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The descriptive material presented in this report is an attempt to portray the actual practice and the exact status of the operating room technique. This purpose of presentation was maintained throughout the collection of subject matter, the investigation of details, and the final checking up of results. There must necessarily be so many and such varied points of detail that any picture that we may develop is at best only a snapshot of a moving object during its stages of growth. This has made it imperative to systematize the order of our presentation. In so far as we have been able to do this, the account of the operating room technique at this hospital will follow this general outline:

1. Cleaning the operating room.
2. Care of operating room supplies.
3. Sterilization.
4. The dressing room.
5. The wash room.
6. Preparation of the patient.
7. Preparation of the operating room.
8. Division of labor and cooperation among personnel.

1. Cleaning the Operating Room.

The floor of the operating room is mopped daily by the orderlies with a 5 per cent creolin solution. This antiseptic cleaning of the floor is very frequently extended to the lower portion of the side walls, which are marble, the interior woodwork, and such operating room equipment as basin-stands, tables, etc. At intervals, as deemed necessary, the entire interior and equipment are subjected to a more thorough and painstaking cleaning with brush, soap, and water. Glass and metal fixtures about the operating room are cleaned with a scouring compound.

After an operation, the "clean up" method employed is as follows: All soiled linen, used sponges, waste material, etc., are removed; stock solution bottles, anesthetizing outfit, hypodermic tray, tables,

etc., are moved back to their proper places; instruments are collected in a basin and taken to the sink in the wash room, where they are washed, scoured with a scouring compound, and wiped dry; basins, pans, and glassware are washed with green soap and water and dried. Alcohol, oxalic acid, and ether are used to remove stains that resist the ordinary cleaning method.

2. Care of Operating Room Supplies.

The instruments and operating room equipment are essentially as great a care as comes within the realm of a nurse's activities. The order and arrangement of things constitutes an important link in the continuous chain of our technique. Accessibility, in order of placement, is a prime consideration. Instruments that are used constantly, and at times must be had quickly, are put on the handiest shelf in the most readily available place. Other instruments and appliances, like cautery sets, Albee bone sets, etc., which are infrequently used, are placed on lower shelves, where the utility of space and not the speed of availability becomes the objective. Grouping of similar instruments and other "tricks of technique," depending upon the initiative of the personnel involved, have sometimes added greatly to the success of this phase of the work. However, the system developed at this institution can best be described by diagram, and the plan of the instrument room, with the shelving arrangement, is presented with this purpose in view (Fig. 1).

Within certain limits our scheme of availability is extended and employed in the cupboard for linen and the closets for basins, pans, etc. The principle of having things conveniently accessible at a moment's notice has become a doctrine that we are endeavoring to weave into all phases of our technique. In the part of this paper that deals with the actual preparation of the operating theater, the import of this will be more readily observable in detail.

The almost daily handling of instruments and operating room equipment in "setting up" and "putting away" is an indispensable inventorial aid to the preparation of requisitions. A close scrutiny of all instruments, utensils, etc., is very necessary, both from the standpoint of economy in preservation and of usefulness in operation. The nurse who assumes this responsibility must inspect for surgical knives that need sharpening, for instruments that have become tarnished or rusted, and for the detection of missing parts, chipped enamelware, deteriorated rubber tubing, cracked glassware, or other condition of materials that would likely cause an operative accident or an interruption in technique.

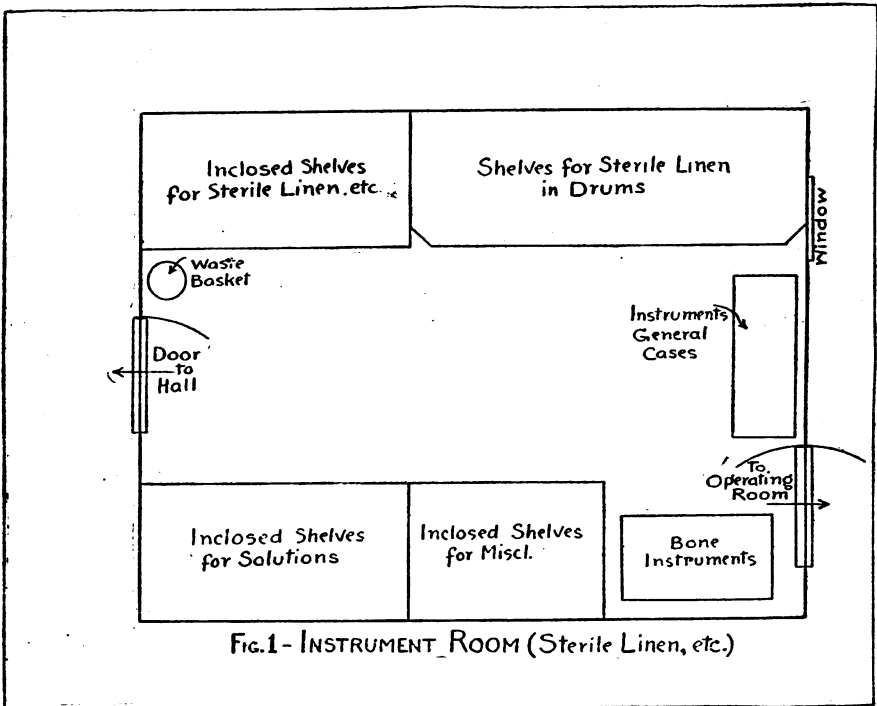
3. Sterilization.

The sterilizing is done in a steam sterilizer autoclave. All supplies that are sterilized in the steam autoclave compartment are left in

under 20 pounds pressure for one hour, at the end of which time the steam is turned off and they are allowed to dry in the hot air for another hour. In the instrument and utensil sterilizers all articles are subjected to 20 minutes of actual boiling before they are considered sterile.

The instrument and utensil sterilizers are, as a rule, wiped out after each day's use, and the entire sterilization system may be cleansed more thoroughly as often as necessary. The plumbing connections are overhauled once every week by the chief engineer, to forestall any developing defect.

In connection with the operating room at this hospital, two complete sterilizing systems are available for use. This is not only



advantageous because large quantities of goods can be sterilized, but it also insures uninterrupted sterilizing; in case one system breaks down, the sterilizing can be immediately transferred to the other.

The quantitative bulk of supplies (for the most part linens) used in the operating room is sterilized in the autoclave compartment. The separate sterilizing drum containers are used for grouping and sterilizing together such supplies as will likely be needed for operation. The drums are usually prepared the day before the operation, as follows: First, a towel is spread out on the bottom of the drum and arranged about the sides of the drum so that none of the supplies

within will come in contact with the sides. Then the drum is packed, so that the articles wanted first in "setting up" will come on top of the drum. Another towel is placed over the top, and the drum is then ready for sterilization. The drum containers are in vogue at this hospital in preference to the package method commonly used for small supplies at other hospitals. For larger articles (gowns, sheets, and, sometimes, sponges) the package method is also used. The advantages and disadvantages of the drum method of preparing supplies for sterilization are worth considering in connection with our technique and are here set forth as proof of our practice. In transferring supplies from the dressing room to the sterilizer and then to the operating room, the drums are more easily handled. Supplies packed in drums are, by the nature of their containers, less likely to be contaminated. On the other hand, the side slides on drums must be opened carefully before putting them into the autoclave or else the penetration of the steam into their contents is not sufficient. Also, when a drum is once opened, all articles not actually used must be resterilized before they can be used again. Although there is here a slight advantage of economy in the package method, this is certainly equalized by the time wasted in the preparation of individual packages. We have found by experience that a utilization of the advantages of both of these methods brings a happy medium of results. A sterilizer control tube is placed in the center of all large packages and drums to indicate the success of sterilization, and a drum is discarded when the tube is not melted.

The majority of operating-room instruments and small receptacles, such as small basins, medicine glasses, etc., are sterilized by boiling water in the instrument compartment. Larger articles, such as basins, long pans, etc., are boiled in the utensil compartment. Instruments, small glasses, syringes, etc., are wrapped in towels to keep them together so that after sterilization they will not be directly touched until actually needed.

Knives, scissors, large glass syringes, tubes of catgut, and instruments likely to be ruined by subjection to intense heat, are sterilized by being placed in pure carbolic acid for at least 20 minutes or until they are needed. Just before being used they are transferred to a 95 per cent alcohol solution by means of sterile forceps. They are then immersed in sterile water and arranged on the sterile table or given to the operator.

4. The Dressing Room.

Most of the operations are done in the morning, the afternoon being left free for the performance of odds and ends of work and for the preparation of dressing room supplies for future operations. Drums are packed, operating sheets, gowns, and other linen supplies

are folded and done up in packages in readiness, for sterilization. Twelve by twelve lap sponges are folded in four layers and wrapped up six to a package. Four by four mop sponges are folded and placed in packages of 24. The linen is put away, torn or unserviceable articles are turned in, and only enough is prepared to meet the operating room demands.

Preparation and sterilization of rubber gloves.—After use, gloves are thoroughly washed in green soap and water, rinsed out, and then placed in the instrument compartment of the sterilizer for 15 minutes of boiling. After boiling they are turned inside out and hung up until completely dried. The dry gloves are taken to the dressing room, where they are inspected for punctures or tears. If any holes are found, they are mended with rubber patches. As a rule mended gloves are not given to the operators or the sterile nurse, but are reserved for use in the clinic or some other place where the demands of sterility are not so great. The perfect gloves are sorted out, powdered on the inside, wrapped separately in gauze, and made up in packages or placed in glove case, and sterilized again with the linen supplies. Although gloves are sterilized with other linen supplies, they are not placed in the drums where their subjection to intense steam pressure can not be assured. It will be seen that there is an advantage in this method of preparing gloves, as it involves the double sterilization plan, water and steam, meets the demands of the authorities on such questions of technique, and satisfies the surgeon who prefers to use dry powdered gloves.

5. The Wash Room.

Another phase of our technique which we consider important is the provision made for the personal cleanliness of all persons working in the operating room. We have, in this connection, a separate wash room for the surgeons, and the care of this wash room is given over to the nonsterile nurse. This care consists in rigid watchfulness as to the thoroughness of the general cleaning and the most scientific arrangement for the best possible method of individual sterilization. The nurse so intrusted must keep on hand an adequate supply of nail files, small scrubbing brushes, sterile sponges, green soap, and such operating suits, caps, and gowns as it may be the personal preference of the surgeon to wear. The green soap is prepared as follows: Equal parts of tincture of green soap and water, boiled for 1 hour, to 1 gallon of which is added 250 c. c. of alcohol.

No standard in regard to the time of scrubbing is employed by all the personnel, but this is left to the sense of responsibility they have developed as a result of their individual training. However, the time of scrubbing, without exception, falls within a minimum limit of

5 minutes and a maximum limit of 15. The steps for hand sterilization usually followed are:

1. Hand scrubbing with brush, green soap, and water. Time: 5 to 15 minutes. Sponge with green soap, and water.
2. A nail file is used during scrubbing time.
3. Dipping in antiseptic solutions:
 - (a) $\frac{1}{2}$ per cent creolin solution. Time: Varies according to training, but at least 3 minutes.
 - (b) 50 per cent alcohol. Time: Varies according to training.

(Hands are allowed to dry in air; a towel is never used.)

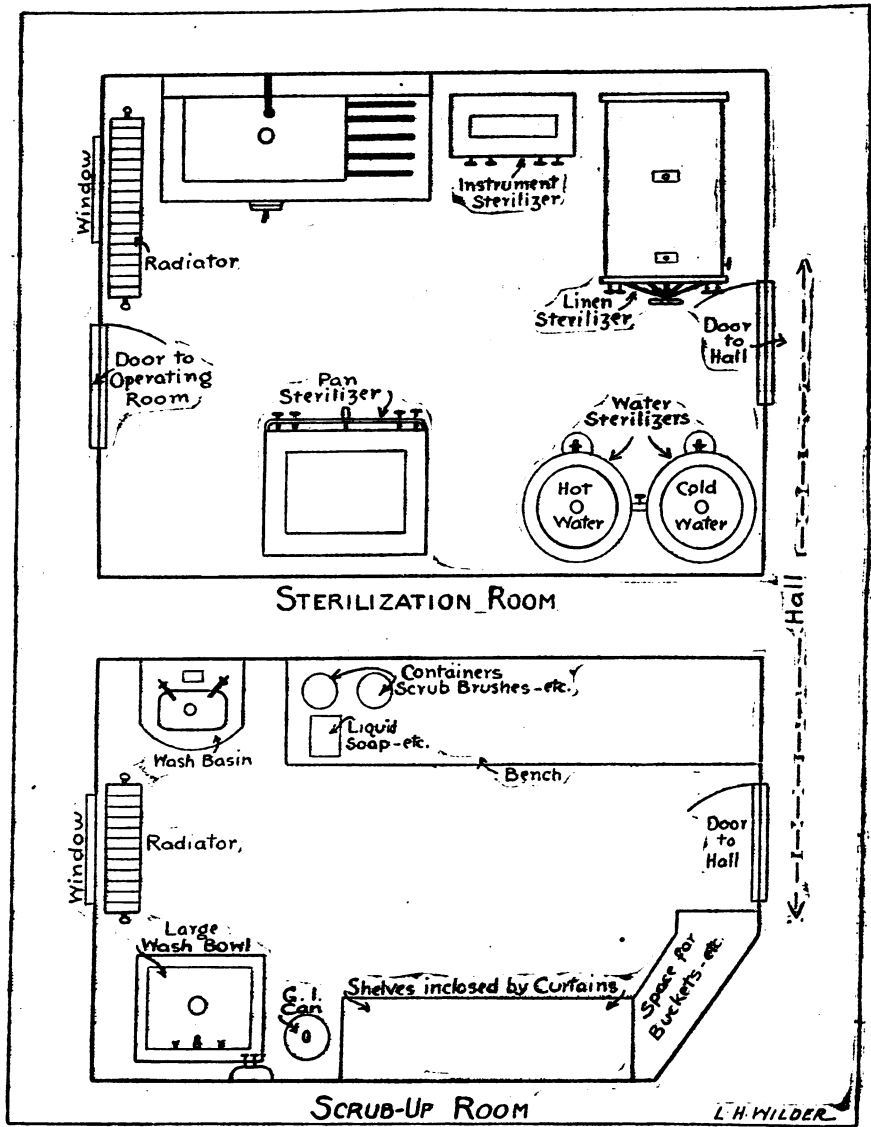


FIG. 2

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At the completion of this process we consider the hands and arms in condition to put on sterile rubber gloves.

The diagram of the wash room (Fig. 2) indicates the water supply, the position of faucets, and the arrangement of articles used in scrubbing up. All surgeons and nurses who expect to be present at the operation, and of whom surgical sterility is required, are allowed the use of this wash room.

From time to time doctors visit the operating room, but the operating theater provides nothing in the way of a spectators' section, and we have had to develop expedients to meet this condition. During an operation it becomes the duty of the nonsterile nurse to keep vigilant track of the coming and going of all persons; her immediate endeavor is to cap and gown all new arrivals. It might well be said here that our technique is occasionally threatened by two classes of unscrupulous people—some, in the undeveloped nature of their mentality, fail to grasp the meaning of sterility; others, by "dint of their genius," feel themselves superior to the common rules of the operating room. The first class can be dealt with directly and accordingly; the other, often involving prominent professionals, obtuse to educational hints, must be handled with kid gloves.

6. Preparation of the Patient.

The complete operating room pavilion provides a comfortable ward accommodation for 13 patients. The patients are transferred to the operating room ward the night before operation and are kept there after operation until their condition warrants the exposure attending a return to the convalescent surgical ward. In the operating room ward the patients are given a final examination and such medical treatment as will prepare them for a successful operation.

The field of operation is shaved the night before by the night orderly. The area is then washed with green soap and water, and alcohol (70 per cent) is applied. Finally, an alcohol pack is put on and held in place by a sterile compress. Immediately prior to operation the compress is removed by a nonsterile assistant, and the area is again antisepticized by a sterile assistant (nurse or assisting surgeon) with alcohol and ether and then painted with iodine. The draping of the patient with sterile towels and sheets completes the preparation of the patient for operation.

7. Preparation of the Operating Room.

The most important part of the operating room technique, at least as far as the nurses are concerned, is the "setting up," or the convenient and scientific arrangement of things for the operation. All preceding explanatory paragraphs in this paper have been devoted to informa-

tion that would tend to clarify and lead up to this important process, and, in fact, all of our work is considered secondary to this phase of our technique which deals so intimately with the operation itself. The technique employed here is progressively explained and the successive

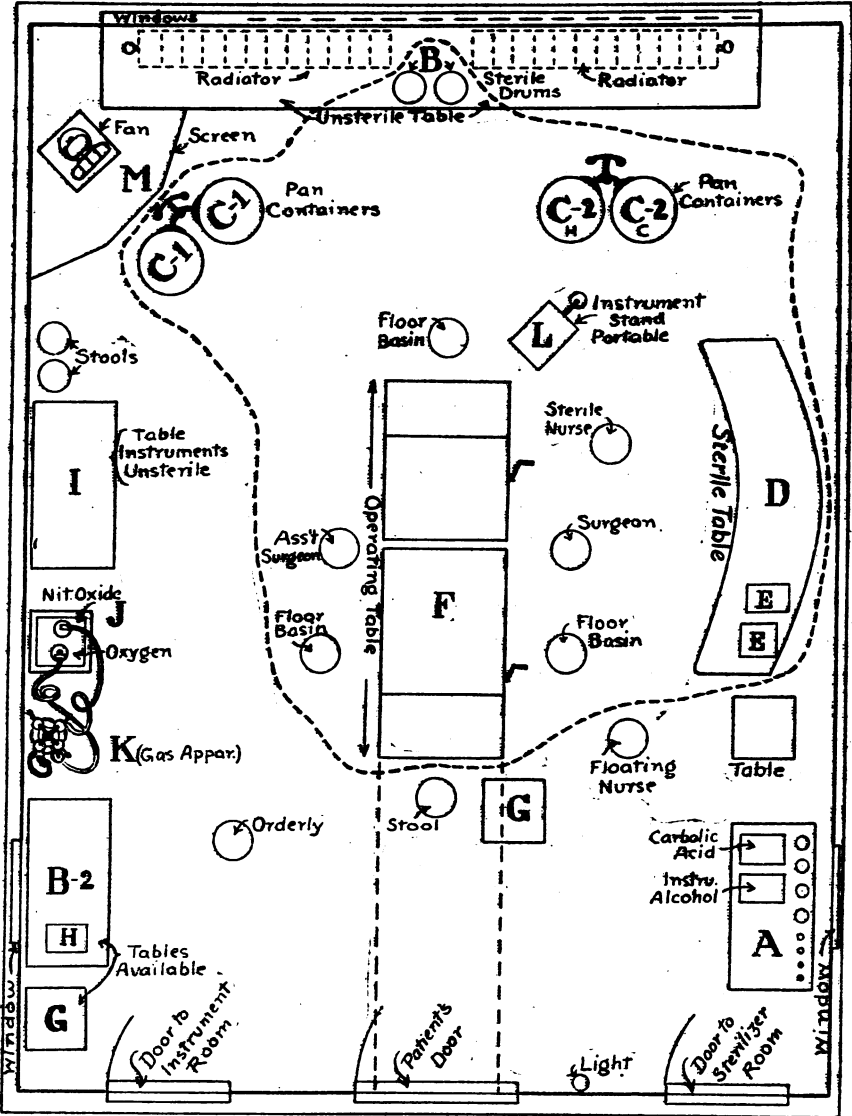


FIG. 3- OPERATING ROOM

steps should be followed throughout by constant reference to the appended drawing (fig. 3) of the operating room interior. Although a progressive presentation by stages is attempted, it must be admitted that, as the preparation is performed by various members of the personnel, it can not follow an exact and invariable outline. However,

the central scheme to accompany the nurses (assisted by the orderlies) through a day of operating room work is not deviated from to any great extent.

The day nurses arrive on the ward for duty at 7 a. m. The cabinets and instrument cases are opened, and the steam is turned on in the sterilizers. Table "A," unsterile, which can be conveniently named a service table, is usually set up first. Gallon supply bottles of the following solutions are set out: 95 per cent alcohol, instrument alcohol ("used" 95 per cent mixed with carbolic), and creolin solution. On this table are usually kept cotton applicators, a small bottle of iodine, and a can of used ether for the final preparation of the skin for operation. Gauze for the post-operative dressing is also kept on this table. On the corner of table "A" two instrument pans (unsterile) are placed as indicated in the diagram; the pan nearest the sterile instrument table is filled with pure carbolic acid, and the other with 95 per cent instrument alcohol. In the pure carbolic acid pan are placed sharp-edged instruments, glass syringes, suture tubes, and other articles that require this method of sterilization. All things to be thus sterilized are placed in the pure carbolic acid at the same time the other instruments and supplies are put in the water or steam sterilizers. This insures at least a 20 minutes' bath in the antiseptic. At the end of this time, or whenever they are needed, they are lifted out of the carbolic by means of sterile forceps and transferred to the instrument pan containing the 95 per cent alcohol. After they have been thoroughly washed in the alcohol, they are removed to the sterile water pan on table "D" and given a cool, sterile water immersion. After this they are ready for use and are placed in position on the instrument table or given directly to the operator.

