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ALASTRIM.

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INTRODUCTORY NOTE.

An epidemic disease called "alastrim" was reported in the Caribbean littoral, Canada, and England during 1920. The importance of this disease from a quarantine standpoint has led to the compilation of this article. Acknowledgment is made to Castellani and Chalmers, whose Third Edition of their Manual of Tropical Medicine has been freely consulted; to the Kingston (Jamaica) Board of Health, whose circular on alastrim has been used in the preparation of this article; and to Prof. W. G. McCallum, of Johns Hopkins University, whose personal letter has been liberally used. It should be borne in mind that while alastrim, from a scientific viewpoint, may possibly be a separate disease entity, it has all the public health aspects of smallpox and, in the present state of our knowledge of its exact classification, should always be reported and combated as smallpox.

Synonyms.—Varioloid-varicella, amaas, Kaffir milk-pox, Sanaga smallpox, West Indian modified smallpox, pseudo smallpox, weisse pocken.

Definition.—An acute febrile, easily communicable disease, closely resembling smallpox, as a mitigated aberrant form of which, from a public health standpoint, it must be regarded.

Etiology.—The causative agent is not proved. Guarnieri bodies (*Cytoryctes variolæ*) have been described in pus from the lesions and in smears made from corneal lesions of rabbits, 60 hours after inoculation with this pus. With dark-field illumination, McCallum found "particles resembling exactly Prowazek's bodies, and these were also found in the Berkefeld filtrates."

The disease is very infectious to man; both sexes and all ages are attacked. No racial immunity has been observed. The disease is found in the West Indies, South and Central America, South Africa, the Mediterranean area, and, more recently, in Great Britain. It is probable that the so-called "Cuban itch" and "Philippine itch" observed after the War with Spain, the mild form of smallpox

prevalent in America, and alastrim are identical. The disease is highly contagious, its causal organism being spread by both direct and indirect vection. Certain observers believe that the disease is largely spread by the air; but when the enormous number of daily contacts with fellow man is considered, the assumption of this theory to account for the rapid spread and persistence of the disease seems scarcely warranted. Overcrowding and all those things which favor the interchange of human secretions and excretions help to spread the disease. The exact classification of alastrim is still the subject of considerable discussion. It may be, and probably is, merely a mitigated form of smallpox, which, in an environment of low racial immunity, incomplete vaccination, or lowered vitality, might regain its lost virulence. It may be that the parasite is a separate species of the parent type.

The facts that the disease may occur rarely after recent successful vaccination, that more often vaccination may be successful after a prior attack of the disease, and that two attacks of the disease may rarely occur in the same person, are true of both "alastrim" and classical smallpox. The infectious agent probably is resident in the nasal and buccal secretions from a very early stage. The dried crusts and desquamated epithelium are also believed to act as vehicles of transmission. In the absence of definite knowledge of the causative agent and its portals of entry and exit to and from the human body, the prevention and eradication of the disease must be approached on the regular lines of a smallpox campaign. Smallpox, in the language of Sydenham, "has its peculiar kinds, which take one form during one series of years, and another during another." One attack of alastrim seems to confer lasting immunity.

Pathology.—Since the mortality from alastrim is very low, 0.5 to 1 per cent, little is known of the post-mortem pathology of the disease. At necropsy, in addition to the surface distribution of the pocks, pustules are seen on the palate, in the fauces, throughout the trachea, and into the bronchi. When the rash is very heavy, a marked subcutaneous edema is seen. This may be so intense as to completely close the eyes. The eruption first appears as papules, which become yellowish pustules and scabs. Desquamation is followed by little scarring, but by considerable pigmentation. In severe cases, trauma by scratching may produce denuded skin areas. Boils sometimes occur, and there may be slight alopecia.

Symptoms.—After an incubation period averaging 14 days, during which prodromal symptoms are rare, the disease is ushered in with malaise, fever (100° to 103° F.), generally accompanied by vomiting, mild headache and backache, and constipation. These symptoms are rarely severe and are suggestive of a mild gastric upset. The patient may vomit but once and the muscle and bone pains may be

so mild as to be disclosed to the examiner only by close questioning. The pains may, however, be generalized as in the initial stages of influenza. There may be a prodromal urticarial or measly rash.

The eruption occurs usually on the third day (occasionally as early as the second, or as late as the fifth day) as a few widely scattered, minute, red seed-like papules on the forehead, face, and forearm. Sometimes they are, even in the beginning, very numerous over the face and very small, being so closely set as to give to the skin of the forehead the texture of fine shark-skin. Usually the eruption at first resembles acne, but later more closely resembles smallpox or chicken pox. Successive crops appear on the abdomen, back, extremities, and face. Coincident with the appearance of the eruption, the temperature falls and the patient feels practically well until maturation takes place, with consequent skin tension and pain, particularly where the skin is thick, as in the palms and soles. Secondary fever does not often occur.

The eruption itself is not hard or shotty. In black skins, the papules appear slightly translucent. On the chest they are nearly always discrete and widely separate at first; over the arms rather less so. In the earlier stage they are not umbilicated except in the rare instances when they form about a hair. On the second or third day of the eruption they become unilocular vesicles, which contain a limpid, somewhat glutinous, fluid. The vesicles do not umbilicate. They become sharply defined, glistening, tense, bulging pustules surrounded by a red areola on the fifth (sometimes the sixth or seventh) day of the eruption. Usually they remain discrete, but in the more severe cases they may become confluent. In the late stages, after maturity, umbilication may occur when the pus has been discharged or inspissated. Drying and crusting usually begins on the sixth or seventh day, proceeds rapidly, and, except in the more severe cases, desquamation of the face is complete by the tenth or twelfth day after the beginning of the eruption. Sometimes some of the pocks never become pustular but start to dry in the vesicular stage, especially if they have been injured. In many cases the pus never advances to the stage of being thick and yellow. The drying begins on the face and then on the upper arms, chest, back, forearms, and legs about in order named. The roofs of the pustules sink, and the whole dries into a crust which ultimately may be rubbed off, leaving an area of central pigment atrophy, a thin line of scurfy epithelium and a wider zone of deep purplish pigmentation. This pigmentation may persist for several months, but the skin is smooth, with scarcely a trace of pitting or scarring.

The eruption is distributed much as it is in classical smallpox. The face and scalp are always attacked. Vesicles may be seen on the hard and soft palate and the fauces of the more severe cases. This

produces pains in the throat and enlargement of the glands at the angle of the jaw. Lesions have been observed on the eyelids, but not upon the conjunctiva. They occur on the lips and nostrils and over the nose and cheeks, the intervening skin frequently being so edematous as to be tightly stretched, the pocks looking as though they were stretched out upon a red drumhead. The eruption occurs on the extremities, the chest, and the upper part of the back. A few pocks can generally be found on the palms and soles.

Throughout its course the disease is exceedingly mild, and, except for the pains of onset and maturation, the patient experiences relatively little discomfort. There is no delirium, and patients are not really very ill and retain their appetites. Pocks in the hard skin of the palms and soles are painful. There is no itching, but rather a burning skin sensation which may interfere with the patient's sleeping. Patients rarely complain of the feeling of skin tension. With the extreme development of the pocks they seem mechanically disabled. They lie quietly in bed, rather depressed mentally, and very unwilling to move. As the pocks become dry and inspissated, the patients lose the depression and move about freely. Usually the progress of the disease is uneventful, without complications or sequelæ.

Diagnosis.—From the viewpoint of public health, "alastrim" should always be diagnosed and reported as smallpox. The gentleness of the stages of invasion and eruption, the absence or vagueness of the umbilication, and the general absence of destructive processes are all indicative of alastrim. The mildness of alastrim, even in an extensive epidemic, is distinctive. In a warm climate, at least, "alastrim" runs true to form and does not seem to increase in virulence. Epidemics of the classical form of smallpox or of chicken pox may occur simultaneously with "alastrim" and might tend to obscure the diagnosis; but the mildness of the attack and absence of umbilication and pitting in alastrim distinguish it from classical smallpox, while the occurrence of pustules differentiates it from chicken pox.

Prognosis.—The mortality from alastrim is surprisingly low. The disease is more severe in the unvaccinated and debilitated, and most of the deaths occur in pregnant women and very weak infants. Economically, it is important by reason of the rapidity of its spread and the temporary disablement of large numbers of persons.

Treatment.—This is symptomatic and hygienic. Isolation in hospital, suitable nursing, cleanliness, the relief of the early constipation, the evacuation of the contents of the pustules, which aids greatly in their heading and disappearance, the use of alkaline mouth washes and gargles, and the vaccination of all exposed persons and the general public, are the chief indications.

EDITOR'S NOTE.—Leake and Force, of the United States Public Health Service, in their studies on the immunological relationship of alastrim (1921), inoculated monkeys and rabbits, using crusts and pustule contents from alastrim patients in Jamaica and Haiti. They summarized the results of their experiments as follows:

A vesico-papular eruption was produced in monkeys by inoculation both with crusts and with vesicle contents from alastrim patients. The animals were protected against reinoculation with alastrim and vaccine virus. Rabbits inoculated with alastrim showed no eruption, but were almost completely immune to vaccine virus. Rabbits previously inoculated with vaccine virus gave positive intracutaneous reactions to smallpox crusts, alastrim material, and vaccine virus, but remained negative to chicken pox crusts.

The fact that definite immunity to vaccinia is produced by previous inoculations with alastrim is additional evidence of the essential identity of alastrim with smallpox. (Reprint No. 669 from the Public Health Reports, June 24, 1921, pp. 1437-1443.)

ARSENIC AS A LARVICIDE FOR ANOPHELINE LARVÆ.

By M. A. BARBER, Special Expert, and T. B. HAYNE, Technical Assistant, United States Public Health Service.¹

Roubaud² has successfully used trioxymethylene, or paraformaldehyde, in poisoning anopheline larvæ. This powder, undiluted or mixed with some inert dust, is simply strewn on the surface of the water, where it is eaten by the larvæ. The poison acts on the nervous system of the insect, causing paralysis, and when eaten in sufficient quantity causes death within a few minutes. It is said to be harmless to any animal, aquatic or otherwise, except the surface-feeding anopheline larvæ. A sublethal dose is said by the author to confer on anopheline larvæ a degree of resistance to a subsequent dose.

We have confirmed the work of Roubaud to the extent that we have found trioxymethylene very toxic to anopheline larvæ, both in laboratory and in field tests. It seemed worth while, however, to extend this line of investigation and to search for some substance cheaper and more poisonous to the larvæ than trioxymethylene; since the use of a fine powder which acts through ingestion would seem to be a very promising measure against anopheline larvæ. These larvæ lie at the surface of the water, and in feeding turn the head halfway around into such a position that the feeding brushes carry to the mouth any particles lying on the surface-tension layer of the water. The larvæ swallow all floating substances that are small enough to

¹ Some of the later experiments in this work were done by Assistant Sanitary Engineer W. H. W. Komp.

² Roubaud, E.: *Compt. Rend. des Séances de l'Acad. des Sci.* Vol. 171, 1920, p. 84. *Ibid.*, Vol. 170, 1920, p. 1521.

enter the mouth easily, and are quite indifferent as to whether these are food or poison. No bait of any kind is required to make these larvæ eat anything that is offered them.

Moreover, poisons in the form of a fine powder are very conveniently distributed. The surface-tension layer of the water affords a convenient support for the powder, whether it be heavier than water or not, and the floating particles are further distributed by currents of air after they reach the water. Again, the insect, in feeding, draws to it particles lying at some distance from the head.

After a trial of a considerable number of substances, we found compounds containing arsenic most promising, and of these, Paris green has proved most efficient.

LABORATORY EXPERIMENTS.

A laboratory test was devised by which the toxicity of a substance for anopheline larvæ could be quantitatively measured. The powder to be tested was strewn lightly upon the surface of water in a Petri or other convenient dish, a larva was pipetted into this dish, and the time when the particles of powder began to be swept into the mouth was observed carefully under a hand lens. At the close of any desired feeding period, the feeding time being reckoned by the number of seconds during which particles were entering the mouth, the larva was pipetted out, washed in two waters in order to free it from any adhering poison, and then deposited in a second dish for subsequent observation. A number of larvæ were thus fed on the substance to be tested, and the length of time of survival and the proportion surviving after a given dose gave a rough estimate of the toxicity of the substance. Highly soluble substances were mixed with pollen or some other inert powder before testing. In case we desired to ascertain the time of survival after the maximum dose merely, a number of larvæ were placed in a dish, the poison was strewn over them, and the time of survival of each larva was noted. In most of our experiments the size of the larvæ and the temperature of the water were also noted.

A large series of laboratory experiments was carried out in which a number of substances were compared, including several of the commoner arsenic-containing compounds. One or two protocols, given in brief, will illustrate the method and results of these experiments.

Ten anopheline larvæ, the size of which varied from one-quarter grown to full-grown, were fed on trioxymethylene, and nine similar larvæ on Paris green, the dosage varying from "minimum"—that is, the ingestion, or apparent ingestion, of one or two particles—to a dose represented by three seconds' feeding. Of the larvæ fed on

trioxymethylene none was dead 16 hours after feeding, while 4 of the 9 fed on Paris green were dead within 3 hours, and a fifth in less than 5 hours. Since one could not always be sure that a larva taking the "minimum" dose had really swallowed the poison, the experiment was repeated, allowing doses of 3 to 5 seconds. Of 12 fed on Paris green 11 died within periods varying from 85 to 103 minutes, while of 12 fed on a similar dose of trioxymethylene 6 survived at least 4½ hours. The 6 of this lot which died, however, showed a shorter average time of survival than that of the 11 which succumbed to Paris green; 62.5 minutes was the average survival time of the trioxymethylene and 90.7 of the Paris green.

In another series trioxymethylene, lead arsenate, and Paris green were compared, the dosage of the first two poisons varying from 4 to 15 seconds and that of the Paris green from 2 to 10 seconds. All of the larvæ fed on the trioxymethylene, 4 in number, died in less than 1 hour; of the Paris green series 9 out of 10 died within less than 2 hours and the tenth after about 7 hours; of the lead-arsenate series practically all survived until the next day or later.

As is illustrated by the two protocols given above, the Paris green did not always cause a more rapid death than trioxymethylene, but the proportion surviving after a very small dose was always less in the case of Paris green than with any other poison tested, a point of considerable weight in favor of Paris green as a practical larvicide, since it is not always possible to give the larger doses when treating a pond or stream.

The extreme sensitiveness of anopheline larvæ to Paris green was impressed on us by several laboratory accidents in which the very slight amount of powder accidentally thrown into the air during the process of mixing or measuring the poison caused a high mortality among larvæ kept in the stock pans on the same table.

Paris green freed from the water-soluble portion by long treatment with water was still poisonous for larvæ, so it is probable that certain of the digestive fluids of the larvæ act as solvents for the poison.

Lead arsenate and arsenic trioxide ("white arsenic") were both much inferior to Paris green as larvicides for anopheline larvæ, and powdered arsenopyrite seemed to be wholly inert. We have tested the calcium arsenate in common use for dusting cotton plants, both in the laboratory and in the field, and find it decidedly less effective than Paris green. We would not recommend its use in place of Paris green except in case of emergency. In one experiment we successfully treated about 1,200 square feet of *Myriophyllum*-covered water with about half a pound of calcium arsenate mixed with sand. In other field experiments where considerably less quantities were used the results were very unsatisfactory.

FIELD EXPERIMENTS.

In field experiments a sketch was usually made of the breeding place to be treated, and before treatment a number of dips were made with a definite sized dipper over different parts of this area, the location of the dips being approximately indicated on the sketch. In recording the anophelines present before and after treatment, the number of the pupæ and the number and size of the larvæ were recorded, the sizes being usually designated as full, three-fourths; one-half, one-fourth, and small. The reexamination of the breeding place was usually done at least three and one-half hours after treatment, and often on the next day.

A protocol of a field experiment will illustrate the method and results: The breeding place was a pond covered with grass, the blades of which projected an inch or two above the surface of the water. The temperature of the water at the surface was 35.2° C. and at a depth of 25 centimeters (10 inches), 26° C. Approximately 370 square meters (4,000 square feet) were treated with 10 cubic centimeters of Paris green mixed with about a liter (quart) of fine sand. The dust was thrown into the air by hand, the main distribution being effected by the wind. The sum of 31 dips over the whole area before treatment was as follows: Pupæ, 1; full-grown larvæ, 12; three-fourths-grown larvæ, 3; half-grown larvæ, 7; one-fourth-grown larvæ, 16; small larvæ, 124; total, 163. About 24 hours after treatment the sum of 31 dips over the same area was as follows: Pupæ, 2; full-grown larvæ, 0; three-fourths grown, 1; half grown, 0; one-fourth grown, 3; small, 6; total, 12. In this experiment the amount of poison used was very small, and the grass formed a barrier to its spread, but there was an almost complete destruction of the larger larvæ and over 95 per cent of the smaller ones. Other experiments have been done where the numbers of larvæ were much larger and the percentage destroyed was much higher, and in some experiments no survivors could be found.

The following kinds of breeding places have been successfully treated: Impounded water with larvæ protected by floating wood; cold water in a ditch immediately below a spring, the larvæ being protected by thick water cress; grass-covered ponds and those covered by *Myriophyllum*; ground below a spring and covered with a thin layer of water; wet pasture with breeding in cow tracks; an old ditch, the water of which was covered with duckweed and partly protected by overhanging weeds; various small pools without any particular covering. In small pools a few pinches of the diluted Paris green sufficed to destroy the larvæ. The species of anopheline apparently makes no difference as regards their resistance to this poison.

QUANTITY AND METHOD OF USE OF PARIS GREEN.

