	....	....	1	....	1	....	2	....	....	....
Marlboro, Mass.	Jan. 15	14,440	5	....	....	....	....	....	....	....	....	1	....	....	....
Massillon, Ohio.	...do....	13,610	3	....	....	....	....	1	....	....	....	2	....	....	....
Milwaukee, Wis.	Jan. 22	332,495	100	17	7	45	8	35	2	22	2	....	....	....	....
Mobile, Ala.	Jan. 15	45,122	21	....	2	....	....	1	....	....	....	....	....	....	....
Moline, Ill.	Jan. 22	23,081	4	....	2	....	....	2	....	3	....	1	....	....	....
Montgomery, Ala.	Jan. 15	43,927	11	1	1	1	....	2	....	....	....	....	....	....	....
Morristown, N. J.	...do....	12,849	2	1	....	....	....	....	1	1	....	....	....	....	....
Mount Vernon, N. Y.	Jan. 22	27,891	8	1	1	....	....	8	1	....	....	1	....	4	....
Muskegon, Mich.	...do....	15,361	.....	....	....	....	....	2	....	1	....	2	....	....	....
Melrose, Mass.	Jan. 15	15,361	5	....	....	....	....	1	....	....	....	2	....	....	....
Marinette, Wis.	Jan. 22	14,682	4	1	1	....	....	3	....	2	....	....	....	....	....
Montgomery, Ala.	...do....	43,927	22	2	2	....	....	....	....	....	....	....	....	....	....
Medford, Mass.	...do....	20,839	9	....	....	....	....	3	....	....	....	1	....	....	....
Nanticoke, Pa.	Jan. 23	.....	3	....	....	....	....	1	....	1	....	1	....	....	....
Nashville, Tenn.	Jan. 22	106,476	39	2	1	1	....	4	....	....	....	....	....	....	....
Natchez, Miss.	Jan. 15	14,108	11	2	....	....	....	....	....	....	....	....	....	....	....
Nebraska City, Nebr.	Jan. 22	.....	1	....	....	5	....	....	....	....	....	....	....	....	....
Newark, N. J.	...do....	308,669	137	18	23	1	1	67	1	39	2	....	5	....	2
New Bedford, Mass.	...do....	83,898	47	3	2	2	....	4	....	1	1	43	....	....	1
Newburyport, Mass.	...do....	14,832	5	....	....	....	....	....	....	....	....	....	....	....	....
New Orleans, La.	Jan. 15	327,662	136	37	16	4	3	25	1	16	1	23	1	....	....
Newport, Ky.	Jan. 22	31,345	10	....	2	....	....	....	....	3	....	....	....	....	....
New York, N. Y.	...do....	4,450,963	1,607	595	164	38	5	591	31	379	37	1073	24	28	6
Norristown, Pa.	...do....	24,491	13	....	....	2	....	1	....	1	....	....	....	....	....
North Adams, Mass.	...do....	20,510	4	1	2	....	....	....	....	....	....	....	....	....	....
Northampton, Mass.	...do....	21,008	9	1	1	....	....	....	....	....	....	....	....	....	....
Oakland, Cal.	Jan. 15	[b] 73,812	38	4	5	....	....	9	....	1	....	2	....	....	2
Oklahoma City, Okla.	Dec. 1	.....	.....	....	....	....	3	....	....	....	....	....	....	....	....
Omaha, Nebr.	Jan. 22	134,972	.....	....	....	....	....	1	....	....	....	....	....	....	....
Orange, N. J.	...do....	27,669	9	3	2	....	....	7	....	2	....	5	....	....	....
Peekskill, N. Y.	...do....	15,473	9	....	....	....	....	4	....	....	....	8	....	....	....
Perth Amboy, N. J.	Jan. 8	32,451	10	....	....	....	....	2	....	....	....	1	....	....	....
Do	Jan. 15	.....	5	....	1	....	....	6	....	2	....	....	....	....	....
Do	Jan. 22	.....	5	....	....	....	....	5	....	....	....	....	....	....	....
Philadelphia, Pa.	...do....	1,491,082	.....	77	65	85	10	46	5	90	7	18	....	7	....
Pittsburg, Pa.	Jan. 1	558,123	234	16	9	6	1	45	1	17	2	166	9	13	....
Pittsfield, Mass.	Jan. 22	27,589	9	....	....	1	....	....	....	1	....	1	....	....	....
Plainfield, N. J.	...do....	20,947	4	2	....	....	....	2	....	....	....	4	....	....	....
Plymouth, Pa.	...do....	17,524	.....	1	....	....	....	....	....	1	....	5	....	....	....
Portsmouth, N. H.	Jan. 22	11,336	.....	....	2	....	....	....	....	1	....	1	....	....	....
Portland, Me.	Jan. 1	57,675	28	....	4	....	1	....	....	9	....	1	....	....	....
Do	Jan. 8	.....	24	....	2	3	....	2	....	2	....	3	....	....	....
Providence, R. I.	Jan. 22	217,065	90	10	7	....	....	12	....	5	....	62	1	....	....
Racine, Wis.	...do....	34,840	7	....	....	....	....	2	....	....	....	....	....	....	....
Reading, Pa.	Jan. 24	97,231	29	1	3	6	....	9	....	1	....	58	....	2	....
St. Joseph, Mo.	Jan. 8	.....	.....	10	4	....	....	5	....	....	....	1	....	....	....
Do	Jan. 15	.....	.....	10	2	1	....	5	....	2	1	2	....	....	....
St. Louis, Mo.	Jan. 15	686,369	232	46	19	6	1	49	3	31	3	8	....	21	1
San Antonio, Tex.	...do....	67,404	2	1	....	6	1	....	....	6	1	....	....	....	....
Sandusky, Ohio.	Jan. 22	20,737	4	1	1	2	....	....	....	....	....	....	....	....	....
San Francisco, Cal.	Jan. 8	[b] 342,782	155	39	20	3	....	9	....	7	....	13	....	24	....
San Jose, Cal.	Jan. 15	24,596	5	....	2	....	....	....	....	....	....	....	....	....	....
Schnectady, N. Y.	...do....	73,037	14	3	2	....	....	6	....	3	....	140	....	....	....
Somerville, Mass.	Jan. 22	75,375	26	1	2	....	....	5	....	4	....	2	....	....	....

[a] Population 1900. No estimate 1909.
[b] Estimated population 1906. No estimate 1909.

MORBIDITY AND MORTALITY—Continued.

