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SANITATION IN THE PHILIPPINE ISLANDS.

WORK OF THE SANITARY COMMISSIONS.

By J. D. LONG, Surgeon, United States Public Health Service.

The progress of sanitation in the Philippine Islands may be best considered by classifying it in two periods: First, the period of elimination of the graver epidemic diseases; second, the period of constructive sanitation.

The first period, or that of the elimination of grave epidemic diseases, extended from the beginning of the American occupation to and including the year 1908. During this period the principal efforts of the health authorities were directed toward controlling outbreaks of cholera, systematically vaccinating the inhabitants to get rid of smallpox, and taking measures to eliminate bubonic plague. The results have been satisfactory in that smallpox and plague have been, for all practical purposes, eliminated, and cholera has been so effectively controlled that it can no longer be considered a menace and, it is believed, can never again assume serious epidemic proportions.

The second period, or that of constructive sanitation, began in 1906, when investigations were begun with a view to improving the general water supply of the islands. After careful study of such data as were available, it was determined that the best general solution of the question would be the drilling of artesian wells at such points as might be possible throughout the Archipelago. Investigations that had been made indicated that the percentage of failures would probably be small, that the cost would not be prohibitive, and that the results would be satisfactory. Prior to 1906 there were only 12 water-supply installations which might be considered as satisfactory. The first artesian wells put down during the year 1907 were satisfactory as to flow and potability of water, and their success immediately created a strong desire for artesian wells in all portions of the islands. Since that time the number has

increased until there are now over 1,200 wells furnishing a very satisfactory quality of drinking water. In addition, several gravity systems have been installed and are giving satisfaction.

As early as 1906 it was realized that to supplement the artesian wells some cheap and easily installed type of sewage-disposal system must be developed to handle that phase of the situation. Studies were begun and various ideas were worked out. None, however, seemed to meet the requirements. Numerous attempts have since been made to solve the question by the use of pits, the installation of pail systems, and by various other methods. Generally, however, the results obtained were worse than the original condition, on account of the fact that proper care was not taken and serious nuisances were created.

During 1915 the results that had been obtained by the use of the water of artesian wells and from the use of the various types of sewage disposal that had been tried were reviewed. It was soon learned that, while considerable benefit had resulted, especially from the wells, morbidity and mortality rates were still much too high, and additional information as to causes of morbidity and mortality was imperative. In order to meet the need for accurate information, so that the remedy when developed might correct the condition for which it was evolved, it was decided to form sanitary commissions along the lines and for the purposes indicated below.

The first commission was established and placed in the field in June, 1915, beginning its operations in Pasig, Rizal. It was composed of a physician, an engineer, a bacteriologist, district nurses, and a sanitary inspector. Additional personnel as needed were added from time to time or obtained from the municipality of Pasig.

The commission was instructed to make investigations upon the following points: (1) Prevailing types of disease; (2) factors which contribute to the spread and extension of these diseases; (3) prevalence of intestinal parasites; (4) best methods of improving water supply, sewage and garbage disposal, and as to the possibility of improving housing and living conditions through proper utilization of means and materials locally obtainable; (5) drainage and canalization to obviate fly and mosquito breeding; (6) possibility for bettering building location and arrangement so as to improve lighting, ventilation, building sites, etc.; (7) possible improvements of health organizations with especial reference to personnel, employment of visiting nurses, etc.; (8) possibility of establishing sanitary markets and dairies; (9) investigations into the financial status of the municipality for the purpose of carrying out the recommendations that were to be made by the commission.

The first step of the commission upon arriving at Pasig was to locate itself in rooms provided in the municipal building, to establish

its laboratory, to open a clinic for the gratuitous treatment of the inhabitants, and to take a census of the community.

The census showed that the population of Pasig was 14,752, as compared with a population of 11,278 in 1903, when the official census was taken.

The prevailing diseases causing the greatest morbidity and mortality were found to be as follows:

Among adults—(1) Diseases of the respiratory system, as bronchitis and tuberculosis; (2) diseases of the gastrointestinal system, as acute and chronic enteritis, gastritis and dysentery. Among children the great causes of morbidity and mortality were respiratory and nutritional diseases—under respiratory, rhinitis and bronchitis; and under nutritional, infantile beriberi, marasmus, and diarrheas.

The mortality per thousand inhabitants was, during the year 1914, 36.64, as compared with 82.4 in 1903. The high rate in 1903 was due to the presence of cholera, which did not exist in 1914. Eliminating cholera, therefore, in order to place the two rates upon the same basis, the corrected rate for 1903 was shown to be 68.2 per thousand per annum.

The increase in population was shown to be due almost entirely to immigration, as during the entire period the difference between the birth and death rate averaged only about 1 per cent in favor of the birth rate.

The principal factors which contributed to the spread and extension of diseases were determined to be as follows:

In adults, respiratory diseases were caused by faulty personal hygiene, lack of ventilation, failure properly to dispose of sputum and pulmonary excretions, overcrowding in houses, particularly sleeping quarters, and lowered vitality due to lack of a properly balanced and nutritious diet.

The factors which contributed to the spread and extension of intestinal diseases among adults were almost exclusively a poor water supply and lack of proper sewage disposal.

Poor water supply: Of the total population of 14,752 inhabitants, 26.62 per cent obtained water from satisfactory sources. The handling, however, was faulty and infection occurred either in transit or in the house.

Of the remaining population, 54.5 per cent drank from surface wells and 18.8 per cent used river water. Of 89 surface wells examined the highest bacterial count was 89,600 bacteria per c. c. and the minimum 237 per c. c.; 74.16 per cent contained *Bacillus coli*. The count of river water varied from 14,219 per c. c. to 1,145 per c. c.

Of the soft drinks manufactured and consumed in Pasig 35.49 per cent contained the colon bacillus, 74.19 per cent contained anerobic bacilli, 58.06 per cent contained amebæ, 22.58 per cent contained

ciliates, and 83.87 per cent contained flagellates. The maximum count per c. c. was 96,000 and the minimum 28.

Another factor of importance in the spread of intestinal diseases was the lack of sewage-disposal facilities, with resulting infections by intestinal parasites. Of a total of 3,246 houses in Pasig, only 3.7 per cent, which represented 5.6 per cent of the population, were provided with toilets of a kind which could be considered as meeting the minimum sanitary requirements. The garbage collection was intermittent and unsatisfactory, and no containers for house refuse were used, the garbage being piled in heaps and later collected into wagons which hauled it away and dumped it.

The factors which contributed to the spread of disease among infants were as follows:

With reference to air-borne diseases—Lack of bathing, lack of adequate and clean clothing, slovenliness on the part of the mother in cleaning the baby's nose and mouth with any rag that happened to be convenient and which, as likely as not, had been used by another person, and feeding the baby with food that had been masticated by another person.