Paris green in antianopheline work should be diluted with a large proportion of inert dust. Only very small doses are necessary to poison larvæ, and the dilution enables one to spread a relatively small quantity of the poison over a large surface. Further, any risk of poisoning the operator or the water treated is minimized by the use of the diluted dust. As a diluent we have successfully used fine sand, rotten wood dust, and road dust. Road dust, preferably mixed with some fine clay, seems to be as effective as any. The addition of weight in the form of some coarser sand is helpful in enabling one to direct the dispersal of the lighter dust. Some of the diluting dust sinks on contact with the water, but most of the arsenic is left on the surface. Flowers of sulphur has not proved a suitable diluting dust, possibly because so large a proportion of it remains floating that it is ingested with the Paris green, which latter is then too much diluted. A dilution of about 1 part of the poison to 100 parts of the inert dust seems to be a favorable mixture.

The quantity of Paris green to be used must depend somewhat on the character of the breeding place. Where there is much high grass, reeds, and the like, one would use somewhat greater quantities of the poison than where the surface of the water is clear or covered by low surface vegetation only. Since the poison is relatively inexpensive, and the danger of poisoning the water of the breeding place is small, quantities somewhat larger than those given in the protocol would seem to be advisable, possibly about 10 c. c. (approximately 12 grams, 0.43 ounces avoirdupois, 0.6 cubic inches, or two level teaspoonfuls) to 90 square meters (1,000 square feet).

A slowly settling cloud of dust carried along by a light wind is apparently the best agent for the distribution of the dust, and the main thing is to start this cloud in the right place and direction. A single cloud may destroy larvæ over a wide area and at a considerable distance from the operator. We have tried certain mechanical means for distributing the dust, such as the dust-guns used in dusting arsenic on cotton plants, but thus far we have succeeded best by simply throwing the dust into the air by hand. The cloud can thus be formed high or low, to the right or to the left, depending on the force and direction of the wind. The pole and bag method, sometimes used for dusting plants, has been found useful in treating a breeding place at the bottom of a deep ditch.

TIME OF DAY FOR THE USE OF THE POWDER.

The best results are to be expected on a sunny day when the powder is spread after the sun is well up and the dew has disappeared from any vegetation covering the breeding place.

FREQUENCY OF TREATMENT.

The frequency of treatment of a breeding place must depend largely on the temperature of the water. In a recent experiment anopheline larvæ were thoroughly destroyed over a given area. The place was kept under observation from day to day, and frequent collections of larvæ were made. Eleven days after treatment fully grown larvæ and a few pupæ were found. In this breeding place, then, it would have been necessary to repeat the treatment within ten days. The weather was warm and the temperature of the water very high, and it is probable that in this pond the growth of the larvæ (larvæ of *A. quadrimaculatus*) was nearly at its maximum rate.

COST.

Paris green was recently quoted at 22 cents per pound, f. o. b. New York City, packed in 300-pound barrels. Small quantities may be purchased in drug stores for \$1 per pound. At 25 cents per pound the amount sufficient for at least 1,000 square feet, 10 c. c., would cost about seven-tenths of a cent. The calcium arsenate in common use for dusting cotton plants may be purchased for about 15 to 20 cents per pound. The use of a powder instead of a liquid should greatly lower the cost of transportation. Usually a dust suitable for dilution can be found in the neighborhood of the breeding place, so that one has to transport only a pound or so of Paris green for the treatment of a large area.

DANGER OF POISONING THE OPERATOR OR THE WATER TREATED.

The danger to persons engaged in distributing arsenic-containing dusts as larvicides would seem to be mainly through the possibility of inhalation of the poison or its absorption through the skin rather than through ingestion. In our search for information regarding the possible harm to men or domestic animals engaged in distributing arsenical dusts as insecticides, we sent letters of inquiry to 17 United States or State agricultural experiment stations in the cotton or tobacco growing States, in the hope that information might be obtained from those who have had much practical experience with these dusts and their possible harmful effects. In some States these arsenical dusts, calcium arsenate in particular, have been used by the ton in combating the boll weevil. Of the 16 stations replying to our inquiry, 14 of the correspondents had had experience in the use of arsenical dusts. Of these 14, about half had knowledge of some injury to man or domestic animals through the use of these arsenical dusts. The lesions reported were chiefly of the acute type and of a minor degree, such as sores on exposed parts of the body, irritation of the bronchial

tubes, and sometimes intestinal disorders—lesions which usually healed promptly. Some more serious cases of chronic poisoning were reported to us by Mr. B. R. Coad, in charge of the Delta Laboratory, U. S. Bureau of Entomology, at Tallulah, La., who kindly wrote us a full description of these cases. The cases were of the cumulative type of poisoning, and occurred exclusively among persons who had worked with the dusts in close quarters for several years. They occurred as the result of exposure to calcium arsenate as well as to other kinds of arsenical dusts. "The chronic types of poisoning are practically always accompanied by some dermatic disorder, the injury of which varies widely with the individual, and is somewhat recurrent. Furthermore, in extreme cases we find neuritis and occasionally some fairly pronounced heart symptoms. It has proved a very obnoxious ailment, and, furthermore, a very stubborn one. Apparently it is brought about by a saturation of the system with arsenic, and the victim is nearly always hypersensitive to arsenic exposure. In the case of constant exposure the mucous membranes of the nose and throat reach such a condition that they are exceedingly sensitive to mechanical irritation by any form of dust, and a slight exposure to dust brings on an attack which very closely resembles hay fever."

It is to be remembered that these chronic cases followed a long and intimate exposure to arsenic dusts. Mr. Coad was of the opinion that the amount of exposure incident to the antianopheline work we have described would probably not lead to any particular danger. It is significant that so little trouble is reported by experiment station workers and by other persons who have used arsenic dusts extensively for some years. Possibly their immunity has been due in part to the fact that they use principally the slightly water-soluble calcium arsenate, and that cotton-plant dusting extends over a comparatively short period each year. However, in antianopheline work where such small quantities of highly diluted Paris green are used, and where the work is wholly out of doors, simple precautions should suffice to protect the user, nor would a health officer anticipate any strenuous objections from the people of a community to the use of a substance so commonly employed as an insecticide.

In our experiments we have used no precautions other than to stand to the windward of the dust cloud—the place where one would naturally stand in distributing the dust—and we have experienced no harmful results whatever. However, even with the small quantities used in larvicide work, it is well to remember that one is working with a poison and that some precautions should be taken, at least until the matter is further investigated. It is probably sufficient to keep to the windward of the dust clouds and to avoid inhaling the dust as far as possible. In case a great deal of expos-

ure is necessary, one should use some precaution to keep any large amount of Paris green from entering the clothing or accumulating anywhere on the skin.

As regards the danger of poisoning the water treated, it should be emphasized that only a minute quantity of Paris green is dusted over a very large surface, and of that compound only a very small fraction is water-soluble. We have never observed any effect of the poison on culicine larvæ or on any aquatic insect or animal, however delicate, other than the surface-feeding anopheline larvæ. In particular, we have never observed any indication of harm to top-feeding minnows or to any other natural enemy of larvæ. The danger to domestic animals through drinking treated water seems very remote. In order to meet any objections on the part of the owner of a breeding place, one might arrange to have the stock removed from the breeding place for a day or so, but the owner will hardly insist on this precaution when it is explained to him that the powder is the same as that commonly used against insects and that only a very small quantity of it is to be used on a large body of water.

In sum, the possible advantages of arsenic dust used against anopheline larvæ are its cheapness, portability, ease of distribution by means of the wind, and the possibility of using it over areas difficult of treatment by methods now in use. The chief disadvantage is that its use is limited to anopheline larvæ—ova and pupæ of all kinds, and culicine larvæ are apparently unaffected. It is believed, however, that this method will have a place in antimalarial work, especially in places not easily drained and so covered by vegetation or other obstacles as to render them inaccessible to natural enemies of larvæ, or to other methods of treatment.

DEATHS DURING WEEK ENDED NOV. 26, 1921.

Summary of information received by telegraph from industrial insurance companies for week ended Nov. 26, 1921, and corresponding week, 1920. (From the Weekly Health Index, Nov. 29, 1921, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Nov. 26, 1921.	Corresponding week, 1920.
Policies in force.....	47, 761, 374	45, 212, 203
Number of death claims.....	7, 188	7, 399
Death claims per 1,000 policies in force, annual rate.....	7.8	8.5

Deaths from all causes in certain large cities of the United States during the week ended Nov. 26, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years. (From the Weekly Health Index, Nov. 29, 1921, issued by the Bureau of the Census, Department of Commerce.)

City.	Estimated population July 1, 1921.	Week ended Nov. 26, 1921.		Average annual death rate per 1,000. ¹	Deaths under 1 year.		Infant mortality rate, week ended Nov. 26, 1921. ²
		Total deaths.	Death rate. ¹		Week ended Nov. 26, 1921.	Previous year or years. ²	
Akron, Ohio.....	229,195	21	4.8	48.5	4	43	38
Albany, N. Y.....	115,071	30	13.6	C 10.5	2	C 0	45
Atlanta, Ga.....	207,473	60	15.1	C 13.9	5	C 9	.....
Baltimore, Md.....	750,864	181	12.6	A 15.5	24	A 25	67
Birmingham, Ala.....	186,133	50	14.0	A 18.1	7	A 6	.....
Boston, Mass.....	757,634	212	14.6	A 14.9	32	A 32	86
Bridgeport, Conn.....	149,967	28	9.7	A 14.7	2	A 6	25
Buffalo, N. Y.....	519,608	108	10.8	C 13.4	13	C 22	50
Cambridge, Mass.....	110,444	29	13.7	A 15.0	1	A 4	18
Chicago, Ill.....	2,780,655	540	10.1	A 12.7	73	A 105	.....
Cincinnati, Ohio.....	403,418	98	12.7	C 11.4	8	C 6	53
Cleveland, Ohio.....	831,138	164	10.3	C 10.0	23	C 19	62
Columbus, Ohio.....	245,358	58	12.3	C 15.4	5	C 11	58
Dallas, Tex.....	165,282	38	12.0	A 12.6	6	A 4	.....
Dayton, Ohio.....	158,119	32	10.6	C 8.8	4	C 3	66
Denver, Colo.....	263,152	67	13.3	A 14.6	11	.....	.....
Detroit, Mich.....	1,070,450	178	8.7	C 10.5	32	C 50	60
Fall River, Mass.....	120,668	27	11.7	C 14.3	5	C 8	75
Fort Worth, Tex.....	111,423	29	13.6	.....	2	.....	.....
Grand Rapids, Mich.....	141,197	35	12.9	C 12.0	2	C 5	34
Houston, Tex.....	144,340	23	8.3	C 9.3	5	C 3	.....
Indianapolis, Ind.....	325,632	97	15.5	C 10.7	11	C 11	85
Jersey City, N. J.....	302,788	67	11.5	C 9.7	10	C 12	69
Kansas City, Kans.....	103,884	26	13.1	C 13.8	1	C 7	24
Kansas City, Mo.....	336,157	102	15.8	C 14.6	11	C 11	.....
Los Angeles, Calif.....	611,921	171	14.6	A 12.7	19	A 9	90
Louisville, Ky.....	236,083	68	15.0	C 14.4	5	C 10	58
Lowell, Mass.....	113,757	25	11.5	A 15.2	4	A 7	64
Memphis, Tenn.....	165,656	52	16.4	.....	7	.....	.....
Milwaukee, Wis.....	468,396	113	12.6	A 10.8	19	A 21	92
Minneapolis, Minn.....	392,815	81	10.8	C 11.8	5	C 10	28
Nashville, Tenn.....	122,036	20	16.7	C 15.4	1	C 5	.....
New Bedford, Mass.....	125,012	22	9.2	A 14.2	2	A 5	31
New Haven, Conn.....	167,007	35	10.9	C 11.8	3	C 3	36
New Orleans, La.....	394,657	105	13.9	A 19.7	9	A 18	.....
New York, N. Y.....	5,751,867	1,184	10.7	C 10.7	153	C 154	62
Newark, N. J.....	424,885	67	8.2	C 11.9	16	C 22	71
Norfolk, Va.....	121,260	18	7.7	.....	3	.....	53
Oakland, Calif.....	226,472	59	13.6	A 12.1	5	A 4	63
Omaha, Nebr.....	197,066	43	11.4	.....	3	.....	35
Paterson, N. J.....	137,463	27	10.2	.....	5	.....	85
Philadelphia, Pa.....	1,866,212	398	11.1	A 14.5	36	A 70	43
Pittsburgh, Pa.....	602,452	171	14.8	C 15.8	36	C 28	128
Portland, Oreg.....	284,859	62	12.2	C 9.8	4	C 6	40
Providence, R. I.....	239,645	56	12.2	C 13.6	9	C 8	73
Richmond, Va.....	175,686	47	13.9	C 11.2	7	C 6	85
Rochester, N. Y.....	305,229	68	11.6	C 9.1	7	C 3	54
St. Louis, Mo.....	786,164	178	11.8	C 12.3	18	C 27	.....
St. Paul, Minn.....	237,781	50	11.0	C 10.4	6	C 4	60
Salt Lake City, Utah.....	121,595	23	9.9	A 13.3	2	.....	31
San Francisco, Calif.....	520,546	152	15.2	C 13.1	13	C 12	75
Seattle, Wash.....	327,227	55	8.8	A 8.6	2	A 6	17
Springfield, Mass.....	135,877	22	8.4	C 11.5	0	C 6	0
Syracuse, N. Y.....	177,265	48	14.1	C 10.8	7	C 2	84
Toledo, Ohio.....	253,696	44	9.0	A 13.5	4	A 7	40
Trenton, N. J.....	122,760	34	14.4	A 20.1	7	A 7	106
Washington, D. C.....	454,026	84	9.6	A 15.6	7	A 12	41
Wilmington, Del.....	113,408	24	11.0	C 15.9	2	C 6	.....
Worcester, Mass.....	184,972	47	13.2	C 15.2	5	C 8	54
Yonkers, N. Y.....	103,324	12	6.1	A 11.5	2	A 4	45

¹ Annual rate per 1,000 population.

² "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1920.

³ Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920. Cities left blank are not in the registration area for births.

⁴ Data based on statistics of 1915, 1916, and 1917.

PREVALENCE OF DISEASE.

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

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Dec. 3, 1921.

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

ALABAMA.		CALIFORNIA—continued.	
	Cases.		Cases.
Diphtheria.....	45	Poliomyelitis.....	
Hookworm disease.....	22	Lemoore.....	1
Pellagra.....	6	Los Angeles.....	1
Pneumonia.....	6	San Francisco.....	2
Scarlet fever.....	13	San Joaquin County.....	1
Smallpox.....	14	Stockton.....	1
Tuberculosis.....	14	Taft.....	1
Typhoid fever.....	11	Scarlet fever.....	139
		Smallpox:	
ARKANSAS.		San Jose.....	14
Chicken pox.....	20	Santa Clara County.....	15
Diphtheria.....	28	Scattering.....	23
Hookworm disease.....	1	Typhoid fever.....	14
Influenza.....	14	Typhus fever—Los Angeles.....	3
Malaria.....	41		
Measles.....	1	COLORADO.	
Pellagra.....	6	(Exclusive of Denver.)	
Scarlet fever.....	20	Chicken pox.....	23
Smallpox.....	10	Diphtheria.....	48
Tuberculosis.....	8	Influenza.....	1
Typhoid fever.....	12	Measles.....	6
Whooping cough.....	4	Mumps.....	3
		Pneumonia.....	3
CALIFORNIA.		Scarlet fever.....	47
Anthrax—Patterson.....	1	Smallpox.....	17
Cerebrospinal meningitis:		Tuberculosis.....	24
Los Angeles.....	1	Typhoid fever.....	15
Merced.....	1	Whooping cough.....	2
Santa Cruz.....	1		
Diphtheria.....	323	CONNECTICUT.	
Influenza.....	21	Chicken pox.....	53
Leprosy:		Diphtheria:	
Fresno County.....	1	Bridgeport.....	17
Los Angeles.....	1	Hartford.....	9
San Francisco.....	1	New Haven.....	12
Lethargic encephalitis:		Scattering.....	45
Berkeley.....	4	Impetigo contagiosa.....	7
Los Angeles.....	1	Influenza.....	4
San Francisco.....	2		
Measles.....	11		

CONNECTICUT—continued.

Measles:	Cases.
Chaplin	8
Coventry	35
Hampton	8
Lebanon	30
Mansfield	19
Windham	25
Scattering	37
Mumps	8
Pneumonia (lobar)	23
Scarlet fever:	
Bridgeport	10
Hartford	8
Scattering	63
Tuberculosis (pulmonary)	20
Whooping cough	32

DELAWARE.

Chicken pox	4
Diphtheria	4
Measles	1
Pneumonia	2
Scarlet fever:	
Wilmington	17
Scattering	10
Tuberculosis	5
Typhoid fever	3
Whooping cough	1

FLORIDA.

Diphtheria	23
Influenza	9
Malaria	11
Paratyphoid fever	1
Pneumonia	9
Scarlet fever	3
Smallpox	2
Typhoid fever	10

GEORGIA.

Cerebrospinal meningitis	2
Chicken pox	44
Diphtheria	48
Dysentery (bacillary)	1
Hookworm disease	41
Influenza	7
Malaria	17
Mumps	1
Pneumonia	10
Scarlet fever	16
Septic sore throat	4
Smallpox	18
Tuberculosis (pulmonary)	8
Typhoid fever	11
Whooping cough	5

ILLINOIS.

Cerebrospinal meningitis:	
Chicago	2
Rock Island	1
Tazewell County— Malone Township	1
Diphtheria:	
Aurora	16
Blue Island	16
Chicago	226
Cicero	11

ILLINOIS—continued.

