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COOPERATIVE RELATIONS BETWEEN OFFICIAL AND UNOFFICIAL HEALTH AGENCIES.[1]

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For the purpose of getting our problem before us, I will define cooperative relations as relations which make it possible for two or more agencies to work together effectively without personal clashes or official resentment. By official health agency is meant a governmental agency, Federal, State, county, or city, which is the legally constituted agency of health within a given territory. These agencies derive their authority directly from the legislative assembly of the citizens, and to them, as a rule, is delegated the authority to make rules and regulations which have the force and effect of law. The function of official health agencies is seldom clearly defined by law as to the details of administration, but they are usually authorized in general terms to take whatever steps may be found necessary for the protection of the public health and the conservation of human life.

A proper definition for unofficial health agencies is not quite so obvious. The privately supported voluntary agency, self-committed to one or more health activities, is frankly an unofficial agency; but, in addition to these, there is a considerable number of official welfare agencies, such as departments of education, agricultural extension services, and child welfare departments, all of which understand their official functions to include some of the fundamental phases of public health work.

In the case of each kind of health agency there is a border line where it is very difficult to state with conviction which agency is the proper one to assume the responsibility for a given activity. Whether these official welfare agencies should be classified for purposes of this discussion as unofficial health agencies is a question which is open to debate. It would seem that their official status and the fact that they are and will be held responsible for their acts by the elected representatives of the people entitles them to the cordial consideration of the legally constituted health agency in any field, the activities of which they seem to overlap.

[1] Address given at the Twenty-second Annual Conference of State and Territorial Health Officers with the United States Public Health Service, Chicago, Ill., June 11-13, 1924.

The frankly unofficial agency is responsible only to its contributors and to public opinion. The financial support of the voluntary agency appears to be something that has very little influence in forming the administrative policy of the agency. Public opinion, while somewhat unstable, is readily influenced by propaganda of every sort. Occasional instances are observed in which a voluntary agency has seemed to court public opinion for the purpose of magnifying or perpetuating itself.

UNOFFICIAL HEALTH AGENCIES AND OFFICIAL NONHEALTH AGENCIES SOMETIMES APPEAR TO COMPETE WITH THE OFFICIAL HEALTH AGENCY FOR LEADERSHIP IN THE HEALTH FIELD.

Next to man's instinctive defense of his right to "life, liberty, and the pursuit of happiness," may be named his instinctive defense of his right to the work he proposes to do. Human agencies, official and unofficial, partake of the characteristics of the men and women who control them. Therefore we see these agencies stoutly asserting their prerogatives of leadership and stoutly defending from the encroachments of other organizations the various fields of work to which they lay claim.

The assumption of leadership in the health field by governmental agencies is supported by law and logic, but in their effort to exercise and maintain this position of leadership they often find themselves engaged in a contest of wits with the health specialists of the official agencies for general education and public welfare. The claims of the last two groups to a right to set the pace and lead the way in health work is sometimes based on the contention that governmental health agencies are habitually handicapped by political considerations and limited funds. These handicaps, it is urged, naturally predicate a personnel equally handicapped in ability and qualifications for efficient service.

It is not my purpose to enter into a justification of the first or to challenge the validity of the second claim. The qualities of leadership are to be demonstrated in action and may not be established upon a basis of didactic reasoning. In the last analysis the fittest in leadership will not only survive but he will lead, regardless of the mantle of official authority or the lack of it.

THE LEGALLY CONSTITUTED HEALTH AUTHORITY SHOULD PROVE ITS RIGHT TO SURVIVE AND LEAD BY DEMONSTRATING ITS ABILITY.

But—and here lies the crux of our problem—unwise or misdirected leadership in the health field is one of the most dangerous forces in modern social life; it is subversive of the ideals of stable government and destructive of the best that has been accomplished in 250 years of groping toward a democratic ideal. By the "best" is meant the

somewhat belated recognition by the State of responsibility for the physical well-being of its citizens as well as for their all-round development in an environment which affords an equal chance for health.

Successful unofficial leadership, which wrests from the official agency of health duties legally conferred upon it, can prove only a menace to our Government; and this is no less true when the unofficial leadership enjoys the utmost confidence of the people and is rich in funds accruing from the benevolence of the people.

Profound altruism and devotion to the cause of public welfare on the part of misdirected leadership does not render it benign, nor does a leadership based upon sound scientific principles prove an unmixed blessing if it builds strong human bodies capable of self-control and at the same time breaks down our feeble human attempt to govern ourselves collectively.

The official health agency must not, however, allow itself to feel so secure in its position of authoritative leadership that it will be hypnotized into inaction. It will be necessary for it to use all of the arts and all of the knowledge that are at the command of the unofficial health agency if it is to prove its ability to survive and to lead according to its right. Usually it will be necessary to use these for a greater number of hours a day and upon a relatively smaller budget than is the case with the unofficial agency.

Official authority should never be thrust forward by the health worker in an effort to use it to clear the pathway ahead, nor should it be regarded merely as a base upon which to stand. It should be regarded rather as a base to start from and go forward.

THE MOST DESIRABLE OF FOUR POSSIBLE METHODS OF COOPERATION WILL BE FOUND IN A DIVISION OF LABOR IN JOINT ACTIVITIES.

The point at issue, then, is, How may working relations best be maintained between these organizations so that an opportunity will be afforded for official leadership to assert itself and to command the situation in the interest of public welfare?

The first step in a cooperative plan would seem to be a consultation of the agencies concerned with regard to aims and plans of each in the various fields which seem closely related.

Four possible methods of cooperation suggest themselves:

1. Projects initiated by one agency to which another agency is asked to contribute some service.
2. A division of territory.
3. A division of activities.
4. A division of labor in joint activities.

The first method is of limited application, since it will consist mainly in the giving of special information upon request by one

agency in connection with group activities initiated by another agency.

The unofficial or voluntary agency occupies a position of advantage with relation to the second and third methods, since it is in a position to choose what it will undertake to do and select the territory where activities shall be carried out, while a governmental agency is not authorized to "farm out" portions of its territory to private agencies and would not be justified in delegating to these agencies any of the activities which are a legal requirement of its office. The method which seems most desirable from the standpoint of an official agency is the fourth, a division of labor in joint activities.

Agreement upon joint programs may not be desirable or possible in every instance, but when undertaken should be arrived at jointly by representatives of each participating agency after free discussion and frank expression of opinion. It has too often been the case that an unofficial agency has set up for itself a program, with the money in hand to finance the project, and the workers in the field have been sent to the official agency of health to solicit its endorsement and its cooperation. The idea is apparently that the private agency is entitled to the privilege of setting up a program to suit itself and demanding assistance from the official health agency in carrying it out. It should be definitely understood and stated that if any organization is in a position to devote its attention to assisting another agency in carrying on its work it is the voluntary organization, while the official agency is decidedly not justified in subordinating its official program to the requirements of one that is unofficial.

THE DETAILS OF SUCH A JOINT PROGRAM SHOULD INCLUDE AN OUTLINE OF THE PROJECTS TO BE UNDERTAKEN, A STATEMENT OF ADMINISTRATIVE POLICIES AND THE TECHNICAL METHODS TO BE EMPLOYED.

When a joint program is adopted the details of the various projects should be carefully and definitely outlined in a preliminary conference of representatives of the agencies.

First, an enumeration should be made of the definite projects to be undertaken, the scope or extent of each project being specifically stated.

In a State like Alabama, where only about one-third of the counties are organized for local health service, it will be necessary to outline separately administrative details to be observed in counties which have a legally appointed county health officer supported by public funds, and in those which have not yet set aside an appropriation for local health work. In the latter counties it is obvious that procedures may be authorized by the State board of health which, in the former, should be submitted to the county health officer for indorse-

ment or disapproval, and, if approved, should be carried out through the local health agency.

The technical details of methods to be employed in joint enterprises should be carefully prepared in a preliminary conference, and field workers should be instructed in the procedures agreed upon in order to eliminate the possibility of debate over details of procedure in the field and to prevent the adoption of an undesirable technique by a dominating personality among field workers.

All newspaper notices and other publicity should refer to a joint undertaking in terms that will convey the idea of joint responsibility and of equal credit or blame for successes and failures. The implication that one agency is responsible for initiating and executing a project, while the other is merely rendering assistance, should be avoided. Fairmindedness with regard to this seemingly unimportant matter will have a strong bearing upon relations which obtain between cooperating agencies.

The success of any program depends upon the tact and wisdom of its sponsors in dealing with individual citizens, civic organizations, official and unofficial agencies, and professional groups. A governmental health agency should make sure that the public relationships of any other agency with which cooperation is suggested are not inconsistent with the social and professional ethics to which official health agencies are accustomed to conform.

AN ADEQUATE SYSTEM OF RECORDING AND REPORTING JOINT ACTIVITIES WILL PROMOTE HARMONY AND CONTINUED COOPERATION.

The recording and reporting of activities will prove a vital feature of joint programs, and mutually acceptable forms for this purpose should be agreed upon. Probably no record or report form was ever suggested which met the approval of everyone who was expected to use it. A mutually acceptable form undoubtedly represents mutual concessions. Duplicate reports of all joint activities sent to each participating agency will be found stimulating to all concerned. Public Health workers are too prone to regard any form of report as not only a bore, but an inexact measure of their efforts; but when this function is conducted with a view to its value as material for publicity and education, at least some of its irksomeness will be dispelled.

THE FIELD OF HEALTH ADMINISTRATION IS RENDERED MORE COMPLEX BY A GREAT VARIETY OF NATIONAL ORGANIZATIONS INTERESTED IN ONE OR MORE PHASES OF PREVENTIVE WORK.

There are many national organizations interested in some one or more phases of preventive work. These are, as a rule, motivated by the compelling force of a single idea and financed by persons who are

effectively acted upon by this idea. They sometimes engage in local health administration as a demonstration; but more generally their programs consist of educational and research features which bring them into some degree of competition with Federal health agencies in the exercise of scientific leadership.

Philanthropic and educational foundations engaged in public health work are, happily, exempt from the need for acquiring funds and can devote the best thought of their directors to a wise use of the moneys to be expended.

Special mention should be made of the national professional organizations whose first concern, as a rule, is to set up professional standards and to further the professional interests of the group. These bodies through the publication of technical journals and other literature naturally drift into scientific research and the enunciation of specialized policies and principles. Whenever they receive public benevolences or endowed funds for this purpose, these professional organizations also participate in field health demonstrations.

In this connection also the health activities of life insurance companies should not be overlooked.

AT LEAST ONE POWERFUL PRIVATE AGENCY HAS SUCCESSFULLY DEMONSTRATED THE POSSIBILITY OF COOPERATING HARMONIOUSLY AND EFFECTIVELY WITH THE OFFICIAL HEALTH AGENCY.

The difficulties of administering joint projects are likely to increase in direct proportion to the lack of experience of one or both of the agencies in the public health field. One powerful private agency which enjoys the advantage of a wide experience extending over a decade or more has found what appears to be a sound basis for such cooperation and disclosed it in the local administration of health units under the supervision of State boards of health. These are maintained cooperatively upon county and State funds supplemented by funds of the unofficial agency. This system is further safeguarded and made effective by the assignment of sanitary engineers and other specialists from the unofficial health agency for advisory service to the State board of health.

THE CHILD HEALTH COUNCIL AND THE NATIONAL HEALTH COUNCIL, REPRESENTING OFFICIAL AND UNOFFICIAL HEALTH AGENCIES, AIM TO BRING HARMONY OF THOUGHT AND ACTION INTO THE PUBLIC HEALTH FIELD.

A recent attempt to bring some sort of order out of this confusion of "good works" resulted in the organization of the Child Health Council, a body composed of representatives of official and unofficial health agencies devoted to the welfare of children.

A further coordination of official and unofficial health agencies which are engaged in general health activities resulted in a representative organization known as the National Health Council.

These councils represent a comprehensive effort to bring harmony of thought and action into the public health field. They provide an open forum for the discussion of problems, and in so far as sound policies are advocated by them and adopted by the constituent organizations, they may be said to be effective.

THE WRITER SUGGESTS THAT THE FIRST PREREQUISITE IS A MUTUAL UNDERSTANDING OF THE DIFFERENCE IN VIEWPOINT OF THE OFFICIAL AND UNOFFICIAL HEALTH AGENCIES.

I am not unmindful of the difficulties which confront any attempt to formulate the policies which should be maintained in the cooperative efforts of official and unofficial health agencies. Indeed, it is because of the obvious difficulties that I am impelled to put forward what I believe to be a sound policy of cooperation.

Consultation should be the first step. An open mind and a willingness in each to understand the point of view of the other would insure a good beginning.

The Government official should understand and be as patient as possible with the desire of the voluntary health agency to create quickly an effective organization for a demonstration. He must be able to comprehend the motive which prompts a desire on the part of the unofficial agency to spare no expense in making the success of this organization as complete and immediate as possible. A demonstration of from three to five years means to them an opportunity to make a record, to prove something that has never been proved before, or to discover something that without their intervention might remain unknown. Their objective is a laudable "piece of work" which has an entity of its own apart from the community which is to be the scene of its unfolding.

The point of view of the official health agency is more prosaic and less optimistic. It has only meager subsidies with which to supplement the still more meager local appropriations. It is looking forward to the normal and leisurely development of a health service in pioneer territory where the measure of appreciable progress is spoken of in terms of "what can be accomplished in the first hundred years." That the unofficial agency with a wealth of enthusiasm and a wealth of funds considers this slow and inefficient is not to be wondered at. That so few of the national leaders of unofficial health forces have any real knowledge or understanding of our American social order as it exists in small towns and country districts is not to be wondered at. But that any one of them should refuse to listen to the views of the Federal and State agencies of health with regard to the wisdom of what they propose to do is to be wondered at.

THE PROPOSED PROGRAM OF UNOFFICIAL HEALTH AGENCIES SHOULD BE SUBMITTED TO THE SCRUTINY OF FEDERAL AND STATE HEALTH AUTHORITIES AND ALL DISAPPROVED ITEMS ELIMINATED.

I would like to submit for the consideration of unofficial health agencies the following proposition:

That their proposed programs be submitted to the scrutiny of the Federal and State health officials, and that every effort be made to harmonize them with the policies which govern official health activities, and that proposed activities or policies of administration, which are disapproved by the Governmental authority be eliminated.

In every instance in which a local demonstration is proposed it should be submitted to the State health officer prior to the approach to the community, and the assignment should be made only with the approval of the State health officer, for the very good reason that demonstrations as such are not at present our most imperative need. The demonstrations which have been made clearly show how preventable diseases may be controlled and community health conserved. If means can be supplied for putting into practice the scientific knowledge already demonstrated and for making an orderly and permanent advance in the development of health service as a function of Government, the superlative need of the public-health field will have been met.

The administrative control of such undertakings as have the sanction of the State health officer should be and remain in the hands of the local health authority. Representatives of the national or volunteer agency should assume the position of adviser or consultant.

One particularly important item, which should be insisted upon by the State health officer, is that the budget allowance to a cooperative demonstration should never be in excess of what the given community might reasonably be expected to assume when the time comes for the unofficial agency to withdraw. Local opinion and local capacity for carrying on must be considered. It is only in this way that the civic integrity of communities may be safeguarded.

METHODS OF COOPERATION BETWEEN OFFICIAL AND UNOFFICIAL HEALTH AGENCIES ENGAGED IN SCIENTIFIC RESEARCH AND PREPARATION OF TECHNICAL LITERATURE MAY FOLLOW THE RULES RECOMMENDED FOR OTHER ACTIVITIES.

There is a wide field for the unofficial health agency in scientific research and in the preparation of technical literature.

Federal health agencies occupy the same field. Care should be taken to observe in these activities the same cooperative procedures that have been suggested for other activities.

1. Conference and agreement upon administrative details and technical procedures for joint programs.

2. Mutually acceptable forms for recording and reporting activities and their results.

3. Multiple reporting to all agencies interested and a minimum of mutual criticism.

These and other virtues which are easy to preach and hard to practice ought to clear up most misunderstandings between official and unofficial health agencies and reduce much of the confusion which now exists in health administration to a state of orderliness and clarity.

ROCKY MOUNTAIN SPOTTED FEVER: NON-FILTERABILITY OF TICK AND BLOOD VIRUS.

By R. R. SPENCER, Surgeon, and R. R. PARKER, Special Expert, United States Public Health Service.