The factors which contributed to the spread of intestinal diseases among children were stated to be as follows: (1) Faulty nutrition of the mother due to a lack of a properly balanced and nutritious diet, with consequent low food value of the mother's milk and insufficient quantity; (2) the presence of beriberi in 10 per cent of women in the child-bearing period; (3) improper and irregular feeding of the child; (4) the general use of *basabasa*, or a sort of broth or soup made from polished rice, to supplement the mother's milk after 6 months of age; (5) the infection of the mother's milk itself and lack of proper milk for artificial feeding.

Examination of Milk.

Sixty-six samples of carabaos' and goats' milk were examined. The maximum bacterial count was 6,720,000,000 per c. c., and the minimum 450,000. *Bacillus coli* was present in 54.4 per cent of specimens examined, chromogenic staphylococci and streptococci in 17.6 per cent, and *bacillus pyocyaneus* in 4.4 per cent, respectively.

In 11 specimens of mothers' milk examined, all collected with sterile breast pumps after a thorough disinfection of the breast and plated immediately after withdrawal, the bacterial count resulted as follows: 120,000 per c. c. in 2 cases, 70,000 per c. c. in 1 case, 25,000 in 2 cases, 20,000 in 1 case, and 10,000 in 5 cases. The organisms commonly found were of the staphylococcus group with colon occasionally present. Further investigations of this discovery are now being carried on by the Bureau of Science for the purpose of determining how to prevent this condition and to determine its

cause. There can be no doubt that the great prevalence of diarrhea among small children and the frequency of deaths from convulsions and meningitis are due to the presence of these pus-producing organisms in the breast milk of the mother. The theory has been advanced that these organisms are present in the mother's milk due to the low vitality of the mother as a result of faulty nutrition and unhygienic methods of living which bring about an inability to resist the invasion of such organisms and prevent their growth up and into the milk ducts. Blood cultures were made to determine whether a bacteriemia existed which might have produced the condition, but with invariably negative results.

Prevalence of Intestinal Parasites.

Of 1,036 subjects examined, 94.69 per cent were found to harbor intestinal parasites. The parasites found and their percentages were as follows: Trichiura, or whipworm, 70 per cent; ascaris, or roundworm, 65 per cent; ankylostoma, or hookworm, 11 per cent; oxyurus, or pinworm, 10.42 per cent; ameba, 4.72 per cent. The rest consisted of strongyloides, trichomonas, balentidia, tapeworms, and fasciola. Thirty-eight and twenty-three-hundredths per cent had single infections, 46.95 per cent had double infections, and the rest had either triple, quadruple, or quintuple infections.

Methods of Improving Water Supplies, Sewage and Garbage Disposal.

Attempts were made to develop sterilization methods which would render existing water supplies fit for human consumption, and while fairly satisfactory methods were worked out with a cost sufficiently low to make them practicable, they are not recommended for general use on account of the fact that more and better care in their application is required than was found to be locally available.

As a result of geological studies made by the sanitary engineer early in 1915, two artesian wells had been drilled in the location selected, with the result that a sufficient amount of potable water is now available which will shortly be conducted into the town and a house service furnished through a local system of distribution to be established by the municipality. It is believed that the question of water supply will thus be satisfactorily solved.

The question of sewage disposal will be met by recommending as a minimum requirement the installation of what has been designated as the Antipolo system of sewage disposal. Briefly, this system consists in the excavation of a pit in the earth, the sides of which are protected with retaining walls to prevent caving; the bottom will be left exposed so that liquids may readily absorb into the surrounding ground; the pit will be covered with stone, concrete, or

boards covered with not less than 20 centimeters of earth. Into this pit will be conducted two pipes—one through which the fecal matter enters and the other to serve for ventilation, being effectually screened against flies and mosquitoes. After defecation the entrance pipe is cleansed by flushing with a bucket of water. A seat with an automatically closing lid is provided to prevent the ingress and egress of insects. Waste water from the kitchen and back porch (batalan) is conducted into the pit after being received upon a bed of broken stone, which removes all grit and coarse matter. Observations conducted in the town of Antipolo, where systems resembling this type have been in use for a number of years, have shown that they give satisfaction with a minimum of care when constructed along the lines indicated. The cost of materials and installation, not including labor, will not exceed 10 pesos.

A method of garbage disposal has been recommended which consists in the provision of proper receptacles at each house, frequent collection, and disposal by using for filling purposes, the garbage at place of dumping to be covered with clean earth immediately after being dumped.

Recommendations were made as to the improving of housing conditions by the development of what is known as a "model sanitary house," which is constructed throughout of bamboo in such manner as to provide plenty of light and ventilation, a sufficient number of rooms to provide for separation of sexes and to avoid overcrowding, to contain a separate kitchen and dining room, an Antipolo type of sewage disposal, and room for the installation of a cheap shower bath.

A thorough and complete investigation was made of living conditions for the purpose of determining the average income and the method in which it is expended. It is not believed, however, that sufficient data have as yet been obtained as regards income to make a positive statement. The following, however, was developed:

The food or ration now used by the average Filipino family is poorly balanced and lacking in nutritive properties, and is poorly prepared and served. It is poorly balanced in that the preponderant element is rice, polished, and as a rule of inferior quality. The protein element, particularly as regards animal protein, is lacking. There is also an insufficiency of fat, and vegetables and fruits are not used in anywhere near the proportions in which they should be used. The food as a rule is poorly prepared, insufficiently cooked, and improperly served; it is eaten in a great majority of instances with the fingers by dipping into a common dish, and meals are at irregular intervals. After a sufficient number of towns have been investigated and the problem of obtaining, preparing, and serving a properly balanced diet has been sufficiently studied, definite recommendations

for general use will be worked out, which will include sample menus, cost data, instructions as to preparation and balancing of constituents, and as to serving and use.

Drainage and Canalization to Prevent Fly and Mosquito Breeding.

Occasional attempts at drainage and canalization were noted on the part of individuals only. The streets were narrow, muddy, and without side canals for drainage, were poorly graded and very crooked. Low lands existed in various places and were found to be harboring and breeding mosquitoes. Vacant lots were found to contain garbage and rubbish of various sorts and served as fly-breeding foci. In order to correct these conditions a careful study of the topography of the town was made by the engineer and a map prepared which shows how, with a minimum of expenditure and effort, the streets may eventually be widened and straightened and the houses and lots relocated in such manner as to create a town with straight, wide, and well-laid streets, and building lots of sufficient size.

Improvements in Health Organization.

This will be automatically cared for by the operation of act 2468, which provides for the inclusion of the municipalities of the islands into sanitary divisions under the control of the provincial health officer, presidents of sanitary divisions, and other local health officials. In Pasig a visiting nurse has already been provided as a result of the energy of the woman's club which was formed after observing the work done and the results obtained by the nurses attached to the sanitary commission. A free clinic for the treatment of infants' diseases and for demonstrations of methods of preparing infant food and for actual infant feeding in case of illness is open daily in the "sanitary house."

Markets, Dairies, Etc.