Diphtheria—Continued.	Cases.
Decatur	16
Galesburg	12
Joliet	9
Mattoon	12
Pekin	10
Peoria	11
Rockford	17
Streator	8
Scattering	269
Influenza	21
Lethargic encephalitis—Chicago	1
Pneumonia	263
Poliomyelitis:	

Bond County—Mills Township	1
Carroll County—Mount Carroll Township	1
Chicago	1
Henry County—Loraine Township	1
Livingston County—Newton Township	1
Will County—Joliet Township	1

Scarlet fever:	
Chicago	118
Rockford	9
Scattering	179

Smallpox:	
Central City	18
Scattering	14
Typhoid fever	29
Whooping cough	32

INDIANA.

Diphtheria	166
Rabies in animals—Sullivan County	1
Scarlet fever	127
Smallpox	34
Typhoid fever	11

IOWA.

Cerebrospinal meningitis:	
Dyersville	1
Keokuk	1
Diphtheria	78
Poliomyelitis	5
Scarlet fever	134
Smallpox	28

KANSAS.

Cerebrospinal meningitis	8
Chicken pox	79
Diphtheria	342
German measles	2
Influenza	8
Measles	7
Mumps	63
Pneumonia	23
Scarlet fever	235
Smallpox	49
Trachoma	1
Tuberculosis	59
Typhoid fever	4
Whooping cough	13

LOUISIANA.

Diphtheria	20
Influenza	13
Scarlet fever	19
Smallpox	2
Typhoid fever	14

MAINE.	Cases.
Chicken pox.....	16
Diphtheria.....	28
German measles.....	2
Measles.....	1
Mumps.....	11
Pneumonia.....	1
Scarlet fever.....	23
Tuberculosis.....	6
Typhoid fever.....	5

MARYLAND. ¹	
Cerebrospinal meningitis.....	1
Chicken pox.....	56
Diphtheria.....	101
Dysentery.....	1
German measles.....	2
Influenza.....	10
Malaria.....	2
Measles.....	124
Mumps.....	14
Paratyphoid fever.....	1
Pneumonia (all forms).....	53
Poliomyelitis.....	4
Scarlet fever.....	65
Septic sore throat.....	4
Trachoma.....	1
Tuberculosis.....	78
Typhoid fever.....	24
Whooping cough.....	20

MASSACHUSETTS.	
Cerebrospinal meningitis.....	2
Chicken pox.....	180
Conjunctivitis (suppurative).....	13
Diphtheria.....	232
German measles.....	5
Influenza.....	17
Lethargic encephalitis.....	2
Measles.....	127
Mumps.....	45
Ophthalmia neonatorum.....	19
Pneumonia (lobar).....	98
Poliomyelitis.....	4
Scarlet fever.....	139
Septic sore throat.....	11
Tetanus.....	1
Trachoma.....	2
Tuberculosis (all forms).....	177
Typhoid fever.....	11
Whooping cough.....	41

MINNESOTA.	
Chicken pox.....	28
Diphtheria:	
Minneapolis.....	48
Scattering.....	117
Measles.....	16
Pneumonia.....	3
Poliomyelitis.....	2
Scarlet fever.....	216
Smallpox.....	62
Tuberculosis.....	69
Typhoid fever.....	15
Whooping cough.....	1

MISSISSIPPI.	Cases.
Diphtheria.....	69
Scarlet fever.....	17
Smallpox.....	21
Typhoid fever.....	18

MISSOURI.	
Cerebrospinal meningitis.....	1
Chicken pox.....	71
Diphtheria.....	321
Epidemic sore throat.....	38
Influenza.....	18
Measles.....	7
Mumps.....	12
Ophthalmia neonatorum.....	5
Poliomyelitis.....	2
Scarlet fever.....	171
Smallpox.....	104
Tetanus.....	3
Trachoma.....	9
Tuberculosis.....	55
Typhoid fever.....	56
Whooping cough.....	17

MONTANA.	
Diphtheria.....	19
Scarlet fever.....	29
Smallpox.....	33
Typhoid fever.....	5

NEBRASKA.	
Chicken pox.....	14
Diphtheria:	
Beatrice.....	8
Omaha.....	18
Scattering.....	21
German measles.....	2
Measles.....	31
Mumps.....	3
Pneumonia.....	1
Poliomyelitis—Omaha.....	1
Scarlet fever.....	43
Smallpox:	
Bluehill.....	12
Scattering.....	32
Tuberculosis.....	1
Typhoid fever.....	3

NEW JERSEY.	
Cerebrospinal meningitis.....	1
Chicken pox.....	253
Diphtheria.....	236
Influenza.....	12
Measles.....	117
Pneumonia.....	111
Poliomyelitis.....	2
Scarlet fever.....	174
Smallpox.....	5
Typhoid fever.....	19
Whooping cough.....	48

NEW MEXICO.	
Chicken pox.....	7
Diphtheria.....	35
Influenza.....	1

¹ Week ended Friday.

NEW MEXICO—continued.

	Cases.
Measles.....	2
Mumps.....	2
Pneumonia.....	3
Poliomyelitis.....	1
Scarlet fever.....	5
Smallpox.....	3
Tuberculosis.....	38
Typhoid fever.....	11
Whooping cough.....	4

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis.....	1
Diphtheria.....	298
Influenza.....	20
Measles.....	70
Pneumonia.....	166
Poliomyelitis.....	8
Scarlet fever.....	311
Typhoid fever.....	46
Whooping cough.....	115

NORTH CAROLINA.

Cerebrospinal meningitis.....	1
Chicken pox.....	82
Diphtheria.....	146
German measles.....	3
Measles.....	4
Scarlet fever.....	93
Septic sore throat.....	2
Smallpox.....	18
Typhoid fever.....	24
Whooping cough.....	42

OREGON.

Chicken pox.....	9
Diphtheria:	
Portland.....	25
Scattering.....	18
Impetigo contagiosa.....	3
Measles.....	3
Mumps.....	4
Scabies.....	5
Scarlet fever.....	8
Smallpox:	
Portland.....	21
Scattering.....	13
Tuberculosis.....	9
Typhoid fever.....	2
Whooping cough.....	1

SOUTH DAKOTA.

Chicken pox.....	1
Diphtheria.....	23
Pneumonia.....	1
Scarlet fever.....	64
Smallpox.....	22
Tuberculosis.....	9

TEXAS.

Chicken pox.....	34
Diphtheria.....	132
Influenza.....	7
Pellagra.....	5
Pneumonia.....	7
Scarlet fever.....	52
Smallpox.....	15
Typhoid fever.....	13

VERMONT.

	Cases.
Chicken pox.....	35
Diphtheria.....	20
Measles.....	2
Mumps.....	3
Pneumonia.....	2
Scarlet fever.....	42
Septic sore throat.....	3
Typhoid fever.....	3
Whooping cough.....	10

VIRGINIA.

Smallpox:
Craig County—Several cases.

WASHINGTON.

Chicken pox.....	65
Diphtheria:	
Seattle.....	12
Scattering.....	14
Measles.....	5
Mumps.....	21
Poliomyelitis:	
Lincoln County.....	1
Tacoma.....	1
Scarlet fever:	
Spokane.....	8
Scattering.....	29
Smallpox:	
Spokane.....	8
Walla Walla.....	15
Scattering.....	61
Tuberculosis.....	55
Typhoid fever.....	4
Whooping cough.....	13

WEST VIRGINIA.

Diphtheria:	
Wheeling.....	13
Scattering.....	35
Scarlet fever:	
Fairmont.....	20
Scattering.....	15
Smallpox.....	3
Typhoid fever.....	2

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis.....	1
Chicken pox.....	74
Diphtheria.....	39
Pneumonia.....	24
Scarlet fever.....	14
Smallpox.....	2
Tuberculosis.....	14
Typhoid fever.....	1
Whooping cough.....	12
Scattering:	
Chicken pox.....	96
Diphtheria.....	144
Influenza.....	2
Measles.....	7
Pneumonia.....	2
Poliomyelitis.....	3
Scarlet fever.....	139
Smallpox.....	38
Tuberculosis.....	17
Typhoid fever.....	9
Whooping cough.....	26

Delayed Reports for Week Ended Nov. 26, 1921.

DISTRICT OF COLUMBIA.		KENTUCKY—continued.	
	Cases.		Cases.
Chicken pox.....	17	Influenza.....	12
Diphtheria.....	51	Measles:	
Influenza.....	2	Christian County.....	1
Measles.....	6	Jefferson County.....	22
Scarlet fever.....	19	Mumps.....	1
Tuberculosis.....	21	Paratyphoid fever.....	1
Whooping cough.....	8	Pneumonia.....	19
KENTUCKY.		Rabies in man—Boyd County.....	1
Cerebrospinal meningitis—Jefferson County.....	1	Scarlet fever:	
Chicken pox.....	13	Jefferson County.....	10
Diphtheria:		Scattering.....	16
Christian County.....	26	Smallpox.....	6
Davies County.....	21	Tonsillitis.....	7
Jefferson County.....	62	Trachoma.....	5
McCracken County.....	8	Tuberculosis.....	7
Marion County.....	21	Typhoid fever.....	15
Scattering.....	37	Whooping cough.....	2

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

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

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
October, 1921.										
Delaware.....		32	1	9	4			42		28
New York.....	29	1,920	141		308		260	1,269		519
Ohio.....	6	4,046	42	2	82		51	1,580	1	778
Oregon.....		202	1		4		94	78		46
Virginia.....	5	1,232	487	341	80	12	16	481	82	325
Washington.....		185			19		62	163	224	67

SMALLPOX EPIDEMIC.

Kansas City, Mo.—Kansas City, Kans.

Smallpox in malignant form continues in Kansas City, Mo., and a few scattering cases of the disease have appeared in various other parts of the State, with origin traceable to Kansas City. The following is taken from a telegram dated December 2, received from Dr. Cortez F. Enloe, State commissioner of health of Missouri:

Smallpox epidemic continues unabated Kansas City. Since September 1, 290 cases have been reported; 103 deaths. Past five days, 24 new cases, 11 deaths. Malignant type of disease has spread; 30 known cases, 4 deaths in various parts of State, origin traceable to Kansas City; actual total probably higher.

A telegram, dated December 5, 1921, from an officer of the Public Health Service, gives the following information:

Kansas City, Kans.—Week ended December 3, 1921: Cases, 12; deaths, 5. July 1 to December 3: Cases, 57; deaths, 16.

Kansas City, Mo.—Week ended December 3, 1921: Cases, 40; deaths, 14. July 1 to December 3: Cases, 315; deaths, 108.

TYPHUS FEVER.

Athens, Ga.

Information, dated December 6, 1921, reports one case of typhus fever at Athens, Ga.

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921.

ANTHRAX.

City.	Cases.	Deaths.
Delaware:		
Wilmington.....	1	.....

CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Nov. 19, 1921.		City.	Median for previous years.	Week ended Nov. 19, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
California:				Missouri:			
Los Angeles.....	0	2	.....	St. Louis.....	1	2	.....
Connecticut:				New Jersey:			
Hartford.....	0	1	1	Garfield.....	.....	1	.....
Meriden.....	0	1	.....	New Brunswick.....	0	1	1
Illinois:				Passaic.....	0	1	1
Chicago.....	3	2	.....	New York:			
Decatur.....	.....	.....	1	Buffalo.....	0	1	1
Peoria.....	0	1	1	New York.....	2	3	2
Iowa:				Niagara Falls.....	0	.....	1
Burlington.....	0	2	1	North Carolina:			
Massachusetts:				Durham.....	0	1	1
Belmont.....	.....	1	.....	Ohio:			
Beverly.....	0	1	.....	Cleveland.....	0	1	.....
Boston.....	0	2	1	Pennsylvania:			
Norwood.....	.....	.....	1	Philadelphia.....	1	.....	1
Southridge.....	0	1	1	Tamaqua.....	.....	1	.....
Michigan:				Texas:			
Detroit.....	0	1	.....	Galveston.....	0	1	1
Highland Park.....	0	1	1				
Ironwood.....	0	.....	1				

DENGUE.

City.	Cases.	Deaths.
Texas:		
Galveston.....	3	.....

DIPHTHERIA.

See p. 3047; also Telegraphic weekly reports from States, p. 3036, and Monthly summaries by States, p. 3040.

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

INFLUENZA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Missouri:		
Birmingham.....		1	St. Joseph.....		1
Montgomery.....		1	St. Louis.....	1	
Arkansas:			Montana:		
Little Rock.....	1		Billings.....	1	
California:			New Jersey:		
Bakersfield.....	1		Atlantic City.....	1	
San Francisco.....	4		East Orange.....	1	
Connecticut:			New York:		
Meriden.....	1		Albany.....	7	
New Britain.....	2		Mount Vernon.....		1
District of Columbia:			New York.....	22	9
Washington.....	1		Rochester.....	2	
Georgia:			North Carolina:		
Atlanta.....	1	2	Charlotte.....		1
Illinois:			Ohio:		
Chicago.....	13		Toledo.....		1
Kentucky:			Pennsylvania:		
Covington.....		1	Philadelphia.....	4	3
Louisiana:			Rhode Island:		
New Orleans.....	2	1	Providence.....	2	
Maryland:			Texas:		
Baltimore.....	12	1	Dallas.....		1
Massachusetts:			Virginia:		
Boston.....	2		Richmond.....		1
Cambridge.....	1		Roanoke.....	2	
Fall River.....	1				
Haverhill.....	2				

LETHARGIC ENCEPHALITIS.

Georgia:			New York:		
Savannah.....	1	1	Newburgh.....	1	
Massachusetts:					
Somerville.....		1			

MALARIA.

Arkansas:			Tennessee:		
Fort Smith.....	7		Memphis.....	4	
Georgia:			Texas:		
Savannah.....	2		Dallas.....	1	
Louisiana:			Waco.....	1	
New Orleans.....	2	1	Virginia:		
			Richmond.....		1

MEASLES.

See p. 3047; also Telegraphic weekly reports from States, p. 3036, and Monthly summaries by States, p. 3040.

PELLAGRA.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			South Carolina:		
Montgomery.....		1	Charleston.....		1
Georgia:			Texas:		
Savannah.....	1		Abilene.....	5	
Valdosta.....	1				
North Carolina:					
Durham.....		1			
Raleigh.....		1			
Winston-Salem.....	1	1			

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

PNEUMONIA (ALL FORMS).

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Maryland:		
Anniston.....	4	.....	Baltimore.....	34	19
Birmingham.....	.....	4	Cumberland.....	1	.....
Mobile.....	.....	4	Massachusetts:		
Arizona:			Beverly.....	1	.....
Tucson.....	.....	2	Boston.....	32	13
Arkansas:			Brookton.....	3	1
Little Rock.....	1	.....	Cambridge.....	1	1
California:			Chelsea.....	2	1
Bakersfield.....	2	1	Clinton.....	1	.....
Long Beach.....	.....	3	Everett.....	2	.....
Los Angeles.....	28	8	Fall River.....	11	9
Oakland.....	.....	5	Haverhill.....	2	1
Pasadena.....	.....	2	Holyoke.....	.....	1
Riverside.....	.....	1	Leominster.....	.....	1
Sacramento.....	8	3	Lowell.....	4	2
San Diego.....	1	.....	Lynn.....	1	.....
San Francisco.....	20	8	Malden.....	2	.....
Stockton.....	3	2	New Bedford.....	5	3
Colorado:			Newburyport.....	1	.....
Denver.....	.....	11	Northampton.....	1	.....
Pueblo.....	.....	3	Quincy.....	2	1
Connecticut:			Salem.....	1	.....
Bridgeport.....	1	.....	Somerville.....	1	.....
Bristol.....	1	.....	Southbridge.....	1	.....
Hartford.....	.....	2	Springfield.....	8	1
Meriden.....	1	.....	Wakefield.....	1	.....
New Britain.....	3	.....	Webster.....	1	.....
New Haven.....	.....	4	Winthrop.....	2	.....
Norwalk.....	.....	1	Worcester.....	.....	10
Delaware:			Michigan:		
Wilmington.....	.....	1	Detroit.....	46	15
District of Columbia:			Flint.....	.....	2
Washington.....	.....	8	Hamtramck.....	.....	1
Georgia:			Highland Park.....	2	1
Atlanta.....	.....	13	Jackson.....	3	1
Augusta.....	1	.....	Kalamazoo.....	2	.....
Macon.....	.....	1	Pontiac.....	.....	1
Savannah.....	.....	2	Minnesota:		
Illinois:			Austin.....	.....	1
Alton.....	.....	2	Minneapolis.....	.....	8
Aurora.....	2	1	St. Paul.....	.....	5
Blue Island.....	.....	1	Missouri:		
Chicago.....	154	33	Independence.....	.....	1
Cicero.....	4	2	Kansas City.....	.....	16
Decatur.....	1	.....	St. Joseph.....	.....	4
East St. Louis.....	1	.....	Montana:		
Forest Park.....	1	.....	Anaconda.....	1	.....
Galesburg.....	4	1	Billings.....	.....	1
Jacksonville.....	1	1	Missoula.....	.....	1
Kewanee.....	1	.....	Nebraska:		
La Salle.....	.....	1	Omaha.....	.....	5
Mattoon.....	.....	1	Nevada:		
Oak Park.....	.....	1	Reno.....	2	.....
Rock Island.....	2	.....	New Jersey:		
Springfield.....	.....	3	Clifton.....	1	.....
Indiana:			East Orange.....	.....	2
Gary.....	.....	3	Elizabeth.....	.....	3
Indianapolis.....	10	.....	Englewood.....	1	.....
La Fayette.....	2	.....	Garfield.....	1	.....
Marion.....	1	.....	Hackensack.....	.....	1
Iowa:			Hoboken.....	.....	1
Council Bluffs.....	.....	1	Irvington.....	3	.....
Kansas:			Jersey City.....	6	.....
Coffeyville.....	1	.....	Kearny.....	.....	1
Topeka.....	.....	1	Montclair.....	2	1
Wichita.....	.....	1	Morristown.....	.....	1
Kentucky:			New Brunswick.....	.....	1
Covington.....	.....	1	Newark.....	33	8
Lexington.....	.....	4	Orange.....	5	1
Louisville.....	.....	9	Passaic.....	.....	1
Owensboro.....	2	.....	Plainfield.....	.....	2
Louisiana:			Summit.....	.....	1
Baton Rouge.....	.....	3	Trenton.....	5	1
New Orleans.....	.....	10	West Hoboken.....	.....	1
Maine:			West Orange.....	1	.....
Auburn.....	.....	1			
Lewiston.....	.....	1			
Portland.....	.....	5			