While table "A" is being set up by one nurse, another nurse (as a rule, the sterile nurse, before she scrubs up) places all articles to be sterilized for the day's operations in the instrument and utensil compartment of the steam sterilizer. These materials for sterilization are divided between the two compartments, instrument and utensil, as may be convenient, according to their size and nature. In the utensil compartment are placed the following articles: 6 white granite solution pans, 2 large white granite pitchers, 2 emesis basins, four large square pans, etc. In the instrument compartment are placed the following articles: 4 two-ounce medicine glasses, several medicine droppers, and the instruments to be used during the operation. It is to be noted here that during this time when the instruments, etc., are selected and the sterilizers are filled, this phase of the work not only involves the automatic action of the nurses in "placing things," but, more important, it incorporates the play of visual and deep receptors; that is, during this time the sterile nurse has ample opportunity for

foresight in the proper selection and the final critical checking-up observation of the materials to be used.

The drum containers and packages of sterile linen are brought out from the cupboards and placed on the unsterile shelf over the radiators, marked "N" in the diagram, by "floating" nurses. Other secondary and minor arrangements, somewhat dependent upon the character of the day's operations, include the placing or adjustment of unsterile supplies and equipment.

The nurses usually go to breakfast at this time, 7.30 a. m. When they return, approximately one-half hour later, the instruments, etc., are sufficiently sterilized (20 minutes being the minimum time required in our practice) for their removal to the scene of operation.

From this time on, a division of labor takes place which separates the preparatory operating room technique into the duties of the sterile and nonsterile nurse. The designated sterile nurse now scrubs up according to the general method described in the former section of this report. The nonsterile nurse drapes the basin stands, "C," with sterile linen and places in the basin holders two of the large white enamel basins from the utensil sterilizer, filling them, respectively, with one-half per cent creolin solution and 60 per cent alcohol solution. She now opens the drum containers and some of the sterile packages of towels, sheets, sponges, etc., thus making all such supplies available to the sterile nurse. The sterile nurse, who is by this time "scrubbed up," soaks her hands in the above solutions of creolin and alcohol and proceeds to drape the long instrument table, "D," and the portable table, "L," with sterile towels and sheets. The articles from the instrument and utensil sterilizers are now brought out and arranged in their places as follows: Two white granite solution-pans (on stand marked "C-2" on diagram) for the hot and cold sterile water; two emesis basis, placed on table "D" as indicated; two of the large square pans are placed on the end of table "D," to be used as instrument or suture-tube receptacles. Articles remaining are left in the sterilizer for any emergency or later demand that may occur.

The way instruments are placed in the sterilizer determines the order in which they are to be removed to the operating room. How the instruments are placed in the sterilizer is determined for the most part by the character of the operation. For instance, if the operation is a bone operation, which necessarily presupposes the use of a large number of heavy instruments, the instruments are placed directly on the bottom tray of the sterilizer and removed to the operating room by lifting out and carrying the entire tray to the scene of operation. Again, if only a few small instruments are to be used, they may simply be wrapped in a towel, which is picked up

with sterile forceps and transferred to a sterile pan, and the pan is taken to the operating room within reach of the sterile nurse, who arranges the instruments on the sterile table "D."

When everything necessary for the operation has been brought from the sterilizer, the sterile nurse occupies herself with arranging these articles on tables "D" and "L" in the most convenient way possible. The general method of arrangement has been indicated as far as possible on the diagram, although it can readily be understood how this particular method may be varied within wide limits. The general principle governing the arrangement of instruments is one of convenience and quick utilization. The details of this technique adjust themselves to the personnel involved and the determining characteristics of the operation. The preparation of sutures and a last critical survey of the ensemble complete the duties of the sterile nurse until the actual arrival of the patient.

In the interim before the arrival of the patient, the nonsterile nurse is kept busy with the performance of many secondary but nevertheless important duties. The ether anesthetic table, whether the operation is to be under local or general, must be prepared. On this table are placed the following articles: Ether, ether masks, tongue forceps, trachea tube, mouth gag, folded towels (wet and dry), jar of vaseline, small cotton pledgets for covering the patient's eyes, and patient's cap. Ether cans are prepared by running a safety pin through the soft metal top, and the ether is given by the drop method. The table thus prepared is indicated in Figure 3 as "G." When local anesthetic is to be given, or general is not needed for any other reason, the table is kept in the position indicated in the diagram. However, when a general anesthetic is to be used, it is moved to the position indicated by the dotted line, i. e., to the right-hand side of the anesthetist, who is at the head of the operating table.

Local anesthesia is used in about 70 per cent of the cases operated upon at this hospital, and the proper preparation of the solutions is of considerable importance. The cotton stoppers of the bottles containing the solutions are covered with a gauze sponge, held in place by a rubber band placed around the neck of the bottle. The solutions used are freshly prepared and boiled each time a local anesthetic is used in major operations.

The operating room is equipped with two large tanks of oxygen and nitrous oxide (1,280 gallons each), and another apparatus with smaller tubes of the same gases for emergency. The anesthetizing apparatus is indicated in Figure 3 as "J" and "I." It must be frequently tested by the surgeon (or the nurse, if she understands) to determine the amount of gas on hand and the workable condition

of the apparatus. In case it is asked for during an operation, it usually becomes the duty of the nurse to bring it into position and to connect the electric wall plug for warming the gas.

Table "I" in the diagram is an unsterile table which is utilized for a miscellaneous assortment of articles that are needed or may be needed during the operation. Among these are found tongue depressors, adhesive tape, bandage rolls, etc.

A hypodermic tray, "H," is prepared and placed on the unsterile service table, "B." The tray is made up as follows: One large spoon, alcohol lamp, sterile water, covered jar containing cotton, pledgets, 2 medicine glasses partially filled with alcohol (hypodermic needles are kept in one and hypodermic syringe in the other), and the different tubes of hypodermic tablets that will likely be needed.

The operating room air is kept in circulation by a fan placed behind the screen "M" in the right corner of the operating room. The fan keeps the air alive, while the screen diffuses the flow and prevents the creation of direct air currents.

This practically completes the description dealing with the preparation of the operating room prior to the arrival of the patient. Variations of routine technique that may occur as the result of unstandardized and perhaps insignificant phases of the work, will be briefly commented on in the final section of this paper.

When the patient is brought in, the nonsterile nurse, who should be informed as to the character of the operation, takes charge of placing the patient in the required position, the arrangement of unsterile coverings and the adjustment of pillows, sandbags, or other props. She then removes the alcohol pack, and the surgeon's assistant applies the solution for final sterilization of the skin, as previously described. The sterile nurse (or the assistant) then drapes the patient and the table with sterile linen.

8. Division of Labor and Cooperation Among Personnel.

With the beginning of the operation the period of preparation ends and the duties of the sterile and nonsterile nurse depend upon the progress of the operation. The duties a nonsterile nurse may be called upon to perform during operation are not specific and, depending as they do upon the development of unanticipated wants, must be spoken of in a general way.

Just before the actual operation begins, the basins on "C-2" stand are filled with cold and hot sterile water, and the shallow pan on table "D" is filled with cold sterile water. During the operation the nonsterile nurse may be called upon to change the water because of contamination or merely as a precautionary measure.

Soiled linen, contaminated material, sponges, and instruments dropped on the floor must be removed by the nonsterile nurse or, by

her direction, by the orderly. In this connection a constant watch should be kept by her as to the preservation of sterility and the uninterrupted progress of the operation. This, when thus briefly stated, does not seem to imply much; but in reality, through her neglect or inability to perform this function, disaster may occur. With the concentration of the surgeons and the sterile nurse upon the performance of the operation, the general supervision of the smooth running of things naturally falls to the nonsterile nurse. Her ability and enthusiasm to act in this capacity gauge her success as an operating room nurse. Other calls for emergency may develop; the patient may "go bad," as they say, and his condition call for stimulant by hypodermic or subcutaneous saline injection. In this case it is the nonsterile nurse who prepares and administers the medication.

There has been continual reference throughout this paper to the phases of work participated in by the sterile nurse. However, for the sake of clarity, her duties may be briefly summarized as follows: She selects all instruments, catgut, needles, and other material likely to be used in the operation; she inspects and groups the instruments and oversees their complete sterilization; because her work during the operation requires a position in the midst of the sterile field, she scrubs up with the same thoroughness as the surgeon; when she is completely sterile she sets up the sterile tables and arranges the materials as they will be needed; when the chief surgeon and his assistants arrive, she assists them in putting on their gloves; during the operation her attention is directed solely to obeying the demands of the operators. She is also expected to keep a numerical account of the sponges and instruments used, to prevent the possibility of any being left where they should not be. The technique of the sterile nurse during operation should not consist of mere mechanical effort, but of a prompt obedience accelerated by intelligent anticipation. Her actual duties vary, as do those of the operators, according to the nature of the operation. Her technique, such as the handling of instruments, the preparation and cutting of sutures, and the degree of help required, seems to reach a happy medium according to the operator's own particular methods and the nurse's previous training.

Problems of operating room technique, such as standardizing the names of instruments, the elimination of reduplication of effort, and experimentation with new forms of cooperation, have been studied seriously, but need not be elaborated here.

PRELIMINARY NOTE ON A TOXIN-PRODUCING ANAEROBE ISOLATED FROM THE LARVÆ OF *LUCILIA CÆSAR*.

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Certain material was recently received at the Hygienic Laboratory from Dr. E. W. Saunders, to be tested for the presence of an "unknown pathogenic microbe" believed by the sender to be concerned in limberneck of chickens.¹ The results of the work on this material are of interest in that the presence of an anaerobic organism producing a soluble toxin has been demonstrated, which, in its effects on animals, behaves in a manner similar to that of the toxin of the organism of botulism, but which, however, fails to be neutralized by the antitoxins of either Type A or B of *Clostridium botulinum*.

The material as received at various times consisted of the carcasses of one guinea pig and three chickens and a collection of the larvæ of the green fly *Lucilia cæsar* preserved in glycerin.

The material was cultured liberally in meat mash media and glucose broth fermentation tubes. Extracts of certain portions of the material and cultures 8 or 9 days old of the material were found to be very toxic to mice when inoculated intraperitoneally according to the technique recently suggested by the author for testing suspicious foods for the presence of botulinus toxin (Pub. Health Rep., 1921, 36, 1665. Reprint No. 677.) All such cultures and extracts consistently failed to be neutralized by polyvalent botulinus antitoxin.

The organism was isolated by means of agar shake cultures, various types of colonies being fished to meat mash media tubes, which, after a period of incubation, were tested on mice as before. The particular culture with which this work was done was isolated from a tube planted with one of the larvæ preserved in glycerin. The culture was passed through several meat mash media and glucose agar shake cultures, single colonies being fished each time from the glucose agar tubes.

The most striking cultural characteristics of the organism may be described as follows: It is apparently nonproteolytic in meat mash media, in which it grows without, as a rule, producing any marked turbidity or change in the appearance of the meat. A large amount of gas is produced, bubbles continuing to form for long periods (7 days or longer). The gas bubbles sometimes are the only evidence of growth. In contrast to this behavior in meat media, no production of gas has been observed in glucose broth or in glucose agar shake cultures. The appearance of growth in broth media is characteristic. Instead of a homogeneous appearance as is obtained with

¹ Saunders, E. W., Wisdom, W. E., and White, T. W., The *Lucilia cæsar* Epizootic, Transmitted Through its Toxigenic Larvæ, and its Relation to Simian and Human Poliomyelitis. Jour. Missouri State Med. Assoc., 1921, 18, 4.

the organism of tetanus and botulinus, a flaky growth occurs, the organisms apparently being agglutinated and in the course of several days being deposited on the sides and at the bottom of the tube. The appearance of colonies in deep-glucose agar cultures is in marked contrast to the solid lenticular colonies of *Clostridium botulinum*. They are very fluffy and without a compact central nucleus.

The following is a more detailed record of the cultural and morphological characteristics.

Morphology and staining properties.—In smears made from 24-hour-old cultures the organism appears as a rod with rounded ends, which occurs usually singly, but sometimes in pairs and short chains. The rods are often slightly curved. The size is about 3 to 6 by 0.5 to 0.8 μ .

The organism is gram-positive in young cultures, but in older cultures, gram-positive individuals are rare.

Spores appear in meat media in 48 hours and after a longer period in $\frac{1}{10}$ per cent agar cultures. The spores are terminal and somewhat wider than the rod. The number of spores was comparatively few in all of the smears examined.

Motility.—Hanging drop preparations made from 24-hour cultures in glucose broth, meat media, and $\frac{1}{10}$ per cent agar showed nonmotile organisms. The usual technique was followed and no precautions were taken to exclude oxygen.

Cultural requirements.—The organism requires anaerobic conditions in media not containing meat. In agar stab and glucose agar shake cultures the growth extends from the bottom of the tube to about 1 cm. below the surface of the medium. The boiling of meat media previous to inoculation serves to expel the air, and no further precautions to secure anaerobiosis are required.

A temperature of 37.5° C. is favorable for growth; but growth is also obtained after a period of delay, in meat media held at room temperature.

On the whole, the organism grows less readily than the strains of *Clostridium botulinum* isolated in this country. Single colonies fished from glucose agar media often fail to grow if cultures are much over one week old; and occasionally when conditions are apparently favorable, no growth is obtained. The appearance of growth in various media is usually delayed until the second day of incubation.

Cultural characteristics.—Agar-stab cultures: A rather scant growth appears along the line of needle puncture with no evidence of gas formation.

One-tenth per cent agar medium: This medium is a favorable one for the growth of the organism, a fairly heavy growth developing in 24 to 48 hours.

Glucose agar shake cultures: The colonies, as stated above, are of the fluffy type. Although the tubes may be crowded with colonies, no gas bubbles have been observed.

Liver agar shake cultures: The colonies in this medium at first resembled the typical lenticular colonies of *Clostridium botulinum*, but later became fluffy. Gas bubbles were present in tubes containing a moderate number of colonies.

Gelatin: Scant growth has been obtained in gelatin stab cultures, with no liquefaction in 14 days.

Litmus milk: An acid reaction is produced in milk after an incubation period of 48 hours. No coagulation or digestion of casein occurred in 14 days.

Meat mash media: The meat mash medium consists of one part of chopped meat to two parts of distilled water, adjusted to a reaction of p_{H} 8 and autoclaved at 15 pounds pressure for $1\frac{1}{2}$ hours. Growth occurs quite readily in this medium, with the development of only slight turbidity and numerous gas bubbles.

Fermentation reactions: Growth occurs in glucose broth in the course of 48 hours, with slight acid production, but without formation of gas. No growth was obtained in lactose and saccharose broth.

Good growth was obtained in liver broth, often with the formation of gas.

Thermal death point.—This has not been determined accurately, but a few tests were carried out to determine roughly the temperature and length of time required to destroy the spores. Seven-day-old cultures were heated in the Arnold sterilizer for one-half hour and one hour (temperature 93 to 95° C.). Growth was obtained in tubes of meat media planted with the tube heated for one-half hour, but none with that heated for one hour.

Toxin.—Toxin was produced in meat media cultures after two or three days, or after longer periods of incubation. Two-tenths c. c. of the toxic filtrate inoculated intraperitoneally was usually fatal to mice within 5 or 6 hours, and smaller amounts in a correspondingly longer time. The toxin was tested on animals by subcutaneous and intraperitoneal inoculations and by feeding. The results are presented in detail below.

A few tests were made which gave some information in regard to the temperature necessary to destroy the toxin. Animals inoculated with a dose of 0.01 c. c. of filtrate heated to 60 to 65° C. for 20 minutes developed no symptoms, the untreated filtrate being toxic in doses of 0.001 c. c. or less. Toxin heated to 60° C. for 10 minutes only was toxic for both guinea pigs and rabbits, though death was somewhat delayed as compared with the results of tests in animals receiving unheated toxin.

Tests on animals: A number of parallel tests were carried out on animals, with cultures and the corresponding filtrates. In most cases similar results were obtained, with both, the time of death of the animals inoculated with filtrates being somewhat delayed as compared with the time of death of those receiving cultures. The results presented are those obtained with filtrates unless otherwise specified.

Guinea pigs.

| Amount and method of administering toxin: | Time elapsing before death. |
|--|-----------------------------|
| 0.001 c. c. inoculated subcutaneously..... | hours.. +29 |
| 1 c. c. inoculated subcutaneously..... | do.... + 6 |
| 1 c. c. fed..... | do.... +29 |
| 0.1 c. c. fed..... | Survived. |
| 0.1 c. c culture fed..... | hours.. +16 |

Rabbits.

| | |
|--|-------------|
| 0.001 c. c. inoculated subcutaneously..... | hours.. +40 |
| 1 c. c. inoculated subcutaneously..... | do.... +16 |
| 1 c. c. fed..... | Survived. |
| 1 c. c. culture fed..... | Survived. |

Rats.

| | |
|--|-------------|
| 0.001 c. c. inoculated subcutaneously..... | hours.. +23 |
| 0.01 c. c. inoculated subcutaneously..... | do.... +16 |
| 1 c. c. inoculated subcutaneously..... | do.... + 5 |

Mice.

| | |
|---|-------------|
| 0.001 c. c. inoculated intraperitoneally..... | hours.. + 9 |
| 0.1 c. c. inoculated intraperitoneally..... | do.... + 6 |

Monkeys.

| | |
|---|-------------|
| 0.01 c. c. inoculated subcutaneously..... | hours.. +71 |
| 4-5 g. of meat culture fed on bread..... | do.... +71 |

Pigeons.

| | |
|-----------------------------|-------------|
| 1 c. c. of culture fed..... | hours.. +31 |
| 1 c. c. of culture fed..... | days.. + 7 |

Chickens.

| | |
|--|---|
| 1 c. c. inoculated subcutaneously..... | Survived. |
| 5 c. c. of filtrate fed..... | No symptoms in 72 hours. |
| 4-5 g. of meat culture fed on bread..... | Developed symptoms in 24 hours but recovered later. |

Tests were made on guinea pigs to determine whether any protection was afforded by several different antitoxins against small amounts of the toxin, as follows:

| Amount of filtrate. | Antitoxin. | Potency. | Symptoms. | Time elapsing before death. |
|---------------------|---|---|-------------|-----------------------------|
| 0.0001 c. c..... | 1 c. c. polyvalent botulinus antitoxin. | Over 2,500 units Type A; 75 units Type B. | 6-7 days... | + 12 days. |
| Do..... | 1 c. c. type B botulinus antitoxin. | 140 units..... | do..... | + 10 days. |
| Do..... | 1 c. c. serum from cow 2770. ¹ | | do..... | + 17 days. |
| Do..... | No antitoxin..... | | do..... | + 16 days. |

¹ Serum received from Dr. Robert Graham and obtained by immunizing a cow against an organism also obtained from limber neck material.

All of the above animals died in from 10 to 17 days and all had exhibited symptoms of hypotonicity and emaciation to about the same degree in 6 or 7 days.

The results of another test are as follows:

| Amount of filtrate. | Antitoxin. | Potency. | Symp- toms. | Time of death. |
|---------------------|--|--|----------------|-------------------|
| c. c. | | | Hours. | Hours. |
| 0.001 | 1 c. c. polyvalent botulinus anti- toxin. | Over 2,500 units Type A; 75 units Type B. | 43 | +44 |
| Do..... | 1 c. c. Type B botulinus antitoxin. | 140 units..... | 43 | +45 |
| Do..... | 1 c. c. serum from cow 2770 | ..... | 43 | +47 |
| Do..... | 1 c. c. normal horse serum. | ..... | 43 | +47 |
| Do..... | No antitoxin..... | ..... | 27 | +42 |

The results of this test indicate that some slight protection may have been afforded by all of the serums used in that the animal which received no serum died several hours earlier than the others, but the differences are not great enough to be significant. In comparison with normal horse serum, no protection was afforded by any of the antitoxins used.

These tests and others not included therefore show that the filtrate of the organism isolated is toxic on inoculation and also by mouth to certain animals, as is the toxin of *Clostridium botulinum*, but that no protection is afforded by polyvalent botulinus antitoxin in inoculation tests.