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

Cities.	Week ended—	Estimated population, 1909.	Total deaths from all uses.	Tuberculosis.		Typhoid fever.		Scarlet fever.		Diphtheria.		Measles.		Whooping cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
South Bend, Ind.	Jan. 22	49,321	6	....	....	....	....	6	....	....	....	1	....	....	....
South Bethlehem, Pa	...do....	15,886	9	....	....	....	....	1	....	....	....	....	....	....	....
Spokane, Wash.	Jan. 8	a 47,006	26	....	3	....	....	5	1	....	....	7	....	....	....
Springfield, Mass.	Jan. 15	82,724	37	1	3	....	....	11	2	9	1	7	....	....	....
Do.	Jan. 22	.....	33	2	1	....	....	7	1	9	1	4	....	1	....
Springfield, Ohio	...do....	43,975	10	6	2	....	....	1	....	1	....	4	....	....	....
Steelton, Pa.	...do....	14,769	3	....	....	....	....	....	....	1	....	3	....	3	....
Tacoma, Wash.	Jan. 8	a 37,714	21	2	1	....	....	2	....	....	....	2	....	....	....
Do.	Jan. 15	.....	7	3	3	....	....	2	....	....	....	....	....	....	....
Taunton, Mass.	Jan. 22	30,926	19	2	1	....	....	....	....	....	....	11	....	2	1
Terre Haute, Ind.	Jan. 8	55,509	16	1	2	....	1	4	....	1	....	1	....	....	1
Do.	Jan. 15	.....	20	....	1	....	....	....	....	....	....	....	....	3	....
Do.	Jan. 22	.....	19	....	1	....	....	2	....	....	....	3	....	....	....
Titusville, Pa.	...do....	8,397	3	....	....	....	....	2	....	....	....	....	....	....	....
Trenton, N. J.	...do....	92,878	3	3	10	....	....	16	....	8	....	....	....	....	....
Utica, N. Y.	...do....	69,458	18	2	....	....	....	2	....	....	....	15	....	....	....
Waltham, Mass.	...do....	28,522	19	....	1	....	....	....	....	4	2	1	....	....	....
Warren, Pa.	Jan. 17	11,838	5	1	1	....	....	....	....	....	....	13	....	3	....
Washington, D. C.	Jan. 8	322,212	125	30	8	6	2	63	....	10	2	3	....	8	....
Do.	Jan. 15	.....	136	30	1	6	....	58	1	13	....	5	....	7	....
Weymouth, Mass.	Jan. 22	11,793	6	....	....	....	....	....	....	....	....	....	....	....	....
Wilkinsburg, Pa.	...do....	19,999	7	3	....	....	....	2	....	2	....	....	....	....	....
Wilkes-Barre, Pa.	...do....	64,323	30	7	2	....	....	4	....	1	....	7	....	17	....
Williamsport, Pa.	Jan. 15	30,220	13	....	....	....	....	8	....	1	....	....	....	1	....
Do.	Jan. 22	.....	11	....	....	....	....	10	....	....	....	4	....	....	....
Wilmington, Del.	...do....	89,890	34	....	9	....	....	....	....	....	....	....	....	....	....
Winona, Minn.	...do....	20,830	9	....	1	....	....	....	1	....	....	....	....	....	....
Woburn, Mass.	...do....	14,520	7	....	1	....	....	5	....	2	....	....	....	....	....
Yonkers, N. Y.	Jan. 15	72,200	27	8	4	....	....	12	1	3	....	....	....	....	....
Do.	Jan. 22	.....	23	3	2	1	....	11	....	5	1	1	....	....	....
York, Pa.	Jan. 15	41,895	.....	2	....	....	....	2	....	5	....	46	....	....	....
Do.	Jan. 22	.....	.....	2	....	....	....	2	....	....	....	31	....	2	....
Zanesville, Ohio	...do....	25,614	4	....	1	....	1	....	....	....	....	....	....	....	....

a Estimated population 1906. No estimate 1909.

STATISTICAL REPORTS OF MORBIDITY AND MORTALITY, STATES AND CITIES OF THE UNITED STATES (untabulated).

CALIFORNIA—*San Diego.*—Month of December, 1909. Population 45,000. Total number of deaths from all causes, 68, including tuberculosis 9. Cases reported: Measles 5, diphtheria 1.

Stockton.—Month of December, 1909. Population, 23,000. Total number of deaths from all causes, 28, including tuberculosis 5. Cases reported: Tuberculosis 5.

CONNECTICUT—*One hundred and sixty-four towns.*—Month of December, 1909. Population of towns reporting, 1,051,105. Total number of deaths from all causes, 2,083, including typhoid fever 10, measles 7, scarlet fever 13, diphtheria 29, tuberculosis (pulmonary) 135. Cases reported: Typhoid fever 35 in 22 towns, measles 801 in 34 towns, scarlet fever 337 in 52 towns, diphtheria 245 in 47 towns, tuberculosis (pulmonary) 139 in 37 towns.

INDIANA.—Month of November, 1909. Population, 2,732,550. Total number of deaths from all causes, 2,550, including typhoid fever 104, smallpox 1, diphtheria 50, tuberculosis 291. Cases reported: Typhoid fever 301 in 71 counties, smallpox 185 cases in 13 counties, diphtheria 441 cases in 62 counties.

South Bend.—Month of December, 1909. Population 80,000. Total number of deaths from all causes, 90, including typhoid fever 1. Cases reported: Typhoid fever 2, smallpox 8, scarlet fever 44, diphtheria 8, tuberculosis 10.

IOWA—*Davenport.*—Month of November, 1909. Population, 42,000. One death from tuberculosis. Cases reported: Typhoid fever 4, smallpox 1, scarlet fever 9, diphtheria 16.

Sioux City.—Month of December, 1909. Population 50,000. Total number of deaths not reported. Cases reported: Smallpox 2, scarlet fever 18, diphtheria 3.

MARYLAND—*Cambridge.*—Month of December, 1909. Population, 5,747. Total number of deaths from all causes, 35, including typhoid fever 3, tuberculosis 4. Cases reported: Typhoid fever 2, smallpox 1, measles 3, scarlet fever 3, diphtheria 4.

MASSACHUSETTS.—Week ended November 6, 1909. Population of reporting towns, 2,379,468. Total number of deaths from all causes, 725, including typhoid fever 8, measles 3, scarlet fever 6, diphtheria 12, tuberculosis 72. Week ended November 13, 1909. Total number of deaths from all causes, 665, including typhoid fever 17, measles 1, scarlet fever 1, diphtheria 7, tuberculosis 64. Week ended November 20, 1909. Total number of deaths from all causes, 661, including typhoid fever 4, measles 1, scarlet fever 5, diphtheria 21, tuberculosis 50. Week ended November 27, 1909. Total number of deaths from all causes, 723, including typhoid fever 7, measles 2, diphtheria 12, tuberculosis 76.