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

PNEUMONIA (ALL FORMS)—Continued.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
New York:			Ohio—Continued.		
Albany.....	21	.....	Toledo.....		1
Buffalo.....	16	3	Youngstown.....		3
Cohoes.....	2	.....	Oklahoma:		
Elmira.....	1	.....	Oklahoma City.....		2
Glens Falls.....	.....	1	Tulsa.....	1	.....
Hornell.....	1	.....	Oregon:		
Little Falls.....	.....	1	Portland.....		3
Middletown.....	1	.....	Pennsylvania:		
Mount Vernon.....	.....	1	Philadelphia.....	69	46
New York.....	269	127	Rhode Island:		
North Tonawanda.....	1	.....	Pawtucket.....		3
Port Chester.....	1	.....	Providence.....		4
Rochester.....	.....	9	South Carolina:		
Rome.....	4	.....	Charleston.....		6
Saratoga Springs.....	1	.....	Tennessee:		
Schenectady.....	2	1	Memphis.....		3
Syracuse.....	4	1	Nashville.....		5
Troy.....	.....	1	Texas:		
Watertown.....	1	.....	Abilene.....	2	1
White Plains.....	1	.....	Beaumont.....		1
Yonkers.....	5	3	Dallas.....		6
North Carolina:			El Paso.....		4
Charlotte.....	.....	2	Houston.....		3
Durham.....	.....	1	Waco.....		1
Greensboro.....	.....	1	Utah:		
Raleigh.....	.....	1	Salt Lake City.....		3
Salisbury.....	.....	1	Virginia:		
Wilmington.....	2	1	Alexandria.....	1	.....
Ohio:			Lynchburg.....		2
Akron.....	4	.....	Norfolk.....		4
Canton.....	.....	2	Portsmouth.....		4
Chillicothe.....	.....	1	Richmond.....		2
Cincinnati.....	.....	11	Roanoke.....	2	1
Cleveland.....	28	.....	West Virginia:		
Columbus.....	.....	10	Bluefield.....		1
Dayton.....	1	.....	Huntington.....		5
Elyria.....	.....	1	Martinsburg.....		1
Hamilton.....	.....	3	Wheeling.....		2
Ironton.....	.....	2	Wisconsin:		
Mansfield.....	2	1	Beloit.....		1
Newark.....	.....	1	Milwaukee.....	11	.....
Niles.....	.....	1	Oshkosh.....		1
Salem.....	.....	1	Racine.....		1
Springfield.....	.....	1			

POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Nov. 19, 1921.		City.	Median for previous years.	Week ended Nov. 19, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Colorado:				New Jersey:			
Denver.....	0	.....	1	East Orange.....	0	1	.....
Connecticut:				New York:			
New Haven.....	0	1	.....	New York.....	2	5	2
Illinois:				White Plains.....		1	.....
Chicago.....	0	1	.....	Ohio:			
Galesburg.....	0	1	.....	Cincinnati.....	0	1	.....
Iowa:				Toledo.....	0	1	.....
Muscatine.....	0	1	.....	Oregon:			
Kansas:				Portland.....	0	1	.....
Topeka.....	0	.....	1	Pennsylvania:			
Maryland:				Philadelphia.....	0	2	2
Baltimore.....	0	2	.....	Texas:			
Michigan:				Houston.....	0	.....	1
Flint.....	0	1	.....	Washington:			
Minnesota:				Tacoma.....	0	1	.....
St. Paul.....	0	1	.....			
Missouri:							
Kansas City.....	0	.....	1				

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

RABIES IN MAN.

City.	Cases.	Deaths.
New York:		
New York		1

SCARLET FEVER.

See p. 3047; also Telegraphic weekly reports from States, p. 3036, and Monthly summaries by States, p. 3040.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete, the median is that for the number of years for which information is available.

City.	Median for previous years.	Week ended Nov. 19, 1921.		City.	Median for previous years.	Week ended Nov. 19, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Montana:			
Montgomery	0	1		Great Falls	0	5	
Arkansas:				New York:			
Little Rock	0	1		New York	0	1	
California:				North Dakota:			
Bakersfield	0	14		Fargo	1	1	
Oakland	0	1		Grand Forks	10	1	
San Francisco	0	2		Ohio:			
Colorado:				Cincinnati	0	2	
Denver	12	7	2	Dayton	0	2	
Illinois:				Fremont	0	9	
Centralia	0	4		Sandusky	0	1	
Chicago	0	2		Oklahoma:			
Elgin	0	1		Oklahoma City	1	1	
Mattoon	0	1		Oregon:			
Indiana:				Portland	3	12	
Bloomington	0	1		Pennsylvania:			
Gary	0	5		Coatesville	0	1	
Marion	0	1		Punxsutawney		1	
Terre Haute	0	1		Tennessee:			
Iowa:				Chattanooga	0	1	
Muscatine	0	3		Utah:			
Waterloo	0	1		Salt Lake City	2	13	
Kansas:				Washington:			
Hutchinson	0	13		Aberdeen	2	7	
Leavenworth	0	2		Seattle	3	1	
Topeka	0	2		Spokane	13	4	
Wichita	0	1		Tacoma	0	16	
Michigan:				Walla Walla	0	13	
Detroit	3	1		Yakima	0	1	
Minnesota:				West Virginia:			
Austin		1		Bluefield	0	1	
Duluth	0	2		Wisconsin:			
Hibbing	0	2		Milwaukee	9	1	
Minneapolis	7	2		Superior	0	1	
St. Paul	10	10		West Allis		2	
Missouri:							
Independence	0	3					
Kansas City	1	59	22				

TETANUS.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alabama:			Maryland:		
Birmingham	1	1	Baltimore		1
California:			Michigan:		
San Francisco	1		Detroit	1	1
Georgia:			Missouri:		
Savannah	2	2	Springfield		1
Illinois:			New York:		
Chicago	1		Buffalo		1

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

TUBERCULOSIS.

See p. 3047; also Telegraphic weekly reports from States, p. 3036.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. In instances in which data for the full six years are incomplete the median is that for the number of years for which information is available.

City.	Median for pre- vious years.	Week ended Nov. 19, 1921.		City.	Median for pre- vious years.	Week ended Nov. 19, 1921.	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				New Jersey—Continued.			
Birmingham.....	1	1	.....	Paterson.....	0	2	.....
Mobile.....	0	1	.....	Trenton.....	0	1	.....
Arkansas:				New York:			
Fort Smith.....	2	1	.....	Albany.....	3	1	.....
North Little Rock.....	0	1	.....	Buffalo.....	1	4	.....
California:				Elmira.....	0	2	.....
Los Angeles.....	3	1	.....	Mount Vernon.....	0	3	.....
Oakland.....	1	1	.....	New York.....	26	14	3
Sacramento.....	0	3	.....	Rochester.....	2	1	.....
San Francisco.....	6	1	1	Syracuse.....	0	.....	1
Santa Ana.....	0	1	.....	Watertown.....	0	1	.....
Colorado:				North Carolina:			
Colorado Springs.....	0	2	.....	Durham.....	0	3	.....
Connecticut:				Wilmington.....	0	1	.....
Greenwich.....	0	1	.....	Ohio:			
New Haven.....	1	1	1	Bucyrus.....	.....	1	.....
Delaware:				Cincinnati.....	1	1	.....
Wilmington.....	0	2	.....	Cleveland.....	3	5	.....
Georgia:				Columbus.....	1	2	.....
La Grange.....	.....	1	.....	Dayton.....	1	1	.....
Macon.....	0	3	3	Kenmore.....	.....	1	.....
Rome.....	0	2	.....	Lima.....	1	1	1
Savannah.....	0	2	.....	Marion.....	0	1	.....
Illinois:				Toledo.....	1	22	.....
Aurora.....	0	1	.....	Youngstown.....	0	2	2
Bloomington.....	0	1	.....	Oklahoma:			
Chicago.....	13	4	1	Oklahoma City.....	1	1	.....
Cicero.....	.....	1	.....	Oregon:			
Decatur.....	0	1	.....	Portland.....	1	2	1
Galesburg.....	0	1	.....	Pennsylvania:			
Jacksonville.....	0	1	.....	Allentown.....	1	1	.....
Mattoon.....	1	1	.....	Boylehem.....	0	5	.....
Indiana:				Butler.....	0	2	.....
Bloomington.....	0	.....	1	Chester.....	0	1	.....
Indianapolis.....	1	.....	1	Erie.....	0	1	.....
La Fayette.....	0	1	.....	Meadville.....	0	3	.....
Marion.....	0	1	.....	Philadelphia.....	8	2	1
South Bend.....	1	1	.....	Swissvale.....	.....	1	.....
Kansas:				Woodlawn.....	.....	1	.....
Wichita.....	0	.....	1	York.....	0	1	.....
Kentucky:				Rhode Island:			
Louisville.....	2	1	.....	Pawtucket.....	0	1	.....
Louisiana:				South Carolina:			
New Orleans.....	5	1	1	Charleston.....	2	.....	1
Maine:				Tennessee:			
Lewiston.....	1	1	.....	Memphis.....	2	1	1
Maryland:				Nashville.....	1	2	.....
Baltimore.....	6	2	.....	Texas:			
Cumberland.....	1	1	.....	Abilene.....	0	1	.....
Massachusetts:				El Paso.....	1	4	.....
Boston.....	3	3	1	Fort Worth.....	2	1	.....
Danvers.....	0	1	.....	Galveston.....	0	1	.....
Fall River.....	3	2	.....	Waco.....	0	1	.....
Webster.....	0	1	.....	Virginia:			
Michigan:				Alexandria.....	0	1	.....
Ann Arbor.....	0	2	.....	Danville.....	0	1	.....
Detroit.....	7	5	.....	Norfolk.....	0	1	.....
Flint.....	2	1	.....	Richmond.....	1	1	.....
Jackson.....	0	1	.....	Washington:			
Missouri:				Seattle.....	1	2	.....
Kansas City.....	2	3	1	West Virginia:			
St. Louis.....	9	4	.....	Moundsville.....	0	1	.....
New Jersey:				Parkersburg.....	0	.....	1
Atlantic City.....	1	1	.....	Wisconsin:			
East Orange.....	0	1	.....	Eau Claire.....	0	1	.....
Jersey City.....	0	1	.....	Milwaukee.....	0	1	.....

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston.....	17,734		4						1	
Birmingham.....	178,270	46	17				5		6	4
Mobile.....	60,151	26	2							4
Montgomery.....	43,464	14	2		1				2	
Tuscaloosa.....	11,906		2							
Arizona:										
Tucson.....	20,293	17		3						6
Arkansas:										
Fort Smith.....	28,811	4			1		3			
Hot Springs.....	11,606	5								
Little Rock.....	64,997		2				6		1	
North Little Rock.....	14,048		1							
California:										
Alameda.....	28,806	4					3			
Bakersfield.....	18,638	4	1						1	
Eureka.....	12,928	7	1				1			
Long Beach.....	36,532	11	5		2					
Los Angeles.....	578,673	182	68		6		31	2	69	20
Oakland.....	276,361	62	20	1	1		3			2
Pasadena.....	45,354	9	6						5	1
Richmond.....	16,843	4								
Riverside.....	19,341	5	1		1				1	2
Sacramento.....	66,867	36	14		1		3		1	1
San Diego.....	74,683	24	10				6		1	4
San Francisco.....	508,410	118	58	1	1		8		20	10
Santa Ana.....	15,456	4	2				1			
Santa Barbara.....	19,441	3								2
Stockton.....	40,296	14	18				14			
Vallejo.....	21,107	2	4				1			
Colorado:										
Colorado Springs.....	30,105	5	2				3		20	1
Denver.....	226,399	75	29				10			10
Pueblo.....	42,908	14	6				6			1
Connecticut:										
Bridgeport.....	143,533	28	12	1	1		12	1	6	3
Bristol.....	20,620	4	1							
Derby.....	11,233	1					1		1	
Fairfield (town).....	11,475		2							
Greenwich (town).....	22,123						2			
Hartford.....	138,033	40	18	1	2		7		3	1
Manchester (town).....	18,370	3	1				1			
Meriden (city).....	26,842		2							
Milford (town).....	10,193	1	5						1	1
New Britain.....	59,316	11	2				5			
New Haven.....	162,519	38	8		6		4		8	4
New London.....	25,688	10	1		1		3		1	
Norwalk.....	27,706	6								
Norwich (town).....	26,685	4	3	1			4			
Delaware:										
Wilmington.....	110,168	14	1		1		24			1
District of Columbia:										
Washington.....	487,571	125	38	1	3		24		24	6
Georgia:										
Atlanta.....	200,616	60			15		7			2
Augusta.....	52,548				1		4		1	
Brunswick.....	14,413	0			1					
La Grange.....	17,038		1				2			
Macon.....	54,995	18	8		1		4			
Rome.....	13,252		3				1			1
Savannah.....	83,252	43	5	1	1		6			
Valdosta.....	10,785	3	2							
Idaho:										
Boise.....	21,393	3	1		1		5			
Pocatello.....	15,001	2	10							
Illinois:										
Alton.....	24,682	7	1				3			
Aurora.....	36,397	13	9		1		2		1	
Bine Island.....	11,424	3	20							
Centralia.....	12,491	1								
Chicago.....	2,707,705	557	248	16	24		141	6	252	48
Cicero.....	44,995	8	19		1		4			
Decatur.....	43,818	8	13	1			3		7	
East St. Louis.....	66,740	10	7				3			

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

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

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Elgin.....	27,454	4	2							
Evanston.....	37,215	5	7				2			
Forest Park.....	10,768	1	2							
Galesburg.....	23,534	4	6							
Jacksonville.....	15,713	16								2
Kewanee.....	16,026	3	1		2		2			
La Salle.....	13,050	6	2	1	1					
Mattoon.....	13,552	2	17				2			
Oak Park.....	39,830	7	8		1				2	
Pekin.....	12,086		8				5			
Peoria.....	76,121	18	4				7	1		1
Rockford.....	65,651	10	7		1		10	1		
Rock Island.....	35,177	10					2		1	2
Springfield.....	59,183	23	6				1	1		
Indiana:										
Bloomington.....	11,595	6	3				1			
Crawfordsville.....	10,139	4							1	
Eash Chicago.....	35,967	7		1						
Elkhart.....	24,277	4	2	1			1		1	
Frankfort.....	11,585	5					2		1	1
Gary.....	55,378	16	21				2			2
Hammond.....	36,004	9	10	1			8			
Huntington.....	14,000	2	2				2			
Indianapolis.....	314,194	68	48	2	8		14	1	8	1
Kokomo.....	30,067	7			1		2			
La Fayette.....	22,496	8	2		1		3	1		
Logansport.....	21,626	7	2	1						
Marion.....	23,747	10	8	1			4			
Mishawaka.....	15,195	2	3				1		1	
Muncie.....	36,624	9	4							1
Richmond.....	26,765	4					1			
South Bend.....	70,983	7	3						9	
Terre Haute.....	66,083	17	26	2			2		1	
Iowa:										
Burlington.....	24,057		1							
Cedar Rapids.....	45,566		3				2			
Council Bluffs.....	36,162	5	7				1			
Davenport.....	56,727		1				1			
Dubuque.....	39,141		3				1			
Marshalltown.....	15,731		1				3			
Mason City.....	20,065	4					1			1
Muscatine.....	16,068	10						1		
Ottumwa.....	23,003		2				4			
Sioux City.....	71,227	10	10				4			
Waterloo.....	36,230		4				2			
Kansas:										
Atchison.....	12,630	1	4							
Coffeyville.....	13,452	2	8				1		12	
Hutchinson.....	23,298		9				1			
Lawrence.....	12,456	2	1		1		2		4	
Leavenworth.....	16,912		6				2			
Parsons.....	16,028	5	1				2			
Salina.....	15,065	1	3							
Topeka.....	50,022	14	60	1			1			
Wichita.....	72,128	20	28				31	2	3	
Kentucky:										
Covington.....	57,121	12	5				1	1	1	1
Lexington.....	41,534	20	4		1		1		1	2
Louisville.....	234,891	59	52	3	21		3		11	3
Owensboro.....	17,424		16						2	
Paducah.....	24,735		2							
Louisiana:										
Baton Rouge.....	21,782	12	2				1		1	1
Monroe.....	12,675	2								
New Orleans.....	387,219	132	13				8		17	11
Maine:										
Auburn.....	16,985	5	1				1			
Bath.....	14,731	8								
Biddeford.....	18,008	9								3
Lewiston.....	31,791	6	2				1			
Portland.....	69,272	31	10				2			2
Sanford.....	10,691	0								
Waterville.....	13,351		2							