The town is already in possession of a modern concrete market, which, however, is not being maintained in as good condition as might be. This will be corrected by inspection through the health organization. It was found that toilet facilities were inadequate for the great numbers who daily go to market, and funds have since been appropriated for the construction of the additional facilities needed and of an additional wing to the market. The establishment of dairies has not so far been brought about. The dairy problem in Pasig is the same as anywhere else in the islands and requires such an outlay of capital and so great an expense for supervision, inspection, bottling, and refrigeration as to make the price of milk prohibitive to all except a few. The municipal slaughterhouse is a building of strong materials immediately adjoining the

market, with a concrete floor and well-laid drains. The municipal cemetery was found to be maintained in good condition. The few factories which exist in Pasig are small in size and primitive in methods. Unsatisfactory hygienic conditions were found, but upon recommendation they were improved.

Investigation of the municipal revenues showed that as now collected and managed they are sufficient for present needs only. It is believed, however, that with more care in collection the total could be somewhat increased. The principal need is for economic development. Possibilities are believed to exist in three directions, namely, agriculture, pottery, and shoe manufacture.

The principal product of agriculture in Pasig is rice. But one crop a year is obtained and the yield can not be considered as high. It is believed that the establishment of small and inexpensive irrigation systems through the use of artesian or surface wells and through the use of surface waters pumped by either gasoline or oil engines or by windmills would be productive of an increase in crops. Also, a greater variety of crops would be of advantage both financially and as a means of supplying a better balanced diet.

The pottery industry is conducted by a number of individuals who are constantly in competition with each other. It is believed that should the plan be adopted of standardizing, through cooperation, the product manufactured and marketing through a central agency, a better product and higher returns could be obtained.

The third industry is that of manufacturing shoes for native consumers. The same remarks apply to this as to the pottery industry.

Upon the conclusion of the investigations, ordinances were prepared which will be furnished to the municipality for enactment. Through their intelligent enforcement under the stimulus and direction of the district health officer, the president of the sanitary division, and the other local health officials, with the cooperation, assistance, and encouragement of the central office of the Philippine health service, it is believed that sanitary conditions in Pasig can gradually, during the next few years, be much improved, to the ultimate benefit not only of the community of Pasig but of other communities which will undoubtedly follow its example.

Follow-up work will be continued through visits, talks, moving-picture shows, demonstrations, etc., so that the interest that has been aroused will not be allowed to lag. Then, in the course of a year or so, another study of the town will be made along the same lines as the first investigation in order to determine how much ground has been gained, and for the purpose of correcting faults that may now exist undiscovered or that may unconsciously or otherwise develop in the future.

Since the first commission took the field in June, 1915, another commission has been formed.

The two commissions have been continuously at work during the year and have completed their investigations and made recommendations for the following towns: Pasig, Rizal; Antipolo, Rizal; Paranaque, Rizal; Las Pinas, Rizal. The original commission will complete its work by August, 1916, in Navotas, Rizal; the second commission is now completing its labors at Boac, Marinduque; and a third commission is being formed.

THE NEW EDITIONS OF THE U. S. P. AND THE N. F.

A REVIEW OF THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA, NINTH DECENNIAL REVISION, AND OF THE NATIONAL FORMULARY, FOURTH EDITION.

By M. I. WILBERT, Technical Assistant, Division of Pharmacology, Hygienic Laboratory, United States Public Health Service.

The Pharmacopœia of the United States of America, ninth decennial revision, and the National Formulary, fourth edition, which are decreed to be official from September 1, 1916, are now available in the ordinary channels of trade. Public health officials and others intrusted with the enforcement of pure drug laws will no doubt be interested in the nature and composition of these two books that are recognized by law as standards for drugs and preparations and which are generally used as the basis for prosecution in cases involving adulteration or the misbranding of drugs. The two books were this time published simultaneously, and for the first time in their history an effort has been made to have them in harmony as to contents and standards.

The Pharmacopœia of the United States, ninth decennial revision, contains a total of 80 and 728 large octavo pages and in general appearance and style the book has much in common with the previous edition of the Pharmacopœia, now out of date, though in fact every monograph has been rewritten and practically every line in the book revised. The preparatory pages of the Pharmacopœia include a table of contents, a short historical introduction with a review of the proceedings of the ninth decennial convention in 1910 and a preface in which the changes in the Pharmacopœia are briefly outlined. The introductory pages also include a number of tables, among others a review of the International Protocol compared with the drugs and preparations of the U. S. P. IX. and lists of the admissions, deletions, and changes in the official Latin titles and in the official English titles of the Pharmacopœia followed by a comparative table showing the strength of the more important pharmaceutical preparations in the preceding and in the present Pharmacopœia.

The main portion of the Pharmacopœia or Part I, as it is sometimes designated, comprises 497 pages and contains monographs for 782 articles including 9 general headings, 188 drugs, 265 chemicals, and 320 preparations as against 958 articles included in the U. S. P. VIII.

The list of articles dismissed from Part I of the U. S. P. includes 242 titles, while the list of articles added to Part I includes 66 titles, a net decrease of 176. The list of changes in the official Latin titles of the U. S. P. VIII includes 29 articles and the list of changes in the official English titles from the U. S. P. VIII includes 28 articles. The number of titles included in the U. S. P. IX from the U. S. P. VIII unchanged is 680.

The remaining portion of the book, now designated as Part II, includes a table of atomic weights based on oxygen = 16, a table of the elements and pharmacopœial chemicals and their molecular weights, and a table of multiples; also a list of reagents and test solutions and volumetric solutions followed by directions for general tests. A table of alcoholic content in preparations of the Pharmacopœia is accompanied by directions for the determination of alcohol in official preparations and is followed by general directions for alkaloidal assays and for the determination of certain physical and chemical constants; also directions for percolation and for sterilization. This portion of the book also contains an extensive list of diagnostic reagents and clinical tests and a comprehensive table of thermometric equivalents; alcoholometric tables and tables for temperature corrections. The Pharmacopœia also contains the usual acid and alkali tables, tables of weight and volume relations, and tables for converting metric quantities to quantities in apothecaries' weights and measures. This part of the book also includes a double column index of 66 pages that is unusually complete for a book of this type.

The National Formulary, fourth edition, includes 40 and 394 large octavo pages, and in general appearance is quite distinct from the preceding edition. The preliminary portion of the book includes a short historical introduction and a preface in which the changes represented in the Formulary are briefly summarized. This part also contains a list of preparations added to the National Formulary and a list of preparations dropped from the National Formulary; also a list of changes in the official Latin titles. The preparatory pages also contain a rather complete discussion of sterilization, followed by a number of special notices.

Part I of the National Formulary comprises 255 pages and contains a total of 596 titles, including 12 general formulas and 584 galenical preparations. The total number of preparations deleted from the National Formulary aggregates 183, and the total number of preparations added to the National Formulary totals 201, a net

gain of 18 over the third edition. All of these titles are now included in Part I of the National Formulary. No less than 90 fluidextracts are now included in the National Formulary. Of these, 50 are new in the present edition, 30 being taken over from the U. S. P. VIII. The elixirs constitute the second largest group of preparations. This class now numbers 79; 23 were deleted and 10 new preparations added. Solutions come next, with 54 titles, followed closely by tinctures, with 50 preparations. Among the preparations new to the present edition are fluidglycerates, sprays, and ready-made petroxolins. The steatins, or salve mulls, of the N. F. III are now classed simply as mulls.