As to the specific effects produced on laboratory animals, the symptoms closely resemble those of botulism and include general hypotonicity of muscles, increased salivation, and prostration. Guinea pigs showing severe symptoms lie flat on the abdomen with head outstretched and are unable to stand. Rabbits show prostration and assume a crouched attitude, with the appearance of being unable to support their weight on the legs. When an attempt is made to run, there appears to be difficulty in coordination of the leg muscles. Chickens and pigeons exhibited closed or partially closed eyelids. The most noticeable symptoms in these animals was the inability to stand. There was some tendency to keep the head down; but on the whole, the effects produced on the limbs were most pronounced. Monkeys are inactive and present the appearance of illness, with increased flow of saliva from the mouth, ptosis of eyelids, and prostration.

Pathology.—Animals inoculated with cultures of the organism show some congestion at the site of inoculation, but very slight or no congestion when filtrates are inoculated. The liver may present a hyperemic appearance, and there is sometimes congestion of the upper intestine. Congestion of the adrenals has been noted in guinea pigs. The most striking feature, as in botulism, is in the marked

congested condition of the blood vessels of the brain and meninges. Sections of the organs have not as yet been examined for the occurrence of thrombi.

Immunity.—Rabbits are being inoculated with small increasing amounts of toxin to determine whether an antitoxin can be produced. Two methods are being pursued in this work; one being the inoculation of very small nonlethal doses of filtrate and the other the inoculation of larger doses of heated toxin.

COMMENT.

This study indicates that the organism described varies markedly from the strains of *Clostridium botulinum* isolated in the United States. Culturally and immunologically it appears to be a rather distinct organism. One is almost tempted to consider it as more closely related to the type originally described by von Ermengem,⁴ when its nonproteolytic behavior and apparently low thermal death point are taken into consideration. There are, however, several important differences between the two organisms. The absence of gas production in glucose beef infusion media is noteworthy. Von Ermengem describes rich gas formation in glucose agar stab cultures and describes the medium as torn and fragmented. Gas formation in glucose broth is also emphasized. No mention is made of the flaky appearance of the growth in glucose broth. This is so distinctive that it seems improbable that it should have escaped notice if it had been present. Litmus milk is described as not being changed or coagulated. The organism under discussion produces a definitely acid reaction in litmus milk. The odor of the organism of von Ermengem is described as a penetrating, butyric-acid-like odor. There is no noticeable odor in cultures of the organism being studied. The colony formation in deep glucose agar tubes is not definitely described by von Ermengem. There is, however, no question as to the very diverse appearance in this medium of the colonies of the organism in hand and the colonies of cultures of *Clostridium botulinum* described in this country. The colonies in liver media, on the other hand, resemble in their early development the colonies which have been described as typical for the botulism organism. Von Ermengem's organism was found to be only slightly toxic to rats on inoculation. This organism is as toxic to rats as to some of the other animals tested.

Regarding the relation of the organism to limber neck in chickens, it can not be definitely stated at this time that it is etiologically concerned. The results obtained so far in experimental work have not been as promising as had been expected. Relatively large doses seem to be required to produce symptoms. It is possible, however,

⁴ Von Ermengem, *Der Bacillus botulinus und der Botulismus* (in Kolle u. Wassermann, *Handbuch der pathogenen Mikroorganismen*, 1912, 4, 902-938).

that the age of the fowl, the breed, and other factors may have a bearing on the results, and further work is needed along this line as well as on the relation of the fly *Lucilia cæsar* to the disease.

COURT DECISION ON PURIFICATION OF WATER SUPPLY.

The Court of Appeals of Kentucky has decided¹ that under the statutes the State board of health can forbid the furnishing by a company of impure water to a community on the ground that such water is a nuisance, but can not direct the use of any particular method of purification. The following is a portion of the court's opinion:

* * * We have no doubt that the State board of health may, under said section 2057, abate any nuisance in this State caused by filth which induces sickness. In this respect the powers of the board are broad, but not unlimited, and must be exercised within a sound discretion; not whimsically or capriciously nor arbitrarily. If the board of health in dealing with such matters does not exceed its powers nor abuse its discretion, its orders will be upheld by courts as final and conclusive. * * *

Although, as said above, the board of health has the power to abate a nuisance, source of filth or cause of sickness, it has no mandatory power enabling it to direct the method by which the result shall be accomplished. It can only cause the abatement of the nuisance, and is not concerned with the method by which it is done. In other words, it may stop the furnishing of impure and dangerous water to a community, but it has no power to direct a water company to install any particular character of plant for sedimentation, filtration, or chlorination of the water, and the water company may adopt any system that may seem best or expedient to it, if the system adopted produces the results desired—clear, soft, wholesome water. * * *

DEATHS DURING WEEK ENDED JAN. 14, 1922.

Summary of information received by telegraph from industrial insurance companies for week ended Jan. 14, 1922, and corresponding week, 1921. (From the Weekly Health Index, Jan. 17, 1922, issued by the Bureau of the Census, Department of Commerce.)

| | Week ended Jan. 14, 1922. | Corresponding week, 1921. |
|--|------------------------------|------------------------------|
| Policies in force..... | 48, 548, 844 | 45, 700, 065 |
| Number of death claims..... | 10, 240 | 9, 697 |
| Death claims per 1,000 policies in force, annual rate..... | 11. 0 | 11. 1 |

¹ Prunell et al. v. Maysville Water Co., 234 S. W., 967.

Deaths from all causes in certain large cities of the United States during the week ended Jan. 14, 1922, infant mortality, annual death rate, and comparison with corresponding week of 1921. (From the Weekly Health Index, Jan. 17, 1922, issued by the Bureau of the Census, Department of Commerce.)

| City. | Estimated population July 1, 1921. | Week ended Jan. 14, 1922. | | Annual death rate per 1,000, corresponding week, 1921. | Deaths under 1 year. | | Infant mortality rate, week ended Jan. 14, 1922. ³ |
|--------------------------------------|------------------------------------|---------------------------|--------------------------|--|---------------------------|---------------------------|---|
| | | Total deaths. | Death rate. ¹ | | Week ended Jan. 14, 1922. | Corresponding week, 1921. | |
| Total..... | 27,361,764 | 7,220 | 13.8 | 13.3 | 933 | 922 | ..... |
| Akron, Ohio..... | *208,435 | 27 | 6.8 | 9.1 | 0 | 7 | 0 |
| Albany, N. Y..... | 115,071 | 31 | 14.0 | 17.7 | 3 | 4 | 67 |
| Atlanta, Ga..... | 207,473 | 60 | 15.1 | 15.6 | 11 | 5 | ..... |
| Baltimore, Md..... | 750,864 | 220 | 15.3 | 14.4 | 19 | 30 | 63 |
| Birmingham, Ala..... | 186,133 | 61 | 17.1 | 18.8 | 9 | 11 | 11 |
| Boston, Mass..... | 757,634 | 222 | 15.3 | 13.6 | 20 | 26 | 53 |
| Bridgeport, Conn. ³ | *143,555 | 33 | 12.0 | 8.7 | 5 | 5 | 62 |
| Buffalo, N. Y..... | 519,608 | 138 | 13.8 | 12.3 | 18 | 20 | 71 |
| Cambridge, Mass..... | 110,444 | 31 | 14.6 | 10.4 | 4 | 3 | 73 |
| Camden, N. J..... | 119,672 | 28 | 12.2 | 18.3 | 3 | 5 | 46 |
| Chicago, Ill..... | 2,780,655 | 652 | 12.2 | 13.3 | 102 | 106 | ..... |
| Cincinnati, Ohio..... | 403,418 | 135 | 17.4 | 15.0 | 10 | 5 | 67 |
| Cleveland, Ohio..... | 831,138 | 174 | 10.9 | 12.6 | 26 | 31 | 67 |
| Columbus, Ohio..... | 245,358 | 90 | 19.1 | 17.9 | 7 | 12 | 74 |
| Dallas, Tex..... | 165,282 | 55 | 17.4 | 10.7 | 9 | 1 | ..... |
| Dayton, Ohio..... | *152,559 | 39 | 13.3 | 12.5 | 6 | 2 | 102 |
| Denver, Colo..... | 263,152 | 102 | 20.2 | 19.0 | 9 | 18 | ..... |
| Detroit, Mich..... | 1,070,450 | 204 | 9.9 | 9.7 | 36 | 49 | 69 |
| Fall River, Mass..... | 120,668 | 33 | 14.3 | 10.4 | 12 | 7 | 168 |
| Fort Worth, Tex..... | 111,423 | 20 | 9.4 | ..... | ..... | ..... | ..... |
| Grand Rapids, Mich..... | 141,197 | 26 | 9.6 | 19.2 | 2 | 4 | 33 |
| Houston, Tex..... | 144,340 | 39 | 14.1 | 8.7 | 7 | 2 | ..... |
| Indianapolis, Ind..... | 325,632 | 76 | 12.2 | 13.0 | 6 | 8 | 46 |
| Jersey City, N. J..... | 302,788 | 71 | 12.2 | 13.3 | 9 | 4 | 57 |
| Kansas City, Kans..... | 103,884 | 35 | 17.6 | 10.0 | 2 | 1 | 46 |
| Kansas City, Mo..... | 336,157 | 109 | 16.9 | 18.5 | 20 | 16 | ..... |
| Los Angeles, Calif..... | 614,160 | 168 | 14.3 | 17.1 | 9 | 19 | 37 |
| Louisville, Ky..... | 236,083 | 88 | 19.4 | 13.5 | 5 | 5 | 54 |
| Lowell, Mass..... | 113,757 | 38 | 17.4 | 18.3 | 9 | 6 | 151 |
| Memphis, Tenn..... | 165,656 | 68 | 21.4 | 10.7 | 8 | 4 | ..... |
| Milwaukee, Wis..... | 468,386 | 90 | 10.0 | 10.6 | 11 | 22 | 54 |
| Minneapolis, Minn..... | 392,815 | 75 | 10.0 | 11.1 | 10 | 10 | 55 |
| New Bedford, Mass..... | 125,012 | 21 | 8.8 | 11.7 | 4 | 7 | 59 |
| New Haven, Conn..... | 167,007 | 40 | 12.5 | 13.4 | 7 | 6 | 86 |
| New Orleans, La..... | 394,657 | 134 | 17.7 | 16.3 | 13 | 18 | ..... |
| New York, N. Y..... | 5,751,867 | 1,481 | 13.4 | 12.7 | 196 | 183 | 76 |
| Newark, N. J..... | 424,885 | 123 | 15.1 | 14.0 | 22 | 16 | 97 |
| Norfolk, Va..... | 121,260 | 24 | 10.3 | 12.0 | 7 | 2 | 124 |
| Oakland, Calif..... | 226,472 | 44 | 10.1 | 11.3 | 2 | 5 | 25 |
| Omaha, Nebr..... | 197,066 | 48 | 12.7 | 11.1 | 8 | 6 | 86 |
| Paterson, N. J..... | 137,463 | 39 | 14.8 | 13.1 | 6 | 4 | 92 |
| Philadelphia, Pa..... | 1,866,212 | 568 | 15.9 | 13.9 | 72 | 59 | 85 |
| Pittsburgh, Pa..... | 602,422 | 187 | 16.2 | 16.6 | 33 | 36 | 105 |
| Portland, Oreg..... | 264,859 | 70 | 13.8 | 12.4 | 6 | 7 | 59 |
| Providence, R. I..... | 239,645 | 74 | 16.1 | 13.5 | 12 | 12 | 95 |
| Richmond, Va..... | 175,686 | 56 | 16.6 | 14.2 | 5 | 8 | 61 |
| Rochester, N. Y..... | 305,229 | 60 | 10.3 | 12.1 | 6 | 1 | 46 |
| St. Louis, Mo..... | 786,164 | 206 | 13.7 | 13.3 | 23 | 18 | ..... |
| St. Paul, Minn..... | 237,781 | 66 | 14.5 | 10.7 | 7 | 1 | 66 |
| Salt Lake City, Utah..... | 121,595 | 40 | 17.2 | 14.6 | 6 | 11 | 89 |
| San Francisco, Calif..... | 520,546 | 158 | 15.8 | 15.2 | 8 | 11 | 46 |
| Seattle, Wash..... | *315,312 | 61 | 10.1 | 9.4 | 11 | 5 | 93 |
| Spokane, Wash..... | 104,442 | 31 | 15.5 | 12.5 | 3 | 2 | 64 |
| Springfield, Mass..... | 135,877 | 29 | 11.1 | 10.0 | 6 | 7 | 89 |
| Syracuse, N. Y..... | 177,265 | 49 | 14.4 | 13.8 | 8 | 6 | 96 |
| Toledo, Ohio..... | 253,695 | 65 | 13.4 | 14.4 | 6 | 5 | 79 |
| Trenton, N. J..... | 122,760 | 55 | 23.4 | 14.4 | 8 | 7 | 122 |
| Washington, D. C..... | *437,571 | 133 | 15.8 | 14.7 | 21 | 13 | 120 |
| Wilmington, Del..... | 113,408 | 27 | 12.4 | 15.2 | 3 | 5 | 58 |
| Worcester, Mass..... | 184,072 | 47 | 13.2 | 14.1 | 6 | 5 | 65 |
| Yonkers, N. Y..... | 103,324 | 24 | 12.1 | 12.1 | 3 | 4 | 61 |
| Youngstown, Ohio..... | 139,432 | 22 | 8.2 | 11.6 | 6 | 4 | 79 |

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births—based on deaths under 1 year for the week and estimated births for 1921. Cities left blank are not in the registration area for births.

³ Enumerated population Jan. 1, 1920.

PREVALENCE OF DISEASE.

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

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Jan. 21, 1922.

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

| ALABAMA. | | CALIFORNIA—continued. | |
|-------------------------------|--------|---------------------------------------|--------|
| | Cases. | | Cases. |
| Cerebrospinal meningitis..... | 1 | Measles..... | 15 |
| Chicken pox..... | 39 | Poliomyelitis—San Joaquin County..... | 2 |
| Diphtheria..... | 23 | Scarlet fever..... | 94 |
| Hookworm disease..... | 4 | Smallpox: | |
| Influenza..... | 5 | Kern County..... | 17 |
| Malaria..... | 10 | Monterey County..... | 11 |
| Ophthalmia neonatorum..... | 2 | San Jose..... | 26 |
| Pellagra..... | 1 | Santa Clara..... | 30 |
| Pneumonia..... | 12 | Scattering..... | 48 |
| Poliomyelitis..... | 1 | Typhoid fever..... | 7 |
| Scarlet fever..... | 11 | | |
| Smallpox..... | 21 | | |
| Tuberculosis..... | 15 | COLORADO. | |
| Typhoid fever..... | 8 | (Exclusive of Denver.) | |
| Whooping cough..... | 27 | Chicken pox..... | 19 |
| | | Diphtheria..... | 69 |
| | | Influenza..... | 3 |
| ARKANSAS. | | Measles..... | 10 |
| Chicken pox..... | 22 | Mumps..... | 13 |
| Diphtheria..... | 18 | Pneumonia..... | 7 |
| Influenza..... | 64 | Scarlet fever..... | 45 |
| Malaria..... | 34 | Septic sore throat..... | 2 |
| Measles..... | 8 | Smallpox..... | 39 |
| Pellagra..... | 3 | Typhoid fever..... | 4 |
| Pneumonia..... | 1 | Whooping cough..... | 2 |
| Scarlet fever..... | 8 | | |
| Smallpox..... | 2 | CONNECTICUT. | |
| Tuberculosis..... | 11 | Anthrax..... | 1 |
| Typhoid fever..... | 8 | Cerebrospinal meningitis..... | 1 |
| | | Chicken pox..... | 114 |
| CALIFORNIA. | | Diphtheria: | |
| Cerebrospinal meningitis: | | Bridgeport..... | 12 |
| Lindsay..... | 1 | Hartford..... | 18 |
| Oakland..... | 1 | New Haven..... | 17 |
| Diphtheria..... | 310 | Scattering..... | 44 |
| Influenza..... | 28 | German measles..... | 4 |
| Leprosy—Los Angeles..... | 1 | Influenza..... | 9 |
| Lethargic encephalitis: | | Malaria..... | 1 |
| Berkeley..... | 2 | Measles: | |
| Fortuna..... | 1 | Groton..... | 12 |
| San Francisco..... | 1 | Hartford..... | 9 |

CONNECTICUT—continued.

| Measles—Continued. | Cases. |
|-------------------------------|--------|
| New Haven..... | 10 |
| Tolland..... | 13 |
| Scattering..... | 28 |
| Mumps..... | 65 |
| Pneumonia (lobar)..... | 30 |
| Scarlet fever: | |
| Bridgeport..... | 9 |
| New Haven..... | 8 |
| Scattering..... | 64 |
| Smallpox: | |
| Bridgeport..... | 36 |
| Scattering..... | 4 |
| Trichinosis..... | 1 |
| Tuberculosis (pulmonary)..... | 20 |
| Whooping cough..... | 42 |

DELAWARE.

| | |
|--------------------|----|
| Chicken pox..... | 8 |
| Diphtheria..... | 6 |
| Influenza..... | 5 |
| Mumps..... | 1 |
| Pneumonia..... | 5 |
| Scarlet fever: | |
| Wilmington..... | 44 |
| Scattering..... | 17 |
| Tuberculosis..... | 3 |
| Typhoid fever..... | 4 |

FLORIDA.

| | |
|----------------------------|----|
| Diphtheria..... | 15 |
| Influenza..... | 21 |
| Malaria..... | 8 |
| Ophthalmia neonatorum..... | 4 |
| Pneumonia..... | 1 |
| Scarlet fever..... | 7 |
| Smallpox..... | 10 |
| Typhoid fever..... | 20 |

GEORGIA.

| | |
|-------------------------------|----|
| Chicken pox..... | 40 |
| Diphtheria..... | 19 |
| Hookworm disease..... | 81 |
| Influenza..... | 52 |
| Malaria..... | 12 |
| Pneumonia..... | 41 |
| Scarlet fever..... | 23 |
| Septic sore throat..... | 1 |
| Smallpox..... | 31 |
| Tuberculosis (pulmonary)..... | 6 |
| Typhoid fever..... | 11 |
| Whooping cough..... | 2 |

ILLINOIS.

| | |
|---|-----|
| Cerebrospinal meningitis: | |
| Chicago..... | 2 |
| Christian County—South Fork Township..... | 1 |
| Diphtheria: | |
| Chicago..... | 151 |
| Rock Island..... | 8 |
| Scattering..... | 150 |
| Influenza..... | 38 |
| Lethargic encephalitis—Chicago..... | 1 |
| Pneumonia..... | 319 |
| Poliomyelitis—Springfield..... | 2 |
| Scarlet fever: | |
| Chicago..... | 121 |
| Quincy..... | 9 |

ILLINOIS—continued.

| Scarlet fever—Continued. | Cases. |
|--------------------------|--------|
| Rockford..... | 13 |
| Scattering..... | 200 |
| Smallpox: | |
| Bartonville..... | 11 |
| Peoria..... | 22 |
| Scattering..... | 48 |
| Typhoid fever..... | 11 |
| Whooping cough..... | 82 |

INDIANA.

| | |
|--------------------------------------|----|
| Diphtheria..... | 96 |
| Rabies in animals—Davies County..... | 1 |
| Scarlet fever..... | 96 |
| Smallpox..... | 18 |
| Typhoid fever..... | 5 |

IOWA.

| | |
|---------------------------|----|
| Cerebrospinal meningitis: | |
| Hiteman..... | 1 |
| Marshalltown..... | 1 |
| Diphtheria..... | 37 |
| Influenza..... | 4 |
| Measles..... | 2 |
| Pneumonia..... | 3 |
| Scarlet fever..... | 53 |
| Smallpox..... | 42 |

KANSAS.

| | |
|-------------------------------|-----|
| Cerebrospinal meningitis..... | 1 |
| Chicken pox..... | 98 |
| Diphtheria..... | 123 |
| German measles..... | 4 |
| Influenza..... | 88 |
| Measles..... | 4 |
| Mumps..... | 3 |
| Pneumonia..... | 37 |
| Poliomyelitis..... | 2 |
| Scarlet fever..... | 182 |
| Smallpox..... | 48 |
| Trachoma..... | 1 |
| Tuberculosis..... | 30 |
| Typhoid fever..... | 4 |
| Whooping cough..... | 12 |

LOUISIANA.

| | |
|-------------------------------|----|
| Cerebrospinal meningitis..... | 1 |
| Diphtheria..... | 27 |
| Influenza..... | 4 |
| Scarlet fever..... | 16 |
| Smallpox..... | 16 |
| Typhoid fever..... | 37 |
| Whooping cough..... | 8 |