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

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Maryland:										
Baltimore.....	733,826	201	53	2	32	.....	36	1	24	16
Cumberland.....	29,837	6	2				1		2	
Massachusetts:										
Adams.....	12,967	2					2			
Amesbury.....	10,036	0					1			
Arlington.....	18,665	2	11	1			1			
Attleboro.....	19,731	6								1
Bellmont.....	10,749	1	1						2	
Beverly.....	22,561	2	1							
Boston.....	748,080	203	74	1	54		38		55	13
Braintree.....	10,580	1							1	
Brookton.....	66,138	23	10	1			3			
Brookline.....	37,748	7	2				2		1	
Cambridge.....	106,694	21	5		1		3		2	1
Chelsea.....	45,184	13		1	1				5	
Clinton.....	12,978	4								
Danvers.....	11,108		2				1			
Everett.....	40,120	4	5		1		4			
Fall River.....	120,485	39	6						6	1
Framingham.....	17,033	1								
Gardner.....	16,971	5					2			1
Greenfield.....	15,462	4					4		1	
Haverhill.....	53,384	11	5				1			
Holyoke.....	60,203	14					1		1	2
Leominster.....	19,744	6								
Lowell.....	112,479	23	7	1	1		2			2
Lynn.....	99,146	28	10		1		1		7	5
Malden.....	49,103	18	8	1			5		1	1
Medford.....	39,033	1			12				1	1
Melrose.....	18,204	4	4							1
Methuen.....	15,189	5					1			
New Bedford.....	121,217	29	11	1			5			3
Newburyport.....	15,618		1				2			
Newton.....	46,054	7	7	1			3			
Northampton.....	21,951	15	4						2	
Norwood.....	12,627	2					1			
Pittsfield.....	41,751	16	5				7		3	
Plymouth.....	13,045	4								
Quincy.....	47,876	9	10	1	2		4		3	
Salem.....	42,529	6	2				2		1	
Saugus.....	10,874	2					1			
Somerville.....	93,091	15	7		1		1			
Southbridge.....	14,245	5					2			
Springfield.....	129,563	28	18	1			6		4	2
Taunton.....	37,137	6	1				2		1	1
Wakefield.....	13,025	4	4				2		1	2
Watertown.....	21,457	2	1		3		1		2	
Webster.....	13,258	1							1	
West Springfield.....	13,443	0								
Westfield.....	18,604	6								
Winthrop.....	15,455	1			1				1	1
Woburn.....	16,574	0								
Worcester.....	179,754	52	7		2		6		4	4
Michigan:										
Ann Arbor.....	19,516	11	5				1			
Battle Creek.....	36,164		8				1			
Benton Harbor.....	12,233	2	1				2			
Detroit.....	993,739	205	125	11	36	1	56	1	26	1
Flint.....	91,599	19	17	2	1		26			
Grand Rapids.....	127,634	83	10		2		14		6	
Hamtramck.....	48,615	9	2				1			2
Highland Park.....	46,499	7			3		1			
Ironwood.....	15,739	3								
Jackson.....	48,374	10	5	1			10			
Kalamazoo.....	48,858	26	9	1	1		2		1	2
Marquette.....	12,718	4								1
Pontiac.....	34,273	8	26				10			1
Port Huron.....	25,944	6	1							1
Minnesota:										
Austin.....	10,118	3								
Duluth.....	98,917	14	6		1		5		5	2
Hibbing.....	15,089	1					1			
Mankato.....	12,499								1	

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

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

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Minnesota—Continued.										
Minneapolis.....	380,582	83	57	2	7		58		26	5
Rochester.....	13,722	10								
St. Cloud.....	15,873		5				3			
St. Paul.....	234,595	67	16	1			28		6	9
Winona.....	19,143		1				1			
Missouri:										
Independence.....	11,686	7	7				4			
Joplin.....	29,855		1							
Kansas City.....	324,410	125	57	4	1		14		1	4
St. Joseph.....	77,939	35	5	1			10			3
St. Louis.....	772,897	181	99	2	1		21		36	10
Springfield.....	39,631	14								1
Montana:										
Anaconda.....	11,668						1		1	
Billings.....	15,100	2	7				4		1	
Great Falls.....	24,121	5	7						1	
Missoula.....	12,668	6							1	
Nebraska:										
Lincoln.....	54,934	10	2		3		2		2	1
Omaha.....	191,601	49	18	3	1		5			2
Nevada:										
Reno.....	12,016	2					1		1	1
New Hampshire:										
Belleville.....	16,104	3					1		3	
Concord.....	22,167	12	1				5			
Dover.....	13,029	5								
Keene.....	11,210	1					1			
Nashua.....	28,379	5	3				1			
Portsmouth.....	13,569				1				1	
New Jersey:										
Asbury Park.....	12,400	1								1
Atlantic City.....	50,682	9	1				2			
Bayonne.....	76,754		1				2		2	
Belleville.....	15,660		1							
Bloomfield.....	22,019	1			5		3		2	
Clifton.....	26,470		5							
East Orange.....	50,710	12	4		1		3		1	
Elizabeth.....	95,682		22		3	1	8			1
Englewood.....	11,627		1				1		2	
Garfield.....	19,381	2	2				2			
Gloucester City.....	12,162		4							
Hackensack.....	17,667	5					1			
Harrison.....	15,721		1						1	
Hoboken.....	68,166	17					9		1	1
Irvington.....	25,480		1				2		1	
Jersey City.....	297,664		9		7		10		13	
Kearny.....	26,724	6	1		1		1		1	1
Montclair.....	28,810	2			1		2			
Morristown.....	12,548	7					1			
New Brunswick.....	32,779	10								1
Newark.....	414,216	77	21		38	1	38		19	6
Orange.....	33,268	9	1	1			3		1	
Passaic.....	63,624	20	4				8	1		2
Paterson.....	135,866		5				1		17	
Phillipsburg.....	16,923	4								
Plainfield.....	27,700	7	3		1		2			
Summit.....	10,174	3								
Trenton.....	119,289	32	14	1			2		3	1
Union.....	20,651		1				3			
West Hoboken.....	40,068	4	1					1	1	
West New York.....	29,926	3	1				1		1	
West Orange.....	15,573	2	1						2	
New Mexico:										
Albuquerque.....	15,157	9							2	3
New York:										
Albany.....	113,344		18				1		6	
Auburn.....	36,192	11	9	2						
Buffalo.....	506,775	116	37		3		15		15	9
Cohoes.....	22,987	8	2				3			1
Elmira.....	45,305	19	10		6		3		4	
Geneva.....	14,648	4								
Glens Falls.....	16,638	4							1	

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

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

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New York—Continued.										
Hornell.....	15,025	3					2			
Ithaca.....	17,004	4	20	1			2			
Jamestown.....	38,917	10	3		4		2			
Little Falls.....	13,029	1								
Lockport.....	21,308	5	3				4		2	
Middletown.....	18,420		1				1			1
Mount Vernon.....	42,736	14	1		1		9			1
Newburgh.....	30,366	6	2						1	
New York.....	5,621,151	1,229	220	15	93	2	190	2	1,266	198
Niagara Falls.....	50,760	12	6				14		1	
North Tonawanda.....	15,482	4	4							
Plattsburg.....	10,909	4								
Port Chester.....	16,573	5					5	1		
Rochester.....	265,750	73	34	2	1		8	1	8	2
Rome.....	26,941	7	2							
Saratoga Springs.....	13,181	5								1
Schenectady.....	88,723	19	4		1		3		2	1
Syracuse.....	171,717	35	58	4	3		22		3	1
Troy.....	72,013	24	1				2		2	1
Watertown.....	31,285	10	1						1	1
White Plains.....	21,031	8			1					
Yonkers.....	160,226	17					21			1
North Carolina:										
Charlotte.....	46,336	16	9				2		1	3
Durham.....	21,779	7	1				1		1	1
Greensboro.....	19,861	7								1
Raleigh.....	24,416	13	2							
Rocky Mount.....	12,742	5								
Salisbury.....	13,884	4								
Wilmington.....	33,372	11	1		2		2			
Winston-Salem.....	48,395	11	2				5		2	
North Dakota:										
Fargo.....	21,961	0	1				4			
Grand Forks.....	14,010		4							
Ohio:										
Akron.....	208,435	33	21		2		23		19	
Alliance.....	21,603	3	2	1						
Barberton.....	18,511	1	4						3	1
Bucyrus.....	10,425	2	1							
Canton.....	87,091	21	30				6		1	1
Chillicothe.....	15,531	6	4							1
Cincinnati.....	401,247	114	44	3	6		20		12	16
Cleveland.....	796,836		64		16		60			
Columbus.....	237,031	85	52		1		7	1	3	3
Coshocton.....	10,847						2			
Dayton.....	152,559	40	10				2		2	
East Cleveland.....	27,292	6	1				1			
Elyria.....	20,479	6					2			
Findlay.....	17,021	5								
Fremont.....	12,468	1	2				1			
Hamilton.....	39,675	13	21				2			
Ironton.....	14,007	11	2				1			1
Kennmore.....	12,683		5							
Lakewood.....	41,732	10	3				9			
Lancaster.....	14,703	6	4	1			4			
Lima.....	41,306	10	19	1	1		3			1
Lorain.....	37,285		4		2		11		2	
Mansfield.....	27,924	7							1	
Marion.....	27,801	2	18	1			4	1		
Middletown.....	23,594	3	5						1	
Newark.....	28,718	11	29	2	1		8			
New Philadelphia.....	10,718		4							
Niles.....	13,080	4								1
Norwood.....	24,966	5	1							
Piqua.....	15,044	2					1		1	
Salem.....	10,305	6						1		
Sandusky.....	22,897	2					2			1
Springfield.....	60,840	9	38	1			3			1
Steubenville.....	28,503	12	2							
Tiffin.....	14,375	4								
Toledo.....	243,109	61	49	1	1		10		1	5
Youngstown.....	132,358		4		1		5			3
Zanesville.....	29,569	5	10	1			1			

1 Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

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

City.	Population January 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Oklahoma:										
Oklahoma City	91,258	25	8	2			11			2
Tulsa	72,075		8				2			
Oregon:										
Portland	258,288	65	22		3		6			2
Pennsylvania:										
Allentown	73,502		10				4			
Altoona	60,331		3				3			
Berwick	12,181		1				1			
Bethlehem	50,358		9				5			
Braddock	20,879		3				4			
Bradford	15,525						1			
Bristol	10,273		1							
Butler	23,778		1				1			
Canonsburg	10,032						7			
Carnegie	11,516						1			
Charlertoi	11,516		1				1			
Chester	58,030		3				2			
Coatesville	14,615		1							
Dickson City	11,049		2							
Dubois	18,681		2							
Duquesne	19,011		1		1		10			
Erie	93,372		8				1		3	
Farrell	15,586		1		14					
Greensburg	15,033		2		1		1			
Harrisburg	75,917		1		1		2			
Hazleton	32,277		2							
Jeannette	10,627						1			
Johnstown	67,327		6		8		3		2	
Lancaster	53,150		5				2			
McKeesport	45,975		2		5		2			
McKees Rocks	16,713		6				1		1	
Mahanoy City	15,599		1							
Meadville	14,568						2			
Nanticoke	22,614		3							
New Castle	44,938		1				9		2	
New Kensington	11,967				1					
Norristown	32,319		1							
North Braddock	14,928						5			
Oil City	21,274		2		1		2		1	
Olyphant	10,236		1						1	
Philadelphia	1,823,158	449	62	6			143	1	95	44
Phoenixville	10,494		1							
Pittsburgh	588,193		43		11		51		18	
Pittston	18,497		1				2			
Plymouth	16,500		2							
Pottstown	17,431		3				12			
Pottsville	21,876		3							
Punxsutawney	10,311						1			
Reading	107,784		8				3			
Scranton	137,783		4				3		6	
Shamokin	21,204		1				1			
Steelton	13,428				1					
Swissvale	10,906								1	
Tamaqua	12,363		1				3			
Uniontown	15,692		3				1			
Warren	14,256		5				1			
Washington	21,480		3				1		2	
West Chester	11,717						2			
Wilkes-Barre	73,533		9		1		2		2	
Wilkesburg	24,403		2							
Williamsport	36,188		1		1		5			
Woodlawn	12,495		1							
York	47,512		6						1	
Rhode Island:										
Cranston	29,407	5		1						
East Providence (town)	21,796		2							
Newport	30,255	7	1				4			
Pawtucket	64,248	18	2	1						
Providence	237,595	63	13		1		2			5
South Carolina:										
Charleston	67,957	25	6				7			3
Columbia	37,524		5				5		1	

CITY REPORTS FOR WEEK ENDED NOV. 19, 1921—Continued.

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

City.	Popula- tion Janu- ary 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
South Dakota:										
Sioux Falls.....	25,176	5	1		1		1		1	
Tennessee:										
Chattanooga.....	57,895		6	1			5			
Memphis.....	162,351	45	22				10		5	4
Nashville.....	118,342	52	14		3		4		2	3
Texas:										
Abilene.....	10,274	6	8				2		12	
Austin.....	34,676	5								1
Beaumont.....	40,422	4					1		1	
Corpus Christi.....	10,522	3								
Dallas.....	158,976	43	10	1			6		1	1
El Paso.....	77,543	28	10				16			9
Fort Worth.....	106,482	26	2						2	
Galveston.....	44,255	15	1							2
Houston.....	138,076	40	21	1						
Waco.....	38,500	18	1				1		1	
Utah:										
Salt Lake City.....	118,110	21	3		1		16		1	1
Vermont:										
Barre.....	10,008						4			
Burlington.....	22,779	7	2				2			
Rutland.....	14,954	5								
Virginia:										
Alexandria.....	18,060	3					1			1
Danville.....	21,530	10	3		10		2			1
Lynchburg.....	29,956	9	7				1		2	1
Norfolk.....	115,777		14				3		3	1
Petersburg.....	31,002	11	2		1		1		1	1
Portsmouth.....	54,367	15	3				4			2
Richmond.....	171,062	32	32	1	1		9		9	1
Roanoke.....	50,842	13	17	1	1		6			2
Washington:										
Seattle.....	315,652		7		1		5		12	
Spokane.....	104,437		6				12			
Tacoma.....	96,935		3		1		1		7	
Walla Walla.....	15,563		3				5			
Yakima.....	18,539		1							
West Virginia:										
Bluefield.....	15,252	2	8							
Charleston.....	39,606	7	8				3			1
Fairmont.....	17,851		11				5			
Huntington.....	50,177	17	2	1			2			
Martinsburg.....	12,515	2			3			1		
Morgantown.....	12,127						1		2	
Moundsville.....	10,669	3					1			
Parkersburg.....	20,050	5	4				2			
Wheeling.....	54,322	15	9				6		1	2
Wisconsin:										
Appleton.....	19,561		4				2			
Ashland.....	11,334		1							
Beloit.....	21,234	6	4				1		3	1
Eau Claire.....	20,880		3		1		4			
Fond du Lac.....	23,427	2								
Green Bay.....	31,017	6	8				2			
Janesville.....	18,398	3			1					
Kenosha.....	40,472	5	30	1	1		4			
La Crosse.....	30,368		2				1			
Madison.....	38,378	8	17				3		1	
Manitowoc.....	17,563								1	
Marinette.....	13,610		1				3			
Milwaukee.....	457,147		50		1		17		19	
Oshkosh.....	33,162	16	3				1			
Racine.....	58,608	11	12				24		3	2
Sheboygan.....	30,955		6						1	
Stevens Point.....	11,371		1				3			
Superior.....	30,624	11	7				16			
Wausau.....	18,061		1		1					
West Allis.....	12,765		1							
Wyoming:										
Cheyenne.....	13,829	1							2	

FOREIGN AND INSULAR.

CHOLERA ON VESSEL.

Steamship "*van Cloon*"—Medan, Sumatra—From China.

During the week ended October 6, 1921, 12 cases of cholera with 4 deaths were reported at Medan, Sumatra, occurring in Chinese arrived on the steamship *van Cloon* from ports in China.

AUSTRALIA.

Plague—Sydney.

During the period November 30 to December 5, 1921, two cases of plague with one death were reported at Sydney, Australia.

AZORES.

Plague—Fayal—St. Michael.

Plague continues to be reported on the island of St. Michael, Azores. During the three weeks ended November 12, 1921, 24 cases with 18 deaths were reported at Ribeira Grande, a locality situated about nine miles from the port of Ponta Delgada. A total of 63 cases with 30 deaths, all occurring at localities in the vicinity of Ponta Delgada, has been reported for St. Michael Island from August 6 to November 12, 1921. During the week ended September 10, one case was reported at Horta, island of Fayal.

BERMUDA.

Measles epidemic.

An increase in the number of cases of measles was reported in Bermuda during the three weeks ended October 29, 1921, 47 cases being reported for the week ended October 15, 1921, and 70 for the week ended October 22, 1921. On October 29 the disease was declared epidemic.

CHILE.

Epidemic Smallpox—Coronel—Lota.

Epidemic smallpox was reported present in the mining towns of Coronel and Lota, in the vicinity of Concepcion, Chile, during the two weeks ended October 16, 1921.

CUBA.

Communicable Diseases—Habana—Provinces.

Communicable diseases have been notified in Cuba as follows:

Habana.

NOVEMBER 1-10, 1921.

Disease.	New cases.	Deaths.	Remain- ing un- der treat- ment Nov. 10, 1921.
Chicken pox.....	1	.....	12
Icterus, grave.....	.....	.....	21
Leprosy.....	.....	.....	11
Malaria.....	24	.....	242
Smallpox.....	1	.....	41
Typhoid fever.....	10	3	29

¹ From abroad, 1.

⁴ From the interior, 1.

² From abroad.

⁵ From the interior, 19; from abroad, 2.

³ From the interior, 29; from abroad, 3.

NOVEMBER 11-20, 1921.

Diphtheria.....	1	1	1
Icterus, grave.....	.....	.....	11
Leprosy.....	.....	.....	11
Malaria.....	39	1	252
Smallpox.....	.....	.....	21
Typhoid fever.....	4	.....	23

¹ From the interior, 1.

³ From the interior, 1.

² From the interior, 31; from abroad, 4.

⁴ From the interior, 18; from abroad, 3.

Provinces.