Part II of the National Formulary, which is now devoted to a description of standards for drugs used in the National Formulary preparations but not included in the Pharmacopœia of the United States, is entirely new. This part includes a total of 98 pages, with descriptions of 186 drugs, 140 of vegetable origin, 6 of animal origin, and 40 chemicals. This portion of the National Formulary was prepared by the Committee on Standards of the American Pharmaceutical Association, under the able leadership of George M. Beringer as chairman.

Part III of the National Formulary is also a novel feature and includes a number of special tests reprinted from the Pharmacopœia of the United States, ninth decennial revision, by special permission of the board of trustees of the United States Pharmacopœial Convention. The book also includes a double-column index of 30 pages that will serve to facilitate reference.

Both of these books have been practically rewritten and in their present form are designed to overcome the criticism that has heretofore been directed at fixed standards. Many, if not all, of the requirements in these books, as outlined in the revised standards, fix a minimum as well as a maximum requirement for purity and, as has been pointed out before, no books of standards available at the present time come so near to theoretical perfection as do the new editions of the Pharmacopœia of the United States and the National Formulary that are now being distributed.

The purity rubric introduced in the Pharmacopœia of the United States a decade or more ago has been considerably elaborated, and in the present edition of the Pharmacopœia the rubric for practically each article is accompanied by a specific method of assay. In many instances the permissible variation from the average is less than 5 per cent, and it is only in an exceptionally few instances that this permissible variation exceeds 10 per cent.

The comparative table showing the strength of the more important pharmacopœial substances and preparations which is included in the introductory portion of the ninth decennial revision of the

Pharmacopœia of the United States, includes a total of 193 titles; 85 chemicals, 25 drugs, and 83 preparations. For no less than 34 of these drugs and preparations the previous Pharmacopœia contained no assay method or purity requirement. The requirement in connection with 25 of the chemical substances has been slightly increased and in connection with 22 chemicals has been slightly decreased, while one article, calcium chloride, has been changed from the anhydrous to the hydrated form, or from 99 to 75 per cent of CaCl_2 . The alkaloidal content of hyoscyamus has been changed from not less than 0.08 per cent to not less than 0.065 per cent of the alkaloids from hyoscyamus and the requirement for pilocarpus has been raised from 0.5 per cent to 0.6 per cent of the alkaloids from pilocarpus. The requirement for oil of clove has been changed from not less than 80 to not less than 82 per cent of eugenol and the requirement for oil of cassia has been correspondingly changed from not less than 75 to not less than 80 per cent of cinnamic aldehyde.

The strength of 9 galenical preparations has been slightly increased and that of 11 preparations slightly decreased. The more important changes in this connection are those evidenced by the preparations of opium which, in compliance with the international treaty of 1906, are now on a basis of 10 to 10.5 per cent of anhydrous morphine in place of from 12 to 12.5 per cent of crystallized morphine in the U. S. P. VIII. All of these several changes are, however, negligible in comparison with the now general practice of definitely stating the maximum as well as the minimum strength of preparations of active drugs.

No pharmacopœia now in force contains so many directions for assay as does the new Pharmacopœia of the United States. The total number of assay requirements in the new pharmacopœia aggregates 287; 157 of which are for chemicals, 44 for drugs, and 86 for preparations.

Of the 44 drugs, 16 are directed to be assayed chemically for alkaloids, one is to be assayed biologically for the relative activity of its constituents, and in connection with five additional drugs a biological method of assay is recommended. One of the drugs, aconite, is to be assayed both chemically as well as physiologically. Three drugs are to be assayed for resins, three enzyme preparations are to be tested for their enzyme action, and 13 volatile oils are to be assayed for active constituents.

Of the 86 preparations, 36 are to be assayed chemically for alkaloids, three are to be tested biologically for their activity, and for 11 others an optional biological method of testing is recommended.

The assay methods for galenical preparations include seven assays for diluted acids, one alkaloidal assay for a plaster, nine chemical

assays for alkaloidal content of extracts, and one biological assay; 11 alkaloidal assays for fluid extracts and three biological assays, one required and two recommended. Of the 18 tinctures included in the list 12 are to be assayed for alkaloids, 2 for their chemical constituents, 1 is required to be assayed biologically, and for 4 others a biological assay is recommended.

In view of the great care that has been exercised to standardize drugs and their preparations it is rather disappointing to find that the committee of revision has reintroduced into the Pharmacopœia almost unchanged the tables of approximate measures that were included in the eighth edition of the Pharmacopœia. In connection with the metric system this effort to force the use of this table is altogether unfortunate as the quantities given are not metric, do not comply with the practices in other countries, and do not agree with the actual capacities of the spoons named in the table.

The National Formulary, just out, includes methods of assay under 52 different titles, 23 preparations, 7 drugs, and 22 chemical substances. Of the 7 drugs, 4 are to be assayed for alkaloids, 1, rennin, is to be tested for its milk curdling properties, 1, lime juice is to be tested for acid content and 1, oil of bergamot, is to be assayed for linalyl acetate. The requirements for chemical substances in the National Formulary are quite as high as the requirements that have been included in the Pharmacopœia and the permissible variation is frequently not more than 5 per cent from the apparent average on which the variation is based.

From the point of view of officials intrusted with the enforcement of food and drug laws, the question naturally arises, are these theoretically much improved standards practically applicable at the present time and are the standards for excellence that have been set in connection with the maximum and minimum limitations equitable and attainable from a practical point of view, or have the limitations been fixed at too narrow a range for pharmacists who are expected to comply with them. If practical and attainable the now official requirements and methods of assay will undoubtedly serve to insure to physicians, and through them to their patients drugs and preparations more uniform in strength and composition than have hitherto been available and to this extent the two books should make for progress in medicine and related sciences.

Recognizing the difficulties entailed by the innovations included in the two official books of standards, the United States Public Health Service has now in course of preparation a bulletin on the changes in the Pharmacopœia and the National Formulary. This compilation will appear as "Hygienic Laboratory Bulletin No. 107, A Digest of the Changes and Requirements included in the Pharma-

copœia of the United States, Ninth Edition, and National Formulary, Fourth Edition, with References to the Titles not Continued from the Preceding Editions." This bulletin is designed to be of use as a comprehensive index to the titles included in the U. S. P. VIII, the U. S. P. IX, the N. F. III, and the N. F. IV and will serve to indicate the present status of any given article. It was thought that a compilation of this kind would be of considerable advantage to officials intrusted with the enforcement of food and drug laws as well as to pharmacists and others whose business requires them to be familiar with the content of the several editions of the Pharmacopœia and the National Formulary. At the present time the titles to be included in one alphabetical list are distributed over six different alphabetical arrangements and four distinct indices. The changes in the scope of the two books and in the titles and composition of articles contained therein serve to emphasize the possible value of a ready reference list to the now official articles.