MAINE.

| | |
|-------------------------|----|
| Chicken pox..... | 15 |
| Diphtheria..... | 12 |
| German measles..... | 1 |
| Influenza..... | 18 |
| Measles..... | 1 |
| Mumps..... | 1 |
| Paratyphoid fever..... | 1 |
| Pneumonia..... | 20 |
| Scarlet fever..... | 33 |
| Septic sore throat..... | 4 |
| Tuberculosis..... | 9 |
| Typhoid fever..... | 2 |
| Whooping cough..... | 2 |

MARYLAND.¹

| | Cases. |
|-------------------------------|--------|
| Cerebrospinal meningitis..... | 3 |
| Chicken pox..... | 93 |
| Diphtheria..... | 72 |
| Dysentery..... | 1 |
| German measles..... | 5 |
| Influenza..... | 53 |
| Lethargic encephalitis..... | 1 |
| Malaria..... | 1 |
| Measles..... | 156 |
| Mumps..... | 49 |
| Pneumonia (all forms)..... | 123 |
| Scarlet fever..... | 104 |
| Septic sore throat..... | 2 |
| Tuberculosis..... | 52 |
| Typhoid fever..... | 7 |
| Vincent's angina..... | 3 |
| Whooping cough..... | 9 |

MASSACHUSETTS.

| | |
|-----------------------------------|-----|
| Cerebrospinal meningitis..... | 1 |
| Chicken pox..... | 180 |
| Conjunctivitis (suppurative)..... | 5 |
| Diphtheria..... | 209 |
| Dysentery..... | 1 |
| German measles..... | 11 |
| Influenza..... | 18 |
| Lethargic encephalitis..... | 2 |
| Measles..... | 252 |
| Mumps..... | 87 |
| Ophthalmia neonatorum..... | 16 |
| Pneumonia (lobar)..... | 134 |
| Poliomyelitis..... | 2 |
| Scarlet fever..... | 233 |
| Septic sore throat..... | 4 |
| Tetanus..... | 1 |
| Trachoma..... | 1 |
| Tuberculosis (all forms)..... | 154 |
| Typhoid fever..... | 8 |
| Whooping cough..... | 73 |

MINNESOTA.

| | |
|-------------------------------|-----|
| Cerebrospinal meningitis..... | 1 |
| Chicken pox..... | 14 |
| Diphtheria..... | 73 |
| Lethargic encephalitis..... | 1 |
| Measles..... | 14 |
| Pneumonia..... | 5 |
| Scarlet fever..... | 226 |
| Smallpox..... | 75 |
| Tuberculosis..... | 90 |
| Typhoid fever..... | 4 |
| Whooping cough..... | 1 |

MISSISSIPPI.

| | |
|--------------------|----|
| Diphtheria..... | 21 |
| Scarlet fever..... | 8 |
| Smallpox..... | 14 |
| Typhoid fever..... | 4 |

MISSOURI.

| | |
|-------------------------------|-----|
| Cerebrospinal meningitis..... | 6 |
| Chicken pox..... | 39 |
| Diphtheria..... | 122 |
| Epidemic sore throat..... | 15 |
| Influenza..... | 8 |

MISSOURI—continued.

| | Cases. |
|----------------------------|--------|
| Measles..... | 3 |
| Mumps..... | 2 |
| Ophthalmia neonatorum..... | 1 |
| Pneumonia..... | 53 |
| Rabies..... | 1 |
| Scarlet fever..... | 75 |
| Smallpox..... | 27 |
| Tetanus..... | 2 |
| Tuberculosis..... | 28 |
| Typhoid fever..... | 1 |
| Whooping cough..... | 18 |

MONTANA.

| | |
|--------------------|----|
| Diphtheria..... | 6 |
| Scarlet fever..... | 33 |
| Smallpox..... | 26 |
| Typhoid fever..... | 4 |

NEBRASKA.

| | |
|-----------------------------------|----|
| Chicken pox..... | 39 |
| Diphtheria: | |
| Nobraska City..... | 25 |
| Omaha..... | 9 |
| Scattering..... | 13 |
| Lethargic encephalitis—Omaha..... | 1 |
| Measles: | |
| Hastings..... | 20 |
| Lincoln..... | 13 |
| Omaha..... | 15 |
| Washington County..... | 8 |
| Scattering..... | 11 |
| Mumps..... | 29 |
| Pneumonia..... | 2 |
| Scarlet fever..... | 85 |
| Smallpox..... | 40 |
| Tuberculosis..... | 1 |
| Typhoid fever..... | 2 |

NEW JERSEY.

| | |
|---------------------|-----|
| Chicken pox..... | 193 |
| Diphtheria..... | 198 |
| Influenza..... | 40 |
| Malaria..... | 2 |
| Measles..... | 345 |
| Pneumonia..... | 220 |
| Poliomyelitis..... | 2 |
| Scarlet fever..... | 333 |
| Trachoma..... | 1 |
| Typhoid fever..... | 11 |
| Whooping cough..... | 90 |

NEW MEXICO.

| | |
|---------------------|----|
| Chicken pox..... | 13 |
| Diphtheria..... | 36 |
| Influenza..... | 1 |
| Malaria..... | 1 |
| Measles..... | 4 |
| Mumps..... | 12 |
| Pneumonia..... | 6 |
| Scarlet fever..... | 17 |
| Tuberculosis..... | 38 |
| Whooping cough..... | 5 |

NEW YORK.

(Exclusive of New York City.)

| | |
|-------------------------------|-----|
| Cerebrospinal meningitis..... | 2 |
| Diphtheria..... | 224 |

¹Week ended Friday.

| NEW YORK—continued. | Cases. |
|-----------------------------|--------|
| Influenza..... | 80 |
| Lethargic encephalitis..... | 1 |
| Measles..... | 124 |
| Pneumonia..... | 334 |
| Poliomyelitis..... | 2 |
| Scarlet fever..... | 281 |
| Typhoid fever..... | 26 |
| Whooping cough..... | 181 |

| NORTH CAROLINA. | Cases. |
|----------------------------|--------|
| Chicken pox..... | 157 |
| Diphtheria..... | 59 |
| German measles..... | 5 |
| Measles..... | 16 |
| Ophthalmia neonatorum..... | 1 |
| Scarlet fever..... | 63 |
| Septic sore throat..... | 11 |
| Smallpox..... | 53 |
| Trachoma..... | 1 |
| Typhoid fever..... | 5 |
| Whooping cough..... | 87 |

| OREGON. | Cases. |
|-------------------------------|--------|
| Cerebrospinal meningitis..... | 11 |
| Chicken pox..... | 19 |
| Diphtheria: | |
| Portland..... | 21 |
| Scattering..... | 9 |
| Measles..... | 1 |
| Mumps..... | 9 |
| Pneumonia..... | 15 |
| Scarlet fever: | |
| Benton County..... | 17 |
| Scattering..... | 17 |
| Smallpox: | |
| Multnomah County..... | 12 |
| Portland..... | 40 |
| Scattering..... | 21 |
| Tuberculosis..... | 15 |
| Typhoid fever..... | 3 |
| Whooping cough..... | 7 |

| SOUTH DAKOTA. | Cases. |
|--------------------|--------|
| Chicken pox..... | 4 |
| Diphtheria..... | 13 |
| Pneumonia..... | 10 |
| Scarlet fever..... | 28 |
| Smallpox..... | 45 |
| Tuberculosis..... | 3 |
| Typhoid fever..... | 3 |

| TEXAS. | Cases. |
|--------------------|--------|
| Chicken pox..... | 87 |
| Diphtheria..... | 25 |
| Influenza..... | 5 |
| Pneumonia..... | 14 |
| Smallpox..... | 30 |
| Typhoid fever..... | 6 |

| VERMONT. | Cases. |
|------------------|--------|
| Chicken pox..... | 44 |
| Diphtheria..... | 2 |
| Measles..... | 17 |

| VERMONT—continued. | Cases. |
|---------------------|--------|
| Mumps..... | 24 |
| Pneumonia..... | 9 |
| Scarlet fever..... | 33 |
| Smallpox..... | 1 |
| Typhoid fever..... | 2 |
| Whooping cough..... | 28 |

| VIRGINIA. | Cases. |
|-----------------------|--------|
| Smallpox: | |
| Botetourt County..... | 6 |

| WASHINGTON. | Cases. |
|--------------------------|--------|
| Chicken pox..... | 74 |
| Diphtheria..... | 41 |
| German measles..... | 3 |
| Impetigo contagiosa..... | 3 |
| Influenza..... | 1 |
| Measles..... | 7 |
| Mumps..... | 61 |
| Poliomyelitis: | |
| Spokane..... | 1 |
| Tacoma..... | 1 |
| Scabies..... | 1 |
| Scarlet fever..... | 37 |

| Smallpox: | Cases. |
|---------------------|--------|
| Aberdeen..... | 18 |
| Scattering..... | 54 |
| Tuberculosis..... | 4 |
| Typhoid fever..... | 3 |
| Whooping cough..... | 26 |

| WEST VIRGINIA. | Cases. |
|--------------------|--------|
| Diphtheria: | |
| Clarksburg..... | 8 |
| Scattering..... | 18 |
| Scarlet fever..... | 13 |
| Small pox..... | 7 |
| Typhoid fever..... | 3 |

| WISCONSIN. | Cases. |
|---------------------|--------|
| Milwaukeee: | |
| Chicken pox..... | 91 |
| Diphtheria..... | 24 |
| Measles..... | 3 |
| Pneumonia..... | 5 |
| Scarlet fever..... | 26 |
| Smallpox..... | 7 |
| Tuberculosis..... | 15 |
| Whooping cough..... | 20 |

| Scattering: | Cases. |
|-------------------------------|--------|
| Cerebrospinal meningitis..... | 2 |
| Chicken pox..... | 143 |
| Diphtheria..... | 91 |
| German measles..... | 4 |
| Influenza..... | 50 |
| Lethargic encephalitis..... | 1 |
| Measles..... | 27 |
| Mumps..... | 6 |
| Pneumonia..... | 8 |
| Scarlet fever..... | 165 |
| Smallpox..... | 71 |
| Tuberculosis..... | 32 |
| Typhoid fever..... | 9 |
| Whooping cough..... | 35 |

¹ Deaths.

Delayed Reports for Week Ended Jan. 14, 1922.

| DISTRICT OF COLUMBIA. | | KENTUCKY—continued. | |
|-------------------------------|--------|-------------------------|--------|
| | Cases. | | Cases. |
| Cerebrospinal meningitis..... | 1 | German measles..... | 1 |
| Chicken pox..... | 71 | Influenza..... | 25 |
| Diphtheria..... | 26 | Measles: | |
| Influenza..... | 3 | Jefferson County..... | 106 |
| Measles..... | 3 | Scattering..... | 5 |
| Scarlet fever..... | 22 | Paratyphoid fever..... | 1 |
| Smallpox..... | 4 | Pneumonia..... | 48 |
| Tuberculosis..... | 20 | Scarlet fever: | |
| Typhoid fever..... | 1 | Muhlenberg County..... | 14 |
| Whooping cough..... | 3 | Scattering..... | 25 |
| | | Septic sore throat..... | 1 |
| | | Smallpox..... | 17 |
| | | Trachoma..... | 7 |
| | | Tuberculosis: | |
| | | Jefferson County..... | 11 |
| | | Scattering..... | 5 |
| | | Typhoid fever..... | 11 |

| KENTUCKY. | |
|-----------------------|----|
| Chicken pox..... | 24 |
| Diphtheria: | |
| Daviss County..... | 13 |
| Jefferson County..... | 23 |
| Scattering..... | 28 |

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

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

| State. | Cerebrospinal meningitis. | Diphtheria. | Influenza. | Malaria. | Measles. | Pellagra. | Poliomylitis. | Scarlet fever. | Smallpox. | Typhoid fever. |
|--------------------|---------------------------|-------------|------------|----------|----------|-----------|---------------|----------------|-----------|----------------|
| (December, 1921.) | | | | | | | | | | |
| Arkansas..... | | 83 | 141 | 139 | 4 | 18 | | 48 | 10 | 27 |
| Connecticut..... | 1 | 371 | 23 | | 508 | | 2 | 415 | 3 | 17 |
| Idaho..... | | 25 | | | 2 | | | 46 | 35 | 4 |
| Indiana..... | 10 | 741 | 78 | | 22 | | 3 | 557 | 85 | 62 |
| Maine..... | 4 | 126 | 1 | | 13 | | 1 | 256 | 1 | 16 |
| Maryland..... | 1 | 320 | 87 | 5 | 443 | | 4 | 337 | | 112 |
| Minnesota..... | 2 | 529 | 6 | | 58 | | 5 | 852 | 412 | 56 |
| New Jersey..... | 4 | 813 | 51 | | 536 | | 5 | 1,014 | 4 | 48 |
| New York..... | 29 | 2,412 | 262 | | 1,514 | | 27 | 2,580 | 1 | 175 |
| Pennsylvania..... | 10 | 2,515 | | | 865 | | 6 | 2,167 | 10 | 223 |
| West Virginia..... | 2 | 562 | 135 | | 92 | | 1 | 339 | 35 | 191 |

RECIPROCAL NOTIFICATION.

Massachusetts and Minnesota—December, 1921.

Cases of communicable diseases referred during December, 1921, to other State health departments by Departments of Health of the States of Massachusetts and Minnesota.

MASSACHUSETTS.

| Disease and locality of notification. | Referred to health authority of— | Why referred. |
|---------------------------------------|---|---|
| Typhoid fever: | | |
| Lynn..... | State health department, Concord, N. H. | On date of onset and for 8 days thereafter patient was a resident of Hampton, N. H. |
| Boston..... | State health department, Sacramento, Calif. | Patient was taken sick while a resident of Oakland, Calif. |

Cases of communicable diseases referred during December, 1921, to other State health departments by Departments of Health of the States of Massachusetts and Minnesota—Continued.

MINNESOTA.

| Disease and locality of notification. | Referred to health authority of— | Why referred. |
|--|---|---|
| Diphtheria: Shelly, Minn..... St. Paul, Ramsey County. | Caledonia, Traill County, N. Dak. Munsville, Ohio..... | Cultures examined in laboratories of State board of health, Minneapolis, positive. Patient went home without being released from quarantine. |
| Typhoid fever: International Falls, Koochiching County. Bemidji, Beltrami County. St. Paul, Ramsey County. Barrett, Grant County... Fairfax, Renville County.. | Emo, Ontario, Canada..... Crystal, Pambina County, N. Dak. Jamestown, Stutsman County, N. Dak. Moberly, Randolph County, Mo.... Williston, Williams County, N. Dak. | Specimen examined in laboratories, State board of health, positive. Do. Do. Do. Do. |
| Tuberculosis: (1)..... State Sanatorium, Cass County, Minn. Pokegama Sanatorium, Pokegama, Pine County. | Fargo, Cass County, N. Dak..... Kalispel, Flathead County, Mont... Casselton, Cass County, N. Dak.; La Crosse, La Crosse County, Wis.; Langdon, Cavalier County, N. Dak.; Burlington, Ward County, N. Dak.; Superior, Douglas County, Wis. | Do. Quiescent case allowed to go home. One case incipient, two moderately advanced, two fatal, left for their homes. |
| Sunnystrest Sanatorium, Crookston, Polk County. Thomas Hospital, Minneapolis, Hennepin County. | Grand Forks, Grand Forks County, N. Dak. Great Falls, Cascade County, Mont.; Grand Forks, Grand Forks County, N. Dak.; Bond, Deschutes County, Oreg. | Far advanced case left to go home. One case apparently arrested, one incipient, and one far advanced, released from hospital to go home. |
| U. S. Public Health Service Hospital, St. Paul, Ramsey County. | Monroe, Jasper County, Iowa; Circle, Dawson County, Mont.; Missoula, Missoula County, Mont.; Minot, Ward County, N. Dak.; Kildeer, Dunn County, N. Dak.; Oakes, Dickey County, N. Dak.; Donnybrook, Ward County, N. Dak.; Havana, Sargent County, N. Dak.; Egeland, Towner County, N. Dak.; Berthold, Ward County, N. Dak.; Knox, Benson County, N. Dak.; Artesian, Sanborn County, S. Dak.; Springfield, Bon Homme County, S. Dak.; Sioux Falls, Minnehaha County, S. Dak.; Iola, Waupaca County, Wis. | Fifteen active cases released from hospital to go to their homes. |
| | Denver, Colo..... Prescott, Yavapai County, Ariz..... Fitzgerald, Ben Hill County, Ga.... | Twenty-four active cases transferred. Five active cases transferred. Advanced active case discharged to go home. Active case transferred. Do. Active case reported "left of own accord." |
| Mayo Clinic, Rochester.... | Chicago, Cook County, Ill.; Richmond, Wayne County, Ind.; Hawawaka, St. Joseph County, Ind.; Livermore, Humboldt County, Iowa; Davenport, Scott County, Iowa; Waukon, Allamakee County, Iowa; Mason City, Carro Gordo County, Iowa; Russell, Greenup County, Ky. | Eight advanced cases left Mayo clinic for their homes. |

¹ Place of origin not stated.

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922.

CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

| City. | Median for previous years. | Week ended Jan. 7, 1922. | | City. | Median for previous years. | Week ended Jan. 7, 1922. | |
|--------------------|----------------------------|--------------------------|---------|-------------------|----------------------------|--------------------------|---------|
| | | Cases. | Deaths. | | | Cases. | Deaths. |
| Colorado: | | | | Ohio: | | | |
| Pueblo..... | 0 | 1 | | Columbus..... | 0 | 3 | 1 |
| Georgia: | | | | Lancaster..... | 0 | 1 | 1 |
| Atlanta..... | 0 | | 1 | Salem..... | | | 1 |
| Kansas: | | | | Pennsylvania: | | | |
| Wichita..... | 0 | | 1 | Berwick..... | | 1 | |
| Michigan: | | | | Philadelphia..... | 0 | 1 | 1 |
| Detroit..... | 0 | 1 | | Pittsburgh..... | 0 | 1 | |
| Kalamazoo..... | 0 | 1 | 1 | Texas: | | | |
| New Jersey: | | | | Dallas..... | 0 | | 1 |
| New Brunswick..... | 0 | 1 | 1 | West Virginia: | | | |
| Newark..... | 0 | 1 | | Charleston..... | 0 | | 1 |
| New York: | | | | Wisconsin: | | | |
| New York..... | 4 | 5 | 3 | Milwaukee..... | 0 | 1 | |
| Rochester..... | 0 | | 1 | | | | |

DIPHTHERIA.

See p. 184; also Telegraphic weekly reports from States, p. 172, and Monthly summaries by States, p. 176.

INFLUENZA.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|-----------------------|--------|---------|-----------------------|--------|---------|
| Alabama: | | | Michigan: | | |
| Mobile..... | | 1 | Detroit..... | | 1 |
| California: | | | Jackson..... | | 1 |
| Los Angeles..... | 5 | 1 | Missouri: | | |
| San Francisco..... | 10 | | Joplin..... | 1 | |
| Santa Ana..... | 1 | | New Hampshire: | | |
| Connecticut: | | | Manchester..... | | 1 |
| Greenwich..... | 2 | | New Jersey: | | |
| Hartford..... | 1 | | Bayonne..... | 1 | |
| District of Columbia: | | | Newark..... | 11 | |
| Washington..... | 1 | 1 | New York: | | |
| Florida: | | | Albany..... | 4 | |
| Tampa..... | 4 | | Jamestown..... | | 1 |
| Georgia: | | | New York..... | 56 | 16 |
| Albany..... | 1 | | Saratoga Springs..... | 1 | |
| Atlanta..... | 6 | | Syracuse..... | | 1 |
| Illinois: | | | Yonkers..... | 1 | 1 |
| Centralia..... | 2 | | Ohio: | | |
| Chicago..... | 15 | 3 | Akron..... | 4 | |
| Danville..... | 1 | | Cincinnati..... | 1 | 3 |
| Freeport..... | 1 | | Cleveland..... | 1 | |
| Pekin..... | 3 | | Toledo..... | | 2 |
| Peoria..... | | 1 | Pennsylvania: | | |
| Indiana: | | | Philadelphia..... | 4 | 7 |
| Indianapolis..... | | 2 | Rhode Island: | | |
| Kansas: | | | Providence..... | | 1 |
| Topeka..... | 1 | | Texas: | | |
| Louisiana: | | | Dallas..... | | 2 |
| New Orleans..... | | 1 | El Paso..... | | 1 |
| Maryland: | | | Virginia: | | |
| Baltimore..... | 13 | 3 | Roanoke..... | 10 | |
| Massachusetts: | | | West Virginia: | | |
| Boston..... | 3 | 2 | Charleston..... | 2 | |
| Fall River..... | | 1 | | | |
| Gardner..... | | 1 | | | |
| Saugus..... | 2 | | | | |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

ANTHRAX.

| City. | Cases. | Deaths. |
|--------------------------------|--------|---------|
| Massachusetts: Peabody..... | 1 | 1 |
| New York: New York..... | | 1 |

LETHARGIC ENCEPHALITIS.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|----------------------------|--------|---------|-----------------------------------|--------|---------|
| Illinois: Oak Park..... | | 1 | Massachusetts: Somerville..... | | 1 |

MALARIA.

| | | | | | |
|--------------------------------|---|--|--------------------------------|---|---|
| California: Sacramento..... | 1 | | Louisiana: New Orleans..... | 2 | 2 |
| Georgia: Albany..... | 1 | | New York: New York..... | 1 | |

MEASLES.