Province.	New cases reported, Nov. 1-10, 1921.									
	Cerebrospinal meningitis.	Chicken pox.	Diphtheria.	Infantile tet- anus.	Malaria.	Measles.	Paratyphoid fever.	Poliomyelitis (infantile paralysis.)	Scarlet fever.	Smallpox. Typhoid fe- ver.
Camaguey.....	.....	.....	.....	.....	22	.....	.....	.....	1	70
Habana.....	.....	1	1	.....	24	.....	2	.....	2	17
Matanzas.....	1	.....	.....	1	.....	.....	1	.....	.....	2
Oriente.....	.....	2	.....	1	210	4	1	.....	.....	7
Pinar del Rio.....	.....	.....	.....	1	15	.....	.....	.....	.....	4
Santa Clara.....	.....	.....	7	.....	5	1	6	4	1	6
Total.....	1	3	8	3	276	5	10	4	4	36

HAITI.

Dengue—Port au Prince.¹

Dengue continued to be reported unusually prevalent at Port au Prince, Haiti, from September 25 to November 12, 1921.

¹ Public Health Reports, Oct. 14, 1921, p. 2577.

JAMAICA.**Infectious Disease (Alastrim or Kaffir Pox).**

New cases of alastrim or Kaffir pox in the island of Jamaica have been reported as follows: Week ended November 5, 1921, 68 new cases; week ended November 12, 1921, 17 new cases.

Typhoid Fever—Kingston and Vicinity.

Typhoid fever has been reported in Kingston and vicinity as follows: Week ended November 5, 1921, Kingston, 3 cases, surrounding country, 23 cases; week ended November 12, 1921, Kingston, 2 cases, surrounding country, 27 cases.

JAVA.**Plague—September, 1921.**

Plague was reported present in the six eastern provinces of Java during the month of September, 1921.

MEXICO.**Plague-Infected Rodents—Tampico.**

Five plague-infected rodents were reported found at Tampico, Mexico, during the period November 20 to 26, 1921, making a total of 308 infected rodents found at that place from January 1 to November 26, 1921.

PERU.**Plague—October 3-15, 1921.**

During the two-week period ended October 15, 1921, there were reported in Peru 22 cases of plague with 13 deaths, occurring in the following-named Departments: Ancachs, Arequipa, Cajamarca, Callao-Lima, Lambayeque, Libertad, and Piura.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.**Reports Received During Week Ended Dec. 9, 1921.¹****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
India.....				Aug. 21-Sept. 3, 1921: Deaths, 29,870.
Calcutta.....	Sept. 25-Oct. 8.....	15	14	
Rangoon.....	Oct. 9-15.....	1	1	
Java:				
East Java—				
Surabaya.....	Sept. 25-Oct. 1.....	2	2	
Philippine Islands:				
Manila.....	Oct. 9-15.....	4		
Sumatra:				
Medan.....	Sept. 29-Oct. 6.....	12	4	Chinese arriving on board s. s. van Cloon from Chinese ports.
On vessel:				
Steamship van Cloon.....	Sept. 29-Oct. 6.....	12	4	At Medan, Sumatra, from Chinese ports. Cases among Chinese.

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

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

Reports Received During Week Ended Dec. 9, 1921—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Australia:				
Sydney.....	Nov. 30-Dec. 5....	2	1	
Azores:				
St. Michael Island— Ribeira Grande.....	Oct. 23-Nov. 12....	24	18	
Ceylon:				
Colombo.....	Oct. 9-15.....		1	One plague rodent.
China:				
Amoy.....	Oct. 16-22.....			Present. Also rodent plague.
Egypt:				Jan. 1-Nov. 3, 1921: Cases, 322; deaths, 136.
Cities—				
Alexandria.....	Oct. 21-31.....	3	1	
Suez.....	Oct. 21-Nov. 3....	5	1	
India:				
Karachi.....	Oct. 16-22.....	1	1	
Madras Presidency.....	Oct. 16-22.....	199	121	
Rangoon.....	Oct. 9-15.....	16	14	
Java.....				Sept. 1-30, 1921: Reported present in the six eastern Provinces.
Mesopotamia:				
Bagdad.....	Sept. 1-30.....	1	1	
Mexico:				
Tampico.....				Nov. 20-26, 1921: Five plague-infected rodents found.
Peru.....				Oct. 3-15, 1921: Cases, 22; deaths, 13; occurring in departments as follows: Ancachs, Arequipa, Cajamarca, Callao-Lima, Lambayeque, Libertad, and Piura.
Callao.....	Sept. 1-30.....		4	
Turkey:				
Constantinople.....	Oct. 16-22.....	1	1	July 24-30, 1921: One case; omitted from previous reports.

SMALLPOX.

Brazil:				
Sao Paulo.....	Sept. 26-Oct. 22....		3	
Canada:				
New Brunswick—				
Charlotte County.....	Nov. 13-19.....	1		
St. Stephen.....	Nov. 20-26.....	4		
Madawaska County.....	Nov. 13-19.....	6		
Ontario—				
Montreal.....	Nov. 20-26.....	1		
Ottawa.....	do.....	6		
Saskatchewan—				
Regina.....	Oct. 16-22.....	1		
Chile:				
Antofagasta.....	Sept. 18-24.....	5		
Concepcion.....	Oct. 3-15.....	3		
Coronel.....	do.....	40		Mining town. Epidemic.
Lota.....	Oct. 9-15.....			Do.
Talcahuano.....	Oct. 9-15.....	1		
Valparaiso.....	Oct. 2-8.....		4	
China:				
Amoy.....	Oct. 16-22.....			Present.
Manchuria—				
Harbin.....	Oct. 17-23.....	1		
Mukden.....	Oct. 24-29.....			Do.
Nanking.....	Oct. 16-22.....			Do.
Cuba:				Nov. 1-10, 1910: New cases, 174.
Antilla.....	Nov. 13-19.....	1		
Province—				
Camaguey.....	Nov. 1-10.....	70		
Habana.....	do.....	1		
Oriente.....	do.....	99		
Santa Clara.....	do.....	4		
Dominican Republic:				
San Pedro de Macoris.....	Oct. 30-Nov. 12....	7	1	
Santo Domingo.....	Oct. 20-Nov. 14....	58		In surrounding country.
Great Britain:				
Nottingham.....	Oct. 9-Nov. 5.....	5		
India:				
Calcutta.....	Sept. 25-Oct. 1....	2	1	
Madras.....	Oct. 16-22.....	5	1	

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

Reports Received During Week Ended Dec. 9, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
West Java—				
Buitenzorg.....	Oct. 7-13.....	2	1	
Mr. Cornelis.....	do.....	5	3	
Pandeglang.....	do.....	1	3	
Tangerang.....	do.....	6	1	
Portugal:				
Lisbon.....	Oct. 16-29.....	8	2	
Portuguese East Africa:				
Lourenco Marques.....	Oct. 2-8.....	1		
Spain:				
Barcelona.....	Oct. 20-26.....		1	
Straits Settlements:				
Singapore.....	Oct. 2-8.....	11	2	
Tunis:				
Tunis.....	Oct. 29-Nov. 4.....		1	
Turkey:				
Constantinople.....	Oct. 23-29.....	3		
Union of South Africa:				
Cape Province.....	Oct. 2-15.....			Outbreaks.
Natal.....	do.....			Do.
Southern Rhodesia.....	Oct. 6-12.....	21	3	
Transvaal.....	Oct. 2-15.....			Do.
Johannesburg.....	Sept. 1-30.....	14		

TYPHUS FEVER.

Algeria:				
Algiers.....	Oct. 21-31.....	1		
Asia Minor:				
Smyrna.....	Oct. 23-29.....	2		District.
Chile:				
Concepcion.....	Oct. 3-16.....		3	
Coronel.....	do.....			Present.
Talcahuano.....	Oct. 9-15.....	1	1	
Mesopotamia:				
Bagdad.....	Sept. 1-30.....		3	
Turkey:				
Constantinople.....	Oct. 16-28.....	13		
Union of South Africa:				
Natal.....	Oct. 2-8.....			Do.
Orange Free State.....	do.....			Do.

YELLOW FEVER.

Mexico:				
Cordoba.....	Oct. 2-8.....	1		State of Vera Cruz.
Cullacan.....	do.....	1		State of Sinaloa.
Guadalajara.....	Oct. 1-31.....	1	1	State of Jalisco.
Gutierrez Zamora.....	Oct. 2-8.....	1		State of Vera Cruz. In vicinity, at Santa Rosa ranch; 2 cases.

Reports Received from July 2 to Dec. 2, 1921.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	July 3-Sept. 10.....		15	
Hongkong.....	Aug. 22-Sept. 24.....	40	11	
Shanghai.....	Aug. 1-Oct. 8.....	39	13	In non-Chinese population, Aug. 1-Oct. 16, 1921: Cases among Chinese, 149; bacteriologically verified.
Swatow.....	Aug. 14-20.....	1	1	
Germany:				
East Prussia—				
Königsberg.....	Oct. 10.....	3	1	

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Mar. 6-June 25, 1921: Deaths
Bombay.....	May 1-June 18.....	11	10	75,281. July 3-30, 1921: Deaths,
Do.....	June 26-Sept. 24.....	78	49	46,999. Aug. 14-20, 1921:
Calcutta.....	May 8-June 25.....	567	521	Deaths, 19,033. Aug. 31-Sept.
Do.....	June 26-Sept. 24.....	182	158	13, 1921: Deaths, 46,051.
Karachi.....	July 10-Oct. 8.....	153	137	
Madras.....	May 15-June 25.....	3	2	
Do.....	June 26-Oct. 15.....	14	6	
Rangoon.....	Apr. 24-June 25.....	18	17	
Do.....	June 26-Oct. 1.....	22	15	
Indo-China				Jan. 1-31, 1921: Cases, 80; deaths,
City—				15. May 29-June 12, 1921:
Cholon.....	June 6-12.....	5	4	Cases, 251; deaths, 202.
Saigon.....	May 9-June 12.....	65	44	
Do.....	July 4-Sept. 17.....	105	96	Disseminated in neighboring
Province—				Provinces.
Anam.....	Jan. 1-31.....	42		In January, 1920: No cases.
Cambodia.....	do.....	8	2	January, 1920: Cases, 27; deaths,
				14.
Cochin-China.....	do.....	18	9	January, 1920: Cases, 13; deaths,
				10.
Tonkin.....	do.....	12	4	January, 1920: No cases.
Java:				
West Java—				
Lebak.....	Sept. 9-Oct. 6.....	18	10	
Philippine Islands:				
Manila.....	May 22-June 25.....	4		
Do.....	July 3-Oct. 8.....	43	5	
Province—				
Batangas.....	June 12-18.....	2	1	
Do.....	July 3-23.....	7	3	
Cavite.....	July 10-Aug. 6.....	2	1	
Cebu.....	June 26-July 2.....	1		
Laguna.....	June 19-25.....	1		
Do.....	July 3-9.....	1	1	
Mindoro.....	June 12-18.....	1	1	
Pampanga.....	June 5-11.....	1	1	
Tarlac.....	June 19-25.....	1	1	
Union.....	June 26-Aug. 13.....	3	1	
Poland				Apr. 24-June 18, 1921: Cases, 5;
				deaths, 1.
Baranowice.....	Aug. 18.....			Present.
Bialystok.....	July 25.....			Do.
Pinsk.....	do.....			Do.
Russia				Jan. 1-Aug. 10, 1921: Cases,
Districts—				78,011. City of Moscow, cases,
Astrakan.....	Jan. 1-Aug. 10.....	5,132		289.
Black Sea.....	do.....	3,152		From Jan. 1 to July 13, 1921:
Kazan.....	Jan. 1-July 13.....	434		1,718 cases reported in Kuban
Kharkov.....	do.....	257		Territory.
Kursk.....	Jan. 1-Aug. 10.....	1,227		
Moscow.....	Jan. 1-July 13.....	296		City, 192 cases.
Orel.....	Jan. 1-Aug. 10.....	1,968		
Rjasan.....	Jan. 1-July 13.....	129		
Semara.....	Jan. 1-Aug. 10.....	5,315		
Saratov.....	do.....	7,201		
Simbirsk.....	do.....	1,160		
Tambov.....	do.....	2,561		
Tzaritsyn.....	do.....	3,028		
Ufa.....	do.....	5,196		
Voronezh.....	do.....	3,621		
Petrograd.....	July 6.....	6		
Republics—				
Bashkir.....	Jan. 1-Aug. 10.....	1,038		
Kirghiz.....	do.....	5,687		
Tartar.....	do.....	1,178		
Tchuvash.....	do.....	233		
Rostov-on-Don.....	June 1.....	747		Present on Orenburg-Tashkent
				line, and at Cheljabinsk, Perm,
				Petrovavlosk, Ufa, and in
				Smolensk and Vitebsk districts
				during period under re-
				port.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia—Continued.				
Siberia.....	June 1.....	1,264	.....	Far Eastern Republic.
Territories—				
Azerbeidjan.....	Jan. 1–Aug. 10....	614	.....
Don.....	do.....	2,006	.....
Turkestan.....	do.....	5,583	.....
Ukraine.....	do.....	.....	.....	Very prevalent; reports incom- plete.
Siam:				
Bangkok.....	Apr. 24–June 11...	19	4	
Do.....	June 26–Sept. 17...	7	2	
Straits Settlements:				
Singapore.....	June 12–18.....	1	1	

PLAGUE.