Attempts by Ricketts [1] to filter the virus of Rocky Mountain spotted fever as it occurs in the blood of infected animals resulted in failure of the virus to pass through. Similar tests by others [2] and by us have given uniformly negative results. So far as known to the writers, no one has heretofore undertaken the filtration of tick virus. Wolbach did not attempt its filtration because of unsatisfactory controls. He states:

> Preliminary transmission experiments made with thoroughly crushed tissues from proved infected ticks have deterred me from attempting filtration experiments, as uncertain results were obtained with the unfiltered crushed tissues in salt solution. The cause of failure to infect animals by tick tissues so treated has not been ascertained. In these experiments, using proved infective ticks, it was not possible to transmit the disease by injecting the thoroughly crushed tissues suspended in salt solution; and I have arrived at the tentative conclusion that the infectivity of the virus was destroyed by the procedure.

It was thought highly probable that tick virus which is readily demonstrated in infected fed adult ticks might prove filterable because a salt solution emulsion of tick organs is less viscid and contains less albuminous material than does diluted guinea pig serum, and also because, as we have shown, the virus present in adult ticks following feeding is highly concentrated. However, the intraperitoneal injection of the filtrates of the virus in citrated plasma and tick emulsions from Berkefeld "N" and "V" filters has failed to produce spotted fever in guinea pigs, although *Staphylococcus aureus*, an organism larger than *Dermacentroxenus rickettsi*, [2] described as the causative agent of Rocky Mountain spotted fever, readily passed the "V" filters before and after the tests with Rocky Mountain spotted fever virus. In each instance the animals received larger volumes of the filtrate than animals inoculated with the unfiltered material.

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[1] Ricketts, H. T.: Contributions to Medical Science. Univ. of Chicago Press, 1911.

[2] Wolbach, S. B.: Jour. of Med. Res., Vol. XLI, No. 1, Nov. 1919.

FILTRATION NO. 1.

January 2, 1924: Four infected adult ticks were removed from the ice box and, after incubating at 37° C. for two days, in order to induce feeding, were fastened in a wire gauze capsule to a guinea pig for three days.

January 7, 1924: The four partly fed ticks were removed and their viscera carefully crushed in 10 c. c. of salt solution. Guinea pigs Nos. 1 and 2 received intraperitoneally 1 c. c. each of the unfiltered tick organ emulsion. Guinea pigs Nos. 3 and 4 received intraperitoneally 2 c. c. each of the filtrate from a Berkefeld "N" candle which had been previously found to hold back a broth suspension of *Staphylococcus aureus*.

Results:

Guinea pig No. 1 developed typical spotted fever.

Guinea pig No. 2 developed typical spotted fever.

Guinea pig No. 3, no fever for 11 days.

Guinea pig No. 4, no fever for 11 days.

Guinea pigs Nos. 3 and 4, when subsequently tested for susceptibility by the injection of 1 c. c. of blood virus, developed typical spotted fever.

FILTRATION NO. 2.

January 15, 1924: Six infected adult ticks were incubated and fed as in experiment No. 1. The internal organs were crushed in 14 c. c. of salt solution. Guinea pigs Nos. 5 and 6 received 1 c. c. each of the unfiltered emulsion. Guinea pigs Nos. 7, 8, and 9 received 5 c. c., 4 c. c., and 3 c. c., respectively, of the filtrate from the same candle used in experiment No. 1. The candle was sterilized in the meantime.

Results:

Guinea pig No. 5 developed typical spotted fever.

Guinea pig No. 6 developed typical spotted fever.

Guinea pig No. 7, no fever for 13 days.

Guinea pig No. 8, no fever for 13 days.

Guinea pig No. 9, irregular fever; no external evidence of spotted fever.

Guinea pigs Nos. 7, 8, and 9, when subsequently tested for susceptibility by the injection of blood virus, developed typical spotted fever.

FILTRATION NO. 3.

January 31, 1924: After incubation and 3 days' feeding on a guinea pig, the internal organs of 6 infected adult ticks were crushed in 15 c.c. of salt solution. Guinea pigs Nos. 10 and 11 received 1 c. c. each of the unfiltered emulsion, and Nos. 12 and 13 received 7 c. c.

and 5 c. c., respectively, of the filtrate. The same Berkefeld candle was used that was used in previous experiments, and a 24-hour broth culture of *Staphylococcus aureus* was filtered immediately after the tick emulsion. One, two, and three cubic centimeters of the filtrate from the culture gave no growth in plain broth after 72 hours at 37° C.

Results:

Guinea pig No. 10 developed typical spotted fever.

Guinea pig No. 11 developed typical spotted fever.

Guinea pig No. 12, no fever for 11 days.

Guinea pig No. 13, no fever for 11 days.

Guinea pig Nos. 12 and 13, when subsequently tested for susceptibility by the injection of blood virus, developed typical spotted fever.

FILTRATION NO. 4.

February 19, 1924: In order to rule out a chemical or absorptive affinity for the virus on the part of the filter substance, an old candle was ground to a fine powder. One gram of the powder was suspended in 30 c. c. of distilled water and sterilized by boiling five minutes. After cooling, 2 c. c. of the sterilized suspension of the candle were added to 4 c. c. of guinea pig serum virus. This mixture was thoroughly shaken for 10 minutes and then centrifuged for one-half hour at about 2,000 revolutions per minute. On removal, a very clear layer of diluted serum lay above the powdered material packed at the bottom of the tube. Guinea pig No. 14 received intraperitoneally 1 c. c. from the top of the tube. Guinea pig No. 15 received intraperitoneally 3 c. c. of the remaining clear solution. Guinea pig No. 16 received intraperitoneally the filter powder suspended in salt solution.

Results:

Guinea pig No. 14 developed typical spotted fever.

Guinea pig No. 15 developed typical spotted fever.

Guinea pig No. 16 developed typical spotted fever.

An experiment identical with the above was performed, with the exception that tick virus emulsion was substituted for serum virus. Similar results were obtained; all animals developed spotted fever.

FILTRATION NO. 5.

September 24, 1924: A battery of six new Berkefeld "V" (coarse) filters was sterilized, and 15 c. c. of a 24-hour broth culture of *Staphylococcus aureus* was filtered through each. One, two, and three cubic centimeters of all the filtrates were planted into plain broth.

Filtrates from filters Nos. 1, 2, 5, and 6 gave growth in 24 hours. Those from Nos. 3 and 4 remained sterile five days. All filters were

carefully marked for identification and resterilized the same day. Twenty-four cubic centimeters of the pooled citrated plasma from two spotted fever guinea pigs were diluted to 72 c. c., and about 10 c. c. was passed through each of the six filters.

Guinea pigs Nos. 17 and 18 received 2 c. c. of the diluted unfiltered serum. Guinea pigs Nos. 19, 20, 21, 22, 23, and 24 received 5 c. c. each of the filtrate from Nos. 1 to 6, respectively.

Results:

Guinea pig No. 17 developed typical spotted fever.
Guinea pig No. 18 developed typical spotted fever.
Guinea pig No. 19, no spotted fever for 12 days.
Guinea pig No. 20, no spotted fever for 12 days.
Guinea pig No. 21, no spotted fever for 12 days.
Guinea pig No. 22, no spotted fever for 12 days.
Guinea pig No. 23, no spotted fever for 12 days.
Guinea pig No. 24, no spotted fever for 12 days.

Pigs 19 to 24, receiving the filtrate, developed fatal spotted fever when later injected with blood virus.

FILTRATION NO. 6.

September 26, 1924: The viscera of 10 infected engorged nymphs of *D. andersoni* were emulsified in 50 c. c. of salt solution. Pigs No. 25 and 26 received 1 c. c. each of the unfiltered emulsion. Pigs No. 27 and 28, 29 and 30, 31 and 32, 33 and 34, 35 and 36, and 37 and 38 received 2 and 4 c. c., respectively, of the filtrate from Berfeld "V" filter numbers 1 to 6.

Results.—

Guinea pig No. 25: Developed typical spotted fever.
Guinea pig No. 26: Developed typical spotted fever.
Guinea pig No. 27: No spotted fever for 12 days.
Guinea pig No. 28: No spotted fever for 12 days.
Guinea pig No. 29: No spotted fever for 12 days.
Guinea pig No. 30: No spotted fever for 12 days.
Guinea pig No. 31: No spotted fever for 12 days.
Guinea pig No. 32: No spotted fever for 12 days.
Guinea pig No. 33: No spotted fever for 12 days.
Guinea pig No. 34: No spotted fever for 12 days.
Guinea pig No. 35: No spotted fever for 12 days.
Guinea pig No. 36: No spotted fever for 12 days.
Guinea pig No. 37: No spotted fever for 12 days.
Guinea pig No. 38: No spotted fever for 12 days.

Guinea pigs Nos. 27 to 38 developed fatal spotted fever when inoculated with 1 c. c. of blood virus after 12 days.

FILTRATION NO. 7.

September 29, 1924: Dilute citrated plasma pooled from two spotted fever guinea pigs was again filtered through the same six filters. Two guinea pigs received 1 c. c. each of the unfiltered solution and developed spotted fever. Six guinea pigs received 6 c., c. each of the filtrates from filters numbers 1 to 6, respectively. None developed spotted fever for 10 days, but all developed it after the blood inoculation.

Immediately after this test, and before sterilization of the filters, a broth culture of *Staphylococcus aureus* was mixed with one-half its volume of normal guinea pig plasma, divided into six equal parts, and passed through the six filters. One cubic centimeter of the filtrates from each filter gave growth in plain broth.

SUMMARY.

1. The virus of Rocky Mountain spotted fever as it occurs in the blood of guinea pigs and in emulsions of infected tick viscera (adults and nymphs) will not pass Berkefeld "N" and "V" filters.

2. Inoculation of filtrates of blood or tick virus does not produce immunity in guinea pigs.

3. The coarse "V" filters that hold back the virus of Rocky Mountain spotted fever will readily pass broth cultures of *Staphylococcus aureus*.

4. The failure of the virus to pass Berkefeld filters does not appear to be due to a chemical affinity for or adsorptive property of the material of which the filter candles are made.

FATALITIES FROM ACCIDENTS IN THE UNITED STATES, 1923.

The Department of Commerce announces that in 1923 practically one-fifth of all fatalities from accidents were the result of automobile accidents. Approximately twice as many deaths from automobile accidents occurred in urban as in rural districts; a difference doubtless due in part to the greater number of hospitals in urban districts.

Of the 38 States, only three—Kentucky, Mississippi, and Wyoming—had higher mortality rates from railroad accidents than from automobile accidents. Wyoming had the highest mortality rate from railroad accidents (34 per 100,000 population) and Massachusetts the lowest (3.5).

Wyoming also had the highest mortality rate from all kinds of accidents (195.4 per 100,000 population) and Mississippi the lowest (57).

California had the highest mortality rate from automobile accidents (32.6 per 100,000 population) and also from street car accidents

(4.7), while Mississippi had the lowest rate from automobile accidents (4.4 per 100,000 population), and Wyoming had no deaths from street cars.

Of the 66 cities of 100,000 population and over for which rates are shown, Camden had the highest mortality rate from automobile accidents (35.4), Buffalo the highest from street car accidents (8.9), and Scranton the highest from railroad accidents (16.4), and also from all accidents (144.5).

On the other hand, the lowest rate from automobile accidents (6.2) was for New Bedford and the lowest rate from all accidents (47.3) was for Fort Worth, while Duluth, Jacksonville, San Antonio, and Yonkers had no deaths from street car accidents and New Bedford none from railroad accidents.

Death rates in the registration area per 100,000 population in 1923, from accidents, by States and cities of 100,000 population.

[Rates in italics are based on less than five deaths.]

Area.	Death rates from accidents per 100,000 estimated population in 1923.					
	Automobiles.	Railroads.	Street cars.	Other vehicles.[1]	All other.	Total.
Registration area (exclusive of Hawaii)	14.9	7.3	1.8	1.7	50.7	76.4
Registration States [2]	14.8	7.3	1.8	1.7	50.7	76.3
Cities in registration States [2]	19.6	6.8	3.0	1.7	52.3	83.4
Rural part of registration States	10.4	7.8	.7	1.7	49.2	69.9
Registration cities in nonregistration States	18.5	8.1	2.2	1.5	54.1	84.4
All registration cities [2]	19.5	6.8	3.0	1.7	52.4	83.4
REGISTRATION STATES.						
California	32.6	8.8	4.7	1.7	60.3	108.0
Cities	28.2	6.1	6.0	1.4	54.0	95.7
Rural districts	38.6	12.6	2.8	2.2	68.9	125.1
Colorado	15.9	8.8	.7	3.2	54.1	82.7
Cities	16.4	6.3	1.8	1.8	39.6	66.0
Rural districts	15.5	10.3	----------	4.1	63.1	93.1
Connecticut	16.9	4.1	2.4	2.0	47.9	73.2
Cities	18.6	4.0	2.8	2.1	50.4	77.9
Rural districts	11.4	4.5	*1.1*	1.4	40.1	58.5
Delaware	23.9	3.9	*.9*	2.2	52.9	83.7
Cities	24.6	*2.5*	*.8*	*1.7*	53.5	83.2
Rural districts	23.1	5.3	*.9*	*2.7*	52.3	84.3
Florida	16.2	7.7	*.3*	1.3	64.5	90.1
Cities	23.1	6.4	.7	1.8	61.2	93.2
Rural districts	13.7	8.2	*.1*	1.2	65.7	89.0
Georgia	8.6	5.8	.4	1.6	45.3	61.8
Cities	21.4	10.2	1.8	2.3	66.8	102.4
Rural districts	5.6	4.8	*.1*	1.4	40.2	52.3
Idaho	10.8	4.7	*.2*	3.8	52.1	71.7
Cities	37.6	12.5	*2.5*	----------	55.1	107.7
Rural districts	8.4	4.0	----------	4.2	51.8	68.3
Illinois	15.2	10.2	3.7	1.9	45.3	76.3
Cities	19.6	7.9	4.9	1.9	45.3	79.6
Rural districts	8.5	13.7	1.8	1.8	45.4	71.2
Indiana	14.4	12.6	3.5	1.7	48.5	80.7
Cities	18.7	13.1	5.0	1.6	50.4	88.9
Rural districts	11.1	12.3	2.4	1.8	47.1	74.7
Iowa	9.8	6.3	1.0	2.0	43.1	62.1
Cities	15.7	9.2	3.2	1.4	55.6	85.2
Rural districts	7.7	5.2	*.2*	2.3	38.6	53.9
Kansas	12.1	8.0	.6	1.8	47.3	69.7
Cities	15.0	11.5	1.3	1.3	62.1	91.2
Rural districts	11.1	6.8	*.3*	1.9	42.4	62.5

[1] Includes motorcycle accidents but excludes aeroplane and balloon accidents.
[2] Includes District of Columbia.

Death rates in the registration area per 100,000 population in 1923, from accidents, by States and cities of 100,000 population—Continued.

[Rates in italics are based on less than five deaths.]