See p. 184; also Telegraphic weekly reports from States, p. 172, and Monthly summaries by States, p. 176.

PELLAGRA.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|--------------------------|--------|---------|---------------------------------|--------|---------|
| Alabama: Mobile..... | | 1 | Missouri: St. Joseph..... | | 1 |
| Florida: Tampa..... | 1 | | North Carolina: Raleigh..... | | 1 |
| Georgia: Atlanta..... | | 1 | Winston-Salem..... | 1 | |

PNEUMONIA (ALL FORMS).

| | | | | | |
|---------------------------------|----|----|--|-----|----|
| Alabama: Birmingham..... | | 8 | District of Columbia: Washington..... | | 19 |
| Montgomery..... | | 3 | Florida: Tampa..... | | 2 |
| Arkansas: Little Rock..... | 3 | | Georgia: Atlanta..... | | 13 |
| California: Los Angeles..... | 38 | 17 | Augusta..... | 1 | |
| Oakland..... | | 4 | Brunswick..... | | 1 |
| Pasadena..... | | 1 | Rome..... | 2 | |
| Sacramento..... | | 2 | Savannah..... | | 8 |
| San Bernardino..... | | 2 | Illinois: Alton..... | | 1 |
| San Diego..... | | 6 | Aurora..... | | 1 |
| San Francisco..... | 15 | 11 | Bloomington..... | | 2 |
| Santa Ana..... | | 1 | Blue Island..... | | 1 |
| Santa Barbara..... | | 1 | Chicago..... | 195 | 45 |
| Colorado: Denver..... | | 22 | Chicago Heights..... | | 3 |
| Pueblo..... | | 2 | Cicero..... | 2 | 1 |
| Connecticut: Bridgeport..... | 12 | 2 | Danville..... | 2 | |
| Bristol..... | 2 | | Decatur..... | 2 | |
| Greenwich..... | 9 | | East St. Louis..... | | 3 |
| Hartford..... | | 2 | Elgin..... | | 1 |
| Meriden..... | | 1 | Evanston..... | 4 | |
| New Britain..... | | 3 | Freeport..... | | 2 |
| New Haven..... | | 5 | Galesburg..... | 6 | 2 |
| Norwalk..... | | 2 | Jacksonville..... | | 2 |
| Waterbury..... | | 7 | Kewanee..... | | 2 |
| Delaware: Wilmington..... | | 9 | Oak Park..... | 3 | 1 |
| | | | Pekin..... | 2 | |
| | | | Peoria..... | | 1 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

PNEUMONIA—(ALL FORMS)—Continued.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|---------------------|--------|---------|-----------------------|--------|---------|
| Illinois—Continued. | | | Minnesota: | | |
| Rockford..... | 3 | 2 | Austin..... | | 1 |
| Springfield..... | | 5 | Duluth..... | 2 | 1 |
| Indiana: | | | Hibbing..... | 2 | |
| Fort Wayne..... | | 2 | Minneapolis..... | | 10 |
| Gary..... | | 2 | St. Paul..... | | 7 |
| Huntington..... | | 2 | Missouri: | | |
| Indianapolis..... | | 18 | Cape Girardeau..... | | 1 |
| Kokomo..... | | 1 | Kansas City..... | 22 | 15 |
| Logansport..... | | 1 | St. Joseph..... | | 8 |
| Muncie..... | | 1 | Springfield..... | | 4 |
| Terre Haute..... | | 2 | Montana: | | |
| Iowa: | | | Anaconda..... | | 1 |
| Council Bluffs..... | | 4 | Butte..... | | 1 |
| Kansas: | | | Missoula..... | 3 | 2 |
| Coffeyville..... | 1 | | Nebraska: | | |
| Kansas City..... | 2 | | Lincoln..... | | 1 |
| Topeka..... | 6 | 5 | Omaha..... | | 1 |
| Wichita..... | 3 | 2 | Nevada: | | |
| Kentucky: | | | Reno..... | | 1 |
| Covington..... | | 1 | New Hampshire: | | |
| Lexington..... | | 3 | Manchester..... | | 2 |
| Louisville..... | 9 | 6 | New Jersey: | | |
| Owensboro..... | 1 | | Atlantic City..... | 3 | |
| Louisiana: | | | Belleville..... | 2 | |
| New Orleans..... | | 12 | Bloomfield..... | 5 | 1 |
| Maine: | | | Clifton..... | | 1 |
| Bangor..... | 2 | | Elizabeth..... | | 4 |
| Lewiston..... | | 1 | Englewood..... | 1 | |
| Portland..... | | 3 | Garfield..... | 2 | 1 |
| Sanford..... | | 1 | Harrison..... | 3 | 1 |
| Maryland: | | | Hoboken..... | | 3 |
| Baltimore..... | | 29 | Jersey City..... | 10 | |
| Cumberland..... | 3 | | Kearny..... | 5 | 2 |
| Massachusetts: | | | Montclair..... | | 2 |
| Amesbury..... | | 1 | Morristown..... | | 1 |
| Arlington..... | | 1 | New Brunswick..... | | 4 |
| Boston..... | 28 | 19 | Newark..... | 78 | 13 |
| Brockton..... | | 4 | Orange..... | 11 | 3 |
| Cambridge..... | 7 | 5 | Passaic..... | 9 | |
| Chelsea..... | 3 | 1 | Paterson..... | 2 | |
| Chicopee..... | | 2 | Plainfield..... | | 2 |
| Easthampton..... | 3 | | Rahway..... | | 1 |
| Fall River..... | | 4 | Summit..... | | 1 |
| Greenfield..... | | 1 | Trenton..... | 12 | 5 |
| Haverhill..... | 1 | | West New York..... | | 1 |
| Holyoke..... | | 4 | West Orange..... | 2 | |
| Lawrence..... | | 2 | New York: | | |
| Lowell..... | | 4 | Albany..... | 21 | |
| Malden..... | 2 | 1 | Auburn..... | | 1 |
| Medford..... | | 1 | Binghamton..... | 8 | 3 |
| Melrose..... | 1 | | Buffalo..... | 22 | 6 |
| New Bedford..... | 1 | | Geneva..... | | 2 |
| Newburyport..... | 2 | | Hudson..... | 3 | 1 |
| Newton..... | 4 | 1 | Ithaca..... | | 1 |
| North Adams..... | 2 | 1 | Jamestown..... | 10 | |
| Northampton..... | 1 | | Lackawanna..... | 6 | |
| Pittsfield..... | | 1 | Middletown..... | 1 | |
| Plymouth..... | | 1 | Mount Vernon..... | 3 | 2 |
| Quincy..... | | 1 | Newburgh..... | 2 | 1 |
| Salem..... | | 1 | New York..... | 464 | 199 |
| Somerville..... | 2 | | Niagara Falls..... | | 3 |
| Springfield..... | 4 | 1 | North Tonawanda..... | 1 | |
| Wakefield..... | | 1 | Olean..... | 4 | |
| Waltham..... | 1 | | Peekskill..... | 2 | |
| Watertown..... | | 1 | Port Chester..... | | 3 |
| Webster..... | 1 | | Poughkeepsie..... | 4 | |
| Worcester..... | | 5 | Rochester..... | 6 | 5 |
| Michigan: | | | Rome..... | 1 | |
| Ann Arbor..... | 3 | 1 | Saratoga Springs..... | | 2 |
| Detroit..... | 77 | 17 | Schenectady..... | 3 | |
| Flint..... | 3 | 1 | Syracuse..... | 4 | 3 |
| Grand Rapids..... | 5 | | Troy..... | 2 | |
| Hamtramck..... | 3 | | White Plains..... | 3 | 2 |
| Ishpeming..... | 2 | | Yonkers..... | 5 | 2 |
| Jackson..... | 7 | 3 | North Carolina: | | |
| Kalamazoo..... | | 3 | Charlotte..... | | 1 |
| Marquette..... | 2 | 1 | Greensboro..... | | 1 |
| Pontiac..... | | 1 | Rocky Mount..... | | 1 |
| Port Huron..... | 1 | | Salisbury..... | | 3 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued

PNEUMONIA—(ALL FORMS)—Continued.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|---------------------------|--------|---------|---------------------|--------|---------|
| North Carolina—Continued. | | | Tennessee: | | |
| Wilmington..... | | 1 | Chattanooga..... | 1 | |
| Winston-Salem..... | | 2 | Memphis..... | | 9 |
| Ohio: | | | Nashville..... | | 2 |
| Akron..... | 3 | | Texas: | | |
| Barberton..... | | 1 | Corpus Christi..... | | 1 |
| Canton..... | | 2 | Dallas..... | | 8 |
| Cincinnati..... | | 11 | El Paso..... | | 6 |
| Cleveland..... | 32 | | Fort Worth..... | | 3 |
| Columbus..... | | 5 | Galveston..... | | 1 |
| Dayton..... | 2 | | Houston..... | | 4 |
| East Cleveland..... | 2 | | Waco..... | | 4 |
| Kenmore..... | 1 | | Utah: | | |
| Lorain..... | 2 | | Salt Lake City..... | | 9 |
| Mansfield..... | | 2 | Virginia: | | |
| Newark..... | | 3 | Alexandria..... | 3 | 1 |
| Niles..... | 2 | 1 | Norfolk..... | | 7 |
| Norwood..... | | 1 | Petersburg..... | | 1 |
| Sandusky..... | 2 | 1 | Portsmouth..... | | 3 |
| Springfield..... | | 4 | Richmond..... | | 8 |
| Toledo..... | | 4 | Roanoke..... | | 4 |
| Youngstown..... | | 3 | West Virginia: | | |
| Zanesville..... | | 1 | Bluefield..... | | 1 |
| Oregon: | | | Charleston..... | | 2 |
| Portland..... | | 4 | Fairmont..... | 1 | |
| Pennsylvania: | | | Parkersburg..... | | 1 |
| Philadelphia..... | | 66 | Wheeling..... | | 3 |
| Rhode Island: | | | Wisconsin: | | |
| Cranston..... | | 1 | Racine..... | | 4 |
| Pawtucket..... | | 1 | Wyoming: | | |
| Providence..... | | 12 | Casper..... | 1 | |
| South Carolina: | | | Cheyenne..... | | 1 |
| Charleston..... | | 2 | | | |
| South Dakota: | | | | | |
| Sioux Falls..... | | 1 | | | |

POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

| City. | Median for previous years. | Week ended Jan. 7, 1922. | | City. | Median for previous years. | Week ended Jan. 7, 1922. | |
|-----------------|----------------------------|--------------------------|---------|--------------|----------------------------|--------------------------|---------|
| | | Cases. | Deaths. | | | Cases. | Deaths. |
| Georgia: | | | | Texas: | | | |
| Augusta..... | | 1 | | Dallas..... | 0 | 1 | |
| Illinois: | | | | Washington: | | | |
| Chicago..... | 0 | | 1 | Spokane..... | 0 | 1 | |
| Rhode Island: | | | | | | | |
| Providence..... | 0 | 1 | | | | | |

RABIES IN ANIMALS.

| City. | Cases. |
|---------------|--------|
| Georgia: | |
| Savannah..... | 1 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

SCARLET FEVER.

See p. 184; also Telegraphic weekly reports from States, p. 172, and Monthly summaries by States, p. 176.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

| City. | Median for previous years. | Week ended Jan. 7, 1922. | | City. | Median for previous years. | Week ended Jan. 7, 1922. | |
|-----------------------|----------------------------|--------------------------|---------|---------------------|----------------------------|--------------------------|---------|
| | | Cases. | Deaths. | | | Cases. | Deaths. |
| Alabama: | | | | Montana: | | | |
| Mobile..... | 0 | 4 | | Great Falls..... | 3 | 1 | |
| California: | | | | Nebraska: | | | |
| Long Beach..... | 1 | 1 | | Omaha..... | 7 | 2 | |
| Los Angeles..... | 2 | 2 | | North Dakota: | | | |
| Oakland..... | 0 | 4 | | Grand Forks..... | 2 | 1 | |
| San Diego..... | 0 | 1 | | Ohio: | | | |
| San Francisco..... | 0 | 5 | | Akron..... | 1 | 1 | |
| Colorado: | | | | Canton..... | 2 | 1 | |
| Denver..... | 7 | 16 | 7 | Cleveland..... | 3 | 2 | |
| Connecticut: | | | | Dayton..... | 0 | 6 | |
| Bridgeport..... | 0 | 4 | | Fremont..... | 0 | 6 | |
| District of Columbia: | | | | Sandusky..... | 1 | 3 | |
| Washington..... | 0 | 7 | | Springfield..... | 0 | 2 | |
| Georgia: | | | | Oregon: | | | |
| Atlanta..... | 7 | 6 | | Portland..... | 6 | 23 | |
| Augusta..... | 0 | 1 | | Pennsylvania: | | | |
| Brunswick..... | 0 | 1 | | Mount Carmel..... | 0 | 1 | |
| Savannah..... | 0 | 3 | | Philadelphia..... | 0 | 1 | |
| Illinois: | | | | Pittsburgh..... | 0 | 2 | |
| Alton..... | 0 | 1 | | South Dakota: | | | |
| Aurora..... | 0 | 2 | | Sioux Falls..... | 2 | 1 | |
| Pekin..... | 0 | 1 | | Tennessee: | | | |
| Peoria..... | 2 | 3 | | Memphis..... | 1 | 5 | |
| Indiana: | | | | Nashville..... | 0 | 2 | |
| Fort Wayne..... | 0 | 1 | | Texas: | | | |
| Terre Haute..... | 0 | 1 | | El Paso..... | 0 | 3 | |
| Iowa: | | | | Fort Worth..... | 0 | 1 | |
| Burlington..... | 1 | 5 | | Houston..... | 0 | 2 | |
| Cedar Rapids..... | 2 | 2 | | Utah: | | | |
| Council Bluffs..... | 2 | 2 | | Salt Lake City..... | 4 | 7 | |
| Dubuque..... | 0 | 1 | | Virginia: | | | |
| Muscatine..... | 0 | 6 | | Danville..... | 0 | 2 | |
| Sioux City..... | 3 | 1 | | Washington: | | | |
| Kansas: | | | | Aberdeen..... | 5 | 2 | |
| Hutchinson..... | 0 | 5 | | Bellingham..... | 2 | 2 | |
| Kansas City..... | 1 | 3 | | Seattle..... | 5 | 1 | |
| Lawrence..... | 0 | 1 | | Spokane..... | 4 | 20 | |
| Kentucky: | | | | Tacoma..... | 0 | 8 | |
| Louisville..... | 0 | 10 | | Walla Walla..... | 4 | 7 | |
| Maine: | | | | Yakima..... | 9 | 6 | |
| Waterville..... | 2 | 1 | | West Virginia: | | | |
| Michigan: | | | | Bluefield..... | 4 | 2 | |
| Detroit..... | 6 | 4 | | Huntington..... | 2 | 1 | |
| Flint..... | 1 | 1 | | Parkersburg..... | 2 | 1 | |
| Hamtramck..... | | 1 | | Wisconsin: | | | |
| Minnesota: | | | | Manitowoc..... | 0 | 7 | |
| Hibbing..... | 0 | 4 | | Superior..... | 0 | 11 | |
| Mankato..... | 1 | 1 | | Wyoming: | | | |
| Minneapolis..... | 26 | 17 | | Casper..... | | 5 | |
| St. Paul..... | 9 | 16 | | | | | |
| Missouri: | | | | | | | |
| Kansas City..... | 6 | 6 | 4 | | | | |
| St. Joseph..... | 4 | 2 | | | | | |
| St. Louis..... | 2 | 1 | | | | | |

TETANUS.

| City. | Cases. | Deaths. | City. | Cases. | Deaths. |
|-----------------|--------|---------|-----------------|--------|---------|
| Alabama: | | | Georgia: | | |
| Birmingham..... | 1 | | Savannah..... | 2 | 2 |
| Mobile..... | | 1 | New York: | | |
| Florida: | | | New York..... | | 1 |
| Tampa..... | 1 | | North Carolina: | | |
| | | | Raleigh..... | | 1 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

TUBERCULOSIS.

See p. 184; also Telegraphic weekly reports from States, p. 172.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1913 to 1921, inclusive. In instances in which data for the full seven years are incomplete, the median is that for the number of years for which information is available.

| City. | Median for previous years. | Week ended Jan. 7, 1922. | | City. | Median for previous years. | Week ended Jan. 7, 1922. | |
|-----------------------|----------------------------|--------------------------|---------|--------------------|----------------------------|--------------------------|---------|
| | | Cases. | Deaths. | | | Cases. | Deaths. |
| Alabama: | | | | New Jersey: | | | |
| Birmingham..... | 1 | 1 | 1 | Atlantic City..... | 0 | 1 | ..... |
| Montgomery..... | 0 | 2 | ..... | East Orange..... | 0 | 2 | ..... |
| California: | | | | Newark..... | 0 | 3 | ..... |
| Los Angeles..... | 2 | ..... | 1 | Paterson..... | 1 | 1 | ..... |
| Oakland..... | 0 | 4 | ..... | Trenton..... | 0 | 1 | ..... |
| Sacramento..... | 1 | 1 | ..... | New York: | | | |
| San Francisco..... | 2 | 1 | ..... | Buffalo..... | 1 | 1 | ..... |
| Santa Cruz..... | 0 | 1 | ..... | Lackawanna..... | 0 | 5 | ..... |
| Delaware: | | | | New York..... | 14 | 4 | 3 |
| Wilmington..... | 0 | 2 | ..... | Olean..... | 0 | 4 | 1 |
| District of Columbia: | | | | Rochester..... | 0 | 2 | ..... |
| Washington..... | 2 | 1 | ..... | Troy..... | 0 | 1 | ..... |
| Georgia: | | | | Ohio: | | | |
| Savannah..... | 1 | 1 | ..... | Hamilton..... | 0 | 1 | ..... |
| Illinois: | | | | Ironton..... | 0 | 1 | ..... |
| Chicago..... | 5 | 4 | 1 | Lorain..... | 0 | 1 | ..... |
| Indiana: | | | | Marion..... | 0 | 1 | ..... |
| Gary..... | 0 | 1 | ..... | Pennsylvania: | | | |
| Indianapolis..... | 1 | 1 | ..... | Allentown..... | 0 | 1 | ..... |
| Logansport..... | 0 | 1 | ..... | Greensburg..... | 0 | 1 | ..... |
| Muncie..... | 0 | ..... | 1 | Harrisburg..... | 0 | 1 | ..... |
| Kentucky: | | | | Philadelphia..... | 7 | 1 | ..... |
| Louisville..... | 2 | 1 | ..... | South Carolina: | | | |
| Louisiana: | | | | Charleston..... | 2 | 1 | 1 |
| New Orleans..... | 5 | 12 | 4 | Tennessee: | | | |
| Maryland: | | | | Memphis..... | 1 | 1 | 1 |
| Baltimore..... | 3 | 3 | ..... | Nashville..... | 0 | 1 | ..... |
| Massachusetts: | | | | Texas: | | | |
| Cambridge..... | 0 | 1 | ..... | El Paso..... | 0 | ..... | 1 |
| Chelsea..... | 0 | 1 | ..... | Virginia: | | | |
| Lowell..... | 1 | 1 | ..... | Richmond..... | 1 | 1 | 1 |
| Michigan: | | | | Washington: | | | |
| Detroit..... | 3 | 6 | ..... | Seattle..... | 0 | 1 | ..... |
| Minnesota: | | | | Tacoma..... | 0 | 2 | ..... |
| St. Paul..... | 1 | 1 | ..... | West Virginia: | | | |
| Missouri: | | | | Charleston..... | 0 | 1 | 1 |
| St. Louis..... | 3 | 2 | ..... | Fairmont..... | 0 | 1 | ..... |
| New Hampshire: | | | | Huntington..... | 0 | ..... | 2 |
| Manchester..... | 0 | ..... | 1 | Wisconsin: | | | |
| | | | | Fond du Lac..... | 0 | 1 | ..... |
| | | | | Milwaukee..... | 1 | 2 | ..... |