Algeria.....				July 1–31, 1921: Cases, 166; in Annale district.
Algiers.....	Aug. 1–Oct. 10....	2	1	
Annale district.....	May 31–July 3....	71	22	Native district about 140 kilo- meters from Algiers.
Donar Megnine.....	May 31–Aug. 24....	185	97	
Oran.....	Sept. 20–Oct. 20....	1	2	
Asia Minor:				
Smyrna.....	June 19–25.....	1	.....	District.
Do.....	July 3–Oct. 22.....	5	.....	Do.
Australia:				
New South Wales—				
Sydney.....	Sept. 11–Oct. 8....	.....	.....	Dead plague-infected rats found on wharves; 1 rat from vessel from Brisbane. Sept. 19–Oct. 5, 1921: 17 plague rats found in quarantine area. Oct. 26–Nov. 2, 1921: 2 rats found at distance from wharves.
Queensland.....	Sept. 17–24.....	.....	.....	Plague rats found, 28.
Brisbane.....	Aug. 23.....	.....	1	Employee in produce store.
Kelvin Grove.....	Sept. 20.....	.....	1	Office cleaner at Brisbane; 1 plague rat.
Townsville.....	Sept. 21.....	.....	1	2 plague rats found.
Azores:				
Fayal Island—				
Horta.....	Sept. 4–10.....	1	.....
St. Michael Island.....	Aug. 6–12.....	1	1	Oct. 2–22, 1921: Cases, 25; deaths, 13. Occurring in vicinity of Ponta Delgada, at Relva, Ri- beira Grande, and Santo Anto- nio.
Capelas.....	Aug. 6–Oct. 8....	38	12	
Ribeira Grande.....				
Brazil:				
Bahia.....	May 15–June 18....	3	3	
Do.....	July 31–Oct. 1....	4	3	
Maranhao.....	June 28.....	1	1	
Pernambuco.....	Aug. 22–28.....	1	1	
Pindobassu.....				Locality 200 miles west of Bahia; plague reported epidemic dur- ing August, 1921, with 60 deaths. Sept. 1–30: Epidemic. Epidemic.
Villa Nova.....	Sept. 11–Oct. 1....	.....	.....
British East Africa:				
Kenya Colony—				
Kisumu.....	Apr. 24–May 21....	.....	.....	Present.
Do.....	June 26–Sept. 24....	.....	.....	Present in vicinity.
Uganda.....	Mar. 1–June 30....	133	101	Reports of native chiefs show 2,709 deaths during same pe- riod.
Do.....	July 1–31.....	41	30	Reports of inspectors, deaths, 230; reports of chiefs, deaths, 1,482.
Cape Verde Islands:				
St. Vincent.....	Aug. 12–18.....	6	3	
Ceylon:				
Columbo.....	May 8–June 11....	2	2	
Do.....	June 26–Oct. 1....	7	7	June 26–Oct. 8, 1921: Plague rats; 10.
Chile:				
Antofagasta.....				
Iquique.....	Sept. 17.....	1	.....	Oct. 23–29, 1921: 1 plague rat found.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	May 15-June 25....	7	2	
Do.....	July 3-Oct. 15....		42	Sept. 11-Oct. 15: Present; also rodent plague.
Foochow.....	May 15-21.....			Present.
Hongkong.....	Apr. 21-June 25....	81	59	May 1-7, 1921: Plague rats found.
Do.....	June 26-Oct. 1....	41	30	
Manchuria—				
Harbin.....	May 3-22.....	46		
Ecuador:				
Guayaquil.....	May 1-June 15....	10	1	
Do.....	July 16-Sept. 30...	9	4	Plague rats found: Aug. 1-Sept. 30, 1921, 133.
Egypt:				
City—				Jan. 1-Oct. 20, 1921: Cases, 312; deaths, 131.
Alexandria.....	May 21-June 24....	10	3	
Do.....	July 1-Oct. 20....	52	13	
Port Said.....	June 16-27.....	4	2	
Do.....	July 1-Sept. 30....	18	7	
Suez.....	May 20-June 30....	9	5	
Do.....	July 1-Oct. 19....	8	6	
Province—				
Assiout.....	May 21-June 16....	9	7	
Do.....	July 30.....	1		
Beni-Souef.....	July 10.....	1		
Gharbieh.....	June 2-25.....	7		
Do.....	July 9-Sept. 1....	9		
Girgeh.....	July 6-13.....	5	4	
Minieh.....	May 28-June 10....	2	1	
Do.....	July 13-Aug. 18....	7	3	
Greece:				
Piræus.....	Sept. 23.....	3		
Hawaii:				
Honokaa.....				Plague rat found Sept. 8, 1921.
Kalapa.....	July 15-19.....	1	1	
Pasauhau.....	May 21.....	1		
India:				
Bombay.....	May 1-June 25....	287	201	May 1-June 25, 1921: Cases, 2,093; deaths, 1,624. June 26-Sept. 3, 1921: Cases, 3,570; deaths, 2,572.
Do.....	June 26-Oct. 1....	82	58	
Calcutta.....	May 8-June 18....	11	11	
Do.....	July 24-Aug. 6....	23	21	
Central Provinces.....	Aug. 14-20.....	27	16	
Karachi.....	May 8-June 25....	18	14	
Do.....	June 26-Oct. 1....	5	5	
Madras.....	Aug. 20-27.....	1	1	
Madras Presidency.....	May 22-June 25....	112	72	
Do.....	June 26-Oct. 15....	1,518	999	
Rangoon.....	Apr. 21-June 25....	162	142	
Do.....	June 26-Oct. 8....	550	473	
Indo-China:				
Saigon.....	May 23-June 12....	4	1	Jan. 1-31, 1921: Cases, 57; deaths, 51.
Do.....	July 10-Oct. 1....	23	16	Isolated cases in vicinity of Saigon. Sept. 11-24: Plague rats found, 4.
Italy:				
Catania.....	Oct. 21.....	1		
Naples.....	Sept. 4-Oct. 7....	5		2 were workers in mill; plague-infected rat found on premises.
Java:				
East Java—				
Surabaya.....	July 10-Sept. 24....	16	14	
Madagascar:				
Tananarive.....	June 20-July 24....	49	46	Pneumonia.
Mauritius:				
Port Louis.....	Aug. 24.....			Present.
Mesopotamia:				
Bagdad.....	Apr. 1-May 31.....	32	35	
Do.....	July 1-31.....	1	1	
Mexico:				
Ciudad Victoria.....	June 7.....	1		In State of Tamaulipas. Case confirmed June 20, 1921.
Progreso.....				Plague rat reported found Sept. 10, 1921.
Tampico.....	June 11-30.....	36		
Do.....	July 1-Aug. 21....	21	8	Infected rodents found July 1-Nov. 19, 1921, 192. Total, Jan. 1 to Nov. 19, 1921, 303.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Morocco:				
Spanish Zone.....				Reported present in epidemic form Sept. 29, 1921.
Peru.....				Mar. 1-Apr. 30, 1921: Cases, 119; deaths, 64. June 1-30, 1921: Cases, 14; deaths, 10. July 1-15, 1921: Cases, 9; deaths, 3. Sept. 1-30, 1921: Cases, 45; deaths, 22.
Department—				
Ancachs.....	Apr. 1-30.....	4	1	At Huarmey.
Arequipa.....	Mar. 1-Apr. 30.....	5	3	At Mollendo.
Do.....	July 1-15.....	2		Do.
Cajamarca.....	Sept. 1-30.....			Present. At Bambamarca, Cajamarca, and other localities.
Callao.....	Mar. 1-June 30.....	16	1	At Callao.
Do.....	July 1-Sept. 30.....	6	3	Do.
Lambayeque.....	Mar. 1-Apr. 30.....	3	2	At Chiclayo.
Do.....	Sept. 1-30.....	2		Do.
Libertad.....	Mar. 1-June 15.....	31	15	In 5 localities.
Do.....	Sept. 1-30.....	3		At San Pedro.
Lima.....	Mar. 1-June 30.....	43	23	At Lima City: Cases, 28; deaths, 18.
Do.....	July 1-Sept. 15.....	4	3	At Lima City.
Do.....	Sept. 1-30.....	16	4	At Huacho: Cases, 9; deaths, 1. Lima City: Cases, 2; deaths, 1. Country: Cases, 5; deaths, 2.
Piura.....	Mar. 1-June 15.....	31	29	In 4 localities.
Do.....	Sept. 1-15.....	19	15	Deaths occurred at Sechura.
Do.....	Sept. 1-30.....	23	17	At Sechura.
Poland.....				In border province, Aug. 9, 1921: Cases, 8.
Porto Rico.....				Total plague-infected rats found from beginning of outbreak to July 9, 1921, 90.
Caguas.....	Aug. 7-20.....	4	2	Sept. 4-24, 1921: Two plague-infected rats found.
Pajardo.....				Aug. 28-Sept. 3, 1921: One plague-infected rat found.
Manati.....	July 17-23.....	1	1	
Martin Pena.....	July 3-9.....	1		Suburb coextensive with Santurce.
San Juan.....				Plague rat on steamship San Luis, in San Juan Harbor, Sept. 9, 1921.
Portugal:				
Lisbon.....	July 29-Sept. 3.....	7		
Portuguese West Africa:				
Angola—				
Loanda.....	Apr. 24-June 18.....	16		
Do.....	July 17-23.....		1	
Rhodes (Island).....	Sept. 20-Oct. 8.....	7		1 fatal case reported late in August, 1921.
Russia:				
Siberia—				
Vladivostok.....	Apr. 1-June 30.....		252	First case occurred Apr. 10, 1921.
Do.....	July 1-31.....		4	
Senegal:				
Dakar.....	May 1-June 30.....	54	47	
Do.....	July 1-Aug. 31.....	117	93	
Siam:				
Bangkok.....	Apr. 24-June 12.....	7	6	
Do.....	July 24-Sept. 3.....	16	12	
Straits Settlements:				
Singapore.....	May 8-June 18.....	5	5	
Do.....	June 26-Sept. 24.....	6	6	
Syria:				
Alexandretta.....	July 10-Aug. 6.....	18	4	
Beirut.....	May 31-June 30.....		2	
Do.....	July 1-Oct. 8.....	24		
Turkey:				
Constantinople.....	July 10-Oct. 15.....	6	4	
Union of South Africa.....				January-April, 1921: Cases (white), 8; deaths, 4. Cases (native), 13; deaths, 6. Occurring in the Orange Free State.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
On vessels.....				Plague rats reported, Sept. 21, 1921, on vessels from Brisbane, Australia, at Sydney and other ports.
Steamship Kishonev.....	May 2.....	1		At Chefoo, China. Plague death en route. Vessel sent to quarantine, Kentucky Island, where to May 6 a total of 16 deaths was reported. (Public Health Reports, July 1, 1921, p. 1534.)
Steamship Oreland.....				At Genoa, Italy, June 12, 1921; from La Plata, Argentina. Two fatal cases plague in crew en route.
Steamship Ralph Moller...	June 8.....	4	1	At Chefoo, China, from Vladivostok, Siberia. Three fatal cases en route. One case with fatal termination removed at Vladivostok.
Steamship San Luis.....	Sept. 9.....			In harbor, San Juan, Porto Rico, Sept. 9, 1921: 1 plague rat.
Steamship Tenyo Maru.....				En route between Nagasaki and Kobe, Japan, June 28, 1921: 1 fatal case.

SMALLPOX.

Algeria.....				July 1-31, 1921: Cases, 156.
Department—				
Algiers.....	May 1-June 30.....	3		
Do.....	July 1-31.....	153		
Constantine.....	do.....	2		
Oran.....	do.....	1		Sept. 1-10: One case.
Asia Minor:				
Smyrna.....	May 22-28.....	1		On the steamship Nicholas.
Do.....	July 24-Oct. 8.....	2		District.
Australia:				
Victoria—				
Geelong.....	May 5-16.....	2		Mild.
Do.....	July 12-29.....	2		
Melbourne.....	Apr. 9-23.....	4	1	Mild epidemic.
Do.....	July 17-23.....	1	1	Slight epidemic reported.
Bolivia:				
La Paz.....	Apr. 1-30.....	5	4	
Brazil:				
Bahia.....	Sept. 25-Oct. 1.....	2		
Pernambuco.....	Mar. 28-May 22.....	28	4	
Rio de Janeiro.....	May 8-June 18.....	11	2	
Do.....	June 28-Oct. 22.....	133	32	
Sao Paulo.....	May 23-June 26.....	7	2	
Do.....	June 27-Sept. 25.....	16	2	
British East Africa:				
Kenya Colony—				
Zanzibar.....	May 8-14.....	12	4	Origin, India.
Do.....	Aug. 1-31.....	14	6	Districts and towns.
Bulgaria:				
Sofia.....	May 15-31.....	6		
Canada:				
Alberta—				
Calgary.....	May 26-June 18.....	3		
British Columbia—				
Vancouver.....	May 28-June 25.....	3		
Do.....	Oct. 30-Nov. 5.....	1		
Manitoba—				
Winnipeg.....	do.....	6		
Do.....	June 26-Oct. 29.....	15	1	
New Brunswick—				
Charlotte County.....	July 10-Nov. 5.....	12		
Madawaska County.....	Aug. 7-Nov. 12.....	8		
Restigouche County.....	June 19-25.....	1		
St. Stephen.....	Oct. 23-Nov. 5.....	3		
Westmoreland County.....	June 26-July 2.....	2		
Nova Scotia—				
Sydney.....	June 5-18.....	2		
Do.....	June 26-July 2.....	4		

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Ontario				
Cornwall.....	Nov. 15-21.....	14		
Fort William and Port Arthur.....	Aug. 7-27.....	2		
Do.....	Oct. 16-22.....	2		
Hamilton.....	June 12-18.....	3		
Do.....	July 2-9.....	1		
Kingston.....	June 5-11.....	1		
London.....	June 5-23.....	2		
Montreal.....	June 12-18.....	1		
Do.....	July 17-Oct. 29.....	6		
North Bay.....	June 12-25.....	3		
Do.....	June 26-July 9.....	2		
Ottawa.....	June 12-25.....	21		
Do.....	June 26-Nov. 19.....	42		
Toronto.....	Aug. 28-Nov. 5.....	4		
Saskatchewan—				
Moose Jaw.....	Sept. 4-Oct. 15.....	3		
Saskatoon.....	Sept. 26-Oct. 17.....	12		
Chile:				
Antofagasta.....	May 16-June 19.....	228	106	
Arica.....	May 31.....	2		
Concepcion.....	Sept. 5-19.....	3		
Mejillones.....	May 30-June 5.....			
Talcahuano.....	Sept. 1-30.....	2	1	
Valparaiso.....	June 26-Oct. 21.....		49	
China:				
Amoy.....	May 8-June 4.....		4	
Do.....	June 26-Oct. 8.....		3	
Antung.....	May 16-June 26.....	12	2	
Canton.....	Apr. 1-30.....			
Chungking.....	May 1-June 25.....			
Do.....	June 26-Oct. 8.....			
Foochow.....	May 8-June 25.....			
Do.....	June 26-Oct. 15.....			
Hankow.....	May 15-21.....	4	1	
Do.....	July 10-16.....	1		
Hongkong.....	Apr. 24-June 25.....	99	84	
Do.....	July 24-Aug. 20.....	3	1	
Manchuria—				
Dairen.....	May 9-June 26.....	44	5	
Do.....	June 27-Oct. 9.....	9	3	
Harbin.....	May 16-June 13.....	5		
Do.....	June 27-July 10.....	2		
Mukden.....	May 22-June 11.....			
Do.....	July 3-Aug. 20.....			
Nanking.....	May 8-June 25.....			
Do.....	June 26-Oct. 15.....			
Shanghai.....	June 20-26.....	1		
Do.....	July 3-Oct. 8.....	6	1	
Tientsin.....	May 8-June 25.....	31		
Do.....	June 26-Aug. 20.....	9	1	
Tsingtau.....	May 9-June 12.....	4	1	
Do.....	July 25-31.....	1		
Chosen (Korea):				
Chemulpo.....	May 1-June 30.....	11	3	
Fusan.....	do.....	12	3	
Gensan.....	do.....	5	2	
Seoul.....	do.....	3		
Colombia:				
Santa Marta.....	June 5-25.....			
Do.....	June 26-Aug. 27.....			
Cuba				
Antilla.....	June 5-25.....	7		
Do.....	June 26-Nov. 12.....	74		
Cienfuegos.....	June 26-Sept. 3.....	3		
Matanzas.....	June 12-18.....	1	1	
Do.....	July 3-31.....	4	2	
Nuevitas.....	July 4-Nov. 6.....	17		
Preston.....	Oct. 2-15.....	4		
Santiago.....	June 1-30.....	28	2	
Do.....	July 1-Oct. 31.....	60	1	
				At 2 localities in vicinity, 2 cases.
				Reported present in Chillan and Mulchen.
				Present; also at interior nitrate plants.
				June 5-25: Present.
				Sept. 11-Oct. 15: Present.
				Present.
				Do.
				Do.
				Do.
				Do.
				In International Settlement.
				Do.
				Mission hospital.
				Present.
				Do.
				Do.
				Do.
				Oct. 11-20, 1921: Cases, 198.
				Oct. 21-31, 1921: Cases, 214.
				6 of those reported found in vicinity.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Dominican Republic.....	.....	.....	.....	In eastern Provinces, Aug. 25, 1921, 2,000 cases, estimated. Cases numerous.
La Ramona.....	Aug. 25.....	.....	.....	On sugar estates in same Province, about 400 cases, Aug. 19-25. Estimated 500 cases in the District of Macoris, 50 of which were within city limits.
San Pedro de Macoris.....	Aug. 19-Oct. 29.....	58	7	Present in surrounding country.
Santo Domingo.....	Sept. 1-Oct. 19.....	34	.....	.....
Ecuador:				
Eloy Alfaro.....	Aug. 1-15.....	1	.....	.....
Guayaquil.....	May 1-June 30.....	31	.....	.....
Do.....	July 1-Oct. 15.....	32	1	.....
Egypt:				
Cairo.....	Mar. 19-Apr. 29.....	2	1	.....
Port Said.....	Apr. 2-May 20.....	10	.....	.....
Finland.....	May 1-15.....	1	.....	.....
France:				
Brest.....	May 22-June 4.....	18	.....	.....
Cherbourg.....	Aug. 1-31.....	1	.....	.....
Paris.....	July 22-31.....	2	1	.....
Rouen.....	May 1-29.....	2	.....	.....
Germany.....	.....	.....	.....	Apr. 24-May 28, 1921: Cases, 12. Additional, Apr. 17-May 7, 1921: Cases, 57; deaths, 7.
Great Britain:				
Nottingham.....	May 29-June 4.....	1	.....	.....
Do.....	July 3-Sept. 24.....	56	.....	.....
Queenstown.....	July 3-9.....	1	.....	.....
Southampton.....	June 28-July 2.....	1	.....	Stated Aug. 17 to be epidemic and to have begun about 2 months previous to date; 57 cases reported.
Greece:				
Saloniki.....	June 6-12.....	.....	1	.....
Haiti:				
Cape Haitien.....	June 19-25.....	24	2	.....
Do.....	June 26-Oct. 22.....	228	20	.....
Port au Prince.....	Sept. 11-Oct. 29.....	.....	.....	Present.
India:				
Bombay.....	May 1-June 25.....	84	50	Mar. 20-May 21, 1921: Deaths, 3,232. June 5-25, 1921: Deaths, 958. July 3-9, 1921: Deaths, 303.
Do.....	June 26-Oct. 1.....	69	45	.....
Calcutta.....	May 8-June 25.....	8	8	.....
Do.....	June 26-Sept. 10.....	9	7	.....
Kanachi.....	May 20-June 25.....	25	17	.....
Do.....	June 26-July 30.....	8	2	.....
Madras.....	May 8-June 25.....	33	11	.....
Do.....	June 26-Oct. 15.....	98	49	.....
Rangoon.....	Apr. 24-June 4.....	29	3	.....
Do.....	July 10-Aug. 13.....	4	1	.....
Indo-China:				
City.....	.....	.....	.....	Jan. 1-31, 1921: Cases, 102; deaths, 15.
Saigon.....	May 9-15.....	2	1	.....
Do.....	Aug. 21-Sept. 24.....	2	2	.....
Province—				
Anam.....	Jan. 1-31.....	25	.....	.....
Cambodia.....	do.....	21	3	.....
Cochin China.....	do.....	19	12	.....
Tonkin.....	do.....	27	.....	.....
Italy:				
Catania.....	.....	.....	.....	Province: June 4-20, 1921: Cases, 5.
Do.....	July 18-Aug. 14.....	.....	.....	In Province: Cases, 7.
Genoa.....	Apr. 1-May 31.....	11	.....	.....
Do.....	July 4-10.....	2	.....	.....
Messina.....	May 23-June 26.....	2	1	.....
Do.....	July 11-17.....	1	.....	.....
Palermo.....	May 18-June 21.....	2	1	.....
Milan.....	Apr. 1-30.....	2	.....	.....
Do.....	June 20-July 19.....	3	.....	In Province: July 4-17, 1921: Cases, 9.
Japan:				
Kobe.....	May 24-June 26.....	3	.....	.....
Nagasaki.....	May 23-June 26.....	6	1	.....
Taiwan Island.....	July 1-10.....	1	.....	.....