Area.	Death rates from accidents per 100,000 estimated population in 1923					
	Automobiles.	Railroads.	Street cars.	Other vehicles.	All other.	Total.
REGISTRATION STATES—Continued.						
Kentucky	6.7	7.6	0.3	1.0	47.9	63.5
Cities	19.1	11.1	1.5	*.6*	53.8	86.1
Rural districts	3.8	6.7	*.1*	1.1	46.5	58.2
Louisiana	8.5	5.8	.7	1.3	54.0	70.4
Cities	17.3	9.6	2.4	1.5	76.1	106.9
Rural districts	5.0	4.3	----	1.2	45.1	55.6
Maine	11.7	4.2	1.5	2.4	54.8	74.7
Cities	15.9	6.2	4.0	2.2	65.6	93.9
Rural districts	10.0	3.4	*.5*	2.5	50.4	66.9
Maryland	16.1	4.7	1.7	2.0	51.4	75.9
Cities	19.0	4.9	2.2	2.2	50.5	78.8
Rural districts	12.4	4.3	1.1	1.7	52.5	72.0
Massachusetts	15.2	3.5	1.7	1.8	48.0	70.2
Cities	15.4	2.8	1.9	1.8	49.0	70.9
Rural districts	14.3	6.3	.7	1.9	43.7	67.0
Michigan	18.6	7.8	2.9	1.7	52.1	83.0
Cities	21.3	7.4	3.5	1.1	47.0	80.5
Rural districts	15.1	8.2	2.1	2.4	58.4	86.3
Minnesota	13.1	6.3	.5	2.4	45.8	68.1
Cities	18.6	5.9	1.4	1.9	53.2	80.9
Rural districts	10.2	6.5	----	2.6	41.8	61.1
Mississippi	4.4	5.4	*.1*	1.1	46.1	57.0
Cities	18.8	21.6	.7	.7	110.7	152.5
Rural districts	3.1	4.0	----	1.2	40.4	48.7
Missouri	11.6	6.2	.9	2.0	44.4	65.1
Cities	20.8	6.5	2.2	2.3	50.7	82.5
Rural districts	5.1	6.0	(1)	1.8	40.1	53.0
Montana	8.0	6.9	*.5*	2.6	58.9	76.9
Cities	20.2	6.5	*2.4*	4.0	75.1	108.2
Rural districts	4.9	7.0	----	2.3	54.8	68.9
Nebraska	9.2	6.0	.4	3.1	38.8	57.4
Cities	17.8	9.2	1.6	2.3	46.2	77.2
Rural districts	6.7	5.0	----	3.3	36.6	51.6
New Hampshire	13.2	5.6	*.4*	1.6	55.4	76.2
Cities	16.4	7.0	*1.0*	3.0	57.3	84.7
Rural districts	10.5	4.5	----	*.4*	53.9	69.3
New Jersey	19.9	9.2	1.4	1.6	49.1	81.2
Cities	22.3	7.9	1.5	1.5	49.6	82.9
Rural districts	15.4	11.8	1.0	1.7	48.2	78.1
New York	17.8	5.6	2.8	1.6	53.0	80.9
Cities	18.1	3.8	3.3	1.4	50.5	77.0
Rural districts	16.8	12.5	1.1	2.2	62.6	95.2
North Carolina	9.6	5.4	.2	1.1	43.6	59.9
Cities	23.9	13.5	1.3	2.4	57.4	98.6
Rural districts	7.3	4.0	----	.9	41.4	53.6
Ohio	17.6	9.9	2.7	1.1	52.2	83.5
Cities	21.9	9.1	3.1	1.2	52.3	87.6
Rural districts	11.9	10.9	2.2	1.0	52.1	78.1
Oregon	14.6	7.7	*.2*	1.6	65.6	89.6
Cities	16.3	8.8	*.6*	*.5*	53.6	79.6
Rural districts	13.5	6.9	----	2.4	73.2	96.0
Pennsylvania	17.5	9.7	1.6	1.9	60.3	90.9
Cities	20.5	8.8	2.5	2.2	61.4	95.5
Rural districts	14.3	10.7	.6	1.5	59.0	86.1
Rhode Island	15.5	4.0	4.3	*.5*	43.9	68.1
Cities	15.9	4.2	4.6	*.4*	45.7	70.8
Rural districts	13.3	*2.8*	*2.8*	*.9*	35.1	55.0
South Carolina	6.8	4.0	*.1*	1.5	45.6	58.0
Cities	22.8	4.9	*.5*	*1.6*	62.3	92.2
Rural districts	4.9	3.9	*.1*	1.5	43.6	54.0
Tennessee	7.1	6.1	.3	1.4	43.2	58.2
Cities	23.5	12.9	1.3	2.9	73.8	114.4
Rural districts	3.0	4.4	*.1*	1.0	35.5	44.1
Utah	12.6	8.8	1.5	3.8	56.6	83.3
Cities	18.0	10.4	*2.5*	4.6	58.6	94.0
Rural districts	9.5	7.9	*1.0*	3.3	55.5	77.2
Vermont	13.1	4.8	*.5*	1.7	57.0	76.9
Cities	30.7	----	*2.0*	----	65.5	98.3
Rural districts	10.2	5.6	----	2.0	55.7	73.5
Virginia	8.3	5.7	.8	1.0	48.1	63.9
Cities	13.5	6.6	2.1	1.3	51.3	74.7
Rural districts	6.5	5.4	.3	.9	47.0	60.1

[1] Less than one-tenth of 1 per 100,000 population.

Death rates in the registration area per 100,000 population in 1923, from accidents, by States and cities of 100,000 population—Continued.

[Rates in italics are based on less than five deaths.]

Area.	Death rates from accidents per 100,000 estimated population in 1923.					
	Automobiles.	Railroads.	Street cars.	Other vehicles.	All other.	Total.
REGISTRATION STATES—Continued.						
Washington	16.7	7.3	2.0	2.2	66.5	94.6
Cities	18.7	3.1	3.4	2.1	48.9	76.1
Rural districts	15.0	11.1	.7	2.3	82.3	111.3
Wisconsin	10.7	5.3	1.3	1.8	39.6	58.7
Cities	14.5	6.4	2.9	1.8	38.8	64.4
Rural districts	8.4	4.6	.3	1.8	40.1	55.2
Wyoming	24.1	34.0	----------	4.2	133.1	195.4
Cities	62.7	*13.2*	----------	*6.6*	161.6	244.1
Rural districts	17.6	37.5	----------	3.9	128.3	187.3
REGISTRATION CITIES OF 100,000 POPULATION OR MORE IN 1920.						
Akron	(1)	(1)	(1)	(1)	(1)	(1)
Albany	23.0	8.5	*3.4*	*2.6*	52.8	90.3
Atlanta	24.7	6.3	3.1	3.6	61.0	98.7
Baltimore	16.9	3.4	2.5	1.4	48.7	72.9
Birmingham	25.0	14.8	2.6	3.1	63.8	109.2
Boston	17.3	2.7	3.4	1.3	69.1	93.7
Bridgeport	(1)	(1)	(1)	(1)	(1)	(1)
Buffalo	25.5	9.9	8.9	1.5	43.2	89.1
Cambridge	25.1	*2.7*	*1.8*	*.9*	53.8	84.3
Camden	35.4	13.7	4.0	*.8*	66.0	120.0
Chicago	20.4	6.3	5.1	2.1	43.1	77.0
Cincinnati	25.1	11.8	3.2	*1.0*	56.1	97.2
Cleveland	22.8	4.3	3.2	1.0	42.7	73.9
Columbus	22.2	5.4	*1.5*	*1.1*	57.1	87.3
Dallas	18.7	2.7	*1.6*	*2.2*	45.0	70.2
Dayton	16.3	6.6	6.6	----------	55.0	84.6
Denver	(1)	(1)	(1)	(1)	(1)	(1)
Des Moines	12.8	3.5	7.8	*1.4*	55.3	80.9
Detroit	(1)	(1)	(1)	(1)	(1)	(1)
Duluth	20.7	*3.8*	----------	*.9*	37.6	63.0
Fall River	18.2	*2.5*	*.8*	4.1	43.8	69.5
Fort Worth	6.3	8.3	3.5	----------	29.2	47.3
Grand Rapids	18.5	8.2	*1.4*	*.7*	34.9	63.7
Hartford	26.3	3.3	5.3	3.9	57.2	96.0
Houston	(1)	(1)	(1)	(1)	(1)	(1)
Indianapolis	15.5	6.7	5.5	1.5	32.4	61.6
Jacksonville, Fla	21.0	8.0	----------	*2.0*	58.0	89.0
Jersey City	12.0	11.6	*1.3*	1.6	44.7	71.2
Kansas City, Kans	10.4	15.5	*3.5*	*.9*	70.8	101.1
Kansas City, Mo	24.4	8.0	2.3	1.7	45.2	81.6
Los Angeles	(1)	(1)	(1)	(1)	(1)	(1)
Louisville	25.6	6.6	1.9	*.4*	50.8	85.4
Lowell	15.6	6.1	*1.7*	*1.7*	40.0	65.2
Lynn	19.5	*1.0*	*1.9*	*1.9*	45.8	70.1
Memphis	27.0	10.6	*.6*	*2.4*	76.4	117.0
Milwaukee	12.8	4.1	4.7	1.7	33.6	57.0
Minneapolis	14.7	3.4	1.5	1.2	52.6	73.3
Nashville	22.8	10.6	*2.4*	*2.4*	78.3	116.6
New Bedford	6.2	----------	*.8*	*.8*	53.8	61.5
New Haven	16.2	3.5	*2.5*	2.9	57.8	82.7
New Orleans	16.8	5.7	3.0	1.7	67.7	94.9
New York	16.3	1.6	3.0	1.2	48.5	70.6
Bronx Borough	15.3	1.8	2.6	.7	28.8	49.3
Brooklyn Borough	12.9	.9	3.6	1.4	42.3	61.3
Manhattan Borough	20.9	1.0	2.8	1.3	62.9	88.9
Queens Borough	12.3	5.2	1.9	1.1	39.2	59.7
Richmond Borough	12.5	5.5	*1.6*	*1.6*	66.6	87.8
Newark, N. J	24.4	3.0	1.1	1.1	53.8	83.4
Norfolk	8.2	*.6*	*1.3*	*.6*	49.7	60.3
Oakland	20.8	7.9	6.7	*1.2*	33.7	70.4
Oklahoma City	18.8	6.9	4.9	*1.0*	56.4	88.0
Omaha	19.6	4.9	2.4	*2.0*	45.5	74.4
Paterson	27.9	8.6	*2.9*	*1.4*	52.3	93.1
Philadelphia	15.3	3.6	3.2	2.2	49.6	73.9
Pittsburgh	23.5	11.1	2.6	2.1	68.5	107.8
Portland, Oreg	14.3	8.4	.7	*.4*	47.5	71.3
Providence	21.5	3.3	6.6	----------	52.8	84.2
Reading	24.3	7.2	*2.7*	*3.6*	49.6	87.5
Richmond	14.4	3.9	3.3	*1.1*	54.7	77.3
Rochester	13.8	5.0	*.6*	2.5	34.5	56.4
St. Louis	20.9	4.5	2.7	3.0	45.9	77.0

1 Population not estimated.

Death rates in the registration area per 100,000 population in 1923, from accidents, by States and cities of 100,000 population—Continued.

[Rates in italics are based on less than five deaths.]

Area.	Death rates from accidents per 100,000 estimated population in 1923.					
	Automobiles.	Railroads.	Street cars.	Other vehicles.	All other.	Total.
REGISTRATION CITIES OF 100,000 POPULATION OR MORE IN 1920—Continued.						
St. Paul	24.4	9.5	2.1	2.9	53.7	92.6
Salt Lake City	15.8	11.1	*5.2*	5.5	62.6	98.2
San Antonio	16.2	4.9	----	*2.2*	37.9	61.2
San Francisco	19.9	3.7	5.8	1.5	48.4	79.2
Scranton	29.2	16.4	*2.1*	*1.4*	95.3	144.3
Seattle	(1)	(1)	(1)	(1)	(1)	(1)
Spokane	(1)	(1)	(1)	(1)	(1)	(1)
Springfield, Mass	15.9	.7	.7	*2.1*	48.5	67.9
Syracuse	23.3	7.0	*2.2*	*2.2*	54.7	89.4
Tacoma	20.6	*3.9*	6.9	*2.0*	47.2	80.6
Toledo	23.4	10.8	3.0	*1.5*	45.3	83.9
Trenton	28.3	6.3	*2.1*	.8	58.1	95.8
Utica	16.4	5.8	*3.9*	*1.9*	54.1	82.2
Washington, D. C	18.1	1.9	1.9	1.7	44.5	68.1
Wilmington, Del	24.6	*2.5*	.8	*1.7*	53.5	83.2
Worcester	17.2	3.6	*1.6*	5.7	49.5	77.6
Yonkers	15.8	.9	----	----	51.5	67.9
Youngstown	24.6	10.6	*2.0*	.7	59.2	97.1

[1] Population not estimated.

DEATH RATES IN A GROUP OF INSURED PERSONS.

COMPARISON OF PRINCIPAL CAUSES OF DEATH, SEPTEMBER AND OCTOBER, 1924, AND SEPTEMBER AND YEAR 1923.

The accompanying table is taken from the Statistical Bulletin for November, 1924, published by the Metropolitan Life Insurance Co., and it presents the mortality experience of the industrial insurance department of the company for October, 1924, September, 1924, October, 1923, and for the year 1923.

Causes of death.	Rate per 100,000 lives exposed.[1]			
	October, 1924.	September, 1924.	October, 1923.	Year 1923.
Total, all causes	832.7	834.5	877.3	928.2
Typhoid fever	6.2	8.1	6.5	5.1
Measles	.8	.6	2.1	9.5
Scarlet fever	1.7	1.2	2.3	4.4
Whooping cough	4.8	8.5	6.8	7.4
Diphtheria	11.0	7.3	17.2	15.5
Influenza	5.7	3.6	4.6	30.3
Tuberculosis (all forms)	90.6	88.9	97.2	110.1
Tuberculosis of respiratory system	80.4	78.2	87.1	99.7
Cancer	69.6	72.8	76.3	71.8
Diabetes mellitus	15.3	14.2	14.3	16.0
Cerebral hemorrhage	58.1	52.0	56.9	61.2
Organic diseases of heart	113.9	108.9	113.6	127.3
Pneumonia (all forms)	56.1	37.6	56.7	83.9
Other respiratory diseases	12.5	9.7	9.8	-13.9
Diarrhea and enteritis	48.0	71.8	55.4	28.2
Bright's disease (chronic nephritis)	62.3	59.4	64.2	68.8
Puerperal state	14.7	14.8	14.6	17.7
Suicides	7.2	8.0	6.4	7.3
Homocides	7.3	7.1	9.7	7.3
Other external causes (excluding suicides and homicides)	61.4	63.2	68.0	62.9
Traumatism by automobile	16.9	18.8	19.1	15.4
All other causes	185.7	196.8	194.6	179.3

[1] All figures include infants insured under 1 year of age.

The bulletin says:

"The October death rate of the industrial policy holders (8.3 per 1,000) was identical with that for September, the usual seasonal rise not being in evidence this year. This condition emphasizes the very satisfactory health situation which now prevails throughout the United States and Canada. This year's October rate is lower by 5 per cent than that for October, 1923.

"The table shows quite general improvement throughout the list of the principal causes of death as compared with October a year ago. In the few instances where this year's figures are higher the increases are small. All of the epidemic diseases of childhood have recorded declines, that for diphtheria being the most pronounced. The 1924 diphtheria record has been uniformly encouraging. Not once this year has any month's death rate for this disease failed to show a drop as compared with the corresponding month of 1923. The October typhoid rate of 6.2 per 100,000 is the lowest we have ever recorded for this disease during that month. Tuberculosis mortality was lower by 6.8 per cent than in October a year ago, and deaths from cancer by 8.8 per cent. * * *

"There were fewer homicides, fewer accidents, and even fewer automobile fatalities this October than a year ago. Deaths from influenza increased a little over last year's October figure, but the death rate remained low. Diabetes mortality was higher than that recorded during the same month of last year and this was also true in September, reversing the experience for prior months of this year. The cumulative, or year-to-date rate for diabetes, nevertheless, shows marked improvement over 1923."

DEATHS DURING WEEK ENDED DECEMBER 13, 1924.

Summary of information received by telegraph from industrial insurance companies for week ended December 13, 1924, and corresponding week of 1923. (From the Weekly Health Index, December 16, 1924, issued by the Bureau of the Census, Department of Commerce.)

	Week ended Dec. 13, 1924.	Corresponding week, 1923.
Policies in force	57, 920, 688	54, 275, 487
Number of death claims	11, 173	10, 359
Death claims per 1,000 policies in force, annual rate	10. 1	10. 0

Deaths from all causes in certain large cities of the United States during the week ended December 13, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, December 16, 1924, issued by the Bureau of the Census, Department of Commerce.)