Applications for this bulletin should be addressed: The Surgeon General, United States Public Health Service, Washington, D. C., and should specify both the number and the title of the publication.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended September 30, 1916, was received from Passed Asst. Surg. Williams of the United States Public Health Service, in charge of the work:

FEDERAL AND COUNTY INSPECTION SERVICE.
(For the enforcement of the law of June 7, 1913.)

Counties.	Number in-spected.	Number rein-spected.	Acres in-spected.	Acres rein-spected.	Acres treated.		Holes treated.
					Waste balls.	Grain.	
Contra Costa.....	5	59	1,483	17,977		3,520	
Alameda.....		101		29,967	25	3,491	509
Stanislaus ¹	7	59	2,997	30,150	344	13,920	113
Santa Cruz.....		31		4,082		794	
Merced.....	21	16	5,565	14,396		13,581	
Monterey.....	26	9	13,465	8,300		11,425	
San Benito.....	27	46	15,911	27,607		16,859	
Santa Clara.....	52	12	9,876	6,960		3,930	
San Mateo.....	8	3	2,470	373		200	
Total.....	146	336	51,767	139,812	369	67,720	613

¹ Acres treated with hose and funnel, 93.

RATS COLLECTED AND EXAMINED FOR PLAGUE.

Cities.	Collected.	Examined.	Infected.
Oakland.....	42	42	None.
Richmond.....	30	30	None.
Antioch.....	51	51	None.
Total.....	123	123	None.

RECORD OF PLAGUE INFECTION.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley.....	Aug. 28, 1907	(1)	(1)	None.
Los Angeles.....	Aug. 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).	Sept. 24, 1909	Oct. 17, 1909 ²	June 23, 1916	293 squirrels; ³ wood rat.
Contra Costa.....	July 13, 1915	(1)	June 28, 1916	1,629 squirrels.
Fresno.....	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced.....	(1)	(1)	May 12, 1916	7 squirrels.
Monterey.....	(1)	(1)	May 27, 1916	38 squirrels.
San Benito.....	June 4, 1913	(1)	July 1, 1916	72 squirrels.
San Joaquin.....	Sept. 18, 1911	(1)	Aug. 26, 1911	18 squirrels.
Santa Clara.....	Aug. 31, 1910	(1)	June 21, 1916	32 squirrels.
San Luis Obispo.....	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Cruz.....	(1)	(1)	May 30, 1916	5 squirrels.
Stanislaus.....	(1)	(1)	June 2, 1911	18 squirrels.
San Mateo.....	(1)	(1)	June 21, 1916	1 squirrel.

¹ None.² Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, Stanislaus, Monterey, San Benito, Santa Cruz, Merced, Santa Clara, and San Mateo.

OPERATIONS ON THE WATER FRONT.

Number of vessels inspected for rat guards.....	18
Number of reinspections made on vessels.....	2
Number of new rat guards procured.....	14
Rats trapped on vessels.....	24
Rats trapped on wharves and water front.....	55
Number of traps set on vessels.....	129
Number of traps set on wharves and water front.....	284
Number of vessels trapped on.....	17

OPERATIONS ON THE WATER FRONT—continued.

Poisons placed on water front.....	3,600
Bait used on water front and vessels, bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	12
Number of pounds of poison used on water front.....	4
Poisons placed within Panama-Pacific International Exposition grounds (pieces).....	36,000

The following is a record of municipal work performed under the supervision of the United States Public Health Service:

COOPERATIVE MUNICIPAL WORK.

Number of premises inspected.....	691
Number of nuisances abated.....	83
Number of rats trapped.....	79
Number of rats sent to laboratory.....	79
Number of rats examined.....	76
Number of poisons placed.....	50,200
Number of garbage cans stamped approved.....	500
Rats identified:	
Mus norvegicus.....	24
Mus rattus.....	19
Mus alexandrinus.....	36

WORK DONE ON OLD BUILDINGS.

Wooden floors removed.....	8
Number yards and passageways, planking removed.....	3
Cubic feet new foundation walls installed.....	3,440
Concrete floors installed (square feet, 8,305).....	10
Number of basements concreted (square feet, 11,070).....	14
Yards and passageways, etc., concreted (square feet, 3,710).....	8
Total area concrete laid (square feet).....	23,175
Number floors rat proofed with wire cloth (square feet, 1,850).....	2

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following report of plague eradication work at New Orleans for the week ended October 7, 1916, was received from Passed Asst. Surg. Simpson of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.

Number of vessels fumigated with sulphur.....	3
Number of vessels fumigated with cyanide gas.....	13
Pounds of sulphur used.....	70
Pounds of cyanide used in cyanide gas fumigation.....	775
Pints of sulphuric acid used in cyanide gas fumigation.....	1,166
Clean bills of health issued.....	44
Foul bills of health issued.....	3

FIELD OPERATIONS.

Number of rodents trapped.....	10,355
Number of premises inspected.....	7,265
Notices served.....	767
Number of garbage cans installed.....	18

BUILDINGS RAT PROOFED.

By elevation.....	119
By marginal concrete wall.....	115
By concrete floor and wall.....	150
By minor repairs.....	320
Total buildings rat proofed.....	704
Square yards of concrete laid.....	4,220
Number of premises, planking, and shed flooring removed.....	81
Number of buildings demolished.....	124
Total buildings rat proofed to date (abated).....	128,502

LABORATORY OPERATIONS.

Rodents received by species:	
Mus rattus.....	178
Mus norvegicus.....	768

LABORATORY OPERATIONS—continued.

Rodents received by species—Continued.

Mus alexandrinus.....	184
Mus musculus.....	9,624
Wood rats.....	169
Muskrats.....	8
Putrid.....	263
Total rodents received at laboratory.....	11,194
Rodents examined.....	1,692
Number of rats suspected of plague ¹	29
Plague rats confirmed.....	2

PLAGUE RATS.

Case No. 338:
 Found at No. 548 Tonti Street.
 Captured Sept. 15, 1916.
 Diagnosis confirmed Oct. 1, 1916.

Case No. 339:
 Found at No. 764 South Liberty Street.
 Captured Sept. 11, 1916.
 Diagnosis confirmed Oct. 2, 1916.

PLAGUE STATUS TO OCT. 7, 1916.

Last case of human plague Sept. 8, 1915.	
Last case of rodent plague Sept. 15, 1916.	
Total number of rodents captured to Oct. 7.....	873,273
Total number of rodents examined to Oct. 7.....	387,152
Total cases of rodent plague to Oct. 7 by species:	
Mus musculus.....	6
Mus rattus.....	21
Mus alexandrinus.....	17
Mus norvegicus.....	295
Total rodent cases to Oct. 7, 1916.....	339

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended September 30, 1916, was received from Surgeon Lloyd of the United States Public Health Service, in charge of the work:

RAT PROOFING.