TYPHUS FEVER.

| City. | Cases. | Deaths. |
|---------------|--------|---------|
| Georgia: | | |
| Atlanta..... | 1 | ..... |
| New York: | | |
| New York..... | 1 | ..... |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Population January 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuberculosis. | |
|----------------------------|--|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Illinois—Continued. | | | | | | | | | | |
| East St. Louis..... | 68,740 | 14 | 3 | 2 | | | 3 | | 2 | 1 |
| Elgin..... | 27,454 | 4 | 1 | | | 1 | | | | |
| Evanston..... | 37,215 | 10 | 2 | | | | | | | |
| Forest Park..... | 10,768 | | 1 | | | 2 | | | | |
| Freeport..... | 19,669 | 6 | 6 | | | | 3 | | | |
| Galesburg..... | 23,834 | 10 | 2 | | | | | | | |
| Jacksonville..... | 15,713 | 11 | 1 | | | | 3 | | | |
| Kewanee..... | 16,026 | 6 | 2 | | | | | | | |
| Mattoon..... | 13,552 | 5 | | | | | 1 | | | |
| Oak Park..... | 39,830 | 11 | 3 | 1 | 5 | | 2 | | | |
| Pekin..... | 12,066 | | 5 | 2 | | | 2 | | | |
| Peoria..... | 76,121 | 17 | 1 | | | | 5 | | | 1 |
| Rockford..... | 65,651 | 14 | 15 | | | | 5 | | | 1 |
| Springfield..... | 59,183 | 20 | 4 | | | | 1 | | 2 | |
| Indiana: | | | | | | | | | | |
| Crawfordsville..... | 10,139 | 1 | | | | | | | | |
| Fort Wayne..... | 36,549 | 17 | 3 | 1 | | | 6 | | | |
| Gary..... | 55,378 | 9 | 4 | | | | | | | |
| Hammond..... | 36,004 | 7 | 1 | 1 | | | | | | |
| Huntington..... | 14,000 | 5 | 1 | | | | 5 | | | |
| Indianapolis..... | 314,194 | 92 | 27 | 1 | 9 | | 9 | | 9 | 9 |
| Kokomo..... | 30,037 | 9 | | | | | 2 | | | 3 |
| La Fayette..... | 22,483 | 6 | | | | | | | | |
| Logansport..... | 21,626 | 3 | 1 | | 1 | | 1 | | | |
| Mishawaka..... | 15,195 | 2 | | | | | 2 | | | |
| Muncie..... | 36,624 | 9 | 5 | | | | 1 | | | |
| South Bend..... | 70,983 | 7 | | | | | 1 | | 2 | |
| Terre Haute..... | 66,083 | 13 | | | 5 | | | | 3 | |
| Iowa: | | | | | | | | | | |
| Burlington..... | 24,057 | 6 | | | | | 1 | | | |
| Cedar Rapids..... | 45,566 | | 2 | | | | | | | |
| Council Bluffs..... | 36,162 | 14 | 1 | | | | | | | 1 |
| Dubuque..... | 39,141 | | 1 | | | | 2 | | | |
| Muscatine..... | 16,068 | 5 | | | | | 2 | | | |
| Ottumwa..... | 23,003 | | 1 | | | | 4 | | | |
| Sioux City..... | 71,227 | | 12 | 1 | | | 3 | | | |
| Waterloo..... | 36,230 | | | | 1 | | 3 | | | |
| Kansas: | | | | | | | | | | |
| Atchison..... | 12,630 | 1 | 3 | | | | 2 | | | |
| Coffeyville..... | 13,452 | 9 | | | | | | | 1 | |
| Fort Scott..... | 10,693 | 3 | 2 | | | | 1 | | | |
| Hutchinson..... | 23,298 | | 5 | | 1 | | 2 | | | |
| Kansas City..... | 101,177 | | 1 | | | | | | 8 | |
| Lawrence..... | 12,456 | 3 | 1 | 1 | | | 3 | | | |
| Leavenworth..... | 16,912 | | 10 | 1 | | | 2 | | | |
| Parsons..... | 16,028 | 7 | 2 | | | | 2 | | 1 | |
| Salina..... | 15,085 | 11 | 2 | | | | 2 | | | |
| Topeka..... | 50,022 | 16 | 16 | | | | 7 | | 2 | 1 |
| Wichita..... | 72,128 | 38 | 10 | 2 | 1 | | 9 | | 3 | 2 |
| Kentucky: | | | | | | | | | | |
| Covington..... | 57,121 | 23 | 3 | | 1 | | | | | 3 |
| Lexington..... | 41,534 | 19 | 1 | | | | 1 | | | 2 |
| Louisville..... | 234,891 | 85 | 11 | | 98 | | 6 | | 9 | 2 |
| Owensboro..... | 17,424 | | 5 | | | | | | | |
| Paducah..... | 24,735 | | 2 | | 1 | | 1 | | | |
| Louisiana: | | | | | | | | | | |
| New Orleans..... | 387,219 | 138 | 15 | 1 | 2 | | 9 | | 24 | 22 |
| Maine: | | | | | | | | | | |
| Auburn..... | 16,985 | 1 | | | | | 5 | | | |
| Bangor..... | 25,978 | | 2 | | | | 2 | | | |
| Bath..... | 14,731 | 4 | | | 1 | | | | | |
| Biddeford..... | 18,603 | 2 | | | | | | | 5 | 1 |
| Lewiston..... | 31,791 | 7 | 1 | | 1 | | 1 | | 1 | |
| Portland..... | 69,272 | 16 | 2 | | | | 13 | | 1 | 2 |
| Sanford..... | 10,091 | 2 | | | | | | | | |
| Waterville..... | 13,351 | | 3 | | | | 1 | | | |
| Maryland: | | | | | | | | | | |
| Baltimore..... | 733,826 | 228 | 50 | 6 | 78 | | 62 | | 26 | 14 |
| Cumberland..... | 29,837 | 10 | 4 | | | | 1 | | 2 | 2 |
| Massachusetts: | | | | | | | | | | |
| Amesbury..... | 10,036 | 4 | | | | | | | | |
| Arlington..... | 18,665 | 4 | 3 | | | | | | | |
| Attleboro..... | 19,731 | 4 | | | 3 | | | | 2 | 2 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Population January 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuberculosis. | |
|--------------------------|--|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Massachusetts—Continued. | | | | | | | | | | |
| Belmont..... | 10,749 | 5 | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Beverly..... | 22,561 | 2 | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Boston..... | 748,060 | 211 | 48 | 3 | 72 | ..... | 47 | 1 | 24 | 12 |
| Braintree..... | 10,590 | 1 | 4 | ..... | 1 | ..... | ..... | ..... | 1 | ..... |
| Brockton..... | 66,138 | 18 | 14 | 1 | 1 | ..... | 2 | ..... | 3 | 1 |
| Brookline..... | 37,748 | 7 | 4 | ..... | 1 | ..... | 1 | ..... | ..... | ..... |
| Cambridge..... | 109,694 | 34 | ..... | ..... | 5 | ..... | 9 | ..... | 4 | ..... |
| Chelsea..... | 43,184 | 6 | 1 | ..... | 1 | ..... | 3 | ..... | 3 | ..... |
| Chicopee..... | 36,214 | 10 | 1 | 1 | ..... | ..... | 1 | ..... | ..... | ..... |
| Clinton..... | 12,979 | 5 | ..... | ..... | ..... | ..... | 1 | ..... | 1 | ..... |
| Danvers..... | 11,108 | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Dedham..... | 10,792 | 2 | ..... | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Everett..... | 40,120 | 6 | 3 | ..... | 8 | ..... | ..... | ..... | ..... | ..... |
| Fall River..... | 120,485 | 28 | 9 | 2 | 1 | 1 | 4 | 2 | ..... | ..... |
| Frammingham..... | 17,093 | 5 | ..... | ..... | 1 | ..... | 2 | ..... | 7 | ..... |
| Gardner..... | 16,971 | 4 | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Greenfield..... | 15,462 | 3 | ..... | ..... | 11 | ..... | ..... | ..... | ..... | ..... |
| Haverhill..... | 53,884 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Holyoke..... | 60,203 | 13 | 1 | 2 | 4 | ..... | 5 | ..... | 2 | 1 |
| Lawrence..... | 94,270 | 23 | 4 | 1 | 17 | ..... | 2 | ..... | 7 | 2 |
| Loominster..... | 19,744 | 10 | ..... | 1 | ..... | ..... | ..... | ..... | 2 | ..... |
| Lowell..... | 112,479 | 36 | 2 | ..... | 1 | ..... | ..... | ..... | 3 | 4 |
| Lynn..... | 99,148 | 13 | 18 | ..... | 3 | ..... | 6 | ..... | 1 | 1 |
| Malden..... | 49,103 | 15 | 6 | 1 | ..... | ..... | 6 | 1 | 2 | 2 |
| Medford..... | 39,038 | 8 | 2 | ..... | 19 | ..... | 3 | ..... | 2 | 1 |
| Melrose..... | 18,204 | 3 | 2 | ..... | 13 | ..... | 1 | ..... | 1 | 1 |
| Methuen..... | 15,189 | 1 | ..... | ..... | 3 | ..... | ..... | ..... | ..... | ..... |
| New Bedford..... | 121,217 | 26 | 9 | ..... | ..... | ..... | 3 | ..... | 3 | 1 |
| Newburyport..... | 15,618 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Newton..... | 46,054 | 15 | 4 | 1 | 1 | ..... | 1 | ..... | 1 | 1 |
| North Adams..... | 22,282 | 5 | 2 | 1 | ..... | ..... | 1 | ..... | 1 | ..... |
| Northampton..... | 21,951 | 9 | 2 | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Peabody..... | 19,552 | 5 | ..... | ..... | ..... | ..... | 1 | ..... | ..... | 1 |
| Pittsfield..... | 41,751 | 6 | 6 | ..... | ..... | ..... | 1 | ..... | 2 | 1 |
| Plymouth..... | 13,045 | 2 | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Quincy..... | 47,876 | 5 | 2 | ..... | 13 | ..... | 2 | ..... | ..... | ..... |
| Salem..... | 42,529 | 10 | 7 | ..... | ..... | ..... | 2 | ..... | 2 | ..... |
| Saugus..... | 10,874 | 4 | ..... | ..... | ..... | ..... | 7 | ..... | ..... | ..... |
| Somerville..... | 93,091 | 22 | 3 | ..... | 8 | ..... | 5 | ..... | 1 | 1 |
| Springfield..... | 129,563 | 33 | 1 | 2 | 11 | ..... | 3 | ..... | 1 | 3 |
| Wakefield..... | 13,025 | 1 | 1 | ..... | ..... | ..... | 3 | ..... | ..... | ..... |
| Waltham..... | 30,915 | 5 | 3 | ..... | 12 | ..... | 1 | ..... | ..... | ..... |
| Watertown..... | 21,457 | 2 | ..... | ..... | 1 | ..... | 1 | ..... | ..... | 1 |
| Webster..... | 13,258 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2 |
| West Springfield..... | 13,443 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Westfield..... | 18,604 | 1 | ..... | ..... | 3 | ..... | ..... | 1 | ..... | 1 |
| Winthrop..... | 15,455 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Woburn..... | 16,574 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Worcester..... | 179,754 | 50 | 2 | 1 | ..... | ..... | 7 | 1 | 3 | 2 |
| Michigan: | | | | | | | | | | |
| Alpena..... | 11,101 | ..... | 2 | 1 | ..... | ..... | 3 | ..... | ..... | ..... |
| Ann Arbor..... | 19,516 | 11 | 1 | 1 | ..... | ..... | ..... | ..... | ..... | ..... |
| Benton Harbor..... | 12,233 | 7 | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Detroit..... | 993,739 | 236 | 80 | 8 | 107 | 3 | 81 | 1 | 26 | 11 |
| Flint..... | 91,599 | 19 | 12 | 2 | 2 | ..... | 14 | 1 | ..... | 1 |
| Grand Rapids..... | 137,634 | 29 | 7 | 1 | ..... | ..... | 8 | ..... | 6 | ..... |
| Hamtramck..... | 48,615 | 8 | 4 | ..... | 1 | ..... | 1 | ..... | ..... | 1 |
| Holland..... | 12,166 | 1 | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Ishpeming..... | 10,500 | 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Jackson..... | 48,374 | 13 | 2 | ..... | ..... | ..... | 15 | ..... | ..... | ..... |
| Kalamazoo..... | 48,858 | 22 | 10 | ..... | 1 | ..... | 21 | 1 | 1 | 1 |
| Marquette..... | 12,718 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Pontiac..... | 34,273 | 10 | 14 | ..... | 1 | ..... | 2 | 1 | ..... | 1 |
| Port Huron..... | 25,944 | 9 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Sault Ste Marie..... | 12,086 | 1 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Minnesota: | | | | | | | | | | |
| Austin..... | 10,118 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Duluth..... | 98,917 | 12 | 4 | ..... | 1 | ..... | 3 | ..... | 1 | ..... |
| Faribault..... | 11,089 | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Hibbing..... | 15,089 | 6 | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Mankato..... | 12,469 | ..... | ..... | ..... | ..... | ..... | 11 | ..... | ..... | ..... |
| Minneapolis..... | 380,582 | 90 | 23 | 1 | 15 | ..... | 37 | ..... | 16 | 3 |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Population January 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuberculosis. | |
|-----------------------------|--|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Minnesota—Continued. | | | | | | | | | | |
| Rochester..... | 13,722 | 11 | 2 | | | | 2 | | 1 | |
| St. Cloud..... | 15,873 | | 4 | | | | 3 | | | |
| St. Paul..... | 234,595 | 55 | 16 | 1 | 1 | 21 | | 7 | 8 | |
| Virginia..... | 14,022 | | 1 | | | | | | | |
| Winoona..... | 19,143 | | 1 | | | 7 | | | | |
| Missouri: | | | | | | | | | | |
| Cape Girardeau..... | 10,252 | 3 | 3 | | | | 1 | | | |
| Independence..... | 11,686 | 7 | 4 | 2 | | | 1 | | | |
| Kansas City..... | 324,410 | 110 | 25 | | | 7 | 1 | 3 | 5 | |
| St. Joseph..... | 77,939 | 26 | 4 | | | 6 | | | | |
| St. Louis..... | 722,887 | 193 | 88 | 3 | 3 | 19 | | 21 | 13 | |
| Springfield..... | 39,631 | 15 | | | | | | | 1 | |
| Montana: | | | | | | | | | | |
| Anaconda..... | 11,668 | 2 | | | | | | | | |
| Billings..... | 15,100 | 2 | 4 | | 1 | 6 | | | | |
| Butte..... | 41,611 | 6 | | | | | | | | |
| Great Falls..... | 24,121 | 5 | 3 | | | 2 | | | | |
| Misoula..... | 12,668 | 8 | | | | | | | | |
| Nebraska: | | | | | | | | | | |
| Lincoln..... | 54,634 | 12 | 1 | | 9 | 6 | | | | |
| Omaha..... | 191,601 | 43 | 7 | 1 | 16 | 2 | | | 1 | |
| Nevada: | | | | | | | | | | |
| Reno..... | 12,016 | 4 | | | | 1 | | | | |
| New Hampshire: | | | | | | | | | | |
| Berlin..... | 16,104 | 2 | | | | 1 | | | | |
| Dover..... | 13,029 | 0 | | | 4 | | | | | |
| Keene..... | 11,210 | 2 | | | | | | | | |
| Manchester..... | 78,384 | 19 | 2 | | 1 | | | | | |
| New Jersey: | | | | | | | | | | |
| Asbury Park..... | 12,400 | 5 | | | 1 | | | | | |
| Atlantic City..... | 50,682 | 10 | 2 | | | | | 2 | | |
| Bavonne..... | 76,754 | | 4 | | | 3 | | 2 | | |
| Belleville..... | 15,660 | | | | 1 | 2 | | 2 | | |
| Bloomfield..... | 22,019 | 2 | 4 | | 1 | 6 | | | | |
| Clifton..... | 26,470 | 4 | 1 | | | 1 | | 1 | | |
| East Orange..... | 50,710 | 12 | 1 | | | 8 | | 2 | 1 | |
| Elizabeth..... | 95,682 | | 5 | | | 8 | | 4 | 2 | |
| Englewood..... | 11,627 | 2 | | | | | | 1 | | |
| Garfield..... | 19,381 | | | | | | | 1 | 1 | |
| Harrison..... | 15,721 | | | | 2 | 5 | | 1 | | |
| Hoboken..... | 68,166 | 16 | 6 | | 1 | 2 | | 1 | 1 | |
| Jersey City..... | 297,864 | | 15 | | 50 | 17 | | 10 | | |
| Kearny..... | 23,724 | 5 | 1 | | 3 | 3 | | 1 | | |
| Montclair..... | 28,810 | 3 | | | | 3 | | 3 | 1 | |
| Morristown..... | 12,548 | 2 | 1 | | | 3 | | | | |
| New Brunswick..... | 32,779 | 15 | 4 | | | | | | | |
| Newark..... | 414,216 | 128 | 29 | 1 | 47 | 51 | | 23 | 7 | |
| Orange..... | 33,268 | 7 | 2 | | 2 | | | | | |
| Passaic..... | 63,824 | 19 | 3 | 2 | | 19 | | 1 | | |
| Paterson..... | 135,866 | | 10 | | 22 | | | 4 | | |
| Pi lipsburg..... | 16,923 | 5 | | | | | | | | |
| Plainfield..... | 27,700 | 11 | 2 | | 2 | 8 | 1 | | 1 | |
| Rahway..... | 11,042 | 2 | 3 | | | | | | | |
| Summit..... | 10,174 | 4 | | | | | | | | |
| Trenton..... | 119,289 | 51 | 4 | | 1 | 5 | | 2 | 2 | |
| Union..... | 20,651 | | 1 | | 1 | 1 | | | | |
| West New York..... | 21,926 | 2 | 1 | | 1 | 2 | | | | |
| West Orange..... | 15,573 | 1 | | | | 1 | | 1 | | |
| New Mexico: | | | | | | | | | | |
| Albuquerque..... | 15,157 | 8 | | | | 4 | 1 | | 2 | |
| New York: | | | | | | | | | | |
| Albany..... | 113,344 | | 4 | | 6 | 1 | | 7 | | |
| Auburn..... | 36,192 | 9 | 1 | | | | | | 1 | |
| Binghamton..... | 66,800 | 18 | 3 | | | 4 | | | | |
| Buffalo..... | 503,775 | 128 | 28 | 2 | 2 | 24 | | 11 | 11 | |
| Fulton..... | 13,043 | 7 | | | | | | | | |
| Genova..... | 14,648 | 6 | | | | | | | | |
| Glens Falls..... | 16,638 | 2 | 1 | | | | | | | |
| Hornell..... | 15,025 | | | | 2 | | | | | |
| Hudson..... | 11,745 | 6 | 2 | | 16 | | | | | |
| Ithaca..... | 17,004 | 9 | | | 1 | | | 1 | 2 | |
| Jamestown..... | 38,917 | 8 | 11 | | 8 | 6 | | | | |
| Lackawanna..... | 17,918 | 2 | 1 | | | 2 | | 1 | | |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Popula- tion Janu- ary 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuber- culosis. | |
|------------------------|--|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| New York—Continued. | | | | | | | | | | |
| Lockport..... | 21,308 | 2 | 2 | | | | 1 | | | 1 |
| Middletown..... | 13,420 | | | | | | 1 | | | |
| Mount Vernon..... | 42,726 | 15 | | | 1 | | | | | |
| Newburgh..... | 30,366 | 8 | | | | | 1 | | | |
| New York..... | 5,621,151 | 1,486 | 246 | 14 | 362 | 12 | 282 | 7 | 196 | 103 |
| Niagara Falls..... | 50,780 | 14 | 7 | | 1 | | 10 | | 2 | |
| North Tonawanda..... | 15,482 | 5 | 7 | | | | 1 | | | |
| Ogdensburg..... | 14,609 | 7 | | | | | | | | |
| Olean..... | 20,506 | 7 | | | | | | | 1 | 2 |
| Peekskill..... | 15,868 | 5 | 2 | 1 | | | | | | 1 |
| Port Chester..... | 16,573 | 4 | | | | | | | | |
| Poughkeepsie..... | 35,000 | 13 | | | 5 | | 1 | | 1 | |
| Rochester..... | 285,750 | 65 | 13 | 1 | 1 | | 12 | | | 1 |
| Rome..... | 26,341 | 10 | 2 | | 1 | | 1 | | | 1 |
| Saratoga Springs..... | 13,181 | 5 | 1 | | | | 2 | | | |
| Schenectady..... | 88,723 | 11 | 4 | 1 | | | 16 | | | |
| Syracuse..... | 171,717 | 42 | 13 | 2 | | | 27 | | 3 | |
| Troy..... | 72,013 | 25 | 4 | | 2 | | | | | 3 |
| Watertown..... | 31,285 | 6 | 1 | | | | 1 | | 2 | 1 |
| White Plains..... | 21,031 | 5 | 1 | | | | | | | 1 |
| Yonkers..... | 100,226 | 27 | | | 2 | | 8 | 2 | | 2 |
| North Carolina: | | | | | | | | | | |
| Charlotte..... | 46,338 | 10 | 3 | | | | 2 | | 4 | 2 |
| Durham..... | 21,719 | 3 | | | | | | | | |
| Greensboro..... | 19,861 | 9 | | | | | | | | 1 |
| Raleigh..... | 24,418 | 9 | 2 | | | | | | | |
| Rocky Mount..... | 12,742 | 2 | | | | | | | | 1 |
| Salisbury..... | 13,884 | 5 | | | | | | | | |
| Wilmington..... | 33,372 | 16 | | | | | | | | 2 |
| Winston-Salem..... | 48,395 | 8 | 4 | | | | 3 | | 3 | |
| North Dakota: | | | | | | | | | | |
| Grand Forks..... | 14,010 | | 3 | | | | | | | |
| Ohio: | | | | | | | | | | |
| Akron..... | 208,435 | 31 | 3 | | 15 | | 13 | | | |
| Ashtabula..... | 22,082 | 6 | 2 | | | | | | | 1 |
| Barberton..... | 18,811 | 2 | | | | | 1 | | | |
| Bucyrus..... | 10,425 | 0 | | | | | | | | |
| Canton..... | 67,091 | 16 | 5 | 1 | | | 9 | | 2 | |
| Chillicothe..... | 15,831 | 4 | | | | | 1 | | | |
| Cincinnati..... | 401,247 | 123 | 22 | 2 | 14 | | 4 | 1 | 12 | 11 |
| Cleveland..... | 796,836 | 26 | 26 | | 70 | | 55 | | | |
| Cleveland Heights..... | 15,236 | | 1 | | | | 1 | | | |
| Columbus..... | 237,031 | 58 | 16 | | 2 | | 9 | | 5 | 5 |
| Dayton..... | 152,559 | 41 | 2 | | | | 2 | | 1 | |
| East Cleveland..... | 27,292 | 4 | | | 7 | | 5 | | 1 | 1 |
| Findlay..... | 17,021 | 6 | 1 | | | | | | | |
| Fremont..... | 12,468 | 5 | | | | | | | | |
| Hamilton..... | 39,675 | 5 | 3 | | | | 1 | | | |
| Ironton..... | 14,007 | 2 | 1 | | | | | | | |
| Kenmore..... | 12,683 | | 3 | | | | 6 | | | |
| Lancaster..... | 14,706 | 4 | 4 | | | | | | | |
| Lima..... | 41,306 | 8 | 6 | | | | 1 | | | 1 |
| Lorain..... | 37,295 | 1 | | | 7 | 1 | 5 | | | |
| Mansfield..... | 27,824 | 5 | 1 | | | | 1 | | | 1 |
| Marion..... | 27,891 | 4 | 4 | 2 | | | | | | |
| Middletown..... | 23,594 | 3 | 1 | | 1 | | 1 | | | |
| Newark..... | 26,718 | 9 | 15 | 1 | | | 11 | | | |
| New Philadelphia..... | 10,718 | | 3 | | | | | | | |
| Niles..... | 13,080 | 3 | | | | | | | | |
| Norwood..... | 24,066 | 3 | | | | | 1 | | | |
| Salem..... | 10,305 | 4 | | | | | | | | |
| Sandusky..... | 22,897 | 15 | 1 | | | | 2 | 1 | | |
| Springfield..... | 60,840 | 10 | 9 | | 1 | | | | | |
| Steubenville..... | 28,508 | 5 | 1 | | | | 2 | | | |
| Tiffin..... | 14,375 | 2 | | | | | | | | |
| Toledo..... | 243,109 | 56 | 29 | 3 | | | 5 | | | 6 |
| Youngstown..... | 132,358 | 33 | 6 | | | | 9 | | | 1 |
| Zanesville..... | 29,569 | 6 | 1 | | | | 3 | | | |
| Oklahoma: | | | | | | | | | | |
| Oklahoma City..... | 91,258 | 21 | 6 | | 1 | | 3 | | | 2 |
| Tulsa..... | 72,075 | | 1 | | | | 3 | | | |