City.	Week ended Dec. 13, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Dec. 13, 1924.[2]
	Total deaths.	Death rate.[1]		Week ended Dec. 13, 1924.	Corresponding week, 1923.	
Total (63 cities)	6,873	13.4	[3] 12.2	804	[3] 640	----------
Albany [4]	42	18.5	12.0	5	2	114
Atlanta	80	18.3	16.6	8	9	----------
Baltimore [4]	235	15.6	14.6	28	20	83
Birmingham	68	17.7	16.0	11	6	----------
Boston	240	16.1	12.2	37	22	103
Bridgeport	21	----------	----------	2	7	32
Buffalo	171	16.4	12.0	31	17	131
Cambridge	32	14.9	14.0	2	3	35
Camden	46	19.0	13.9	7	4	115
Chicago [4]	667	11.8	10.8	81	59	76
Cincinnati	116	14.8	13.0	12	6	75
Cleveland	191	10.9	10.2	24	24	61
Columbus	75	14.7	15.6	6	11	57
Dallas	41	11.4	8.6	11	5	----------
Dayton	43	13.2	8.5	6	4	100
Denver	80	----------	----------	9	8	----------
Des Moines	29	10.4	7.8	3	0	----------
Detroit	426	----------	----------	43	47	80
Duluth	18	8.7	11.3	3	3	65
Erie	28	----------	----------	3	2	62
Fall River [4]	26	11.2	9.1	4	3	56
Flint	17	----------	----------	4	2	69
Fort Worth	34	12.0	7.6	3	5	----------
Grand Rapids	23	9.1	8.6	2	1	31
Houston	55	----------	----------	5	2	----------
Jacksonville, Fla	33	16.8	22.9	5	5	----------
Jersey City	84	14.0	11.1	11	5	78
Kansas City, Mo	95	13.8	12.7	15	12	----------
Los Angeles	242	----------	----------	21	20	66
Louisville	81	16.3	14.6	10	8	93
Lowell	29	13.1	13.6	4	6	71
Lynn	29	14.6	11.2	2	4	51
Memphis	69	20.9	16.9	8	8	----------
Milwaukee	85	9.0	8.5	11	14	52
Minneapolis	125	15.6	8.8	9	4	48
Nashville [4]	62	26.2	22.1	8	2	----------
New Bedford	24	9.4	6.0	6	4	94
New Haven	43	12.7	15.1	4	5	53
New Orleans	148	18.8	19.5	15	14	----------
New York	1,485	12.9	11.3	172	149	70
Bronx Borough	165	9.9	9.6	25	17	88
Brooklyn Borough	510	12.1	10.3	62	49	66
Manhattan Borough	620	14.3	13.4	64	78	65
Queens Borough	143	13.4	8.9	13	5	65
Richmond Borough	47	18.8	13.5	8	0	146
Newark, N. J	96	11.2	11.2	11	10	52
Norfolk	29	9.2	9.8	3	3	54
Oakland	51	10.8	14.1	5	4	63
Oklahoma City	23	11.5	----------	2	----------	----------
Omaha	56	14.0	14.5	8	6	86
Paterson	30	11.1	9.0	8	3	136
Philadelphia	522	14.0	13.4	47	49	60
Pittsburgh	165	13.7	14.2	15	20	51
Portland, Oreg	65	12.2	12.6	6	4	62
Providence	75	16.0	14.6	5	14	41
Richmond	54	15.3	10.7	7	1	85
Rochester	53	8.5	----------	3	----------	24
St. Louis	256	16.4	13.3	29	16	----------
St. Paul	47	10.0	8.4	1	3	9
Salt Lake City [4]	26	10.5	17.3	2	6	40
San Antonio	58	15.8	14.4	10	9	----------
San Francisco	150	14.3	16.3	11	2	66

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1923. Cities left blank are not in the registration area for births.
[3] Data for 61 cities.
[4] Deaths for week ended Friday, Dec. 12, 1924.

Deaths from all causes in certain large cities of the United States during the week ended December 13, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, December 16, 1924, issued by the Bureau of the Census, Department of Commerce.)—Continued.

City.	Week ended Dec. 13, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Dec. 13, 1924.
	Total deaths.	Death rate.		Week ended Dec. 13, 1924.	Corresponding week, 1923.	
Schenectady	17	8.8	9.0	1	2	30
Seattle	65			5	3	49
Somerville	24	12.5	9.5	4	3	109
Spokane	27			1	2	22
Springfield, Mass	33	11.6	8.3	6	4	101
Syracuse	45	12.5	8.2	3	5	37
Tacoma	15	7.6	12.3	1	2	24
Toledo	59	11.1	14.7	4	3	38
Trenton	41	16.5	15.1	6	5	100
Utica	31	15.3	16.6	6	2	131
Washington, D. C	119	12.7	12.2	7	7	41
Waterbury	24			4	1	93
Wilmington, Del	38	16.5	14.2	6	2	134
Worcester	52	13.9	10.3	3	6	36
Yonkers	31	14.7	9.2	9	3	196
Youngstown	40	13.4	7.6	11	2	151

PREVALENCE OF DISEASE.

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

UNITED STATES.

CURRENT WEEKLY STATE REPORTS.

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

Reports for Week Ended December 20, 1924.

ALABAMA.	Cases.
Cerebrospinal meningitis	2
Chicken pox	52
Diphtheria	38
Influenza	130
Malaria	16
Measles	61
Mumps	32
Ophthalmia neonatorum	3
Pellagra	10
Pneumonia	165
Poliomyelitis	1
Scarlet fever	31
Smallpox	108
Tetanus	2
Tuberculosis	35
Typhoid fever	29
Whooping cough	31
ARIZONA.	
Chicken pox	4
Diphtheria	8
Measles	10
Mumps	8
Scarlet fever	5
Smallpox	2
Trachoma	4
Tuberculosis	86
Typhoid fever	1
ARKANSAS.	
Chicken pox	16
Diphtheria	7
Hookworm disease	1
Influenza	60
Malaria	20
Measles	3
Mumps	1
Pneumonia	2
Scarlet fever	14
ARKANSAS—continued.	**Cases.**
Smallpox	16
Tuberculosis	5
Typhoid fever	8
Whooping cough	7
CALIFORNIA.	
Botulism:	
Loma Linda	1
Cerebrospinal meningitis:	
Santa Paula	1
Diphtheria	193
Influenza	10
Measles	46
Poliomyelitis:	
Alameda	2
Colusa	1
Kern County	1
Los Angeles	1
Oakland	2
San Diego	1
Scarlet fever	127
Smallpox:	
Los Angeles	25
Los Angeles County	13
Scattering	61
Typhoid fever	11
COLORADO.	
(Exclusive of Denver.)	
Chicken pox	21
Diphtheria	8
Influenza	2
Measles	1
Mumps	3
Pneumonia	2
Scarlet fever	16
Tuberculosis	34

CONNECTICUT	Cases.
Chicken pox	70
Conjunctivitis (infectious)	3
Diphtheria	44
German measles	39
Influenza	27
Lethargic encephalitis	3
Measles	16
Mumps	27
Pneumonia (lobar)	22
Poliomyelitis	1
Scarlet fever	180
Septic sore throat	5
Tuberculosis (all forms)	22
Typhoid fever	2
Whooping cough	61

DELAWARE.	
Diphtheria	2
Influenza	5
Measles	1
Mumps	3
Pneumonia	1
Scarlet fever	1
Whooping cough	2

FLORIDA.	
Cerebrospinal meningitis	1
Diphtheria	19
Influenza	2
Malaria	11
Paratyphoid fever	1
Pneumonia	3
Scarlet fever	4
Typhoid fever	15

GEORGIA.	
Chicken pox	19
Diphtheria	32
Dysentery (amebic)	2
Influenza	20
Malaria	2
Measles	9
Mumps	27
Pellagra	1
Pneumonia	12
Scarlet fever	2
Septic sore throat	3
Tuberculosis	2
Typhoid fever	1
Whooping cough	1

ILLINOIS.	
Diphtheria:	
Cook County	97
Scattering	77
Influenza	19
Lethargic encephalitis	6
Measles	180
Pneumonia	311
Poliomyelitis	1
Scarlet fever	386
Smallpox	9
Tuberculosis	256
Typhoid fever	61
Whooping cough	198

[1] Week ended Friday.

INDIANA.	Cases.
Chicken pox	351
Diphtheria	52
Influenza	76
Measles	23
Mumps	8
Pneumonia	13
Scarlet fever	115
Smallpox:	
Marion County	8
Vigo County	8
Scattering	40
Tuberculosis	89
Typhoid fever	3
Whooping cough	31

IOWA.	
Diphtheria	25
Scarlet fever	45
Smallpox	34
Typhoid fever	2

KANSAS.	
Cerebrospinal meningitis	1
Chicken pox	169
Diphtheria	58
Influenza	9
Measles	3
Mumps	147
Pneumonia	32
Scarlet fever	81
Smallpox	3
Trachoma	2
Tuberculosis	34
Typhoid fever	4
Whooping cough	40

LOUISIANA.	
Diphtheria	34
Influenza	29
Leprosy	2
Malaria	5
Measles	9
Pneumonia	60
Scarlet fever	22
Smallpox	23
Tuberculosis	27
Typhoid fever	41
Whooping cough	4

MAINE.	
Cerebrospinal meningitis	1
Chicken pox	80
Diphtheria	4
Influenza	8
Measles	2
Mumps	63
Pneumonia	12
Poliomyelitis	2
Scarlet fever	44
Tuberculosis	6
Typhoid fever	9
Whooping cough	7

MARYLAND. [1]	
Chicken pox	107
Diphtheria	54

MARYLAND—continued.	Cases.
Dysentery	1
German measles	4
Lethargic encephalitis	1
Malaria	1
Measles	24
Mumps	17
Pneumonia (all forms)	109
Scarlet fever	72
Septic sore throat	1
Tuberculosis	37
Typhoid fever	10
Whooping cough	74

MASSACHUSETTS.

Anthrax	1
Chicken pox	301
Conjunctivitis (suppurative)	16
Diphtheria	153
German measles	45
Influenza	11
Lethargic encephalitis	6
Measles	141
Mumps	121
Ophthalmia neonatorum	22
Pneumonia (lobar)	110
Poliomyelitis	1
Scarlet fever	313
Septic sore throat	2
Tuberculosis (all forms)	117
Typhoid fever	16
Whooping cough	71

MICHIGAN.

Diphtheria	118
Measles	119
Pneumonia	95
Scarlet fever	265
Smallpox	14
Tuberculosis	144
Typhoid fever	10
Whooping cough	82

MINNESOTA.

Chicken pox	139
Diphtheria	127
Influenza	1
Measles	19
Poliomyelitis	1
Pneumonia	2
Scarlet fever	188
Smallpox	103
Trachoma	1
Tuberculosis	40
Typhoid fever	1
Whooping cough	30

MISSISSIPPI.

Diphtheria	12
Scarlet fever	4
Smallpox	7
Typhoid fever	8

MISSOURI.

(Exclusive of Cape Girardeau and Independence.)

Cerebrospinal meningitis	1
Chicken pox	53
Diphtheria	72
Epidemic sore throat	1

MISSOURI—continued.	Cases.
Influenza	9
Measles	5
Mumps	16
Pneumonia	9
Scarlet fever	249
Smallpox	14
Tetanus	1
Typhoid fever	5
Whooping cough	1

MONTANA.

Diphtheria	25
Scarlet fever	4
Smallpox	1
Typhoid fever	1

NEBRASKA.

Chicken pox	52
Diphtheria	6
German measles	1
Influenza	3
Measles	1
Mumps	5
Pneumonia	1
Smallpox	10
Scarlet fever	15
Tuberculosis	1
Whooping cough	2

NEW JERSEY.

Chicken pox	240
Diphtheria	117
Influenza	19
Measles	72
Paratyphoid fever	1
Pneumonia	188
Scarlet fever	162
Smallpox	3
Typhoid fever	49
Whooping cough	271

NEW MEXICO.

Chicken pox	38
Diphtheria	4
Influenza	1
Measles	67
Mumps	8
Pneumonia	2
Poliomyelitis	1
Rabies in animals	1
Scarlet fever	12
Tuberculosis	13
Typhoid fever	9
Whooping cough	2

NEW YORK.

(Exclusive of Buffalo and New York City.)

Cerebrospinal meningitis	1
Diphtheria	103
Influenza	33
Lethargic encephalitis	9
Measles	74
Pneumonia	211
Poliomyelitis	5
Scarlet fever	273
Smallpox	14
Typhoid fever	79
Whooping cough	200

NORTH CAROLINA.	Cases.
Chicken pox	195
Diphtheria	73
German measles	2
Measles	27
Scarlet fever	49
Septic sore throat	2
Smallpox	48
Typhoid fever	2
Whooping cough	143

OKLAHOMA.

(Exclusive of Oklahoma and Tulsa.)

Diphtheria	38
Smallpox	2
Typhoid fever	65

OREGON.

Chicken pox	25
Diphtheria:	
Portland	13
Salem	10
Scattering	10
Measles	3
Pneumonia	[1] 12
Scarlet fever:	
Portland	9
Scattering	14
Septic sore throat	1
Smallpox:	
Portland	8
Scattering	4
Tuberculosis	8
Typhoid fever	3
Whooping cough	5

SOUTH DAKOTA.

Chicken pox	22
Diphtheria	8
Pneumonia	2
Scarlet fever	50
Smallpox	9

TEXAS.

Chicken pox	19
Dengue	3
Diphtheria	46
Dysentery	9
Influenza	76
Measles	13
Mumps	50
Pellagra	1
Pneumonia	18
Rabies in man	1
Scarlet fever	33
Smallpox	3
Trachoma	1
Tuberculosis	26
Typhoid fever	1
Whooping cough	21

[1] Deaths.

VERMONT.

	Cases.
Chicken pox	63
Diphtheria	7
Mumps	21
Scarlet fever	17
Whooping cough	8

WASHINGTON.

Chicken pox	111
Diphtheria	35
Measles	39
Mumps	32
Poliomyelitis:	
Kitsap County	1
Klickitat County	1
Snohomish	2
Seattle	1
Yakima County	1
Scarlet fever	31
Smallpox	30
Tuberculosis	2
Typhoid fever	2
Whooping cough	6

WEST VIRGINIA.

Diphtheria	14
Scarlet fever	18
Typhoid fever	4

WISCONSIN.

Milwaukee:	
Chicken pox	67
Diphtheria	15
German measles	127
Lethargic encephalitis	3
Measles	261
Mumps	66
Pneumonia	7
Scarlet fever	13
Tuberculosis	18
Typhoid fever	1
Whooping cough	21
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	239
Diphtheria	30
German measles	4
Influenza	33
Measles	51
Mumps	187
Pneumonia	22
Scarlet fever	132
Smallpox	26
Tuberculosis	17
Typhoid fever	5
Whooping Cough	69

WYOMING.

Chicken pox	12
Mumps	3
Scarlet fever	6

Reports for Week Ended December 13, 1924.

DISTRICT OF COLUMBIA.	Cases.
Chicken pox	38
Diphtheria	21
Influenza	3
Measles	4
Scarlet fever	41
Tuberculosis	22
Typhoid fever	12
Whooping cough	9
NEBRASKA.	
Chicken pox	27
Diphtheria	11
German measles	1
Influenza	1
Pneumonia	1
Poliomyelitis	1
Scarlet fever	14
Smallpox	15
Tuberculosis	1
Typhoid fever	2
Whooping cough	4
NORTH DAKOTA.	
Chicken pox	40
Diphtheria	7
Measles	12
Mumps	3
Pneumonia	6
Poliomyelitis	4
Scarlet fever	48
Smallpox	13
Tuberculosis	2
Whooping cough	5

SUMMARY OF MONTHLY REPORTS FROM STATES.

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

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
July, 1924.										
Nebraska	1	37						21		9
August, 1924.										
Nebraska		36	2					19		7
September, 1924.										
Nebraska		95					4	28		8
Tennessee		100	68	313	11	83		69	51	254
October, 1924.										
California	13	910	93	7	109	7	51	513	327	141
Indiana	1	422	129				19	444		124
South Carolina		479	15	7		1	2	12	11	23
Tennessee		176	162	49	20	62	5	144	52	161
Utah	3	78	16		186			34	24	162
November, 1924.										
Alabama	2	180	324	187	59	18	1	117	182	75
Arkansas	1	53	237	211	17	16		24	64	96
Georgia		137	24	37	4			36	8	35
Illinois	6	693	36	4	343	1	62	1,105	58	125
Indiana	3	472	170				15	563		77
Louisiana		130	59	107	1	5		42	20	118
Massachusetts	5	620	42	1	379	2	23	937		44
Missouri	2	522	30	2	26		5	1,025	37	73
New Jersey	9	364	55	1	133		7	518	14	72
New York	18	1,202	242	11	551		114	1,468	156	286
Wyoming		3	1		55			29	12	1

RODENT PLAGUE IN THE UNITED STATES.

Los Angeles, Calif.—During the week ended December 20, 1924, five rats were found to be plague-infected at Los Angeles, Calif.

Oakland, Calif.—In Oakland, Calif., five rats were found to be plague-infected during the week ended December 20, 1924.

New Orleans, La.—One plague-infected rat was reported from New Orleans, La., during the week ended December 20, 1924.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES.

Diphtheria.—For the week ended December 6, 1924, 35 States reported 2,205 cases of diphtheria. For the week ended December 8, 1923, the same States reported 3,300 cases of this disease. One hundred and three cities, situated in all parts of the country and having an aggregate population of more than 28,700,000, reported 1,052 cases of diphtheria for the week ended December 6, 1924. Last year, for the corresponding week, they reported 1,571 cases. The estimated expectancy for these cities was 1,507 cases of diphtheria. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty States reported 1,116 cases of measles for the week ended December 6, 1924, and 8,770 cases of this disease for the week ended December 8, 1923. One hundred and three cities reported 589 cases of measles for the week this year, and 1,871 cases last year.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 3,351 cases; last year, 3,623 cases. One hundred and three cities—this year, 1,480 cases; last year, 1,374 cases; estimated expectancy, 974 cases.

Smallpox.—For the week ended December 6, 1924, 35 States reported 786 cases of smallpox. Last year, for the corresponding week, they reported 710 cases. One hundred and three cities reported smallpox for the week as follows: 1924, 317 cases; 1923, 176 cases; estimated expectancy, 72 cases. These cities reported 36 deaths from smallpox for the week this year, 32 having occurred at Minneapolis.