New buildings inspected.....	8
New buildings reinspected.....	49
Basements concreted, new buildings (square feet, 12,275).....	15
Floors concreted, new buildings (square feet, 22,240).....	12
Yards, etc., concreted, new structures (square feet, 1,750).....	6
Sidewalks concreted (square feet).....	8,475

RAT PROOFING—continued.

Total concrete laid, new structures (square feet).....	44,740
New buildings elevated.....	4
New premises rat proofed, concrete.....	27
Old buildings inspected.....	2
Premises rat proofed, concrete, old buildings.....	2
Floors concreted, old buildings (square feet, 3,775).....	2
Wooden floors removed, old buildings.....	2
Buildings razed.....	3

¹ Indicates the number of rodents, the tissues of which were inoculated into guinea pigs. Most of them showed on necropsy only evidence of recent inflammatory process, practically none presented gross lesions characteristic of plague infection.

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	11
Rodents trapped and killed.....	330
Rodents recovered after fumigation.....	7
Total.....	348
Rodents examined for plague infection.....	240
Rodents proved plague infected.....	None.
Poison distributed, pounds.....	13
Bodies examined for plague infection.....	3
Bodies found plague infected.....	None.

CLASSIFICATION OF RODENTS.

Mus rattus.....	15
Mus alexandrinus.....	93
Mus norvegicus.....	170
Mus musculus.....	70

WATER FRONT.

Vessels inspected and histories recorded....	16
Vessels fumigated.....	1
Sulphur used, pounds.....	1,500
New rat guards installed.....	11
Defective rat guards repaired.....	22
Fumigation certificates issued.....	15
Port sanitary statements issued.....	51
The usual day and night patrol was maintained to enforce rat guarding and fending.	

MISCELLANEOUS WORK.

Rat-proofing notices sent contractors, new buildings.....	20
---	----

MISCELLANEOUS WORK—continued.

Letters sent in re rat complaints.....	4
Crew's quarters steamship <i>Victoria</i> disinfected, account smallpox.....	
Restaurant permits visited.....	7

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	59
Mus musculus trapped.....	14
Total.....	73
Rodents examined for plague infection.....	64
Rodents proved plague infected.....	0

RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	4
New buildings reinspected.....	4
New buildings, concrete foundations.....	2
New buildings elevated.....	2
New buildings, basements concreted (square feet, 1,500).....	1
Total concrete laid, new buildings (square feet).....	1,500

RODENTS EXAMINED IN TACOMA.

Mus norvegicus trapped.....	490
Mus rattus trapped.....	5
Total.....	495
Rodents examined for plague infection.....	308
Rodents proved plague infected.....	0

HAWAII—PLAGUE PREVENTION.

The following reports of plague-prevention work in Hawaii were received from Surg. Trotter of the United States Public Health Service:

Honolulu.

WEEK ENDED SEPT. 30, 1916.

Total rats and mongoose taken.....	356	Average number of traps set daily.....	984
Rats trapped.....	355	Cost per rat destroyed.....	21½ cents.
Mongoose trapped.....	1	Last case rat plague Aiea, 9 miles from Honolulu	
Examined microscopically.....	284	Apr. 12, 1910.	
Examined macroscopically.....	72	Last case human plague, Honolulu, July 12, 1910.	
Showing pest infection.....	None.	Last case rat plague Paauhau, Hawaii, Jan. 18, 1916.	
Classification of rats trapped:		Last case human plague Paauhau Plantation	
Mus alexandrinus.....	130	Hawaii, Dec. 16, 1915.	
Mus musculus.....	151		
Mus norvegicus.....	50		
Mus rattus.....	24		

Hilo.

WEEK ENDED SEPT. 16, 1916.

Number of rats and mongoose received at laboratory.....	2,415	Classification of rats trapped and found dead:	
Number of rats trapped.....	2,314	Mus norvegicus.....	482
Number of mongoose taken.....	71	Mus alexandrinus.....	301
Number of rats and mongoose examined macroscopically.....	2,415	Mus rattus.....	488
Number of rats and mongoose plague infected.....	None.	Mus musculus.....	1,073

WEEK ENDED SEPT. 23, 1916.

Number of rats and mongoose received at laboratory.....	2,285	|	Classification of rats trapped and found dead:	
Number of rats trapped.....	2,237		Mus norvegicus	400
Number of mongoose taken.....	48		Mus alexandrinus	285
Number of rats and mongoose examined macroscopically.....	2,285		Mus rattus	528
Number of rats and mongoose plague infected.....	None.		Mus musculus	1,024

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.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during September, 1916, to other State or provincial health departments by department of health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Anterior poliomyelitis: St. Paul Health Department, Ramsey County.	Stockholm, Pepin County, Wis.....	Patient removed without permission from Wisconsin to Minnesota.
Tuberculosis: Mayo clinic, Rochester, Olmsted County.	Kansas City, Wyandotte County, Kans. Calumet, Houghton County, Mich.. Maryville, Nodaway County, Mo.... Miles City, Custer County, Mont.... Forsythe, Rosebud County, Mont... Lawton, Ramsey County, N. Dak... Gary Lake County, Ind..... Muncie, Delaware County, Ind..... St. Ansgar, Mitchell County, Iowa.. New Hampton, Chickasaw County, Iowa. Hawarden, Sioux County, Iowa..... Woden, Hancock County, Iowa..... Gregory, Gregory County, S. Dak... Huron, Beadle County, S. Dak..... Spokane, Spokane County, Wash... Belmont, Lafayette County, Wis... Renfrew, Ontario, Canada..... Hamar, Eddy County, N. Dak..... Epping, Williams County, N. Dak... Gruber, Emmet County, Iowa..... Bryant, Hamlin County, S. Dak... (2 cases). Volga, Brookings County, S. Dak...	11 moderately advanced, 4 advanced, 1 apparently cured and 1 incipient case left Mayo clinic for homes.
Thomas Hospital, Minneapolis, Hennepin County.		2 deceased cases, 3 advanced, and 1 apparently arrested, transferred from Thomas Hospital to homes.
Typhoid fever: Duluth, St. Louis County.....	U. S. Public Health Service.....	3 cases infected on Great Lakes.
City Hospital, Minneapolis, Hennepin County.	DeKalb, DeKalb County, Ill.....	Patient worked 3 weeks before first symptoms for C. N. W. Ry. at DeKalb, Ill.
Duluth, St. Louis County.....	Detroit, Wayne County, Mich.....	Employed on Malland car ferry 3 weeks previous to first symptoms.
Wells, Faribault County.....	Dundee, Kane County, Ill.....	Lived at Dundee 3 weeks previous to first symptoms.
Duluth, St. Louis County.....	Ann Arbor, Washtenaw County, Mich. Pelkie, Baraga County, Mich. (2 cases). Negaunee, Marquette County, Mich.	Resided at Ann Arbor 3 weeks previous to first symptoms. 3 cases infected in Michigan, but sick in Minnesota.