NEW YORK.—Month of November, 1909. Population, 8,699,643. Total number of deaths from all causes, 10,822, including typhoid fever 157, measles 58, scarlet fever 89, diphtheria 190, tuberculosis 1,226. Cases reported: Typhoid fever 867, smallpox 27, measles 3,257, scarlet fever 1,962, diphtheria 2,299, tuberculosis 2,943.

PENNSYLVANIA—*Reading.*—Two weeks ended January 10, 1910. Population, 94,463. Total number of deaths from all causes, 33. Cases reported: Typhoid fever 2, measles 56, scarlet fever 6, diphtheria 3, tuberculosis 1.

TEXAS— *Waco.*—Month of December, 1909. Population, 30,000. Total number of deaths from all causes, 34, including tuberculosis 2. Cases reported: Diphtheria 1, tuberculosis 6.

FOREIGN AND INSULAR.

CHINA.

AMOY—Examination of emigrants—Smallpox.

Passed Assistant Surgeon Foster reports, December 22:

Week ended December 18. Bills of health issued as follows:

December 13 the British steamship *Rubi*, with 73 in crew and 40 cabin and 162 steerage passengers for Manila, was granted a supplemental bill of health. The vessel anchored in the stream while in port. All on board were inspected at the time of sailing. Five passengers were rejected for trachoma. Manifests were viséed for 753 packages of freight.

December 14 the British steamship *Taisang*, with 63 in crew and 4 cabin and 65 steerage passengers for Manila, was granted an original bill of health. The crew and steerage passengers were bathed and their clothing was disinfected by steam. All on board were inspected at the time of sailing. Two passengers were rejected for trachoma. Manifests were viséed for 288 packages of freight. The vessel anchored in the stream while in port.

December 17 the British steamship *Sungkiang*, with 38 in crew and 22 cabin and 49 steerage passengers for Manila, Cebu, and Iloilo, was granted a supplemental bill of health. All on board were inspected at the time of sailing. One passenger was rejected for trachoma and one for favus. Manifests were viséed for 646 packages of freight. The vessel anchored in the stream while in port.

Smallpox prevails in Amoy and in the international settlement of Kulangsu. General vaccination of all scholars in the schools in the settlement is being done.

CUBA.

CIENFUEGOS—Inspection of vessels.

Acting Assistant Surgeon Suarez reports, January 18:

Week ended January 15. Vessels inspected, 5; bills of health issued, 5; members of crews inspected, 114; members of crews landed (not inspected), 2; members of crews taken on at this port, 4.

Reports of the mosquito brigade for Cienfuegos and vicinity show 2,758 houses inspected from January 1 to 10.

No quarantinable disease reported.

HABANA—Inspection of vessels.

Acting Assistant Surgeon Villoldo reports, January 19:

Week ended January 15. Bills of health issued, 29; vessels inspected, 23; members of crews of outgoing vessels inspected, 1,225; passengers of outgoing vessels inspected, 615; certificates of inspection of hides issued, 6.

The national department of sanitation reports 20,406 houses inspected and 16,202 water deposits petrolized during the period from January 1 to 10.

No quarantinable diseases were reported during the week.

MATANZAS—Inspection of vessels.

Acting Assistant Surgeon Nuñez reports, January 24:

Week ended January 22. Bills of health issued to 2 vessels for the United States. No quarantinable disease reported.

The department of sanitation reports 3,641 houses inspected and 7 water deposits petrolized or destroyed during the 10 days ended January 20.

SANTIAGO—Inspection of vessels.

Acting Assistant Surgeon Wilson reports, January 20:

Week ended January 15. Bills of health issued to 3 vessels for the United States and its dependencies. No quarantinable disease reported. There was 1 death from leprosy; 3 cases remain under treatment. The department of sanitation reports 3,023 houses inspected.

HAWAII.

HONOLULU—Plague-prevention work.

Chief Quarantine Officer Hobdy reports, January 10:

The last case of human plague at Honolulu occurred July 17, 1907. The last plague-infected rat was found at Aiea, 9 miles from Honolulu, August 22, 1907.

Week ended January 8.

Total rats taken	574
Trapped	449
Found dead	0
Shot from trees	125
Examined bacteriologically	427
Plague rats	0
Classification of rats trapped:	
Mus alexandrinus	40
Mus musculus	190
Mus norvegicus	65
Mus rattus	154
Classification of rats shot from trees:	
Mus alexandrinus	48
Mus rattus	71
Average number of traps set daily	1,294

HILO.

Last case human plague occurred at Papeekeo, Hilo, October 4, 1909. Last plague-infected rat was found December 6, 1909.

ITALY.

NAPLES—Examination of emigrants—Smallpox.

Surgeon Geddings reports, January 10:

Vessels inspected, week ended January 8.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
Jan. 6	Moltke	New York	230	28	350
7	Berlin	do	658	102	650
8	Germania	do	192	36	320
8	Ancona	Philadelphia	479	105	680
	Total		1,559	271	2,000

Rejections recommended.

Date.	Name of ship.	Trachoma.	Favus.	Suspected trachoma.	Smallpox.	Other causes.	Total.
Jan. 6	Moltke	8	2	2	.....	2	14
7	Berlin	14	4	4	1	5	28
8	Germania	6	3	2	.....	3	14
8	Ancona	4	.....	5	.....	3	12
	Total	32	9	13	1	13	68

Smallpox in Naples.—During the week ended January 9, 13 cases of smallpox with 3 deaths were reported to the health office of the city of Naples. A case of smallpox was discovered at the examination of steerage passengers for the steamship *Berlin* January 7. The patient and a member of her family were sent to the Cotugno hospital for contagious diseases. Two contacts were returned to their boarding houses and placed under observation. They were revaccinated and their quarters were disinfected.

JAPAN.

YOKOHAMA—Inspection of vessels.

Passed Assistant Surgeon Cumming reports, January 4, 1910:

Week ended January 1. Vessels inspected: Steamships, *Vandalia* for New York, and *Siberia* for San Francisco via Honolulu, U. S. S. *California* and *South Dakota* for Manila, and steamship *Tacoma Maru* for Tacoma, Wash.

Emigrants for United States, examined, 40; passed, 31; rejected, 3; held, 6. Rejections were for trachoma. Twenty-seven emigrants were bathed and 75 pieces of baggage disinfected.

KOBE—Inspection of vessels.

Acting Assistant Surgeon Smith reports, January 5:

Week ended January 1. Supplemental bills of health granted to 2 steamships; 156 members of crews and 30 steerage passengers inspected; 19 steerage passengers bathed and their effects disinfected by steam; 59 pieces of baggage and 38 of bedding steamed; manifests viséed for 37,113 pieces of freight, amounting to 4,265 tons; 23 cases of human hair disinfected with formalin.