Typhoid fever.—Five hundred and forty-five cases of typhoid fever were reported for the week ended December 6, 1924, by 34 States. For the corresponding week of 1923 the same States reported 520 cases. One hundred and three cities reported 251 cases of typhoid fever for the week this year, and 190 cases for the week last year. The estimated expectancy for these cities was 83 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia (combined) were reported for the week by 103 cities as follows: 1924, 887 deaths; 1923, 767 deaths.

City reports for week ended December 6, 1924.

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

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
NEW ENGLAND.										
Maine:										
Lewiston	3	2	1	0	0	1	1	0	2	4
Portland	24	2	3	0	0	0	43	4	2	0
New Hampshire:										
Concord	0	0	3	0	0	0	0	1	1	0
Vermont:										
Barre	1	0	1	0	0	1	1	0	1	0
Burlington	8	1	1	0	0	0	0	1	1	1
Massachusetts:										
Boston	42	66	54	3	2	41	5	19	34	88
Fall river	0	5	2	0	0	1	0	1	2	1
Springfield	1	5	3	1	1	13	13	1	7	52
Worcester	23	7	0	0	0	1	1	4	10	14
Rhode Island:										
Pawtucket	1	2	5	0	0	4	0	6	1	2
Providence	0	17	5	0	1	0	0	7	9	4
Connecticut:										
Bridgeport	0	11	17	0	2	1	0	1	6	19
Hartford	2	10	6	0	1	0	1	1	6	6
New Haven	12	7	5	0	0	4	0	3	5	33
MIDDLE ATLANTIC.										
New York:										
Buffalo	39	37	5	7	0	42	0	12	22	12
New York	185	212	173	35	9	53	16	203	140	128
Rochester	21	14	2	0	2	7	14	9	11	36
Syracuse	8	13	22	0	0	2	2	4	14	7
New Jersey:										
Camden	6	5	7	0	0	2	0	6	2	5
Newark	48	22	12	8	0	15	4	8	14	40
Trenton	6	9	7	1	1	2	0	4	2	6
Pennsylvania:										
Philadelphia	137	84	82	-------	8	55	32	87	54	110
Pittsburgh	83	36	23	-------	1	29	25	37	26	45
Reading	9	5	3	0	0	0	10	1	1	0
Scranton	3	5	6	0	0	0	0	10	2	1
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	41	22	12	1	4	0	2	15	14	20
Cleveland	114	52	35	2	1	2	4	17	35	26
Columbus	18	12	7	0	1	2	1	9	10	6
Toledo	31	20	16	0	2	3	0	5	14	17
Indiana:										
Fort Wayne	5	6	13	0	0	0	0	4	2	3
Indianapolis	135	23	5	0	0	2	2	11	11	8
South Bend	9	2	1	0	0	2	0	1	2	11
Terre Haute	8	4	0	0	1	0	0	2	2	5
Illinois:										
Chicago	157	188	90	9	5	150	20	61	112	134
Cicero	3	4	0	0	0	2	0	1	1	7
Peoria	31	5	0	0	0	1	0	1	7	6
Springfield	4	3	1	0	0	0	8	2	3	3

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
EAST NORTH CENTRAL—contd.										
Michigan:										
Detroit	134	89	35	5	1	7	4	27	74	84
Flint	23	17	2	0	0	1	1	1	10	9
Grand Rapids	9	8	6	0	0	10	0	3	7	5
Wisconsin:										
Madison	7	1	3	0	-------	0	74	-------	2	2
Milwaukee	94	29	11	0	0	90	43	0	34	22
Racine	6	3	1	0	0	0	4	0	5	1
Superior	1	2	1	0	0	1	0	1	2	0
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	39	4	2	0	0	0	1	0	4	22
Minneapolis	104	25	38	0	0	0	0	9	28	52
St. Paul	61	21	32	0	0	4	35	5	14	34
Iowa:										
Davenport	5	2	1	0	-------	0	-------	-------	1	0
Des Moines	0	8	3	0	-------	0	0	-------	10	2
Sioux City	10	3	2	0	-------	1	0	-------	4	1
Waterloo	5	1	0	0	-------	1	0	-------	3	0
Missouri:										
Kansas City	16	16	7	2	2	2	2	6	10	40
St. Joseph	3	5	2	0	0	1	0	1	3	1
St. Louis	21	86	46	0	0	2	2	-------	31	137
North Dakota:										
Fargo	18	1	1	0	0	0	0	0	2	3
Grand Forks	1	0	1	0	-------	0	0	-------	2	0
South Dakota:										
Aberdeen	7	-------	0	0	-------	0	0	-------	1	1
Sioux Falls	1	1	0	0	0	0	0	0	2	1
Nebraska:										
Lincoln	16	2	6	0	0	0	1	0	2	0
Omaha	29	6	13	0	0	0	0	7	6	4
Kansas:										
Topeka	19	3	1	0	0	0	36	0	2	2
Wichita	21	11	4	0	0	1	1	1	4	0
SOUTH ATLANTIC.										
Delaware:										
Wilmington	-------	3	8	0	0	0	-------	4	3	5
Maryland:										
Baltimore	64	38	21	40	3	0	1	34	22	25
Cumberland	-------	2	0	0	0	0	-------	0	0	0
Frederick	0	1	0	0	0	0	0	0	1	1
District of Columbia:										
Washington	36	22	22	2	1	4	0	14	17	32
Virginia:										
Lynchburg	-------	1	-------	-------	-------	-------	-------	-------	0	-------
Norfolk	-------	4	-------	-------	-------	0	-------	-------	2	-------
Richmond	2	11	11	0	0	4	1	5	6	3
Roanoke	5	4	5	0	0	0	0	2	1	1
West Virginia:										
Charleston	20	5	0	0	0	2	2	0	2	1
Huntington	0	3	1	0	-------	0	0	-------	2	0
Wheeling	17	3	3	0	0	0	1	2	1	4
North Carolina:										
Raleigh	11	2	0	0	0	0	0	0	2	1
Wilmington	1	1	1	0	0	0	6	1	0	0
Winston-Salem	3	2	4	0	0	0	0	3	2	1
South Carolina:										
Charleston	1	2	0	0	0	0	0	2	1	0
Columbia	0	2	1	0	0	0	2	1	0	0
Greenville	0	1	0	0	0	0	0	2	1	0
Georgia:										
Atlanta	1	6	0	3	1	0	0	12	4	4
Brunswick	-------	0	-------	-------	-------	-------	-------	-------	0	-------
Savannah	0	2	2	5	0	0	2	5	2	0
Florida:										
St. Petersburg	0	-------	2	0	0	0	0	0	1	1
Tampa	0	2	0	3	0	0	0	1	0	0

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	2	2	1	0	0	0	0	1	2	4
Lexington	2	2	1	0	0	1	0	2	1	2
Louisville	4	15	4	1	0	0	2	9	5	11
Tennessee:										
Memphis	----	11	----	----	----	----	----	----	4	----
Nashville	0	5	2	0	1	0	1	4	3	1
Alabama:										
Birmingham	15	6	7	9	3	0	1	16	5	7
Mobile	0	2	0	0	0	0	0	0	1	0
Montgomery	0	1	0	2	0	0	4	0	1	0
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith	7	2	2	0	----	0	1	----	1	3
Little Rock	1	2	0	0	0	0	1	8	2	2
Louisiana:										
New Orleans	2	12	10	5	4	0	0	9	5	9
Shreveport	0	----	1	0	0	0	0	5	----	0
Oklahoma:										
Muskogee	----	2	3	0	0	0	----	0	2	0
Oklahoma City	1	3	2	0	0	0	0	7	3	3
Tulsa	11	6	1	0	----	1	----	----	2	2
Texas:										
Dallas	4	13	13	0	2	0	0	2	4	3
Galveston	0	1	0	0	0	0	0	1	0	0
Houston	0	4	4	0	0	0	0	2	2	7
San Antonio	1	3	1	0	0	0	0	5	1	3
MOUNTAIN.										
Montana:										
Billings	26	0	0	0	1	0	0	0	1	1
Great Falls	8	1	4	0	0	0	0	1	1	5
Helena	----	0	0	0	0	0	----	1	1	0
Missoula	----	0	0	0	0	0	----	1	1	0
Idaho:										
Boise	5	0	1	0	0	0	0	0	1	1
Colorado:										
Denver	28	14	8	0	2	1	33	15	9	13
Pueblo	10	6	1	0	0	0	3	1	3	2
New Mexico:										
Albuquerque	9	1	1	0	0	0	0	1	0	1
Utah:										
Salt Lake City	70	2	4	0	0	1	17	3	4	7
Nevada:										
Reno	----	0	----	----	----	----	----	----	0	----
PACIFIC.										
Washington:										
Seattle	55	7	8	0	----	2	4	----	6	14
Spokane	11	6	5	0	----	24	0	----	6	8
Tacoma	2	3	2	0	0	1	2	1	3	2
Oregon:										
Portland	20	5	33	0	0	5	4	5	7	10
California:										
Los Angeles	61	34	49	6	1	16	14	26	17	24
Sacramento	1	3	10	0	1	1	0	1	2	1
San Francisco	28	27	13	3	0	3	15	13	10	19

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
NEW ENGLAND.										
Maine:										
Lewiston	33,790	0	0	0	1	1	0	0	0	8
Portland	73,129	0	0	0	0	0	1	0	0	27
New Hampshire:										
Concord	22,408	0	0	0	0	0	0	0	0	8
Vermont:										
Barre	[1] 10,008	0	0	0	1	0	0	0	0	3
Burlington	23,613	0	0	0	0	0	0	0	2	13
Massachusetts:										
Boston	770,400	0	0	0	17	2	5	0	20	215
Fall River	120,912	0	0	0	2	1	0	0	3	31
Springfield	144,227	0	0	0	3	0	1	0	13	29
Worcester	191,927	0	0	0	2	1	0	0	7	48
Rhode Island:										
Pawtucket	68,799	0	0	0	0	0	0	0	0	20
Providence	242,378	0	0	0	3	0	3	1	1	71
Connecticut:										
Bridgeport	[1] 143,555	0	0	0	0	0	0	0	0	23
Hartford	[1] 138,036	0	0	0	0	0	0	0	2	36
New Haven	172,967	0	0	0	1	1	2	1	10	45
MIDDLE ATLANTIC.										
New York:										
Buffalo	536,718	1	3	0	12	1	1	0	24	125
New York	5,927,625	0	0	0	[2] 93	15	127	9	109	1,389
Rochester	317,867	0	0	0	1	1	1	0	3	68
Syracuse	184,511	0	0	0	1	1	2	0	1	46
New Jersey:										
Camden	124,157	0	3	2	1	0	0	0	0	30
Newark	438,699	0	0	0	5	4	4	2	55	95
Trenton	127,390	0	0	0	4	1	1	0	9	47
Pennsylvania:										
Philadelphia	1,922,788	0	3	0	41	4	1	1	78	588
Pittsburgh	613,442	0	0	0	15	2	3	0	1	178
Reading	110,917	0	0	0	0	0	0	0	13	35
Scranton	140,636	0	0	0	0	0	1	0	4	------
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	406,312	1	0	0	4	1	6	1	0	132
Cleveland	888,519	2	0	0	17	1	2	0	19	194
Columbus	261,082	0	1	0	4	1	0	0	8	72
Toledo	268,338	1	0	0	9	1	1	0	15	80
Indiana:										
Fort Wayne	93,573	0	0	0	1	0	2	0	1	23
Indianapolis	342,718	3	8	0	1	1	0	0	1	66
South Bend	76,709	0	0	0	0	1	0	0	0	15
Terre Haute	68,939	0	0	0	0	0	0	1	0	25
Illinois:										
Chicago	2,886,121	1	0	0	51	5	15	2	144	671
Cicero	55,968	0	0	0	1	0	0	0	9	8
Peoria	79,675	1	0	0	1	0	0	0	1	22
Springfield	61,833	1	0	0	2	1	0	0	0	22
Michigan:										
Detroit	995,668	2	2	0	14	3	0	1	25	225
Flint	117,968	0	0	0	0	1	0	0	1	15
Grand Rapids	145,947	1	0	0	0	0	4	0	0	37
Wisconsin:										
Madison	42,519	1	0	------	------	0	0	------	8	5
Milwaukee	484,595	2	1	0	4	1	1	1	10	105
Racine	64,393	1	1	0	0	0	0	0	2	5
Superior	[1] 39,671	1	0	0	0	0	0	0	1	11
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	106,289	1	0	0	1	0	0	0	1	18
Minneapolis	409,125	5	143	32	3	1	0	0	0	125
St. Paul	241,891	12	18	1	3	1	1	0	30	57

[1] Population Jan. 1, 1920

[2] Pulmonary only.

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
WEST NORTH CENTRAL—contd.										Z
Iowa:										
Davenport	61,262	1	4	----	----	0	0	----	1	----
Des Moines	140,923	1	5	----	----	0	0	----	0	----
Sioux City	79,662	1	2	----	----	0	0	----	0	----
Waterloo	39,667	0	7	----	----	0	0	----	1	----
Missouri:										
Kansas City	351,819	2	0	0	1	1	0	0	1	74
St. Joseph	78,232	1	0	0	1	0	0	0	0	29
St. Louis	803,853	1	4	0	7	2	3	0	6	226
North Dakota:										
Fargo	24,841	0	0	0	1	0	0	0	0	9
Grand Forks	14,547	1	0	----	----	0	0	----	0	----
South Dakota:										
Aberdeen	15,829	----	1	----	----	0	0	----	0	----
Sioux Falls	29,205	1	0	0	0	0	0	0	0	4
Nebraska:										
Lincoln	58,761	1	0	0	0	0	0	0	4	8
Omaha	204,382	2	27	0	3	1	0	0	0	69
Kansas:										
Topeka	52,555	0	0	0	0	0	0	0	13	22
Wichita	79,261	1	0	0	2	1	0	0	1	21
SOUTH ATLANTIC.										
Delaware:										
Wilmington	117,728	0	0	0	2	1	1	0	----	34
Maryland:										
Baltimore	773,580	0	0	0	9	3	7	2	52	218
Cumberland	32,361	1	0	0	1	0	0	0	----	11
Frederick	11,301	0	0	0	0	1	1	0	0	4
District of Columbia:										
Washington	[1] 437,571	0	0	0	12	2	10	3	13	143
Virginia:										
Lynchburg	30,277	0	----	----	----	0	----	----	----	----
Norfolk	159,089	0	----	----	----	0	----	----	----	----
Richmond	181,044	0	0	0	3	0	1	1	1	49
Roanoke	55,502	0	0	0	1	1	1	0	0	8
West Virginia:										
Charleston	45,597	0	9	0	1	0	0	1	0	12
Huntington	57,918	0	0	----	----	1	0	----	0	----
Wheeling	[1] 56,208	0	0	0	2	0	2	0	0	13
North Carolina:										
Raleigh	29,171	0	3	0	1	0	0	0	1	10
Wilmington	35,719	0	7	0	2	0	0	0	6	12
Winston-Salem	56,230	1	1	0	0	0	0	0	1	16
South Carolina:										
Charleston	71,245	0	0	0	1	1	0	0	1	26
Columbia	39,688	0	1	0	0	0	0	0	0	27
Greenville	25,789	0	0	0	0	0	0	0	0	10
Georgia:										
Atlanta	222,963	2	1	0	9	1	2	0	0	90
Brunswick	15,937	0	----	----	----	0	----	----	----	----
Savannah	89,448	0	0	0	4	1	0	0	0	28
Florida:										
St. Petersburg	24,403	0	0	0	2	0	0	0	0	16
Tampa	56,050	0	0	----	----	0	1	----	----	5
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	57,877	0	0	0	1	0	0	0	0	16
Lexington	43,673	0	0	0	2	0	0	0	1	16
Louisville	257,671	1	0	0	5	2	3	0	0	79
Tennessee:										
Memphis	170,067	0	----	----	----	1	----	----	----	----
Nashville	121,128	0	2	0	1	0	1	0	1	33
Alabama:										
Birmingham	195,901	1	27	0	8	1	4	1	3	91
Mobile	63,858	1	0	0	1	0	0	0	0	19
Montgomery	45,383	1	0	0	0	0	1	0	0	----

[1] Population Jan. 1, 1920.