1 Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Popula- tion Janu- ary 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuber- culosis. | |
|-----------------------------|--|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Oregon: | | | | | | | | | | |
| Portland..... | 258,288 | 66 | 30 | 1 | 1 | | 6 | | 1 | 2 |
| Pennsylvania: | | | | | | | | | | |
| Allentown..... | 73,502 | | 4 | | | | | | 1 | |
| Altoona..... | 60,331 | | 4 | | | | 3 | | | |
| Berwick..... | 12,181 | | 2 | | | | | | | |
| Bethlehem..... | 50,358 | | 2 | | | | 6 | | | |
| Bradford..... | 15,525 | | 2 | | | | | | | |
| Butler..... | 23,778 | | 1 | | 1 | | | | | |
| Canonsburg..... | 10,632 | | 1 | | | | | | | |
| Carbondale..... | 18,640 | | 1 | | | | 1 | | | |
| Carrick..... | 10,501 | | | | 1 | | 1 | | | |
| Chester..... | 58,090 | | 2 | | 1 | | 3 | | | |
| Connellsville..... | 13,804 | | 4 | | | | | | | |
| Dickson City..... | 11,049 | | | | 1 | | | | | |
| Donora..... | 14,131 | | | | | | 1 | | | |
| Dubois..... | 18,681 | | 3 | | | | 2 | | 1 | |
| Duquesne..... | 19,011 | | 2 | | | | 2 | | | |
| Erie..... | 93,372 | | 6 | | | | 2 | | | |
| Farrell..... | 15,583 | | | | | | 4 | | | |
| Greensburg..... | 15,033 | | | | | | 3 | | | |
| Harrisburg..... | 75,917 | | 1 | | | | 4 | | | |
| Hazleton..... | 32,277 | | 2 | | 2 | | | | | |
| Jeannette..... | 10,627 | | 3 | | | | 1 | | 1 | |
| Johnstown..... | 67,327 | | 9 | | 2 | | | | | |
| Lancaster..... | 53,159 | | 4 | | | | | | | |
| Lebanon..... | 24,643 | | 1 | | | | 1 | | | |
| McKeesport..... | 45,975 | | 1 | | 8 | | | | 1 | |
| McKees Rocks..... | 16,713 | | 5 | | 2 | | 1 | | | |
| Monessen..... | 18,179 | | 1 | | | | | | | |
| Mount Carmel..... | 17,469 | | 4 | | | | | | | |
| Nanticoke..... | 22,611 | | | | | | | | 1 | |
| New Kensington..... | 11,987 | | 1 | | 1 | | 2 | | | |
| Norristown..... | 32,319 | | | | | | 1 | | | |
| Oil City..... | 21,274 | | 2 | | | | 3 | | 1 | |
| Olyphant..... | 10,236 | | 1 | | | | | | | |
| Philadelphia..... | 1,823,158 | 498 | 79 | 12 | 3 | | 113 | 1 | 53 | 42 |
| Pittsburgh..... | 588,193 | | 27 | | 12 | | 33 | | 7 | |
| Plymouth..... | 16,500 | | 3 | | | | | | | |
| Pottstown..... | 17,431 | | 3 | | | | 12 | | | |
| Pottsville..... | 21,876 | | 1 | | 9 | | | | 1 | |
| Reading..... | 107,781 | | 8 | | | | 1 | | 10 | |
| Scranton..... | 137,781 | | 8 | | | | 2 | | 2 | |
| Shamokin..... | 21,201 | | | | | | | | 1 | |
| Sharon..... | 21,747 | | | | 7 | | 2 | | | |
| Shenandoah..... | 24,726 | | 5 | | | | 2 | | | |
| Steelton..... | 13,428 | | 1 | | | | 2 | | | |
| Uniontown..... | 15,692 | | 3 | | | | 2 | | | |
| Warren..... | 14,255 | | 1 | | 1 | | | | | |
| Washington..... | 21,883 | | | | 2 | | 1 | | 3 | |
| West Chester..... | 11,717 | | | | | | 1 | | 1 | |
| Willingsburg..... | 24,493 | | 1 | | 2 | | | | | |
| Williamsport..... | 36,198 | | 3 | | | | 1 | | | |
| York..... | 47,512 | | 1 | | | | 1 | | 1 | |
| Rhode Island: | | | | | | | | | | |
| Cranston..... | 29,407 | 5 | | | | | | | 3 | 1 |
| East Providence (town)..... | 21,793 | | 2 | | | | | | | |
| Newport..... | 30,255 | 7 | 1 | | | | 11 | | | 2 |
| Pawtucket..... | 64,248 | 12 | 3 | | | | | | | 1 |
| Providence..... | 237,595 | 70 | 11 | 1 | 1 | 1 | 4 | | 1 | 3 |
| South Carolina: | | | | | | | | | | |
| Charleston..... | 67,957 | 21 | 1 | | | | 2 | | | 1 |
| Columbia..... | 37,524 | | 1 | | | | 3 | | | |
| Greenville..... | 23,127 | 2 | | | | | | | | |
| South Dakota: | | | | | | | | | | |
| Sioux Falls..... | 25,176 | 3 | | | | | | | | |
| Tennessee: | | | | | | | | | | |
| Chattanooga..... | 57,895 | | | | | | 1 | | | |
| Memphis..... | 162,351 | 67 | 22 | | | | 7 | | 1 | 3 |
| Nashville..... | 118,342 | 38 | 4 | | | | 2 | | 3 | 1 |
| Texas: | | | | | | | | | | |
| Austin..... | 34,876 | 22 | | | | | | | | 3 |
| Beaumont..... | 40,422 | 6 | 1 | | | | | | | |
| Corpus Christi..... | 10,522 | 5 | 2 | 2 | | | | | | |

CITY REPORTS FOR WEEK ENDED JAN. 7, 1922—Continued.

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

| City. | Population January 1, 1920, subject to correction. | Total deaths from all causes. | Diphtheria. | | Measles. | | Scarlet fever. | | Tuberculosis. | |
|---------------------|--|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
| | | | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. | Cases. | Deaths. |
| Texas—Continued. | | | | | | | | | | |
| Dallas..... | 158,976 | 58 | 4 | ..... | 25 | 1 | 5 | ..... | 4 | 5 |
| El Paso..... | 77,543 | 25 | 1 | ..... | ..... | ..... | 2 | ..... | ..... | 3 |
| Fort Worth..... | 106,482 | 15 | 4 | 1 | ..... | ..... | ..... | 2 | ..... | 2 |
| Galveston..... | 44,255 | 20 | 3 | ..... | ..... | 2 | ..... | ..... | ..... | ..... |
| Houston..... | 138,076 | 57 | 4 | ..... | ..... | 1 | ..... | ..... | ..... | 4 |
| Waco..... | 38,500 | 15 | 1 | ..... | ..... | ..... | 1 | ..... | ..... | 2 |
| Utah: | | | | | | | | | | |
| Salt Lake City..... | 118,110 | 39 | 4 | ..... | 1 | ..... | 16 | ..... | 1 | 4 |
| Vermont: | | | | | | | | | | |
| Barre..... | 10,006 | ..... | ..... | ..... | ..... | ..... | 2 | ..... | ..... | ..... |
| Burlington..... | 22,779 | 4 | 4 | 1 | ..... | ..... | 11 | 1 | ..... | ..... |
| Rutland..... | 14,954 | 3 | ..... | ..... | 1 | ..... | 4 | ..... | ..... | ..... |
| Virginia: | | | | | | | | | | |
| Alexandria..... | 18,060 | 4 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Danville..... | 21,539 | 2 | 2 | ..... | 10 | ..... | 2 | ..... | 1 | ..... |
| Lynchburg..... | 29,956 | 7 | ..... | ..... | ..... | ..... | 1 | ..... | 1 | ..... |
| Norfolk..... | 115,777 | ..... | 8 | ..... | ..... | ..... | ..... | ..... | 5 | ..... |
| Petersburg..... | 31,002 | 7 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | 1 |
| Portsmouth..... | 54,387 | 14 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Richmond..... | 171,667 | 45 | 19 | 1 | 25 | ..... | 7 | ..... | 4 | 3 |
| Roanoke..... | 50,842 | 16 | 2 | ..... | 1 | ..... | 1 | ..... | ..... | ..... |
| Washington: | | | | | | | | | | |
| Bellingham..... | 25,570 | ..... | ..... | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Seattle..... | 315,652 | ..... | 10 | ..... | 2 | ..... | 4 | ..... | 7 | ..... |
| Spokane..... | 104,437 | ..... | 3 | ..... | ..... | ..... | 21 | ..... | ..... | ..... |
| Tacoma..... | 96,965 | ..... | 7 | ..... | ..... | ..... | 5 | ..... | 7 | ..... |
| Vancouver..... | 12,637 | ..... | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Walla Walla..... | 15,503 | ..... | 3 | ..... | ..... | ..... | 2 | ..... | ..... | ..... |
| Yakima..... | 18,539 | ..... | 1 | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| West Virginia: | | | | | | | | | | |
| Bluefield..... | 15,282 | 4 | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Charleston..... | 39,608 | 13 | 3 | ..... | ..... | ..... | 4 | ..... | ..... | 1 |
| Fairmont..... | 17,851 | ..... | 9 | 1 | 1 | ..... | 2 | ..... | ..... | ..... |
| Huntington..... | 50,177 | 12 | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Martinsburg..... | 12,515 | ..... | ..... | ..... | 1 | ..... | 1 | ..... | ..... | ..... |
| Morgantown..... | 12,127 | ..... | 2 | ..... | ..... | ..... | 2 | ..... | ..... | ..... |
| Parkersburg..... | 20,050 | 10 | 2 | ..... | ..... | ..... | 1 | ..... | ..... | 1 |
| Wheeling..... | 54,322 | 18 | 2 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Wisconsin: | | | | | | | | | | |
| Appleton..... | 19,561 | ..... | 3 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Beloit..... | 21,284 | 3 | 4 | ..... | ..... | ..... | 4 | ..... | 1 | 1 |
| Eau Claire..... | 20,880 | ..... | ..... | ..... | 1 | ..... | 1 | ..... | 1 | ..... |
| Fond du Lac..... | 23,427 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Green Bay..... | 31,017 | 5 | 5 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Janesville..... | 18,293 | 3 | 1 | ..... | ..... | ..... | 1 | ..... | 1 | ..... |
| Kenosha..... | 40,472 | ..... | 10 | ..... | ..... | ..... | 2 | ..... | ..... | ..... |
| Madison..... | 38,378 | 5 | 6 | ..... | ..... | ..... | 1 | ..... | ..... | ..... |
| Marinette..... | 13,610 | ..... | 1 | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Milwaukee..... | 457,147 | ..... | 31 | ..... | ..... | ..... | 34 | ..... | 6 | ..... |
| Oshkosh..... | 33,162 | 6 | 2 | ..... | ..... | ..... | 5 | ..... | ..... | ..... |
| Racine..... | 58,593 | ..... | 16 | 2 | ..... | ..... | 7 | 1 | ..... | ..... |
| Sheboygan..... | 30,955 | ..... | 1 | ..... | 1 | ..... | ..... | ..... | ..... | ..... |
| Superior..... | 39,624 | 10 | 1 | ..... | ..... | ..... | 9 | ..... | ..... | ..... |
| Wausau..... | 18,661 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 | ..... |
| Wyoming: | | | | | | | | | | |
| Casper..... | 11,447 | 5 | ..... | ..... | 1 | ..... | ..... | ..... | 2 | 1 |
| Cheyenne..... | 13,829 | 4 | ..... | ..... | 6 | ..... | ..... | ..... | ..... | ..... |

FOREIGN AND INSULAR.

CUBA.

Communicable Diseases.

Communicable diseases have been notified in Cuba as follows:

| Disease. | Jan. 10, 1922. | | Remain- ing under treat- ment Jan. 10, 1922. |
|--------------------------------|----------------|---------|--|
| | New cases. | Deaths. | |
| Corobrosplinal meningitis..... | | 1 | 1 |
| Chicken pox..... | 2 | | 2 |
| Diphtheria..... | 2 | 1 | 1 10 |
| Leprosy..... | | | 29 |
| Malaria..... | 14 | | 10 |
| Scarlet fever..... | 10 | 1 | 26 |
| Typhoid fever..... | 14 | | |

¹ One case reported to have died from cancer of face.

² From the interior, 17.

³ From the interior, 18.

ITALY.

Plague—Catania—October–November, 1921.

Information received under date of January 12, 1922, in regard to the occurrence of plague at Catania, Italy, during October and November, 1921, shows a total of seven positive cases with four deaths, reported as occurring as follows: October 16, 1921, three cases with one death in a group of workers in a mill in the vicinity of the port; October 26, a fatal case in the person of a merchant who dealt with another mill and had no history of contact with the first-reported cases; about November 15, two positive cases with one doubtful case, of which one case, with fatal termination, occurred in a child attending school; these cases being stated to have occurred in a zone distant from that of the first cases and in a locality which was highly insanitary and difficult to isolate and render rat free. On November 27 a fatal case was reported in a member of the family of the school child.

To December 1, 1921, 1,300 rats were reported taken, of which 7 were found plague infected.

JAMAICA.

Infectious Disease (Alastrim or Kaffir Pox).

Alastrim or Kaffir pox has been reported in the island of Jamaica as follows: Week ended December 17, 1921, 13 new cases; week ended December 24, 1921, 4 new cases; week ended December 31, 1921, 11 new cases.

Typhoid Fever—Kingston and Vicinity.

During the period under report typhoid fever was reported in Kingston and vicinity as follows: Week ended December 17, 1921, 4 cases in Kingston and 14 cases in the surrounding country; week ended December 24, 1921, 11 cases in the surrounding country; week ended December 31, 1921, 5 cases in Kingston and 9 cases in the surrounding country.

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

Two plague-infected rodents were reported found at Tampico, Mexico, during the week ended January 14, 1922, making a total of three infected rodents found at that place from January 1 to 14, 1922.

POLAND.**Communicable Diseases—Sept. 11—Oct. 8, 1921.**

Communicable diseases have been reported in Poland, exclusive of Brest-Litovsk, Minsk, and Wilno Districts, as follows:

| Disease. | Cases. | Deaths. | Locality of highest proportional mortality. |
|-------------------------------|--------|---------|---|
| Cerebrospinal meningitis..... | 24 | 12 | Lodz. |
| Diphtheria..... | 493 | 44 | Do. |
| Measles..... | 771 | 31 | Kielce. |
| Scarlet fever..... | 3,038 | 407 | Lwow. |
| Smallpox..... | 59 | 9 | Stanislawow. |
| Tuberculosis..... | 342 | 536 | Lodz. |
| Typhoid fever..... | 4,312 | 347 | Do. |
| Typhus fever..... | 693 | 53 | Stanislawow. |

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.**Reports Received During Week Ended Jan. 27, 1922.¹****CHOLERA.**

| Place. | Date. | Cases. | Deaths. | Remarks. |
|---------------|--------------------|--------|---------|----------|
| India: | | | | |
| Calcutta..... | Dec. 4-10..... | 8 | 7 | |
| Rangoon..... | Nov. 27-Dec. 3.... | 7 | 4 | |

PLAGUE.

| | | | | |
|-------------------------|--------------------|---|---|--|
| Azores: | | | | |
| St. Michael Island..... | | | | Dec. 25-31, 1921: Cases, 1; deaths, 1. |
| Arrifes..... | Dec. 25-31..... | 1 | 1 | 3 miles from port. |
| Ceylon: | | | | |
| Colombo..... | Nov. 27-Dec. 3.... | 3 | 3 | One plague rodent. |
| Ecuador: | | | | |
| Guayaquil..... | Nov. 16-30..... | 5 | 3 | Rats examined, 1,500; found plague infected, 49. |
| Egypt..... | | | | Jan. 1-Dec. 22, 1921: Cases, 344; deaths, 146. |
| City— | | | | |
| Alexandria..... | Dec. 18..... | | 1 | |
| Port Said..... | Dec. 20..... | 1 | | |
| Sucz..... | Dec. 16-20..... | 2 | 2 | |

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 Jan. 27, 1922—Continued.