Emigrants examined.—Per steamship *Tacoma Maru* for Tacoma, passed 19, recommended for rejection 19. The emigrants were 7 days in quarantine detention at Ono.

PHILIPPINE ISLANDS.

MANILA—Cholera and smallpox—Inspection of vessels.

Chief Quarantine Officer Heiser reports, December 2, 7, 14, and 23, 1910: Quarantinable diseases in Manila.

Week ended November 27. Cholera 10 cases, 7 deaths; smallpox 1 case. Week ended December 4. Cholera 15 cases, 8 deaths; smallpox 1 case. Week ended December 11. Cholera 12 cases, 12 deaths. Week ended December 18. Cholera 16 cases, 6 deaths.

Cholera in the Provinces.

WEEK ENDED NOVEMBER 27, 1909.

Province.	Cases.	Deaths.
Bataan	26	19
Bohol	9	11
Bulacan	34	9
Cavite	24	13
Cebu	43	41
Laguna	7	.....
Pampanga	1	1
Rizal	17	11
Tarlac	1	1
Zambales	2	1
Total	164	107

WEEK ENDED DECEMBER 4.

Bataan	18	17
Bohol	9	6
Bulacan	31	29
Cavite	36	18
Cebu	127	85
Laguna	7	4
Leyte	5	4
Oriental Negros	4	1
Pampanga	1	2
Rizal	6	5
Tarlac	1	1
Zambales	4	4
Total	249	176

WEEK ENDED DECEMBER 11.

Albay	1	1
Bataan	7	9
Bulacan	12	9
Bohol	12	11
Cavite	15	14
Cebu	61	49
Laguna	11	6
Oriental Negros	5	1
Rizal	8	5
Total	132	105

WEEK ENDED DECEMBER 18.

Bataan	3	3
Bulacan	9	5
Bohol	31	19
Capiz	3	2
Cavite	22	20
Cebu	61	41
Laguna	4	4
Leyte	9	7
Pampanga	13	9
Rizal	7	5
Total	162	115

Inspection of vessels.—Week ended November 27. British steamship *Ningchow*, with 95 in crew, en route from Glasgow to Seattle and Tacoma, granted a supplemental bill of health. Cargo inspected prior to loading. Crew inspected at hour of sailing.

Week ended December 4. November 29, the British steamship *Clan MacInnes*, with 52 in crew, en route from Newcastle, New South Wales, to Cebu, granted a supplemental bill of health. November 30, the British steamship *Duffield*, with 27 in crew, granted a bill of health for Boston and New York via Labuan. Vessel fumigated with

sulphur while in port. Cargo inspected and passed while loading. Personnel inspected and passed at hour of sailing.

Week ended December 11. December 5, the British steamship *Taiyuan*, with 74 in crew and 40 passengers, en route from Hongkong to Australian ports via Zamboanga, granted a supplemental bill of health. December 9, the British steamship *Ocean Monarch*, with 34 in crew, en route from Foochow to Cebu, granted a supplemental bill of health.

Week ended December 18. December 14, the United States Army transport *Sheridan*, with 193 in crew and 179 cabin and 840 steerage passengers, granted a bill of health for San Francisco via Nagasaki and Honolulu. Vessel partially disinfected. Crew and steerage passengers bathed and their effects and baggage disinfected with steam and formaldehyde. Baggage and cargo inspected, and either passed or disinfected, and so labeled. Entire personnel inspected and passed at the Mariveles quarantine station prior to sailing. December 18, the British steamship *Aymeric*, with 56 in crew, granted a bill of health for Seattle via Hongkong and Japan ports. Cargo inspected and passed prior to loading. Manifests viséed. Entire personnel inspected on board at hour of sailing.

RUSSIA.

ST. PETERSBURG—Status of cholera.

The following information, dated January 4 and 10, was received from Chargé d'Affaires Schuyler through the Department of State, January 24 and 29:

The ministry for foreign affairs states that during the period from December 18 to 25, 83 cases of cholera with 30 deaths were reported in Russia, occurring as follows:

Cities and governments.	Cases.	Deaths.
St. Petersburg	10	2
Moscow	53	11
Baku	1	.....
Governments:		
Baku	4	4
Ekaterinslav	4	.....
Taurida	6	6
Territory of the Don	5	7
	83	30

The following cities and districts have been officially declared free from cholera: Pskov, Ostrow, Nijni-Novgorod, Riga, Astrakhan, and Disna; districts, Pskov, Ostrow, and Disna.

Week ended January 1, 1910.

Thirty-three cases of cholera with 9 deaths occurring as follows:

Cities and governments.	Cases.	Deaths.
St. Petersburg	1	.....
Moscow	26	9
Kaluga	1	.....
Governments:		
Ekaterinslav	4	.....
Baku	1	.....
	33	9

LIBAU—Examination of emigrants—Plague.

Acting Assistant Surgeon De Forest reports, January 11:

Week ended January 7. Examination of emigrants for steamship *Lituania* began January 11. The *Lituania* sails January 22.

Plague.—Uralsk 11 new cases, 12 deaths; vicinity of Astrakhan 37 cases, 34 deaths; Dschedda, present.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended February 4, 1910.

[These tables include cases and deaths recorded in reports received by the Surgeon-General, Public Health and Marine-Hospital Service, from American consuls through the Department of State and from other sources.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
Batavia	Dec. 12-18	26	10	
India:				
Rangoon	Dec. 12-18	.....	7	
Norway:				
Friedershald	Dec. 31-Jan. 3	[a]1	1	From a vessel from Riga.
Philippine Islands:				
Manila	Nov. 21-Dec. 18	53	33	
Provinces—				
Albay	Nov. 21-Dec. 11	1	1	
Bataan	Nov. 21-Dec. 18	54	48	
Bohol	Nov. 21-Dec. 18	61	47	
Bulacan	Nov. 21-Dec. 18	86	52	
Capiz	Nov. 21-Dec. 18	3	2	
Cavite	Nov. 21-Dec. 18	97	65	
Cebu	Nov. 21-Dec. 18	292	216	
Leyte	Nov. 21-Dec. 18	14	11	
Pampagna	Nov. 21-Dec. 18	15	12	
Oriental Negros	Nov. 28-Dec. 11	9	2	
Rizal	Nov. 21-Dec. 18	38	26	
Tarlac	Nov. 21-Dec. 4	2	2	
Zambales	Nov. 21-Dec. 11	6	5	
Russia, general	Dec. 19-Jan. 1	112	40	
Baku, government	Dec. 19-25	5	4	
Baku	Dec. 19-25	1	.....	
Don, territory	Dec. 19-25	5	7	
Ekaterinislav, government	Dec. 19-Jan. 1	8	.....	
Moscow, government—				
Moscow	Dec. 26-Jan. 1	26	9	
St. Petersburg, government—				
St. Petersburg	Dec. 19-Jan. 1	11	2	
Taurida, government	Dec. 19-25	6	6	

YELLOW FEVER.