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith	30,635	0	0	----	----	1	0	----	0	----
Little Rock	70,916	0	2	0	1	1	3	2	0	----
Louisiana:										
New Orleans	404,575	1	0	0	14	1	4	1	1	157
Shreveport	54,590	----	1	0	0	----	2	0	0	26
Oklahoma:										
Muskogee	31,485	0	0	----	----	0	0	----	----	----
Oklahoma	101,150	1	1	0	1	1	1	0	0	34
Tulsa	102,018	1	0	----	----	0	0	----	----	----
Texas:										
Dallas	177,274	0	0	0	4	1	0	0	0	47
Galveston	46,877	0	0	0	1	0	2	0	0	10
Houston	154,970	0	1	0	1	0	0	2	0	26
San Antonio	184,727	0	0	0	8	----	2	0	0	63
MOUNTAIN.										
Montana:										
Billings	[1] 16,927	0	0	0	1	0	0	0	4	9
Great Falls	27,787	1	1	0	1	0	0	0	2	9
Helena	[1] 12,037	1	0	0	0	0	0	0	----	6
Missoula	[1] 12,668	1	1	0	0	0	0	0	----	3
Idaho:										
Boise	22,806	1	0	0	0	0	0	0	0	7
Colorado:										
Denver	272,031	6	0	0	10	0	0	0	21	91
Pueblo	43,519	0	0	0	1	1	0	0	0	10
New Mexico:										
Albuquerque	16,648	0	0	0	2	1	0	0	0	7
Utah:										
Salt Lake City	126,241	3	0	0	4	1	1	0	0	31
Nevada:										
Reno	12,429	0	----	----	----	0	----	----	----	----
PACIFIC.										
Washington:										
Seattle	[1] 315,685	1	4	----	----	0	0	----	4	----
Spokane	104,573	10	1	----	----	0	2	----	10	----
Tacoma	101,731	1	1	0	1	0	0	0	0	21
Oregon:										
Portland	273,621	5	3	0	3	1	1	0	7	----
California:										
Los Angeles	666,853	1	31	1	18	3	2	0	9	204
Sacramento	69,950	1	1	0	1	1	3	0	0	17
San Francisco	539,038	1	1	0	13	1	3	0	14	140

Division, State, and city.	Cerebro-spinal meningitis.		Leprosy.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).			Typhus fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases, est. expectancy.	Cases.	Deaths.	Cases.	Deaths.
NEW ENGLAND.													
Maine:													
Portland	0	0	0	0	0	0	0	0	0	2	0	0	0
Massachusetts:													
Boston	0	0	0	0	2	0	0	0	1	1	0	0	0
Fall River	0	0	0	0	0	0	0	0	0	1	0	0	0

[1] Population Jan. 1, 1920.

City reports for week ended December 6, 1924—Continued.

Division, State, and city.	Cerebro-spinal meningitis.		Leprosy.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).			Typhus fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases, est. expectancy.	Cases.	Deaths.	Cases.	Deaths.
MIDDLE ATLANTIC.													
New York:													
Buffalo	0	0	0	0	0	1	0	0	0	0	0	0	0
New York	1	1	0	0	10	4	0	0	1	11	1	0	0
New Jersey:													
Camden	0	0	0	0	1	1	0	0	----	0	0	0	0
Newark	0	0	0	0	2	0	0	0	0	1	0	0	0
Pennsylvania:													
Philadelphia	0	1	0	0	2	0	0	0	0	0	0	0	0
Reading	0	0	1	0	0	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL.													
Ohio:													
Cincinnati	0	0	0	0	1	0	0	0	0	1	0	0	0
Cleveland	2	0	0	0	2	0	0	0	0	0	0	0	0
Illinois:													
Chicago	0	1	0	0	1	0	0	0	1	2	0	0	0
Michigan:													
Detroit	1	0	0	0	0	0	0	0	0	3	1	0	0
Flint	0	0	0	0	0	0	0	0	0	1	0	0	0
WEST NORTH CENTRAL.													
Minnesota:													
St. Paul	0	0	0	0	1	0	0	0	0	1	0	0	0
Missouri:													
St. Louis	1	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska:													
Omaha	0	0	0	0	1	1	0	0	0	0	0	0	0
SOUTH ATLANTIC													
Maryland:													
Baltimore	0	0	0	0	0	0	0	0	0	1	1	1	0
South Carolina:													
Columbia	0	0	0	0	0	0	0	4	0	0	0	0	0
Georgia:													
Atlanta	0	0	0	0	0	0	0	1	0	0	0	0	0
EAST SOUTH CENTRAL.													
Kentucky:													
Louisville	0	0	0	0	0	0	0	0	0	1	0	0	0
Alabama:													
Birmingham	0	0	0	0	1	0	0	0	0	0	0	0	0
WEST SOUTH CENTRAL.													
Arkansas:													
Little Rock	0	0	0	0	0	0	0	2	0	0	0	0	0
Louisana:													
New Orleans	1	0	0	0	2	1	0	0	0	0	0	0	0
Shreveport	0	0	0	0	0	0	0	1	0	0	0	0	0
Texas:													
Houston	0	0	0	0	0	0	1	0	0	0	0	0	0
PACIFIC.													
Washington:													
Seattle	0	----	0	----	0	----	0	----	0	2	----	0	----
Spokane	0	----	0	----	0	----	0	----	0	1	----	0	----
Tacoma	0	0	0	0	0	0	0	0	0	1	0	0	0
Oregon:													
Portland	0	0	0	0	0	0	0	0	0	1	0	0	0
California:													
Los Angeles	2	0	0	0	0	0	0	0	0	0	0	0	0
San Francisco	0	0	0	0	1	1	0	0	1	0	0	0	0

The following table gives a summary of the reports from 105 cities for the 10-week period ended December 6, 1924. The cities included in this table are those whose reports have been published for all 10 weeks in the Public Health Reports. Eight of these cities did not report deaths. The aggregate population of the cities reporting cases was estimated at nearly 29,000,000 on July 1, 1923, which is the latest date for which estimates are available. The cities reporting deaths had more than 28,000,000 population on that date. The number of cities included in each group and the aggregate population are shown in a separate table below.

Summary of weekly reports from cities, September 28 to December 6, 1924.

DIPHTHERIA CASES.

	1924, week ended—									
	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Nov. 1.	Nov. 8.	Nov. 15.	Nov. 22.	Nov. 29.	Dec. 6.
Total	757	883	936	988	965	1,128	1,112	1,115	972	1,053
New England	56	77	82	89	88	78	82	84	67	101
Middle Atlantic	198	209	259	228	235	304	312	314	284	336
East North Central	134	174	176	176	211	279	247	227	234	223
West North Central	116	126	136	149	127	128	147	160	[1] 150	149
South Atlantic	97	142	121	172	131	148	109	129	128	[2] 89
East South Central	20	28	42	41	27	35	26	32	21	[3] 21
West South Central	23	26	28	36	40	46	59	45	27	31
Mountain	24	14	18	23	28	38	36	27	17	[4] 18
Pacific	89	87	74	74	78	72	94	97	44	87

MEASLES CASES.

Total	134	130	193	197	241	310	322	400	364	613
New England	15	21	25	28	32	36	41	49	59	66
Middle Atlantic	65	56	97	92	112	144	135	154	156	207
East North Central	29	22	42	55	70	91	102	131	114	269
West North Central	9	5	7	3	7	7	10	14	[1] 5	12
South Atlantic	2	10	4	2	6	13	4	11	7	[2] 10
East South Central	1	2	1	0	0	2	2	2	0	[3] 0
West South Central	2	2	2	1	0	1	1	1	2	0
Mountain	2	0	5	2	3	2	4	4	3	[4] 2
Pacific	9	12	10	14	11	14	23	34	18	47

SCARLET FEVER CASES.

Total	570	774	795	938	1,021	1,153	1,097	1,238	1,285	1,188
New England	55	89	99	121	96	114	135	155	176	219
Middle Atlantic	129	154	168	213	298	354	330	365	389	389
East North Central	128	178	176	214	256	270	262	303	307	346
West North Central	148	218	227	253	216	225	220	228	[1] 247	297
South Atlantic	29	46	48	57	57	67	58	72	63	[2] 83
East South Central	13	21	11	14	24	29	14	17	10	[3] 28
West South Central	13	17	16	17	15	25	18	14	20	27
Mountain	18	15	19	13	19	19	20	24	15	[4] 31
Pacific	37	36	31	36	40	50	40	60	58	68

[1] Figures for Topeka, Kans., estimated. Report not received at time of going to press.
[2] Figures for Lynchburg and Norfolk, Va., and Brunswick, Ga., estimated.
[3] Figures for Memphis, Tenn., estimated.
[4] Figures for Reno, Nev., estimated.

Summary of weekly reports from cities, September 28 to December 6, 1924—Con.

SMALLPOX CASES.

	1924, week ended—									
	Oct. 4.	Oct. 11.	Oct. 18.	Oct. 25.	Nov. 1.	Nov. 8.	Nov. 15.	Nov. 22.	Nov. 29.	Dec. 6.
Total	86	72	99	134	134	138	192	188	213	319
New England	0	0	0	0	0	0	0	0	0	0
Middle Atlantic	8	3	0	5	2	4	0	5	9	9
East North Central	23	21	30	19	16	6	11	14	19	13
West North Central	15	21	27	64	70	82	100	85	[1] 114	201
South Atlantic	6	2	0	3	1	3	7	6	3	[1] 22
East South Central	6	2	15	11	9	8	12	21	13	[3] 29
West South Central	0	0	3	2	2	2	8	6	7	4
Mountain	1	0	2	3	0	1	7	2	1	[4] 2
Pacific	27	23	22	27	34	32	47	49	47	39

TYPHOID FEVER CASES.

Total	217	214	159	136	106	124	107	133	162	255
New England	9	16	8	6	5	7	5	5	9	12
Middle Atlantic	67	45	47	40	35	23	33	46	90	140
East North Central	25	15	17	14	11	14	11	15	10	30
West North Central	15	16	11	5	9	9	3	8	[1] 3	4
South Atlantic	35	23	20	22	13	21	10	14	15	[2] 27
East South Central	29	17	12	21	12	14	20	14	19	[3] 18
West South Central	7	15	12	12	6	18	11	13	8	13
Mountain	18	58	23	10	5	9	8	2	2	[4] 1
Pacific	12	9	9	6	10	9	6	16	6	10

INFLUENZA DEATHS.

Total	20	21	20	18	35	38	43	41	56	63
New England	0	1	1	1	1	5	0	2	2	7
Middle Atlantic	10	13	11	9	21	23	17	17	15	21
East North Central	4	4	3	5	5	5	5	7	15	13
West North Central	1	0	2	0	0	0	0	0	[1] 3	2
South Atlantic	1	1	1	2	3	3	4	6	7	[2] 5
East South Central	1	0	1	0	1	1	4	2	5	[3] 4
West South Central	1	1	1	0	3	1	7	3	5	6
Mountain	1	1	0	0	0	0	1	4	2	[4] 3
Pacific	1	0	0	1	1	0	5	0	2	2

PNEUMONIA DEATHS.

Total	438	494	497	479	593	636	676	646	701	829
New England	29	39	28	27	42	33	35	38	58	48
Middle Atlantic	178	217	221	227	270	305	294	301	300	371
East North Central	94	84	90	77	95	109	116	122	126	155
West North Central	16	25	23	20	28	29	32	36	[1] 34	29
South Atlantic	52	50	50	65	87	75	83	57	83	[2] 91
East South Central	22	15	19	13	21	24	46	36	43	[3] 39
West South Central	11	31	16	17	21	22	34	20	21	32
Mountain	11	15	22	16	6	8	10	15	13	[4] 23
Pacific	25	18	28	17	23	31	26	21	23	41

[1] Figures for Topeka, Kans., estimated. Report not received at time of going to press.
[2] Figures for Lynchburg and Norfolk, Va., and Brunswick, Ga., estimated.
[3] Figures for Memphis, Tenn., estimated.
[4] Figures for Reno, Nev., estimated.

Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923.

Group of cities.	Number of cities reporting cases.	Number of cities reporting deaths.	Aggregate population of cities reporting cases.	Aggregate population of cities reporting deaths.
Total	105	97	28,898,350	28,140,934
New England	12	12	2,098,746	2,098,746
Middle Atlantic	10	10	10,304,114	10,304,114
East North Central	17	17	7,032,535	7,032,535
West North Central	14	11	2,515,330	2,381,454
South Atlantic	22	22	2,566,901	2,566,901
East South Central	7	7	911,885	911,885
West South Central	8	6	1,124,564	1,023,013
Mountain	9	9	546,445	546,445
Pacific	6	3	1,797,830	1,275,841

FOREIGN AND INSULAR.

BRAZIL.

Second Brazilian Congress of Hygiene.

According to information received under date of November 15, 1924, the subjects to be presented for consideration by the second Brazilian Congress of Hygiene at its meeting, December 1 to 8, 1924, were as follows:

1. Organization of epidemiological work, including establishment of a public laboratory of hygiene.
2. Home isolation and sanitary vigilance by local health boards in cases of contagious diseases.
3. International and interstate maritime sanitary protection.
4. Treatment for hookworm infection.
5. Antimalarial work conducted on biological principles.
6. Use of arsenic and quinine in treatment of malaria.
7. Construction and operation of antimalaria stations.
8. Chemical treatment of reservoirs for drinking water.
9. Chemical treatment of sewage and residuary waters.
10. Sanitation in factories.
11. Uniformity in collection of statistics relating to sanitation and hygiene.
12. Cancer in Brazil.
13. Mental hygiene.
14. Hygiene in public schools.
15. Courses and degrees in sanitary engineering.

CUBA.

Communicable Diseases—Habana.

During the month of November, 1924, communicable diseases were notified in the city of Habana, Cuba, as follows: Cerebrospinal meningitis, 1 case; chicken pox, 8 cases; diphtheria, 6 cases; malaria, 109 cases, 4 deaths; measles, 3 cases; scarlet fever, 2 cases; typhoid fever, 34 cases, 8 deaths. A number of the cases of typhoid fever and malaria originated outside the city.

ECUADOR.

Plague—Guayaquil—November 1–15, 1924.

During the period November 1 to 15, 1924, two cases of plague were reported at Guayaquil, Ecuador.

Plague-Infected Rats—Guayaquil.

During the same period 9,725 rats were reported taken at Guayaquil, of which 24 were found plague infected.

FINLAND.

Typhoid and Paratyphoid Fever—October 16-31, 1924.

During the period October 16 to 31, 1924, 59 cases of typhoid fever were reported in Finland and paratyphoid fever was stated to be the prevailing communicable disease. Population, 3,402,593.

JAMAICA.

Smallpox (Reported as Alastrim.)

During the five-week period ended November 29, 1924, 45 cases of smallpox, reported as alastrim, were notified in the Island of Jamaica. Of these, 14 cases were reported for Kingston.

MADAGASCAR.

Plague—October 1-15, 1924.

During the period October 1 to 15, 1924, 35 cases of plague, with 33 deaths, were reported in Tananarive Province, Madagascar. The types of the disease were stated to be bubonic, pneumonic, and septicemic.

MALTA.

Communicable Diseases—October 1-31, 1924.

During the period October 1 to 31, 1924, cases of communicable diseases were reported in the Island of Malta as follows: Lethargic encephalitis, 7; trachoma, 155; Mediterranean (undulant) fever, 77; typhoid fever, 36. Population, 216,702.

RUMANIA.

Medical Service for Rural Districts.

Information received under date of November 3, 1924, states that measures are being instituted to improve rural medical service in Rumania. In the district of Constantza, Dobrodja, a county association was formed in October, 1924, under the direction of the communal officers, for creating medical dispensaries to be located in the communes which provide housing accommodations. Five such dispensaries were to be instituted within the year, to be followed by others as the system expands.

SAMOA.

Hookworm Infection—Campaign of Education and Treatment.

The report of the health department of New Zealand for the administration of western Samoa for the year ended March 31, 1924, shows that in 1920 a preliminary examination conducted through the London School of Tropical Medicine had shown that hookworm infection was almost universal in western Samoa, and that early in 1923 a systematic campaign against the disease was begun by means of illustrated lectures and free treatment of all persons desiring it. This work was continued until October of that year. During the period April–October, more than 18,000 natives received treatment. With the general installation of latrines which is being carried out, systematic treatment for the infection, it was stated, would be resumed.

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

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

Reports Received During Week Ended December 26, 1924. [1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India				
Madras	Nov. 9–15	15	3	Oct. 12–18, 1924: Cases, 3,136; deaths, 1,868.

PLAGUE.