PLAGUE—Continued.

| Place. | Date. | Cases. | Deaths. | Remarks. |
|----------------------------------|----------------|--------|---------|--|
| India..... | | | | Nov. 20-26, 1921: Cases, 1,154; deaths, 844. |
| Karachi..... | Dec. 4-10..... | 1 | 1 | |
| Madras Presidency..... | do..... | 472 | 336 | |
| Italy: | | | | |
| Catania..... | Nov. 27..... | 1 | 1 | Total, Oct. 16-Nov. 27, 1921: Cases, 8 (of which 1 doubtful); deaths, 5. |
| Naples— Torre Annunziata..... | Dec. 27..... | 1 | | 17 miles from city of Naples. |
| Mexico: | | | | |
| Tampico..... | | | | Jan. 8-14, 1922: 2 plague-infected rats; total, Jan. 1-14, 1922; 3 plague-infected rats. |

SMALLPOX.

| | | | | |
|---------------------------|----------------------|----|---|--|
| Canada: | | | | |
| Ontario— | | | | |
| Ottawa..... | Jan. 8-14..... | 8 | | |
| Toronto..... | do..... | 11 | | |
| Saskatchewan— | | | | |
| Regina..... | Dec. 18-24..... | 2 | | |
| Do..... | Jan. 1-7..... | 1 | | |
| Saskatoon..... | Dec. 13-19..... | 1 | | |
| Ceylon: | | | | |
| Colombo..... | Nov. 27-Dec. 3..... | 1 | | Port case. |
| China: | | | | |
| Amoy..... | Dec. 4-10..... | | 2 | |
| Antung..... | Dec. 5-18..... | 2 | 1 | |
| Chungking..... | Nov. 19-Dec. 3..... | | | Present. |
| Foochow..... | Nov. 27-Dec. 10..... | | | Do. |
| Hankow..... | Dec. 4-10..... | 1 | | |
| Shanghai..... | Jan. 14..... | | | Conditions serious. |
| Dominican Republic: | | | | |
| San Pedro de Macoris..... | Dec. 18-24..... | 12 | 1 | In vicinity, 108 cases; estimated. |
| Ecuador: | | | | |
| Guayaquil..... | Nov. 16-30..... | 2 | | |
| Egypt: | | | | |
| Port Said..... | Dec. 20-26..... | 1 | | |
| India: | | | | |
| Calcutta..... | Dec. 4-10..... | 4 | 4 | |
| Madras..... | do..... | 16 | 9 | |
| Poland..... | | | | Sept. 11-Oct. 8, 1921: Cases, 59; deaths, 9. |
| Straits Settlements: | | | | |
| Singapore..... | Nov. 20-26..... | 8 | | |
| Syria: | | | | |
| Adana..... | Dec. 18-24..... | | | Present. |
| Aleppo..... | do..... | | | Do. |
| Diarbekir..... | do..... | | | Do. |
| Mersina..... | do..... | | | Do. |
| Ourfa..... | do..... | | | Do. |
| Tunis: | | | | |
| Tunis..... | Dec. 17-23..... | 1 | 2 | |
| Turkey: | | | | |
| Constantinople..... | Dec. 11-17..... | 4 | 1 | |

TYPHUS FEVER.

| | | | | |
|---------------------|---------------------|---|---|--|
| Austria: | | | | |
| Vienna..... | Dec. 4-10..... | 2 | | |
| Egypt: | | | | |
| Cairo..... | Oct. 29-Nov. 4..... | 1 | 1 | |
| Poland..... | | | | Sept. 11-Oct. 8, 1921: Cases, 693; deaths, 53. |
| Turkey: | | | | |
| Constantinople..... | Dec. 11-17..... | 2 | | |
| Venezuela: | | | | |
| Maracaibo..... | Dec. 20-26..... | | 1 | |

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

Reports Received from Dec. 31, 1921, to Jan. 20, 1922.¹

CHOLERA.

| Place. | Date. | Cases. | Deaths. | Remarks. |
|-----------------------|-----------------|--------|---------|--|
| India | | | | Oct. 2-15, 1921: Deaths, 10,548. |
| Bombay | Oct. 30-Nov. 5 | 1 | | |
| Calcutta | Oct. 23-Nov. 26 | 30 | 24 | |
| Karachi | Nov. 6-12 | | 1 | |
| Rangoon | Oct. 1-Nov. 26 | 7 | 5 | |
| Indo-China: | | | | |
| Saigon | Nov. 6-12 | 1 | 1 | |
| Java: | | | | |
| West Java— Batavia | Nov. 1-7 | 2 | 2 | At Lebak. |
| Philippine Islands: | | | | |
| Manila | Nov. 13-Dec. 2 | 4 | 1 | |
| Poland | | | | Aug. 14-Sept. 10, 1921: Cases, 4; deaths, 1. |
| Siam: | | | | |
| Bangkok | Oct. 23-29 | 1 | | |

PLAGUE.

| | | | | |
|--|-----------------|-----|-----|---|
| Asia Minor: | | | | |
| Smyrna | Nov. 27-Dec. 3 | 1 | 1 | |
| Australia: | | | | |
| New South Wales— Sydney | | | | Nov. 6-19, 1921: Plague rats reported found at distance from wharves. |
| Queensland— Brisbane | Oct. 30-Nov. 26 | 17 | 11 | Plague-infected rats, 34. Total cases of plague, Aug. 22-Nov. 26, 1921, 29; deaths, 18. (Corrected report.) |
| Cairns | do | 4 | 2 | 6 plague rats. |
| Cooktown | Oct. 30-Nov. 5 | 1 | | Pestis minor. |
| Ingham | Nov. 6-12 | | | 9 plague rats. |
| Port Douglas | Nov. 13-19 | 1 | 1 | |
| Townsville | Nov. 20-26 | 1 | 1 | |
| Azores: | | | | |
| St. Michael Island | | | | Nov. 27-Dec. 10, 1921: Cases, 22; deaths, 8 |
| Fenaes d' Ajuda | Nov. 27-Dec. 3 | | | Present. |
| Ribeira Grande | Nov. 13-Dec. 10 | 19 | 8 | |
| Livramento | Dec. 4-10 | 2 | | Vicinity of Ponta Delgada. |
| Ponta Delgada | do | 1 | | |
| Brazil: | | | | |
| Bahia | Oct. 30-Nov. 12 | 4 | 5 | |
| British East Africa: | | | | |
| Uganda | Aug. 1-Sept. 30 | 85 | 58 | Reports of inspectors, deaths, 142; reports of chiefs, deaths, 641. |
| Ceylon: | | | | |
| Colombo | Oct. 30-Nov. 5 | 1 | | Oct. 30-Nov. 26, 1921: Rodent plague, 3. |
| Ecuador: | | | | |
| Guayaquil | Dec. 1-15 | 2 | | Rats examined, 1,458; found infected, 41. |
| Egypt: | | | | Jan. 1-Dec. 15, 1921: Cases, 341; deaths, 143. |
| City— | | | | |
| Alexandria | Dec. 5-12 | 3 | | |
| Suez | Nov. 22-Dec. 14 | 7 | 3 | |
| Province— | | | | |
| Keneh | Dec. 1 | 1 | 1 | Septicemic. |
| India: | | | | Oct. 23-Nov. 19, 1921: Cases, 4,443; deaths, 3,267. |
| Bombay | Oct. 23-Nov. 19 | 4 | 2 | |
| Karachi | Nov. 6-19 | 1 | 1 | |
| Madras Presidency | Nov. 13-Dec. 3 | 926 | 651 | |
| Rangoon | Oct. 1-Nov. 26 | 63 | 58 | |
| Indo-China: | | | | |
| Saigon | | | | Nov. 6-26, 1921: Rodent plague, 2. |
| Italy: | | | | |
| Naples (Province)— Torre Annunziata | Oct. 22 | 1 | | |
| Venice | Oct. 27 | 1 | | |

¹ From medical officers of the Public Health Service, American consuls, and other sources. For reports received from July 2 to Dec. 30, 1921, see Public Health Reports for Dec. 30, 1921. The tables of epidemic diseases are terminated semiannually and new tables begun.

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

Reports Received from Dec. 31, 1921, to Jan. 20, 1922—Continued.

PLAGUE—Continued.

| Place. | Date. | Cases. | Deaths. | Remarks. |
|-------------------------|--------------------|--------|---------|---|
| Mauritius (Island)..... | Oct. 30-Nov. 5.... | 37 | 31 | |
| Mesopotamia: | | | | |
| Bagdad..... | Oct. 1-31..... | 1 | 1 | |
| Mexico: | | | | |
| Tampico..... | | | | Dec. 18-31, 1921: Infected rodents found, 5; total, Jan. 1-Dec. 31, 1921: infected rodents, 322; Jan. 1-7, 1922: 1 plague-infected rat. |
| Vera Cruz..... | | | | One infected rodent caught Dec. 5, 1921. |
| Peru..... | | | | Nov. 17-30, 1921: Cases, 48; deaths, 12. Occurring in Callao, Huacho, Huaras, Lima, Magdalena Vieja, Paita, Salaverry, and Secura. |
| Portuguese West Africa: | | | | |
| Angola— | | | | |
| Loanda..... | Oct. 9-Nov. 5.... | | 2 | |
| Rhodes (Island)..... | Oct. 13..... | 3 | 1 | |
| Siam: | | | | |
| Bangkok..... | Oct. 23-Nov. 5.... | 1 | 1 | |
| Straits Settlements: | | | | |
| Singapore..... | Nov. 6-12..... | 2 | 2 | |
| Syria: | | | | |
| Beirut..... | Oct. 9-Nov. 13.... | 9 | 3 | |

SMALLPOX.

| | | | | | |
|-------------------------|---------------------|----|----|--|---|
| Bolivia: | | | | | |
| La Paz..... | Aug. 1-Oct. 31.... | 42 | 28 | | |
| Brazil: | | | | | |
| Bahia..... | Nov. 6-12..... | 1 | | | |
| Rio de Janeiro..... | Nov. 13-26..... | 4 | 2 | | |
| Sao Paulo..... | Oct. 31-Nov. 20.... | 2 | | | |
| British East Africa: | | | | | |
| Uganda..... | Aug. 1-Sept. 30.... | 7 | | | Reports of inspectors, cases, 4. |
| Canada: | | | | | |
| Manitoba— | | | | | |
| Winnipeg..... | Nov. 20-Dec. 3.... | 2 | | | |
| New Brunswick— | | | | | |
| Charlotte County..... | | | | | Dec. 17, 1921: 31 cases previously reported, occurring at Andersonville and Blacks Harbor. |
| St. Stephen..... | Dec. 11-17..... | 2 | | | Dec. 18-24, 1921: Cases, 3. |
| Restigouche County..... | Dec. 11-24..... | 2 | | | |
| York County..... | Dec. 11-17..... | 1 | | | |
| Ontario— | | | | | |
| Niagara Falls..... | Dec. 11-24..... | 2 | | | |
| Ottawa..... | do..... | 17 | | | |
| Do..... | Jan. 1-7..... | 3 | | | |
| Toronto..... | Dec. 11-24..... | 1 | | | |
| Do..... | Jan. 1-7..... | 12 | | | |
| Quebec— | | | | | |
| Montreal..... | Dec. 11-24..... | 1 | | | |
| Saskatchewan— | | | | | |
| Saskatoon..... | Dec. 1-18..... | 6 | | | |
| Chile..... | | | | | Nov. 15-21, 1921: Di used in southern provinces; no epidemic. Present. In vicinity, at Hualqui, cases, 32; deaths, 5. Cases numerous. |
| Concepcion..... | Nov. 15-21..... | | | | |
| Coronel..... | do..... | | | | |
| Curanilahue..... | do..... | 4 | | | |
| Talcahuano..... | do..... | 4 | | | |
| Temuco..... | do..... | 9 | | | |
| Valparaiso..... | Oct. 23-Nov. 26.... | | 34 | | |
| China: | | | | | |
| Amoy..... | Nov. 16-22..... | | 1 | | Nov. 23-29, 1921: Present. |
| Antung..... | Nov. 28-Dec. 4.... | 2 | | | |
| Chungking..... | Nov. 6-19..... | | | | Present. |
| Poochow..... | Nov. 6-26..... | | | | Do. |
| Hankow..... | Nov. 13-Dec. 3.... | | | | Do. |
| Harbin..... | Nov. 14-27..... | 3 | | | |
| Mukden..... | Nov. 20-26..... | | | | Do. |
| Nanking..... | Nov. 20-Dec. 3.... | | | | Do. |
| Shanghai..... | Oct. 31-Dec. 4.... | 25 | 27 | | Cases, foreign: deaths, Chinese. |

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

Reports Received from Dec. 31, 1921, to Jan. 20, 1922—Continued.

SMALLPOX—Continued.

| Place. | Date. | Cases. | Deaths. | Remarks. |
|---|----------------------|--------|---------|---|
| Colombia: Cartagena..... | Nov. 22-28..... | | 1 | |
| Cuba: Antilla..... | Dec. 12-31..... | 3 | | At Preston. |
| Dominican Republic: San Pedro de Macoris..... | Nov. 20-Dec. 17..... | 15 | | At present there is an estimate of 500 cases of smallpox in the district of Macoris; of this amount 50 are within the city limits. |
| Santo Domingo..... | Nov. 15-Dec. 5..... | | | In district 401 cases estimated. Dec. 17-24, 1921: Present in vicinity. |
| Ecuador: Guayaquil..... | Dec. 1-15..... | 2 | | Venecia and San Carlos haciendas. |
| Egypt: Alexandria..... | Nov. 26-Dec. 2..... | 1 | 1 | |
| Finland..... | | | | Nov. 16-30, 1921: 1 case. |
| Haiti: Cape Haitien..... | Dec. 11-24..... | 8 | | |
| Port au Prince..... | Dec. 11-31..... | | | Present. |
| India: Calcutta..... | Nov. 13-26..... | 6 | 5 | Oct. 2-8, 1921: Deaths, 28. |
| Bombay..... | Oct. 23-Nov. 12..... | 1 | 1 | |
| Calcutta..... | Oct. 23-Nov. 19..... | 6 | 4 | |
| Madras..... | Nov. 13-Dec. 3..... | 30 | 4 | |
| Rangoon..... | Oct. 1-19..... | 2 | | |
| Italy: Genoa..... | Nov. 10-20..... | 1 | | |
| Messina— Messina..... | Nov. 28-Dec. 4..... | 1 | | |
| Pettineo..... | Nov. 14-Dec. 4..... | 2 | | |
| Japan: Taiwan Island..... | Dec. 1-10..... | 1 | | |
| Java: West Java— Bandoeng..... | Nov. 18-24..... | 1 | | |
| Batavia..... | do..... | 2 | 2 | |
| Buitenzorg..... | Nov. 25-Dec. 1..... | 5 | | |
| Krawang..... | Nov. 18-24..... | 1 | | |
| Lebak..... | Nov. 18-Dec. 1..... | 4 | 2 | |
| Pandeglang..... | Nov. 25-Dec. 1..... | | 1 | |
| Tangerang..... | Nov. 18-Dec. 1..... | 3 | 1 | |
| Mesopotamia: Bagdad..... | Oct. 1-31..... | 24 | 7 | |
| Mexico: Chihuahua..... | Dec. 5-11..... | | 1 | |
| Guadalajara..... | Nov. 1-30..... | 3 | | |
| Mexico City..... | Nov. 20-25..... | 12 | | |
| San Luis Potosi..... | Dec. 18-24..... | | 2 | |
| Torreón..... | Dec. 1-31..... | | 134 | |
| Panama: Ancon..... | | | | Admitted to hospital by transfer from Panama, Nov. 30, 1921, 1 case. Arrived on sailing vessel from a village on south coast. |
| Chiriqui Province..... | Dec. 22..... | | | Present. |
| Panama..... | Dec. 14..... | 1 | | On Dec. 21, 1921; 1 additional case from country district of Sabanas, admitted to hospital. Total admissions Jan. 1-Dec. 21, 1921, 207. |
| Poland..... | | | | Aug. 14-Sept. 10, 1921: Cases, 102; deaths, 24. Exclusive of Brest-Litovsk, Minsk, and Wilno districts. |
| Portugal: Lisbon..... | Nov. 13-26..... | 12 | 5 | |
| Portuguese East Africa: Lourenço Marques..... | Oct. 1-Nov. 5..... | 2 | 4 | |
| Portuguese West Africa: Angola— Loanda..... | Oct. 9-Nov. 3..... | | 3 | |

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

Reports Received from Dec. 31, 1921, to Jan. 20, 1922—Continued.

SMALLPOX—Continued.

| Place. | Date. | Cases. | Deaths. | Remarks. |
|------------------------|--------------------|--------|---------|-------------------|
| Russia: | | | | |
| Estonia..... | Oct. 1-31..... | 20 | | |
| Latvia..... | do..... | 31 | | Corrected report. |
| Serbia: | | | | |
| Belgrade..... | Oct. 2-Nov. 26.... | 16 | 4 | |
| Siam: | | | | |
| Bangkok..... | Oct. 23-Nov. 5.... | 1 | | |
| Spain: | | | | |
| Huelva..... | Oct. 1-31..... | | 1 | |
| Malaga..... | Nov. 1-30..... | | 36 | |
| Seville..... | Nov. 16-29..... | | 1 | |
| Straits Settlements: | | | | |
| Singapore..... | Nov. 6-19..... | 7 | 2 | |
| Switzerland: | | | | |
| Glarus, Canton..... | Dec. 10..... | | | Epidemic. |
| Zurich..... | do..... | 2 | | In vicinity. |
| Syria: | | | | |
| Beirut..... | Oct. 9-Nov. 13.... | 5 | 2 | |
| Tunis: | | | | |
| Tunis..... | Nov. 26-Dec. 16.. | 16 | 13 | |
| Turkey: | | | | |
| Constantinople..... | Nov. 27-Dec. 10.. | 10 | 2 | |
| Union of South Africa: | | | | |
| Cape Province..... | Nov. 5-19..... | | | Outbreaks. |
| Natal..... | Oct. 23-Nov. 12.. | | | Do. |
| Orange Free State..... | Oct. 23-29..... | | | Do. |
| Transvaal..... | Oct. 23-Nov. 19.. | | | Do. |

TYPHUS FEVER.

| | | | | |
|------------------------|--------------------|----|----|---|
| Algeria: | | | | |
| Algiers..... | Nov. 1-20..... | 1 | | |
| Bolivia: | | | | |
| La Paz..... | Aug. 1-Oct. 31.... | 83 | 65 | |
| Chile: | | | | |
| Valparaiso..... | Oct. 23-Nov. 26.. | | 6 | |
| China: | | | | |
| Harbin..... | Nov. 7-Dec. 4.... | 5 | | |
| Egypt: | | | | |
| Alexandria..... | Nov. 19-25..... | 2 | | |
| Cairo..... | Oct. 1-21..... | 4 | 2 | |
| Mesopotamia: | | | | |
| Bagdad..... | Oct. 1-31..... | | 7 | |
| Mexico: | | | | |
| Mexico City..... | Nov. 20-25..... | 24 | | |
| San Luis Potosi..... | Dec. 13-24..... | | 1 | Dec. 25-31, 1921: Present. |
| Poland..... | | | | Aug. 14-Sept. 10, 1921: Cases, 738; deaths, 52. Exclusive of Brest-Litovsk, Minsk, and Wilno districts. |
| Russia: | | | | |
| Estonia..... | Oct. 1-31..... | 14 | | |
| Latvia..... | do..... | 87 | | |
| Serbia: | | | | |
| Belgrade..... | Oct. 2-Nov. 26.... | 3 | 2 | |
| Turkey: | | | | |
| Constantinople..... | Nov. 20-Dec. 10.. | 10 | | |
| Union of South Africa: | | | | |
| Cape Province..... | | | | Oct. 23-Nov. 12, 1921: Outbreaks. |
| East London..... | Oct. 30-Nov. 5.... | 1 | | |
| Natal..... | Oct. 23-Nov. 5.... | | | Outbreak. |

YELLOW FEVER.

| | | | | |
|-----------------------------------|-----------------|---|---|--|
| Mexico: | | | | |
| Guadalajara..... | Nov. 1-30..... | 1 | 1 | |
| Las Penas (State of Jalisco)..... | Dec. 19..... | | | Present. 50 miles northward of Manzanillo. |
| Tierra Blanca..... | Nov. 6-12..... | 1 | 1 | State of Vera Cruz. |
| Vera Cruz..... | Dec. 20-26..... | 1 | 1 | Imported. |