Cases of communicable diseases referred during September, 1916, to other State or provincial health departments by department of health of the State of Minnesota—Con.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Typhoid fever—Continued.		
Frohn Township, Beltrami County.	Stanley, Mountrail County, N. Dak..	Working in North Dakota 3 weeks previous to first symptoms.
Dunbar Township, Faribault County.	Jamestown, Stutsman County, N. Dak.	Do.
Warren, Marshall County.....	Gilby, Grand Forks County, N. Dak.	Do.
City Hospital, Minneapolis, Hennepin County.	Andover, Day County, S. Dak.....	Worked in South Dakota 3 weeks previous to first symptoms.
Mayo Clinic, Rochester, Olmsted County.	Sioux Falls, Minnehaha County, S. Dak.	South Dakota typhoid case, consulted Mayo clinic, and returned home.
St. Cloud, Stearns County.....	Milbank, Grant County, S. Dak....	Patient infected while visiting relatives in South Dakota.
Abbott Hospital, Minneapolis, Hennepin County.	Milbank, Grant County, S. Dak.....	A second case infected while visiting the same household mentioned above.
Medical Corps, U. S. A., Fort Snelling.	Winnipeg, Manitoba, Canada.....	Patient had been in engineering camp near Winnipeg 3 weeks previous to earliest symptoms.

ANTHRAX.

State Reports for September, 1916.

During the month of September, 1916, one case of anthrax was reported in Louisiana, and one case was reported in New York.

New York Report for August, 1916.

During the month of August, 1916, two cases of anthrax were reported in New York.

CEREBROSPINAL MENINGITIS.

State Reports for September, 1916.

Place.	New cases reported.	Place.	New cases reported.
Minnesota:		Ohio:	
Carlton County—		Cuyahoga County—	
Eagle Township.....	1	Cleveland.....	2
Redwood County—		Jefferson County.....	1
Willow Lake Township.....	1	Summit County.....	1
St. Louis County—		Total.....	4
Duluth.....	1		
Total.....	3	West Virginia:	
New York:		Calhoun County.....	1
Delaware County.....	2		
Orange County.....	1		
St. Lawrence County.....	1		
Westchester County.....	3		
New York City.....	8		
Total.....	15		

CEREBROSPINAL MENINGITIS—Continued.

State Reports for August, 1916.

Place.	New cases reported.	Place.	New cases reported.
Montana:		New York:	
Park County—		Delaware County.....	1
Livingston.....	1	Erie County.....	4
Silverbow County—		Greene County.....	1
Butte.....	1	Orleans County.....	1
Yellowstone County—		Sullivan County.....	1
Billings.....	2	New York City.....	20
Total.....	4	Total.....	28

New York Report for July, 1916.

Place.	New cases reported.	Place.	New cases reported.
New York:		New York—Continued.	
Broome County.....	1	Westchester County.....	1
Erie County.....	2	New York City.....	30
Herkimer County.....	1	Total.....	38
Schenectady County.....	2		
Tompkins County.....	1		

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....		1	Los Angeles, Cal.....	1	1
Chicago, Ill.....	3	5	Lowell, Mass.....		1
Chicopee, Mass.....	1	1	New Orleans, La.....	1	
Detroit, Mich.....	1		New York, N. Y.....	7	5
Dubuque, Iowa.....	1	1	Philadelphia, Pa.....	1	
El Paso, Tex.....		1			

DENGUE.

Texas—Austin.

The city health officer of Austin, Tex., reported that dengue was epidemic in that city on October 14, 1916.

DIPHTHERIA.

Georgia—Rome—Cave Spring.

Asst. Surg. Slaughter reported October 20 that there were about 50 clinical cases of diphtheria and many carriers among school children in Rome, Ga. The schools of the city had been closed.

Asst. Surg. Slaughter reported October 20 that no more clinical cases of diphtheria had developed at the Georgia School for the Deaf, Cave Spring, Ga., since his report which was published in the Public Health Reports October 13, 1916, page 2872. No deaths had occurred. Eleven clinical cases of diphtheria developed in the village of Cave Spring during the two weeks preceding the report.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 3002.

ERYSIPELAS.

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.		1	Mobile, Ala.		1
Chicago, Ill.	6		Newark, N. J.	1	
Cincinnati, Ohio	1		New York, N. Y.		4
Cleveland, Ohio	1		Passaic, N. J.		
Cumberland, Md.		1	Philadelphia, Pa.	5	2
Denver, Colo.	2	1	Pittsburgh, Pa.	7	
Detroit, Mich.	3		Portland, Ore.	1	
Duluth, Minn.	1		Racine, Wis.	1	
Hartford, Conn.	1		St. Louis, Mo.	2	
Lorain, Ohio	1		San Francisco, Cal.	2	
Los Angeles, Cal.	2		Williamsport, Pa.	1	
Milwaukee, Wis.	1				

LEPROSY.

City Reports for Week Ended Oct. 7, 1916.

During the week ended October 7, 1916, one case of leprosy was reported at New Orleans, La., and one case at Seattle, Wash.

MALARIA.

State Reports for September, 1916.

Place.	New cases reported.	Place.	New cases reported.
Louisiana:		New Jersey:	
Acadia Parish	16	Bergen County	1
Ahen Parish	3	Camden County	1
Assumption Parish	27	Cape May County	1
Bossier Parish	6	Essex County	11
Caddo Parish	3	Mercer County	1
De Soto Parish	6	Morris County	1
East Feliciana Parish	13	Passaic County	2
Grant Parish	27	Somerset County	1
Iberia Parish	5	Sussex County	3
Lafayette Parish	4	Total	25
Plaquemines Parish	2		
Richland Parish	3	Ohio:	
St. Helena Parish	5	Cuyahoga County—	
St. John Parish	2	Cleveland	1
St. Landry Parish	15	Portage County	1
St. Mary Parish	7	Sandusky County	2
St. Tammany Parish	17	Total	4
Tangipahoa Parish	9		
Vermilion Parish	5		
Vernon Parish	4		
Washington Parish	1		
West Carroll Parish	11		
West Feliciana Parish	3		
Total	194		

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.	2		New Orleans, La.	8	1
Charleston, S. C.		1	Newark, N. J.	1	
Hartford, Conn.	1		Passaic, N. J.	2	
Hoboken, N. J.	2		Sacramento, Cal.	5	
Los Angeles, Cal.	1		Stockton, Cal.	2	
Mobile, Ala.		1			

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3002.

PELLAGRA.

Louisiana Report for September, 1916.

Place.	New cases reported.	Place.	New cases reported.
Louisiana:		Louisiana—Continued.	
De Soto Parish.....	2	St. Martin Parish.....	1
Jefferson Davis Parish.....	1	Union Parish.....	2
Lincoln Parish.....	1	Total.....	9
Morehouse Parish.....	1		
Rapides Parish.....	1		

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.....		1	Mobile, Ala.....	1	
Charleston, S. C.....		4	Nashville, Tenn.....		2
Columbia, S. C.....		2	New Orleans, La.....	2	1
Concord, N. H.....		1	New York, N. Y.....	1	
Fort Worth, Tex.....		1	Richmond, Va.....		1
Galveston, Tex.....		1	Waltham, Mass.....		1

PLAGUE.