Ceylon:				
Colombo	Nov. 2–8	1	1	
Ecuador:				
Guayaquil	Nov. 1–15	2		Rats taken, 9,725; found infected, 24.
Egypt				Jan. 12–18, 1924: One case. Jan. 1–Nov. 18, 1924: Cases, 360; corresponding period, 1923, cases, 1,422.
India				Oct. 12–18, 1924: Cases, 2,094; deaths, 1,503.
Madras Presidency	Nov. 9–15	90	57	
Java:				
East Java—				
Soerabaya	Oct. 12–18	1	1	
Madagascar:				
Tananarive Province				Oct. 1–15, 1924: Cases, 35; deaths, 33. Bubonic, pneumonic, septicemic.
Tananarive Town	Oct. 1–15	4	5	
Other localities	do	31	28	
Straits Settlements:				
Singapore	Oct. 19–25	1	1	

SMALLPOX.

Brazil:				
Pernambuco	Oct. 26–Nov. 1	6	1	
British South Africa:				
Northern Rhodesia	Oct. 21–27	7		
China:				
Amoy	Oct. 15–Nov. 1			Present.
Nanking	Nov. 16–29			Do.
Shanghai	Nov. 9–15	1		In foreign settlement.

[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 December 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Oct. 12-18, 1924: Cases, 745; deaths, 186.
Bombay	Oct. 19-25	4	3	
Madras	Nov. 9-15	7	6	
Java:				
East Java—				
Pasoeracan Residency	Oct. 21-24			Epidemic.
Rembang	do			Do.
Soerabaya	Oct. 5-18	175	45	
Mexico:				
Tampico	Nov. 21-30	1	1	
Vera Cruz	Nov. 16-Dec. 4		7	
Philippine Islands:				
Province—				
Bohol	Oct. 18-24	1		
Cebu	Sept. 7-13	1		
Spain:				
Cadiz	Oct. 1-31		28	
Malaga	Nov. 23-29		16	
Valencia	Nov. 23-29	1		
Syria:				
Damascus	Oct. 28-Nov. 4	12		
Union of South Africa:				
Transvaal—				
Johannesburg	Nov. 2-8	1		

TYPHUS FEVER

Chile:				
Concepcion	Oct. 28-Nov. 3		1	
Talcahuano	Nov. 9-15		2	
Valparaiso	Nov. 9-15		1	
Mexico:				
Mexico City	Nov. 9-22	17		Including municipalities in Federal District.
Peru:				
Arequipa	Oct. 1-31		1	
Turkey:				
Constantinople	Nov. 1-15	3		
Union of South Africa:				
Transvaal—				
Johannesburg	Nov. 2-8	1		

Reports Received from June 28 to December 26, 1924.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Manchuria—				
Dairen	August, 1924	3		
Shanghai	Aug. 2-Sept. 6	1		
India				Apr. 20-June 28, 1924: Cases, 81,035; deaths, 56,740.
Do				June 29-Oct. 18, 1924: Cases, 108,442; deaths, 64,306.
Bombay	May 4-10	1		
Do	June 29-Oct. 4	48	23	
Calcutta	May 11-June 28	293	259	
Do	June 29-Sept. 27	182	150	
Madras	June 1-21	7	6	
Do	June 29-Nov. 15	70	35	
Rangoon	May 11-June 28	98	76	
Do	June 29-Oct. 25	26	24	
Indo-China				Jan. 1-June 30, 1924: Cases, 107, deaths, 52.
				July 1-31, 1924: Cases, 20; deaths, 10. Corresponding period 1923: Cases, 42; deaths, 30.

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

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

Reports Received from June 28 to December 26, 1924—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indo-China—Continued.				
Province—				
Anam	June 1-30	4	1	
Do	July 1-31	3	1	
Cambodia	June 1-30	7	4	
Do	July 1-31	7	4	
Cochin-China	June 1-30	9	6	
Do	July 1-31	7	5	
Saigon	Apr. 27-June 28	6	4	Including 100 square kilometers of surrounding country.
Do	June 29-Sept. 13	8	5	Do.
Tonkin	June 1-30	9	4	
Do	July 1-31	3	1	
Persia:				
Bushire	June 1-30	1	1	
Philippine Islands				June 15-28, 1924: 32 cases, 22 deaths, including suspects. June 29-July 5, 1924: 5 cases, 4 deaths.
Manila	June 22-28	1		Suspect. Occurring in a non-resident.
Do	July 6-12	1	1	
Provinces—				
Batangas	July 1-12	4	3	
Bulacan	June 21	1	1	
Do	June 28-July 26	4	2	
Angat	July 20-26	1	1	
Malolos and Paombog.	July 13—19	2	1	
Cagayan	Mar. 30-Apr. 5	1	1	
Laguna	May 18-24	1	1	
San Pablo	July 13-19	1	1	
Pangasinan—				
Lingayen	Oct. 3	1	1	
Rizal	July 3	1	1	
Santo Tomas	July 6-12	1	1	
Russia				Summer of 1924. Cases, 9.
Don Province				7 cases at Rostov and Nakhichevan.
Kuban				1 case, Black Sea district.
Moscow Province				1 case in Kolomensky Uyezd.
Rostov-on-Don	Aug. 5-7	3		
Siam:				
Bangkok	May 4-June 28	21	18	
Do	June 29-Oct. 18	13	7	
Straits Settlements:				
Penang	June 1-7	1	1	
Singapore	June 15-28	9	6	
Do	June 29-July 5	2	1	
On vessel:				
S. S. Argalia		1		At Bassein, Lower Burma, India. Case in European member of crew. Case removed to hospital. Vessel left May 16, 1924, arrived June 8 at Durban, South Africa; left Durban June 10 for Trinidad and Cuba.

PLAGUE.

Algeria:				
Mostagenem	July 21-28	4		Seaport.
Argentina:				
Chaco Territory				April, 1924: Cases reported.
Azores:				
St. Michael's	Sept. 21-Oct. 4	4		Suburbs of city: Arrifes, 1 case; Faja de Cima, 3 cases.
Brazil:				
Porto Alegre	July 6-12		1	
British East Africa:				
Kenya	Oct. 4-25	407		
Kisumu	July 13-Sept. 20	2	1	
Tanganyika Territory	Feb. 24-June 7	1	2	
Do	June 26-Oct. 4	3	11	

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

Reports Received from June 28 to December 26, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
British East Africa—Contd.				
Uganda	Sept. 28-Oct. 4	11		May 1-June 30, 1924: Cases, 125; deaths, 107.
Entebbe	Feb. 1-Apr. 30	59	54	
Canary Islands:				
Las Palmas	Sept. 8	2		
Teneriffe—				
La Laguna	June 20	1		
Celebes:				
Macassar and Menando	July 27-Aug. 2			1 plague rat.
Ceylon:				
Colombo	May 11-June 28	11	7	10 plague rodents.
Do	June 29-Nov. 8	23	22	Plague-infected rodents, 17.
Chile:				
Antofagasta	June 1-16	4		
Do	Oct. 19-25	1		
China:				
Amoy	June 15-28		4	
Do	June 29-Aug. 9		13	
Chungking	Oct. 5-11			Present.
Foochow	May 4-June 21		25	Cases not reported.
Nanking	July 20-Oct. 18			Present.
Ecuador:				
Eloy Alfaro	May 16-31	1		
Do	Sept. 16-Oct. 31	2	1	
Guayaquil	May 16—June 30	5	1	Rats taken, 23,717; found infected, 107.
Do	July 1-Nov. 15	5	1	Rats taken, 73,725; found plague-infected, 262.
Posorja	July 1-15	1		
Puna	July 16-31	1		
Egypt				Jan. 1-Nov. 18, 1924: cases, 360.
City—				
Alexandria		1	1	First case, Apr. 2; last, Apr. 2.
Ismailia		1	1	First case, July 6; last, July 6.
Port Said		5	2	First case, Apr. 24; last, Aug. 26.
Suez		16	8	First case, Jan. 2; last, Sept. 23.
Province—				
Assiout		44	35	First case, Apr. 1; last, Aug. 27.
Behera		1	1	First case, Aug. 9; last, Aug. 9.
Beni-Suef		3	3	First case, June 21; last, June 21.
Charkieh		1	1	First case, Jan. 31; last, Jan. 31.
Fayoum		106	33	First case, Feb. 18; last, July 18.
Gharbia		3	2	First case, Apr. 21; last, Aug. 22.
Ghirga		10	3	First case, Jan. 17; last, May 13.
Kalioubiah		10	1	First case, Jan. 6; last, May 22.
Kena		44	26	First case, Apr. 9; last, May 17.
Menoufieh		49	32	First case, Jan. 2; last, June 28.
Minia		58	28	First case, Feb. 5; last, Aug. 1.
France				Aug. 1-31, 1924: Cases, 3.
Paris	Oct. 1-31	2		Bubonic, occurring in suburbs, St. Medard and St. Ouen.
Gold Coast				January-June, 1924: Cases, 173; deaths, 104. July-August, 1924: Cases, 142; deaths, 104.
Greece:				
Kalamata				Reported July 15, 1924: Cases, 29; deaths, 6.
Patras	July 7	36		
Saloniki	July 3-4	2		
Symi, Island of	Aug. 26	11	2	
Hawaii				July 15, 1924: Near Kukuihaele, Island of Hawaii, 1 plague rat.
Honokaa				Aug. 19-Sept. 10, 1924: 5 plague-infected rodents found in vicinity. At Paauhau sugar plantation, Oct. 11, 1924, 1 plague rat (trapped).
India				Apr. 20-June 28, 1924: Cases, 102,874; deaths, 84,656.
Do				June 29-Oct. 18, 1924: Cases, 12,454; deaths, 8,359.
Bombay	May 4-June 21	50	44	
Do	June 29-Oct. 11	21	16	
Calcutta	May 11-June 14	10	10	
Karachi	May 18-June 21	16	13	
Do	Aug. 17-Sept. 25	10	8	

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

Reports Received from June 28 to December 26, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued				
Madras Presidency	May 18-31	7	2	
Do	Aug. 3-Nov. 15	558	374	
Rangoon	May 11-June 28	77	72	
Do	June 29-Oct. 25	232	197	
Indo-China				Jan. 1-June 30, 1924: Cases, 734; deaths, 486. July 1-31, 1924: Cases, 26; deaths, 22. Corresponding period, 1923: Cases, 34; deaths, 30.
Province—				
Anam	June 1-30	6	5	June, 1923: Cases, 11; deaths, 10.
Do	July 1-31	4	4	
Cambodia	June 1-30	18	18	June, 1923: Cases, 140; deaths, 121.
Do	July 1-31	9	9	
Cochin-China	June 1-30	4		June, 1923: Cases, 14; deaths, 10.
Do	July 1-31	13	9	
Saigon	May 4-June 28	10	2	Including 100 square kilometers of surrounding country.
Do	July 20-Aug. 9	3	1	Do.
Iraq:				
Bagdad	Apr. 20-June 28	125	62	
Do	June 29-Aug. 9	7	4	
Italy:				
Naples	Sept. 15	3	1	Including suburb of Portici, 1 case. On Sept. 12 a plague-infected rat was found in port of Naples.
Japan				July 1-31, 1924: 1 case, 1 death. Jan.-July, 1924: Cases, 4; deaths, 3.
Shizuoka Prefecture—				
Higashi				To June 20, 1924: Cases, 2; death, 1.
Java:				
East Java—				
Soerabaya	June 8-21	14	14	
Do	Aug. 31-Oct. 18	2	2	
West Java—				
Cheribon	Aug. 19-Sept. 15	2	2	
Pekalongan	do	4	8	
Madagascar:				
Diego Suarez	June 22-Sept. 30	56	46	Seaport.
Fort Dauphin	Sept. 3-30	10	6	
Moramanga	June 1-30	1	1	Interior.
Do	Sept. 16-30	24	15	Bubonic.
Tamatave	June 6-30	5	4	Bubonic.
Tananarive Province				Apr. 1-June 30, 1924: Cases, 138; deaths, 125; bubonic, pneumonic, septicemic. July 1-Oct. 15, 1924: Cases, 247, deaths, 229.
Tananarive Town	Apr. 1-June 30	12	12	
Do	July 1-Oct. 15	12	12	
Other localities	Apr. 1-May 31	105	97	
Do	July 1-Oct. 15	167	156	
Mauritius Island				Dec. 30, 1923-June 28, 1924: Cases, 35; deaths, 29. June 29-Sept. 6, 1924: Cases, 9; deaths, 8.
Morocco				Jan.-June, 1924: Cases, 53; deaths, 3.
Nigeria				July, 1924: Case, 1; death, 1.
Palestine:				
Jaffa	Oct. 16	1		Bubonic.
Jerusalem	Oct. 14-20	1		
Persia:				
Abadan	May 1-31	20	12	
Bander Abbas	do	11	6	
Bushire	do	1	1	Landed at quarantine.
Mohammerah	do	111	78	
Peru				May 1-June 30, 1924; Cases, 9; deaths, 6.
Do				July 1-31, 1924; Cases, 6; deaths, 3.
Callao	June 1-30	1		
Do	July 1-Oct. 31	6	3	
Chancay	Aug. 1-Oct. 31	1		
Huacho	do	3	1	
Huancabamba	do	6		
Huaral	June 1-30	1		
Do	July 1-31	1		
Lima (city)	May 1-June 30	5	5	
Do	July 1-Oct. 31	16	12	

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

Reports Received from June 28 to December 26, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Lima (country)	May 1–June 30	1		
Do	July 1–Oct. 31	1	2	
Miraflores	Aug. 1–Oct. 31	1		
Mollendo	May 1–31	1	1	
Russia				Jan.–June, 1924: Cases, 252.
Don Cossack Territory—				
Salsky district				Aug. 8, 1924; Reported present in marmots in 6 localities.
Siam:				
Bangkok	May 4–June 14	3	3	
Do	July 13–Sept. 27	5	4	
Siberia:				
Transbaikalia—				
Dauria	Aug. 9	2	2	At Substation 83, vicinity of Dauria.
Harenor	Sept. 18			Bubonic and pneumonic. On line of Chinese and Trans-Siberian Railway. In workers in tarabagan (marmot) skins.
South Nigeria (West Africa):				
Lagos	Sept. 8			Present.
Straits Settlements:				
Singapore	Oct. 19–25	1	1	
Syria:				
Beirut	July 10–Aug. 20	7		
Tunis:				
Tunis	Sept. 23–29	1	1	
Union of South Africa				Apr. 27–June 7, 1924: Cases, 28; deaths, 14. Dec. 16, 1923, to May 31, 1924: Cases, 347; deaths, 208 (white, 51 cases, 26 deaths; native, 269 cases, 182 deaths). July 1–Aug. 31, 1924: Cases, 5; deaths, 2.
Cape Province—				
Uitenhage District				Sept. 28–Oct. 4, 1924: Plague-infected mouse found on Haarhof's Kraal farm. Plague reported on this farm in September and October, 1924.
Orange Free State				May 11–June 14, 1924: Cases, 21; deaths, 9. June 22–28, 1924: Plague-infected mouse found in Kroonstad district.
Philippolis district	Aug. 24–30	1	1	
Smithfield district	July 13–19	2		In natives on two farms.
On vessel:				
S. S. Amboise	July 10	1		At Marseille, France; removed to quarantine station. Case occurred in an Arab fireman embarked at Aden. Vessel left Yokohama May 30 and Colombo, Ceylon, June 22, 1924.

SMALLPOX.