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
East Java—				
Surabaya	June 19-25	2		
Do.	July 10-Aug. 20	10	1	
West Java—				
Bandeng	May 27-June 3	1		
Do.	July 8-21	1		
Batavia	May 6-June 23	17	15	
Do.	July 1-Oct. 6	110	43	
Buitenzorg	Apr. 29-June 23	16		
Do.	July 22-Oct. 6	50	11	
Garoe	May 6-12	1		
Do.	July 8-Aug. 4	4		
Krawang	Apr. 29-June 30	33	5	
Do.	July 22-Sept. 22	16	1	
Lebak	Apr. 29-May 26	12	2	
Pandeglang	June 3-30	2	1	
Do.	July 8-Oct. 6	1		
Tangerang	Sept. 16-Oct. 6	7		
Foekaboemi	Sept. 9-15	1		
Jugoslavia				Mar. 14-May 13, 1921: Cases, 334, deaths, 83. June 27-July 10, 1921: Cases, 111; deaths, 27.
Mesopotamia:				
Bagdad	Apr. 1-May 31	3	1	
Do.	Aug. 1-31	20	4	
Mexico:				
Chihuahua	May 23-June 27		3	
Do.	Oct. 3-30		5	
Guadalajara	June 1-30	3		
Do.	July 1-Sept. 30		3	
Mexico City	May 15-June 25	246		
Do.	June 28-Oct. 23	270		Including municipalities in Federal District.
San Luis Potosi	July 17-Oct. 15		3	Do.
Tampico	July 11-20	1		
Torreón	Sept. 1-30	2		
Vera Cruz	June 13-19		1	
Do.	July 11-Sept. 11		3	
Newfoundland:				
Tilton	Aug. 20-26	3		
Panama:				
Canal Zone	Apr. 1-May 31	2		Jan. 1-Sept. 19, 1921: Cases, 208, of which 33 were nonresidents.
Colon	Jan. 1-May 31	111		Sept. 20-Oct. 30, 1921: Cases, 3; 1 from Taboga Island, 2 from interior of Panama.
Do.	Aug. 30	1		From the interior.
Panama	Feb. 1-June 30	54		Sept. 4-19; 1 from interior.
Do.	July 1-Sept. 19	4		
Poland:				Mar. 1-Apr. 30, 1921: Cases, 1,117, deaths, 142. Apr. 24-May 21, 1921: Cases, 677; deaths, 148.
District—				May 22-June 18, 1921: Cases, 404; deaths, 74. June 19-July 16, 1921: Cases, 334; deaths, 33; statistics for Brest-Litovsk, Minsk, and Vilna not included
Bialystok	Mar. 1-Apr. 30	3		
Cracovia	do.	56	6	
Kielce	do.	180	26	
Leopol	do.	52	16	
Lodz	do.	72	9	
Lublin	do.	397	30	
Posen	do.	26	2	
Silesia	do.	10		
Stanislawow	do.	39	5	
Tarnopol	do.	156	31	
Warsaw	do.	36	4	
Warsaw City	do.	90	13	
Portugal:				
Lisbon	May 15-June 25		34	
Do.	June 26-Oct. 1	46	5	
Oporto	June 19-25	1		
Do.	Sept. 11-Oct. 29	3		
Portuguese East Africa:				
Lourenco Marques	May 8-28	8		
Do.	July 10-Sept. 10	14	4	
Rumania:				
District—				
Hotin	Apr. 1-30	40	9	
Orhei	Mar. 1-31	2		

In Teschen.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Province—				
Esthonia.....	Apr. 1-June 30....	11	.....
Do.....	July 1-Sept. 30....	55	.....
Latvia.....	Apr. 1-May 31....	41	.....
Do.....	July 1-Aug. 31....	38	.....
Siberia—				
Vladivostok.....	June 1-30.....	1	.....
Serbia.....				Mar. 24-May 21: Cases, 205;
Belgrade.....	Aug. 7-20.....	2	1	deaths, 41.
Senegal:				
Dakar.....	May 1-31.....	1	1	
Spain:				
Barcelona.....	May 12-June 22....	.....	13	
Do.....	July 7-Oct. 19....	.....	12	
Huelva.....	July 1-Aug. 31....	.....	3	
Madrid.....	June 1-30.....	2	.....
Do.....	Aug. 1-31.....	.....	1	
Malaga.....	May 1-June 30....	.....	57	
Do.....	July 1-Aug. 31....	.....	57	
Seville.....	Oct. 19-Nov. 1....	1	1	
Tarragona.....	May 9-15.....	.....	1	
Valencia.....	May 22-28.....	1	.....
Do.....	July 2-Aug. 20....	9	2	
Straits Settlements:				
Singapore.....	June 12-18.....	1	.....
Do.....	July 10-Oct. 1....	21	7	
Switzerland:				
Basel.....	Sept. 11-Oct. 1....	5	.....
Zurich.....	May 28-June 11....	10	.....
Do.....	July 3-Sept. 2....	4	.....
Syria:				
Aleppo.....	Apr. 9-16.....	.....	.....	Present.
Beirut.....	May 10-30.....	1	1	
Do.....	Aug. 8-14.....	1	1	
Tunis:				
Tunis.....	May 30-June 17....	2	3	
Do.....	July 2-Oct. 21....	15	12	
Turkey:				
Constantinople.....	June 12-25.....	5	.....
Do.....	June 26-Oct. 15....	12	1	
Union of South Africa.....				January - April, 1921: Cases
				(white), 18; deaths, 1. Cases
				(native), 192; deaths, 5. May
				1-31, 1921: Cases, 65; deaths, 3,
				all natives. June 1-30, 1921:
				Cases, 64, of which 1 white.
				July 1-31, 1921: Natives—
				Cases, 129; deaths, 2. White—
				1 case. Aug. 28-Sept. 3, out-
				breaks in Cape Province,
				Orange Free State, and Trans-
				vaal. Aug. 1-31, 1921: Cases,
				79; deaths, 1.
Cape Province.....	Apr. 24-June 25....	.....	.....	Fresh outbreaks.
Do.....	July 1-Aug. 27....	118	.....	Aug. 27-Sept. 27: Outbreaks.
Natal.....	Apr. 24-June 25....	.....	.....	Fresh outbreaks.
Do.....	July 1-Aug. 27....	1	.....	Sept. 4-10: Outbreaks.
Durban.....	Aug. 7-27.....	3	.....	Stated to have been imported.
Orange Free State.....	May 29-June 25....	.....	.....	Outbreaks.
Do.....	Aug. 21-Sept. 17....	.....	.....	Present.
Southern Rhodesia.....	July 14-Aug. 31....	52	19	
Transvaal.....	May 22-June 18....	.....	.....	Do.
Do.....	July 1-31.....	11	.....	Aug. 27-Sept. 17: Outbreaks.
Johannesburg.....	do.....	2	.....
Do.....	Sept. 1-10.....	32	11	District.
On vessels:				
Steamship Craster Hall.....				Arrived Mobile, Ala., Oct. 8,
				1921, from Buenos Aires, Rio
				de Janeiro, and Barbados.
				One case in crew removed at
				Barbados, Sept. 28, 1921.
Steamship Montoro.....	Aug. 31.....	1	.....	At Batavia, Java, from Singa-
				pore, Aug. 27. Vessel pro-
				ceeded from Batavia to Port
				Darwin and Townsville.
Steamship Niagara.....	June 1.....	1	.....	At Sydney, Australia, from Van-
				couver via Fiji and New Zea-
				land.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria.....				July 1-31, 1921: Cases, 528.
Department—				
Algiers.....	May 1-June 30.....	109	25	
Do.....	July 1-31.....	146		
Constantine.....	do.....	251		
Military Division.....	do.....	3		
Oran.....	May 22-June 30.....	35	28	
Do.....	July 1-31.....	39		
Oran (City).....	Oct. 11-31.....	2	1	
Southern Territory.....	July 1-31.....	89		
Asia Minor:				
Smyrna.....	June 12-18.....	1		In district.
Do.....	Aug. 28-Oct. 22.....	3		Do.
Bolivia:				
La Paz.....	Apr. 1-June 30.....	50	51	
Do.....	July 1-31.....	19	3	
Brazil:				
Bahia.....	June 19-25.....	1	1	
Do.....	Aug. 7-13.....	1	1	
Porto Alegre.....	June 19-25.....		3	
Do.....	Aug. 7-13.....		1	
Canary Islands:				
Teneriffe.....	Aug. 14-Sept. 10.....		2	
Chile:				
Concepcion.....	Apr. 12-June 20.....		8	July 25-Aug. 29, 1921: In hospital,
Do.....	July 12-Oct. 2.....		17	30 cases; in city, estimated, 100
Los Angeles.....	July 26-Aug. 8.....			cases.
Talcahuano.....	Sept. 1-30.....	1	1	Prevalent.
Valparaiso.....	Mar. 27-May 28.....		4	
Do.....	June 28-Oct. 22.....		6	
China:				
Antung.....	May 30-June 5.....	1		From report of Japanese Settlement and Danish Mission
Do.....	June 27-Oct. 23.....	18		among Chinese.
Hankow.....	May 22-June 11.....	3		
Manchuria—				
Harbin.....	May 23-29.....	1		
Do.....	July 4-10.....	1		
Chosen (Korea):				
Chemulpo.....	June 1-30.....	2		
Fusan.....	May 1-31.....	1		
Gensan.....	May 1-June 30.....	4		
Seoul.....	May 1-31.....	1		
Cuba:				
Matanzas.....	Oct. 4-10.....	1		
Czechoslovakia:				
Prague.....	June 5-26.....	5	2	
Egypt:				
Alexandria.....	May 21-June 23.....	21	8	
Do.....	June 24-Oct. 14.....	49	20	
Cairo.....	Mar. 19-June 24.....	235	102	
Do.....	June 24-Sept. 9.....	86	51	
Port Said.....	Apr. 2-May 13.....	8	2	
Finland.....	May 1-15.....	5		
Germany.....				Apr. 24-June 4, 1921: Cases, 7.
Hamburg.....	May 27-June 4.....	1		
Great Britain:				
Dublin.....	May 29-June 4.....	1		
Do.....	Oct. 9-15.....	1		
Greece:				
Saloniki.....	May 23-June 26.....	21	6	
Do.....	June 27-Oct. 16.....	2	2	
Guatemala:				
Guatemala City.....	July 1-Sept. 30.....		2	
Hungary.....				Jan. 1-July 13, 1921: Cases, 71;
Italy:				occurring in 4 counties.
Messina (Province).....	Aug. 29-Sept. 4.....	2		In 2 localities.
Japan:				
Nagasaki.....	May 23-June 5.....	7	2	
Jugoslavia:				Jan. 30-May 14, 1921: Cases, 286;
Belgrade.....	May 1-14.....	6		deaths, 40. June 27-July 10,
Zagreb.....	June 19-25.....	3		1921: Cases, 23; deaths, 7.
Do.....	July 10-Sept. 3.....	37	4	
Mesopotamia:				
Bagdad.....	May 1-31.....	1	3	
Do.....	Aug. 1-31.....	1		

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Mexico City.....	May 15-June 25.....	162		Including municipalities in Federal District.
Do.....	June 26-Oct. 22.....	231		
Saltillo.....	Oct. 2-6.....		1	
San Luis Potosi.....	July 31-Nov. 5.....			Present.
Morocco:				
Spanish Zone.....				Reported present in epidemic form Sept. 29, 1921.
Poland.....				Mar. 1-Apr. 30, 1921: Cases, 11,489; deaths, 1,131. Apr. 24-May 21, 1921: Cases, 5,460; deaths, 489. May 22-June 18, 1921: Cases, 3,300; deaths, 299. June 19-July 16, 1921: Cases, 1,500; deaths, 96; statistics for Brest-Litovsk, Minsk, and Vilna not included.
District.....				In Teschen.
Bialystok.....	Mar. 1-Apr. 30.....	853	45	
Cracovia.....	do.....	603	90	
Kielce.....	do.....	848	62	
Leopol.....	do.....	2,508	277	
Lodz.....	do.....	521	53	
Lublin.....	do.....	1,446	88	
Posen.....	do.....	77	5	
Silesia.....	do.....	26		
Stanislawow.....	do.....	1,557	232	
Tarnopol.....	do.....	1,855	194	
Warsaw.....	do.....	972	61	
Warsaw City.....	do.....	223	29	
Portugal:				
Oporto.....	July 12-Oct. 29.....	3		
Rumania:				
District—				
Hotin.....	Apr. 1-30.....	107	10	
Kishinev.....	Apr. 1-June 30.....	89		
Do.....	July 1-31.....	11		District.
Orhei.....	Mar. 1-May 30.....	146		
Russia:				
Province—				
Esthonia.....	Apr. 1-June 30.....	113		
Do.....	July 1-Sept. 30.....	79		
Latvia.....	Apr. 1-June 30.....	599		
Do.....	July 1-Aug. 31.....	115		
Liban.....	Sept. 8-15.....	2		
Siberia—				
Vladivostok.....	Mar. 1-June 30.....	5	3	
Do.....	July 1-Aug. 31.....	22	3	
Serbia.....				Mar. 24-May 21, 1921: Cases, 70; deaths, 7.
Spain:				
Madrid.....	May 1-June 30.....		3	
Do.....	July 1-Sept. 30.....		4	
Syria:				
Beirut.....	May 20-June 10.....	1	1	
Do.....	Sept. 5-Oct. 8.....	1		
Tunis:				
Tunis.....	June 11-17.....		3	
Do.....	July 30-Sept. 9.....		2	
Turkey:				
Constantinople.....	May 22-June 18.....	11		
Do.....	June 26-Oct. 15.....	54	2	
Union of South Africa.....				January-April, 1921: Cases (white), 34; deaths, 2. Cases (native), 3,376; deaths, 437; June 1-30, 1921: Cases, 738; deaths, 66. July 1-31, 1921: Natives—cases, 868; deaths, 121. White—cases, 15; deaths, 2. Orange Free State and Natal: Cases, 25; deaths, 10. Aug. 1-31, 1921: Cases, 850; deaths, 83 (white cases, 17; deaths, 4; and colored cases, 833; deaths, 79).
Cape Province.....				Apr. 24-June 25, 1921: Outbreaks, May 1-31, 1921: Cases, 542; deaths, 51. July 1-31, 1921: Cases, 893; deaths, 128. Aug. 28-Oct. 1: Outbreaks.
Cape Town.....	May 13-19.....	10	3	At native cantonment in vicinity.
East London.....	May 22-June 18.....	1	1	
Do.....	Aug. 21-27.....	1		
Port Elizabeth.....	Aug. 7-20.....	7		
Natal.....	July 10-Oct. 1.....			Outbreaks.
Orange Free State.....				Apr. 24-May 23, 1921: Outbreaks.
Do.....	July 10-Sept. 17.....			Outbreaks.
Transvaal—				
Johannesburg.....	Sept. 4-10.....			Outbreaks in surrounding country.

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

Reports Received from July 2 to Dec. 2, 1921—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Venezuela:				
Maracaibo.....	June 21-27.....	.....	1	
On vessel:				
Steamship Norden.....	Aug. 18.....	1	.....	At Marcus Hook Quarantine, Pa., from Tampico, Mexico, via Nuevitas, Cuba.

YELLOW FEVER.

British Honduras:				
Belize.....	Aug. 22-Oct. 1....	17	6	
Stann Creek.....	Nov. 13.....	1	.....	30 miles from Belize.
Mexico:				
Alamo.....	June 1-30.....	10	.....	State of Vera Cruz.
Do.....	July 19.....	4	1	
Barra de Penn.....	July 17-23.....	1	1	Do.
Casamalcapam.....	do.....	3	1	Do.
El Dorado.....	Oct. 7.....	.....	.....	Present. Sept. 25-Oct. 2, 1921, deaths, 40. Oct. 2, deaths, 5.
Manzanillo.....				June 1-Sept. 30, 1921: Cases, 19; deaths, 10.
Do.....	Oct. 9-15.....	1	.....	Oct. 7: Present.
Mazatlan.....	do.....	.....	.....	Present.
Playa Obispo.....	Aug. 23.....	1	.....	Territory of Quintana Roo.
Tampico.....	July 11-17.....	3	2	State of Tamaulipas.
Tierra Blanca.....	Sept. 19.....	1	.....	Case arrived at Vera Cruz on steamship Monterey, which sailed from Progreso, Mexico.
Tlascotalpan.....	Sept. 25.....	.....	.....	Present.
Tuxpam.....	July 25-Oct. 14....	2	1	State of Vera Cruz. Oct. 15: Several cases present in vicinity.
Vera Cruz.....	June 13-27.....	7	.....	Do.
Do.....	July 25-Sept. 25....	6	4	Do.
Zapotlan.....	July 14.....	1	1	Do.
Peru:				Mar. 1-Apr. 30, 1921: Cases, 172; deaths, 57. June 1-30, 1921: Cases, 25; deaths, 13. July 1-15, 1921: Cases, 2.
Department—				
Callao.....				At quarantine station. From Chiclayo.
Callao.....	Apr. 1-30.....	1	.....
Lambayeque—				
Chiclayo.....	Mar. 1-June 15....	47	18	
Chongollape.....	Mar. 1-Apr. 30....	12	3	
Ferrenafe.....	Mar. 1-31.....	.....	1	
Jayanca.....	Apr. 1-30.....	5	2	
Lambayeque.....	Mar. 1-Apr. 30....	20	7	
Monsefu.....	Mar. 1-June 15....	29	9	
Motupe.....	Mar. 1-Apr. 30....	46	12	
Olmos.....	Apr. 1-30.....	2	4	
Pacora.....	June 1-15.....	1	.....
Pomales.....	Mar. 1-31.....	5	1	
Villa Eten.....	Mar. 1-Apr. 30....	7	1	
Zana.....	Apr. 1-30.....	1	.....
Libertad—				
Casa Grande.....	June 1-15.....	1	.....	On farm.
Guadalupe.....	Apr. 1-30.....	2	.....
Monteseo.....	July 16-31.....	1	.....
Pacanga.....	June 1-30.....	2	2	
Pacasmayo.....	July 1-15.....	1	.....
Paijan.....	June 1-30.....	13	7	
Do.....	July 1-15.....	1	.....
Pueblo Nuevo.....	Apr. 1-30.....	1	1	
Trujillo.....	Apr. 1-June 15....	2	2	Country.
On vessels:				
Barge J. S. McLaughy.....	Oct. 6.....	1	.....	At quarantine station, Pensacola, Fla., from Tampico, Mexico, Sept. 30.
Steamship Lurline.....	Aug. 13-27.....	2	1	At Mazatlan, Mexico, from Manzanillo, Mexico (Public Health Reports, Sept. 16, 1921, p. 2262).
Steamship Monterey.....	Sept. 18.....	1	.....	At Vera Cruz: vessel sailed from Progreso, Mexico, Sept. 15, 1921. Patient went to Tierra Blanca.
Steamship Saramacca.....	Nov. 12.....	1	1	At New Orleans, La., from Belize, British Honduras.
Steamship Washington.....	Aug. 29.....	1	.....	At Mazatlan, Mexico.