Brazil:				
Manaos	Dec. 19-Jan. 1	.....	5	
Para	Jan. 2-8	4	4	

PLAGUE.

Brazil:				
Bahia	Dec. 18-24	5	.....	
Egypt:				
Provinces—				
Assiout	Jan. 1-6	3	3	
Beni Souef	Jan. 2	1	.....	
Gizeh	Jan. 2	1	.....	
Japan:				
Kobe	Dec. 26-Jan. 1	.....	1	
Russia:				
Astrakhan, district	Jan. 1-7	37	34	
Dschedda	Jan. 7	.....	.....	Present.
Uralsk, district	Jan. 1-7	11	12	
Turkey in Asia:				
Jiddah	Jan. 5-11	1	.....	

[a] From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, January 10, 1910.

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

Reports Received During Week Ended February 4, 1910.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Argentina:				
Buenos Aires	Nov. 1-30		14	
Brazil:				
Bahia	Dec. 18-24	16	10	
China:				
Hankow	Dec. 19-25			Present among natives.
France:				
Paris	Dec. 26-Jan. 1	4		
Germany, general	Jan. 2-8	13		
Great Britain:				
Liverpool	Jan. 9-15	2		
Greece:				
Athens	Dec. 12-18		2	
Java:				
Batavia	Dec. 12-18	2		
India:				
Rangoon	Dec. 12-18		2	
Italy, general	Jan. 3-9	4		
Naples	Jan. 3-9	13	3	
Japan:				
Kobe	Dec. 19-25		1	
Mexico:				
Aguascalientes	Jan. 10-16		2	
Chihuahua	Jan. 11-23	2		
Monterey	Jan. 17-23		2	
Philippine Islands:				
Manila	Nov. 21-Dec. 4	2		
Portugal:				
Lisbon	Jan. 8	14		
Russia:				
Libau	Dec. 27-Jan. 9	8		
Spain:				
Madrid	Dec. 1-31		40	
Turkey:				
Constantinople	Jan. 2-9		1	
Uruguay:				
Montevideo	Nov. 1-30		5	

Reports Received from January 1 to January 28, 1910.

[For reports received from June 25, 1909, to December 31, 1909, see PUBLIC HEALTH REPORTS for December 31, 1909. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Germany:				
Heydekrug	Nov. 19-Dec. 4	2		
Niederung	Nov. 16-22	1		
India:				
Bombay	Nov. 24-Dec. 28		13	
Calcutta	Nov. 14-Dec. 11		89	
Rangoon	Nov. 14-Dec. 11		13	
Java:				
Batavia	Nov. 14-Dec. 4	303	76	
Persia:				
Astara	Dec. 1-9	35	22	
Philippine Islands:				
Manila	Nov. 7-20	19	20	Third quarter, 1909. Cases 82, deaths 61.
Provinces				Third quarter, 1909. Cases 3,946, deaths 2,609.
Albay	Nov. 7-20	6	6	
Bataan	Nov. 7-20	115	73	
Bohol	Nov. 7-20	25	14	
Bulacan	Nov. 7-20	24	19	
Camarines	Nov. 7-20	5	5	
Cavite	Nov. 7-20	61	48	
Cebu	Nov. 7-20	207	156	Nov. 20, 1 case on s. s. Yaptico
Oriental Negros	Nov. 7-20	10	5	
Pampanga	Nov. 7-20	8	5	
Rizal	Nov. 7-13	4	3	
Tarlac	Nov. 7-13	9	5	

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

Reports Received from January 1 to January 28, 1910.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia, general	Nov. 21-Dec. 18	323	160	
Baku, government	Nov. 21-Dec. 18	17	18	
Baku	Nov. 21-Dec. 18	25	17	
Don, territory	Nov. 28-Dec. 18	10	3	
Ekaterinslav, government	Nov. 21-Dec. 18	15	7	
Jaroslav, government	Nov. 21-27	.....	1	
Kostroma, government	Nov. 21-27	3	4	
Kovna, government	Nov. 21-27	8	3	
Kursk, government	Nov. 21-Dec. 11	6	.....	
Moscow, government—				
Moscow	Nov. 19-Dec. 25	216	100	
Pskov, government	Nov. 21-27	10	.....	
St. Petersburg, government	Nov. 21-Dec. 18	14	12	
St. Petersburg	Nov. 21-Dec. 18	42	11	
Taurida, government	Nov. 21-Dec. 18	60	22	
Vitebsk, government	Nov. 21-27	2	.....	
Siam:				
Bangkok	Oct. 28-Nov. 27	3	3	
Siberia:				
Vladivostok	Nov. 16-21	1	.....	
Turkey in Asia:				
Trebizond	Nov. 28	[a] 1	.....	On a vessel from Batum.

YELLOW FEVER.

Brazil:				
Manaos	Nov. 21-Dec. 11	.....	3	
Para	Nov. 28-Dec. 25	20	17	
Ecuador:				
Guayaquil	Dec. 1-31	41	15	
Peru:				
Callao	Nov. 2-Dec. 2	1	1	From s. s. Loa.
Mexico:				
Yucatan—				
Merida	Dec. 20-21	1	1	
Santa Cruz de Bravo	Dec. 20	1	1	
Trinidad:				
Port of Spain	Nov. 28-Dec. 4	1	1	

PLAGUE.

Brazil:				
Bahia	Nov. 20-Dec. 17	30	17	
Para	Nov. 28-Dec. 25	11	8	
Pernambuco	Oct. 15-Nov. 30	.....	11	
Rio de Janeiro	Nov. 2-Dec. 26	15	2	
Santos	Nov. 1-Dec. 29	5	3	One case from bark Amazone, Dec. 1.
China:				
Hankow	Nov. 27-Dec. 7	20	20	
Hongkong	Nov. 21-27	1	1	
Ecuador:				
Guayaquil	Dec. 1-31	130	47	
Egypt:				
Alexandria	Nov. 19-Dec. 15	3	2	
Port Said	Nov. 30-Dec. 22	2	1	
Provinces—				
Assiout	Sept. 29-Dec. 30	21	6	
Beherach	Dec. 8-14	1	.....	
Beni Souef	Dec. 16-22	9	2	
Girgeh	Dec. 19-26	2	1	
Ghizeh	Dec. 19-25	1	.....	
Menouf	Nov. 28-Dec. 15	17	6	
Minieh	Dec. 21-27	3	1	
German East Africa:				
Mpwapwa	Sept. 19-Oct. 5	[b] 7	.....	