Algeria:			
Algiers	Oct. 1–31	1	
Arabia:			
Aden	July 20–26		1
Bolivia:			
La Paz	May 1–June 30	10	9
Do	July 1–Oct. 31	36	32
Brazil:			
Bahia	May 18–24	1	
Pernambuco	Oct. 5–Nov. 1	8	2
Porto Alegre	May 18–June 28	1	2
Do	July 6–Aug. 2		3
Rio de Janeiro	May 18–24	2	
Do	July 20–Aug. 30	5	
British East Africa:			
Kenya	Oct. 19–25	3	
Mombasa	May 4–31	3	
Tanganyika Territory	June 15–21	1	
Do	Aug. 17–23	1	
Uganda—			
Entebbe	Feb. 1–29	2	
Do	Oct. 5–11		1

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

Reports Received from June 28 to December 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
British South Africa:				
Northern Rhodesia	May 6–June 30	74	1	Natives.
Do	July 1–Oct. 27	77		
Canada:				
British Columbia	Sept. 12–Oct. 18	29		
Fernie	Nov. 2–15	2		
Vancouver	June 15–28	11		
Do	June 29–Nov. 15	70		Not including suburbs.
Victoria	Aug. 3–9	1		
Manitoba—				
Winnipeg	July 13–Nov. 29	4		
New Brunswick—				
Restigouche County	June 1–30	7		Year ended Oct. 31, 1924: Cases, 36; deaths, 1.
Do	July 6–Sept. 6	21		
Westmoreland County	Aug. 17–23	1		
Ontario				June 1–30, 1924: Cases, 24; July 1–Nov. 29, 1924: Cases, 114.
Chatham Township	Sept. 28–Oct. 25	31		
Chatham	do	3		
Harwich Township	do	2		
Howard Township	do	14		
Macaulay Township	do	1		
Sarnia	July 20–26	1		
Toronto	Sept. 28–Oct. 25	1		
Whitney	do	21		Unorganized.
Windsor	June 22–28	1		
Quebec—				
Bonaventure and Gaspe Counties	Nov. 1–30	2		
Montreal	June 8–14	1		
Do	Sept. 14–20	1		
Saskatchewan—				
Regina	Oct. 5–Nov. 11	3		
Ceylon:				
Colombo	July 6–12	1		
Chile:				
Antofagasta	June 11			Under treatment at Lazaretto, 2 cases.
Do	Aug. 24–30	1		
Valparaiso	June 1–7		1	This report covers the two principal districts of Valparaiso.
China:				
Amoy	May 11–June 28			Present.
Do	June 29–Nov. 1		1	Do.
Antung	June 9–29	41	3	
Do	July 7–Oct. 19	11		
Chungking	May 11–June 28			Do.
Do	June 29–Oct. 11			Do.
Foochow	May 18–June 28			Do.
Do	July 6–Oct. 25			Do.
Hongkong	May 4–June 28	30	24	
Do	June 29–July 12	3	3	
Manchuria—				
Dairen	May 12–June 28	22	7	
Do	June 29–Aug. 23	5	1	
Harbin	May 13–June 23	2		
Nanking	May 18–June 28			Do.
Do	July 6–Nov. 29			Do.
Shanghai	May 25–31		1	
Tientsin	May 4–June 28	11	1	British municipality.
Chosen:				
Fusan	May 1–31	1		
Do	July 25–31	1		
Colombia:				
Barranquilla	Aug. 3–9		1	
Cuba:				
Matanzas	Sept. 1–30	1		
Czechoslovakia				Apr. 1–June 30, 1924: Cases 7; deaths, 2.
State—				
Bohemia	Apr. 1–June 30	6	2	
Russinia	do	1		
Denmark:				
Copenhagen	May 18–31	3	1	
Dominican Republic:				
La Romana	Aug. 24–30	2		
Ecuador:				
Guayaquil	Oct. 1–31	1		

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

Reports Received from June 28 to December 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
City—				
Alexandria	June 4–10	1		
Do	Sept. 3–Oct. 28	4	1	
Cairo	Feb. 19–June 24	163	45	
Do	June 25–Aug 26	24	6	
Port Said	June 18–24	1	2	
Do	June 25–Sept. 9	4		
France:				
Limoges	Apr. 1–May 31		2	
Marseille	May 1–31		1	
Paris	May 21–31	2		
French Guiana:				
Cayenne	Dec. 9			Outbreak. Reported as Alastrim.
Gibraltar	July 21–Nov. 2	10	1	
Great Britain:				
England and Wales				May 25–June 28, 1924: Cases, 342; June 29–Nov. 22, 1924: Cases, 1,114.
Liverpool	Aug. 28	1		Mild. Admitted to port hospital from Lower Bebington district, 2 miles from docks.
Greece:				
Athens	Sept. 21–30		2	
Saloniki	Apr. 21–June 29		21	
Do	June 30–Oct. 4		41	
Haiti:				
Port au Prince	July 6–12	2		Developed at Cape Haitien.
Hungary:				
Budapest	July 20–Aug. 2	11		
India				Apr. 20–June 28, 1924: Cases, 28,396; deaths, 6,753.
Do				June 29–Oct. 18, 1924: Cases, 14,141; deaths, 3,506.
Bombay	May 4–June 28	432	299	
Do	June 29–Oct. 25	216	140	
Calcutta	May 11–June 28	36	32	
Do	July 6–Oct. 25	110	83	
Karachi	May 18–June 28	51	18	
Do	June 29–Nov. 8	39	17	
Madras	May 18–June 28	32	10	
Do	June 29–Nov. 15	237	81	
Rangoon	May 11–June 28	53	21	
Do	June 29–Oct. 25	52	17	
Indo China				Jan. 1–June 30, 1924: Cases, 4,934 deaths, 1,413. July 1–31, 1924: Cases, 119; deaths, 51. Corresponding period, 1923: Cases 268; deaths, 108.
Province—				
Anam	June 1–30	23	2	June, 1923: Cases, 2.
Do	July 1–31	11	7	
Cambodia	June 1–30	35	21	June, 1923: Cases, 156.
Do	July 1–31	28	13	
Cochin-China	June 1–30	145	55	June, 1923: Cases, 70; deaths, 35.
Do	July 1–31	73	31	
Saigon	Apr. 27–June 28	145	79	Including 100 square kilometers of surrounding country.
Do	June 29–Oct. 4	70	27	Do.
Tonkin	June 1–30	31	2	
Do	July 1–31	7		
Iraq:				
Bagdad	Apr. 20–May 24	8	1	
Do	July 27–Aug. 2	1		
Italy:				
Messina	May 26–June 1	1		
Jamaica				June 1–28, 1924: Cases, 141; June 29–Oct. 25, 1924: Cases, 269. (Reported as alastrim.)
Kingston	June 1–28	6		Reported as alastrim.
Do	June 29–Oct. 25	27		Do.
Japan				July 1–31, 1924: Cases, 51; deaths, 9; Jan. 1–July 31, 1924: Cases, 1,693; deaths, 264.
Kobe	May 26–June 21	3		
Nagoya	June 8–14	2		
Tokyo	...do	1		

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

Reports Received from June 28 to December 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
East Java—				
Madoera Residency—				
Sampang	May 22			Epidemic.
Malang	May 25-31	5	1	
Pasoeroean Residency	July 4-Oct. 24	7		Epidemic in some localities.
Rembang	Aug. 29-Sept. 2			Do.
Soerabaya	Apr. 13-June 28	501	143	
Do	June 29-Oct. 18	1,605	433	
West Java—				
Bantem Residency—				
Bantem	Sept. 30-Oct. 6	1		
Batavia	May 31-June 27	3		
Do	July 6-Aug. 22	6		Province.
Brebes	Aug. 26-Sept. 22	5	1	
Cheribon	Aug. 19-Sept. 29	5		
Pekalongan Province				Aug. 19-25, 1924: Cases, 12; deaths, 2.
Pekalongan	Aug. 19-Oct. 6	31	13	
Pemalang	do	7	8	
Tegal	Aug. 19-Sept. 29	8		
Latvia				Apr. 1-June 30, 1924: Cases, 3; July 1-Sept. 30, 1924: Cases, 2.
Mexico:				
Cecilia	Oct. 11-17	5	1	State of Tamaulipas.
Durango	June 1-30		2	
Do	Sept. 1-Nov. 10		5	
Guadalajara	May 1-June 30	9	4	
Do	July 8-14		1	
Mexico City	May 4-June 28	96		Including municipalities in Federal district.
Do	June 29-Oct. 18	76		Do.
Progreso	Oct. 19-25		1	
Salina Cruz	May 25-31	1	1	
Saltillo	Nov. 2-8		2	
Tampico	June 14-20	2		
Do	July 1-Nov. 30	19	12	
Tuxtepec	July 3-18	3	1	State of Oaxaca.
Vera Cruz	Sept. 21-Dec. 4		23	
Palestine				June 17-23, 1924: 20 cases in northern districts.
Samaria Province—				
Samak	May 27-June 2	1		
Paraguay:				
Asuncion	June 2			Present.
Encarnacion	do			Many cases reported.
Persia:				
Bushire	June 1-30	2		
Peru:				
Arequipa	Jan. 1-June 30		5	
Poland				Mar. 30-June 28, 1924: Cases, 299; deaths, 27.
Do				June 29-Sept. 20, 1924: Cases, 48; deaths, 9.
Portugal:				
Lisbon	May 25-June 28	7	2	
Do	June 29-Nov. 9	34	15	
Oporto	May 11-June 28	18	16	
Do	June 29-Nov. 15	23	28	
Russia				Jan. 1-31, 1924: 2,243 cases.
Moscow	July 27-Aug. 9	37		
Siam:				
Bangkok	Apr. 27-June 14	3	5	
Do	Sept. 7-13	1		
Spain:				
Barcelona				Year 1923: Cases, 160.
Do	August-September	23	2	
Cadiz	June 1-30		5	
Do	July 1-Oct. 31		142	
Madrid	Aug. 1-Oct. 31		19	July-September, 1924: Cases, 300; deaths, 30. Oct. 6, 1924: Increase in prevalence reported.
Malaga	June 29-Nov. 22		131	
Santander	Aug. 24-30		4	
Valencia	June 8-21	3		
Do	July 13-Nov. 29	6	1	
Vigo	Aug. 17-23		1	
Straits settlements:				
Singapore	May 4-24	2	1	
Sumatra:				
Medan	Jan. 1-31	5		

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

Reports Received from June 28 to December 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Switzerland:				
Berne	May 25–June 28	22		
Do	June 29–Sept. 27	13		
Lucerne	Aug. 1–Oct. 31	45		
Syria:				
Damascus	May 28–June 12	12		
Do	Aug. 7–Nov. 4	19		
Tunis:				
Tunis	May 27–June 30	17	4	
Do	July 1–Nov. 24	62	51	
Turkey:				
Constantinople	June 1–7	1		
Do	Aug. 17–Sept. 27	2		
Union of South Africa				Mar. 1–June 30, 1924 Cases, 167 (white, 15; native, 152). July 1– Sept. 30, 1924: 4 cases (white); 44 cases, 12 deaths (native).
Cape Province	May 4–31			Outbreaks.
Do	July 20–Oct. 25			Do.
East London	July 27–Aug. 2	1		Do.
Orange Free State	May 4–10			Do.
Do	Aug. 17–Sept. 13			Do.
Transvaal	May 4–10			Do.
Do	July 20–Nov. 8			Do.
Johannesburg	July 6–Nov. 8	2		
Yugoslavia				January–June, 1924: Cases, 308; deaths, 62. July, 1924; Cases, 9; deaths, 3.
Belgrade	July 28–Aug. 3	1		
On vessels:				
S. S. Dront	Sept. 14–20	1		At Pernambuco, Brazil. Case removed to hospital. Vessel left Cadiz, Spain, Aug. 20, 1924.
S. S. Koroa	May 7	1		At Durban, South Africa, from Bombay, India. Vessel left Bombay Apr. 16, 1924. Patient, European.
S. S. Mount Evans	July 8	1		At Key West, Fla., from Manchester, England.

TYPHUS FEVER.

Algeria				Year 1923: Cases, 1,166, of which 27 were in the military population.
Algiers	May 1–June 30	24	9	
Do	July 1–Oct. 31	5	2	
Argentina:				
Rosario	Sept. 1–30	1		
Bolivia:				
La Paz	July 1–Oct. 31	1	5	
Brazil:				
Port Alegre	June 1–7		1	
Bulgaria:				
Sofia	Aug. 17–23	1		
Chile:				
Antofagasta				June 16, 1924: 2 cases in lazaretto.
Concepcion	May 20–26		3	
Do	July 8–Nov. 3		7	
Iquique	June 22–28		1	
Do	Oct. 19–25		2	
Talcahuano	May 25–31	2		
Do	June 29–Nov. 15		46	
Valparaiso	May 25–June 21		11	
Do	June 29–Nov. 15		45	
China:				
Antung	June 2–16	6		
Chungking	May 11–June 14			Present.
Manchuria—				
Harbin	Sept. 17–23	2		
Chosen:				
Chemulpo	May 1–June 30	10		
Do	July 1–31	6	2	
Seoul	May 1–June 30	43	5	
Do	July 1–Sept. 30	3		

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

Reports Received from June 28 to December 26, 1924—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths	Remarks.
Czechoslovakia				Apr. 1-June 30, 1924: Cases, 6.
State—				
Slovakia	Apr. 1-June 30	4		
Egypt:				
Alexandria	June 25-Aug. 26	5	1	
Cairo	Feb. 19-June 24	53	16	
Do	June 25-Sept. 23	25	14	
Port Said	July 24-Aug. 5	3		
Esthonia				Apr. 1-June 30, 1924: Cases, 37, July 1-Sept. 30, 1924: Cases, 3.
Germany:				
Coblenz	July 13-19	2		
Great Britain:				
England—				
St. Helens	July 13-Sept. 20	8	3	One suspect case: July 10, 1924. Locality, vicinity of Liverpool.
Ireland—				
Dublin	June 8-14	1		
Do	July 13-19	1		
Lismore	July 19	1		
Longford	do	1		
Greece				Jan.-Apr., 1924: Cases, 178; deaths, 27.
Saloniki	Apr. 20-May 4	6		
Do	Aug. 10-Sept. 27	2	2	
Hungary				Jan.-June, 1924: Cases, 221; deaths, 19.
Iraq:				
Bagdad	Apr. 27-May 10	2		
Do	Aug. 3-9	1		
Ireland:				
Ballinasloe	Nov. 2-8	1		
Japan				July 1-31, 1924: Cases, 2. Jan. 1-July 31, 1924: Cases, 8; deaths, 1.
Latvia				Apr. 1-June 30, 1924: Cases, 108. July 1-Sept. 30, 1924: Cases, 23.
City—				
Riga	June 1-30	1		
Lithuania				Jan.-June, 1924: Cases, 556; deaths, 48. July, 1924: Cases, 24.
Mexico:				
Durango	July 1-Nov. 30		3	
Guadalajara	May 1-June 30	2	2	
Mexico City	May 24-June 28	59		Including municipalities in Federal district.
Do	June 29-Nov. 22	168		Do.
Torreon	July 1-Oct. 31		6	
Palestine:				
Acre	Aug. 19-25	1		
Jaffa	June 17-23	1		
Do	July 8-Nov. 10	7		
Jerusalem	July 1-Sept. 29	7		
Kantara	July 15-21	1		
Khulde	Aug. 17	1		
Majdal	Oct. 29-Nov. 4	1		
Ramleh district	Oct. 14-Oct. 27	2		
Safad	Aug. 26-Sept. 1	1		
Tiberius	Aug. 19-25	1		
Peru:				
Arequipa	Jan. 1-June 30		4	
Do	July 1-Oct. 31		4	
Poland				Mar. 30-June 28, 1914: Cases, 2,947; deaths, 277.
Do				June 29-Sept. 27, 1924: Cases, 681 deaths, 42.
Portugal:				
Oporto	June 15-21		1	
Russia				Jan. 1-31, 1924: Cases, 14275.
Moscow	July 27-Aug. 9	4		
Spain:				
Barcelona	July 10-16		1	
Malaga	Sept. 6-Oct. 11		2	
Switzerland:				
Lucerne	Sept. 1-Oct. 31	2		
Syria:				
Aleppo	July 8-14	1		
Damascus	July 14-20	1		

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

Reports Received from June 28 to December 26, 1924—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Tunis:				
Tunis	May 27-June 9	4		
Turkey:				
Constantinople	May 18-June 21	7	2	
Do	July 6-Nov. 15	17	13	
Union of South Africa				Mar. 1-June 30, 1924: Cases, 418; deaths, 45. July 1-Sept. 30, 1924: Cases, 323; deaths, 36. (Colored, 204 cases; white, 119 cases.)
Cape Province				Mar. 1-June 30, 1924: Cases, 249; deaths, 23.
Do				July 1-Sept. 30, 1924: Cases, 204; deaths, 19. Oct. 19-25, outbreaks.
Natal				Mar. 1-June 30, 1924: Cases, 27; deaths, 5. July 1-Aug. 31, 1924: Cases, 12; deaths, 1 Oct. 5-18; outbreaks.
Durban	Apr. 20-June 28	2		
Orange Free State				Mar. 1-June 30, 1924: Cases, 83; deaths, 11. July 1-Sept. 30, 1924: Cases, 51; deaths, 14.
Harrismith District	Sept. 28-Oct. 4			Outbreak. On farm.
Transvaal				Mar. 1-May 31, 1924: Cases, 39; deaths, 5. July 1-Sept. 30, 1924: Cases, 45; deaths, 2.
Johannesburg	May 11-24	2		
Do	June 29-Nov. 8	4		
Yugoslavia				January-June, 1924: Cases, 252; deaths, 14. July 1-31, 1924. Cases, 9; deaths, 3.
Belgrade	Oct. 27-Nov. 2	1		
Zagreb	Sept. 7-13	1		

YELLOW FEVER

Brazil:				
Pernambuco	May 11-17	2	1	
British Honduras				Nov. 22, 1924: Prevalent in Stann Creek District near Belize. Dec. 4, 1924: Cases, 3.
Gold coast				May, 1924: Cases, 2; deaths, 2. July, 1924: Cases, 2; deaths, 1.
Salvador:				
San Salvador	June 10-Aug. 25			Present in San Salvador and vicinity.