[a] From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Dec. 15, 1909.
[b] Bulletin Quarantenaire, Alexandria, Egypt, Dec. 30, 1909.

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

Reports Received from January 1 to January 28, 1910.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay Presidency and Sind.	Nov. 7–Dec. 4	4,432	3,011	
Madras Presidency	Nov. 7–Dec. 4	420	297	
Bengal	Nov. 7–Dec. 4	926	706	
United provinces	Nov. 7–Dec. 4	5,532	4,942	
Punjab	Nov. 7–Dec. 4	3,374	2,663	
Burma	Nov. 7–Dec. 4	114	101	
Central provinces, including Berar.	Nov. 7–Dec. 4	2,586	2,172	
Coorg	Nov. 14–27	5	1	
Mysore State	Nov. 7–Dec. 4	763	532	
Hyderabad State	Nov. 7–Dec. 4	47	42	
Central India	Nov. 7–Dec. 4	516	382	
Rajputana and Ajmer-Merwara.	Nov. 7–Dec. 4	1,687	1,473	
Kashmir	Nov. 7–Dec. 4	55	37	
Grand total		20,457	16,359	
Indo-China:				
Saigon	Nov. 7–13	1	.....	
Japan:				
Kobe	Nov. 28–Dec. 25	21	15	
Paraguay	Dec. 10	.....	a 30	In the northern part.
Peru:				
Arequipa, department—				
Mollendo	Dec. 20–Jan. 1	1	.....	
Lambayeque, department	Oct. 1–Dec. 9	29	10	
Libertad, department	Nov. 19–Dec. 9	25	3	
Lima, department	Oct. 22–Dec. 9	9	5	
Russia:				
Astrakhan, district	Dec. 5–24	42	38	50 miles south of Beiskulak.
Beiskulak	Dec. 10–16	18	16	
Libau	Dec. 3–9	1	1	
Uralsk, district	Dec. 5–31	187	167	
Siam:				
Bangkok	Oct. 28–Nov. 27	5	5	
Turkey in Asia:				
Beirut	Nov. 29–Dec. 14	3	.....	

SMALLPOX.

Algeria, general	Dec. 1–15	22	.....	
Algiers	Nov. 1–30	.....	1	
Bona	Dec. 1–31	11	7	
Argentina:				
Buenos Aires	Oct. 1–31	.....	2	
Brazil:				
Bahia	Nov. 20–Dec. 3	81	53	
Pernambuco	Oct. 16–Nov. 30	.....	109	
Rio de Janeiro	Nov. 2–Dec. 26	13	.....	
São Paulo	Nov. 1–21	.....	2	
Canada:				
Nova Scotia—				
Halifax	Dec. 19–25	2	.....	
Chile:				
Antofagasta	Jan. 1	.....	.....	Present.
Quillota	Nov. 28–Dec. 4	.....	.....	Do.
Valparaiso	Nov. 20–Jan. 1	.....	.....	Do.
China:				
Amoy	Nov. 28–Dec. 4	.....	1	Dec. 18 still present.
Chang Cheun	Dec. 11	.....	.....	Present.
Chio Be	Dec. 11	.....	.....	Do.
Shanghai	Nov. 1–28	.....	2	Among Chinese.
Cuba:				
Habana	Dec. 3–9	1	.....	From s. s. La Navarre.
Egypt, general	Nov. 5–Dec. 9	212	70	
Alexandria	Nov. 5–Dec. 9	16	16	
Cairo	Nov. 26–Dec. 23	6	1	
France:				
Paris	Dec. 5–25	18	.....	
Germany, general	Dec. 5–Jan. 1	26	.....	
Konigsberg	Dec. 12–18	1	1	In vicinity.

a From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Dec. 22, 1909

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

Reports Received from January 1 to January 28, 1910.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Great Britain:				
Liverpool	Dec. 19–Jan. 8	5		
London	Nov. 28–Jan. 1	6		
Plymouth	Nov. 12–18		1	
Southampton	Nov. 12–18	1		
Greece:				
Athens	Nov. 22–Dec. 11		8	
India:				
Bombay	Nov. 24–Dec. 28		35	
Calcutta	Nov. 14–Dec. 11		3	
Rangoon	Nov. 20–Dec. 11		9	
Indo-China:				
Saigon	Dec. 7–13	1		
Italy, general	Nov. 29–Jan. 2	129		
Genoa	Dec. 1–31	9	1	
Naples	Dec. 6–Jan. 3	57	11	
Japan:				
Kobe	Dec. 12–18	1		
Liberia:				
Monrovia	Nov. 28–Dec. 4	6		
Malta:				
Valetta	Dec. 12–Jan. 1	2	1	
Mexico:				
Aguascalientes	Dec. 12–Jan. 8		5	
Chihuahua	Dec. 13–Jan. 9	2	3	
Mexico	Nov. 14–Dec. 18		11	
Monterey	Nov. 13–19		1	
Netherlands:				
Rotterdam	Dec. 5–11	7		
Persia:				
Hamadan	Nov. 15			Present.
Sultanabad	Nov. 15			Do.
Teheran	Nov. 1–Dec. 2			Do.
Peru:				
Callao	Dec. 6–12			Do.
Philippine Islands:				
Manila	Nov. 14–20	2		Third quarter, 1909—Cases, 5 deaths, 0.
Portugal:				
Lisbon	Dec. 5–Jan. 1	57		
Porto Rico, general	July 1–Oct. 31	38	12	Received out of date.
Russia:				
Libau	Dec. 6–26	12		
Moscow	Nov. 21–Dec. 25	34	6	
Odessa	Nov. 21–Dec. 25	52	17	
Riga	Dec. 5–Jan. 8	28		
St. Petersburg	Nov. 28–Dec. 25	180	61	
Warsaw	Oct. 24–Nov. 6		25	
Spain:				
Almeria	Nov. 1–30		5	
Barcelona	Dec. 14–Jan. 10		6	
Huelva	Nov. 1–30		11	
Tripoli:				
Tripoli	Nov. 14–Dec. 25	242	24	
Turkey in Asia:				
Bagdad	Nov. 21–Dec. 11			Present.
Smyrna	Nov. 5–Dec. 1		31	
Uruguay:				
Montevideo	Oct. 1–31		7	

MORTALITY.

WEEKLY MORTALITY TABLE, FOREIGN AND INSULAR CITIES.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—									
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Aix la Chapelle	Dec. 25	160,409	56	3	....	....	....	....	....	....	....	....	....	1
Amsterdam	Jan. 8	567,367	125	18	....	....	....	....	....	1	1	2	3	....
Athens	Dec. 18	241,058	75	19	....	....	....	2	1	5	....	....	....	....
Bahia	Dec. 3	265,000	98	14	4	....	....	10	....	....	....	....	....	....
Do	Dec. 10	....	134	17	6	....	....	16	....	....	....	....	....	....
Do	Dec. 17	....	100	15	6	....	....	15	....	....	....	....	....	....
Barcelona	Jan. 3	591,272	330	10	....	....	....	....	....	9	....	2	....	1
Do	Jan. 10	....	408	27	....	....	....	2	....	6	....	7	....	....
Barranquilla	Jan. 1	40,000	18	....	....	....	....	....	....	1	....	....	....	....
Batavia	Dec. 11	217,630	20	....	....	18	....	....	....	....	....	....	....	....
Belfast	Jan. 8	391,167	148	18	....	....	....	....	....	2	....	1	....	12
Bergen	...do....	87,749	22	5	....	....	....	....	....	....	....	1	....	....
Birmingham	...do....	558,336	190	....	....	....	....	....	....	2	2	3	....	7
Bombay	Dec. 28	997,822	538	51	5	2	....	12	....	1	....	....	....	1
Bradford	Jan. 8	295,865	117	6	....	....	....	....	....	1	2	1	2	1
Bremen	Jan. 1	235,648	71	9	....	....	....	....	....	....	....	1	....	2
Bristol	Jan. 8	382,550	83	6	....	....	....	....	....	....	....	1	2	1
Brussels	Jan. 1	704,975	185	14	....	....	....	....	....	2	....	2	6	2
Chemnitz	...do....	279,966	82	6	....	....	....	....	....	....	3	1	1	....
Chihuahua	Jan. 16	37,000	15	2	....	....	....	1	....	....	....	....	....	1
Christiania	Jan. 8	235,674	74	9	....	....	....	....	....	....	....	1	....	....
Coburg	Dec. 31	23,536	5	....	....	....	....	....	....	....	....	....	....	1
Cologne	Jan. 1	474,838	144	18	....	....	....	....	....	1	....	1	5	3
Constantinople	Jan. 2	1,000,000	247	25	....	....	....	....	....	5	....	2	1	....
Copenhagen	Dec. 18	450,000	118	11	....	....	....	....	....	1	2	....	....	1
Do	Dec. 25	....	108	15	....	....	....	....	....	....	3	1	....	....
Dalny	Dec. 18	38,789	24	....	....	....	....	....	....	1	....	....	....	....
Dresden	Dec. 25	551,000	165	20	....	....	....	....	....	....	....	5	1	1
Do	Jan. 1	....	119	13	....	....	....	....	....	....	1	7	....	3
Dublin	...do....	394,525	205	21	....	....	....	....	....	2	3	1	....	1
Do	Jan. 8	....	174	29	....	....	....	....	1	....	....	1	2	3
Dundee	...do....	169,409	85	4	....	....	....	....	....	....	....	....	....	1
Edinburgh	...do....	355,366	135	11	....	....	....	....	....	....	1	....	3	2
Erfurt	Jan. 1	109,031	40	6	....	....	....	....	....	....	....	2	1	1
Glasgow	Jan. 14	872,021	351	....	....	....	....	....	....	2	2	5	52	3
Frankfort	Jan. 1	368,800	91	....	....	....	....	....	....	....	....	3	1	....
Guayaquil	Dec. 18	75,000	69	11	11	....	4	....	....	....	....	....	....	....
Do	Dec. 25	75,000	69	9	14	....	5	....	....	....	....	....	....	....
Hamburg	Jan. 1	895,804	281	30	....	....	....	....	....	....	....	11	8	1
Do	Jan. 8	....	252	29	....	....	....	....	....	1	5	10	12	3
Havre	Jan. 1	132,430	58	11	....	....	....	....	....	....	....	2	....	....
Hull	Jan. 8	280,006	83	....	....	....	....	....	....	....	....	1	....	....
Karachi	Dec. 25	108,644	96	....	44	....	....	....	....	....	....	....	....	....
Kobé	...do....	380,717	160	....	1	....	....	1	....	1	....	2	....	....
Do	Jan. 1	380,717	185	....	1	....	....	....	....	3	....	1	....	....
Konigsberg	...do....	243,200	96	8	....	....	....	....	....	....	....	....	4	1
Leeds	Jan. 8	484,012	148	10	....	....	....	....	....	....	2	2	2	4
Leipzig	Jan. 1	540,891	124	16	....	....	....	....	....	1	1	4	1	1
Libau	Jan. 2	90,000	....	....	....	....	....	....	....	....	1	....	....	....
Liverpool	Jan. 8	767,606	273	25	....	....	....	....	....	2	6	1	1	4
London	...do....	7,537,196	1,885	35	....	....	....	....	....	2	7	18	14	....
Lubeck	...do....	97,500	33	3	....	....	....	....	....	1	....	....	1	....
Lyon	Dec. 18	500,000	183	28	....	....	....	....	....	....	....	6	....	....
Manaos	Dec. 25	52,000	44	....	....	....	1	....	....	....	....	....	....	....
Do	Jan. 1	....	53	2	....	....	4	....	....	....	....	....	....	....
Manchester	Jan. 8	631,533	222	27	....	....	....	....	....	2	1	3	2	1
Milan	Dec. 31	900,000	22	19	....	....	....	....	....	1	....	1	....	....
Montreal	Jan. 15	389,837	165	13	....	....	....	....	....	20	2	2	....	1
Do	Jan. 22	....	177	24	....	....	....	....	....	11	1	1	....	5
Munich	Dec. 24	566,000	226	40	....	....	....	....	....	....	1	1	2	1
Do	Dec. 31	....	170	26	....	....	....	....	....	....	1	1	1	1
Naples	Jan. 9	593,729	299	....	....	....	....	3	....	....	....	1	....	....
Newcastle-on-Tyne	Jan. 8	281,584	91	5	....	....	....	....	....	1	....	....	....	....
Nottingham	Jan. 1	260,000	107	....	....	....	....	....	....	1	....	....	....	....
Nuremberg	Dec. 18	316,180	79	11	....	....	....	....	....	1	2	1	1	....
Do	Dec. 25	....	104	18	....	....	....	....	....	....	....	1	2	3
Para	Jan. 8	185,000	64	8	....	....	4	....	....	....	....	....	....	....
Paris	Jan. 1	2,776,394	897	167	....	....	....	....	....	2	1	9	15	5
Prague	Jan. 2	233,649	127	32	....	....	....	....	....	....	1	2	1	....
Rangoon	Dec. 18	252,155	200	7	....	7	....	2	....	....	....	....	....	....

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Rio de Janeiro	Dec. 19	811,443	214	54	....	....	....	....	....	1	....	....	2	3
Do	Dec. 26	.....	236	59	....	....	....	....	....	1	....	1	1	1
Santa Cruz de Teneriffe	Jan. 1	46,000	18	3	....	....	....	....	....	....	....	....	1	....
Santiago de Cuba	Dec. 31	45,470	23	2	....	....	....	....	....	....	....	1	....	....
Shanghai	Jan. 2	565,000	105	11	....	....	....	1	....	....	....	2	....	....
Sheffield	Jan. 1	472,000	128	9	....	....	....	....	....	1	....	1	....	1
Do	Jan. 8	.....	138	6	....	....	....	....	....	....	....	1	1	....
Singapore	Dec. 18	271,060	196	28	....	....	....	....	....	....	1	....	....	....
Southampton	Jan. 8	124,667	31	2	....	....	....	....	....	....	....	1	....	....
South Shields	Jan. 1	117,627	31	4	....	....	....	....	....	....	2	....	....	1
Do	Jan. 8	.....	24	3	....	....	....	....	....	....	1	....	....	1
Stettin	Dec. 31	239,000	60	5	....	....	....	....	....	....	....	1	1	....
Stockholm	Dec. 25	339,582	87	14	....	....	....	....	....	....	....	2	2	1
Sunderland	Jan. 1	159,137	70	4	....	....	....	....	....	....	2	....	1	3
Do	Jan. 8	160,796	51	1	....	....	....	....	....	1	....	1	2	3
Tarragona	...do....	20,400	8	1	....	....	....	....	....	1	....	....	....	....
Turin	Dec. 23	381,439	146	20	....	....	....	....	....	1	1	3	....	....
Do	Dec. 30	.....	141	16	....	....	....	....	....	1	....	2	....	1
Valencia	Jan. 1	240,000	86	6	....	....	....	....	....	1	....	3	....	....
Do	Jan. 8	.....	95	10	....	....	....	....	....	....	....	1	....	....
Valetta	...do....	212,888	.....	3	....	....	....	1	....	....	....	....	....	....
Venice	Nov. 13	179,286	71	9	....	....	....	....	....	1	....	....	1	1
Do	Nov. 20	.....	65	5	....	....	....	....	....	1	....	3	....	....
Do	Nov. 27	.....	80	7	....	....	....	....	....	1	....	1	....	....
Do	Dec. 4	.....	66	5	....	....	....	....	....	....	....	2	....	....
Do	Dec. 11	.....	81	6	....	....	....	....	....	2	....	3	1	....
Do	Dec. 18	.....	86	8	....	....	....	....	....	....	....	....	1	....
Do	Dec. 25	.....	93	9	....	....	....	....	....	2	....	3	1	....
Vienna	...do....	2,085,888	632	92	....	....	....	....	....	2	4	6	4	1

MORTALITY—FOREIGN AND INSULAR—COUNTRIES AND CITIES (untabulated).

ALGERIA—*Bona.*—Month of December, 1909. Population, 42,000. Total number of deaths from all causes 143, including typhoid fever 1, typhus fever 1, smallpox 7, measles 1, tuberculosis 14.

ARGENTINE REPUBLIC—*Buenos Aires.*—Month of November, 1909. Population, 1,232,492. Total number of deaths from all causes 1,756, including typhoid fever 11, smallpox 14, measles 9, scarlet fever 1, diphtheria 11, tuberculosis 175, leprosy 1.

AUSTRALIA—*New South Wales—New Castle.*—Month of November, 1909. Population, 53,300. Total number of deaths from all causes 73, including diphtheria 2, tuberculosis 4.

Sydney.—Month of November, 1909. Population, 592,000. Total number of deaths from all causes 518, including typhoid fever 8, measles 4, diphtheria 2, tuberculosis 35.

BRAZIL—*Pernambuco.*—Two weeks ended November 30, 1909. Population, 210,000. Total number of deaths from all causes 373, including smallpox 35, measles 4, plague 5, tuberculosis 45.

CHILE—*Punta Arenas.*—Month of November, 1909. Population 12,000. Total number of deaths from all causes 31, including tuberculosis 2.

ECUADOR—*Guayaquil.*—Two weeks ended December 31, 1909. Population 44,800. Total number of deaths from all causes 161, including yellow fever 10, plague 24.

FRANCE—*Marseille.*—Month of December, 1909. Population 517,498. Total number of deaths from all causes 954, including typhoid fever 16, measles 3, scarlet fever 5, diphtheria 3, tuberculosis 140.

Roubaix.—Month of December, 1909. Population 121,115. Total number of deaths from all causes 173, including typhoid fever 2, tuberculosis 23.

St. Etienne.—Two weeks ended December 31, 1909. Population 150,000. Total number of deaths from all causes 145, including typhoid fever 1, scarlet fever 2, diphtheria 1, tuberculosis 22.

INDIA—*Rangoon.*—Month of November, 1909. Population 295,803. Total number of deaths from all causes 828, including typhoid fever 6, smallpox 3, measles 1, plague 7, tuberculosis 25.

RUSSIA—*Libau.*—Period from November 13 to December 13, 1909. Population 90,000. Total number of deaths from all causes not reported. Smallpox 2 deaths, plague 1, measles 1, scarlet fever 11, diphtheria 4.

SOUTH AFRICA—*Johannesburg.*—Two weeks ended December 11, 1909. Population, 180,687. Total number of deaths from all causes 147, including typhoid fever 7, measles 3, scarlet fever 1, tuberculosis 11.

SPAIN—*Cadiz.*—Month of December, 1909. Population, 69,382. Total number of deaths from all causes 193, including measles 2, scarlet fever 1, diphtheria 4, tuberculosis 27.

Madrid.—Month of December, 1909. Population, 595,586. Total number of deaths from all causes 1,582, including typhoid fever 2, smallpox 40, measles 1, scarlet fever 1, diphtheria 13, tuberculosis 143.

TASMANIA—*Hobart Town.*—Month of October, 1909. Population, 183,178. Total number of deaths from all causes 130, including typhoid fever 1, tuberculosis 11.

URUGUAY—*Montevideo.*—Month of November, 1909. Population, 238,080. Total number of deaths from all causes 407, including smallpox 5, measles 3, diphtheria 2, tuberculosis 56.

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