Louisiana—New Orleans—Plague-Infected Rats Found.

Passed Asst. Surg. Simpson reported that plague-infected rats had been found in New Orleans, La., as follows: A rat found September 18, 1916, at 517 Jackson Avenue, New Orleans, La., was proved positive for plague infection October 10. A rat found September 17, 1916, at Robin Street Dock, New Orleans, La., was proved positive for plague infection October 19. A rat found September 22, 1916, on steamship *Eggsford* (British), Stuyvesant Docks No. 4, New Orleans, La., was proved positive for plague infection October 20.

PNEUMONIA.

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alameda, Cal.....	1		Manchester, N. H.....	2	2
Berkeley, Cal.....	1		Morristown, N. J.....	1	
Braddock, Pa.....	3	2	Newark, N. J.....	9	4
Chicago, Ill.....	106	53	Norfolk, Va.....	1	1
Cleveland, Ohio.....	13	10	Philadelphia, Pa.....	29	14
Columbia, S. C.....	1	1	Pittsburgh, Pa.....	5	9
Columbus, Ohio.....	4		Reading, Pa.....	2	2
Detroit, Mich.....	3	4	Rochester, N. Y.....	2	1
Erie, Pa.....	1		San Francisco, Cal.....	3	2
Jackson, Mich.....	1		Schenectady, N. Y.....	1	
Kalamazoo, Mich.....	1		Stockton, Cal.....	2	1
Kansas City, Mo.....	1	5	Topeka, Kans.....	1	
Los Angeles, Cal.....	4	2			

POLIOMYELITIS (INFANTILE PARALYSIS).

Cases Reported by States.

The following tabular statement shows the number of cases of poliomyelitis reported to the United States Public Health Service by State health authorities during the periods shown:

	Total cases reported.		Total cases reported.
Alabama:		Indiana:	
July 1 to 31.....	77	July 1 to 31.....	27
Aug. 1 to 31.....	62	Aug. 1 to 31.....	38
Sept. 1 to 25.....	12	Sept. 1 to 30.....	65
	151	Oct. 1 to 21.....	31
Arizona:			161
July 1 to 31.....	2	Iowa:	
Aug. 1 to 31.....	2	July 1 to 31.....	30
Sept. 1 to 25.....	2	Aug. 1 to 31.....	82
	6	Sept. 1 to 30.....	166
Arkansas:		Oct. 1 to 21.....	36
July 1 to 31.....	5		204
Aug. 1 to 31.....	1	Kansas:	
Sept. 1 to 25.....	0	July 1 to 31.....	14
	6	Aug. 1 to 31.....	31
California:		Sept. 1 to 30.....	21
July 1 to 31.....	12	Oct. 1 to 21.....	14
Aug. 1 to 31.....	18		80
Sept. 1 to 30.....	13	Kentucky:	
Oct. 1 to 14.....	7	July 1 to 31.....	15
	50	Aug. 1 to 31.....	19
Colorado:		Sept. 1 to 23.....	1
July 1 to 31.....	1		35
Aug. 1 to 31.....	2	Louisiana:	
Sept. 1 to 30.....	4	July 1 to 31.....	19
Oct. 1 to 21.....	3	Aug. 1 to 31.....	6
	10	Sept. 1 to 30.....	5
Connecticut:		Oct. 1 to 21.....	2
July 1 to 31.....	165		32
Aug. 1 to 31.....	367	Maine:	
Sept. 1 to 30.....	274	July 1 to 31.....	0
Oct. 1 to 21.....	51	Aug. 1 to 31.....	26
	857	Sept. 1 to 30.....	46
Delaware:		Oct. 1 to 21.....	37
July 1 to 31.....	1		109
Aug. 1 to 31.....	11	Maryland:	
Sept. 1 to 30.....	36	July 1 to 31.....	10
Oct. 1 to 21.....	19	Aug. 1 to 31.....	64
	67	Sept. 1 to 30.....	100
District of Columbia:		Oct. 1 to 22.....	97
July 1 to 31.....	8		271
Aug. 1 to 31.....	18	Massachusetts:	
Sept. 1 to 30.....	6	July 1 to 31.....	107
Oct. 1 to 17.....	5	Aug. 1 to 31.....	253
	37	Sept. 1 to 30.....	623
Florida:		Oct. 1 to 25.....	611
July 1 to 31.....	4		1,594
Aug. 1 to 31.....	3	Michigan:	
Sept. 1 to 25.....	1	July 1 to 31.....	51
	8	Aug. 1 to 31.....	163
Georgia:		Sept. 1 to 30.....	166
Aug. 1 to 31.....	4	Oct. 1 to 14.....	48
Sept. 1 to 30.....	3		428
Oct. 1 to 7.....	2	Minnesota:	
	9	July 1 to 31.....	142
Idaho:		Aug. 1 to 31.....	373
Aug. 1 to 31.....	4	Sept. 1 to 30.....	186
Sept. 1 to 30.....	3	Oct. 1 to 21.....	183
Oct. 1 to 7.....	2		894
	9	Mississippi:	
Illinois:		July 1 to 31.....	57
July 1 to 31.....	76	Aug. 1 to 31.....	31
Aug. 1 to 31.....	339	Sept. 1 to 30.....	14
Sept. 1 to 30.....	257	Oct. 1 to 14.....	3
Oct. 1 to 21.....	97		165
	769		

¹ Corrected figures. Later report than figures previously published.
² Disease present, but the number of cases is not known.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

Cases Reported by States—Continued.

	Total cases reported.		Total cases reported.
Missouri:		Rhode Island:	
July 1 to 31.....	4	July 1 to 31.....	26
Aug. 1 to 31.....	3	Aug. 1 to 31.....	57
Sept. 1 to 25.....	4	Sept. 1 to 30.....	70
	11	Oct. 1 to 21.....	35
Montana:			188
July 1 to 31.....	11	South Carolina:	
Aug. 1 to 31.....	28	July 1 to 31.....	20
Sept. 1 to 30.....	33	Aug. 1 to 31.....	58
Oct. 1 to 21.....	8	Sept. 1 to 30.....	24
	180	Oct. 1 to 17.....	10
Nebraska:			112
July 1 to 31.....	1	South Dakota:	
Aug. 1 to 31.....	7	July 1 to 31.....	5
Sept. 1 to 28.....	6	Aug. 1 to 31.....	19
	14	Sept. 1 to 25.....	14
Nevada:			38
July 1 to Sept. 24.....	0	Tennessee:	
New Hampshire:		July 1 to 31.....	18
July 1 to 31.....	7	Aug. 1 to 31.....	21
Aug. 1 to 31.....	16	Sept. 1 to 25.....	0
Sept. 1 to 30.....	231		39
Oct. 1 to 19.....	3	Texas:	
	57	July 1 to 31.....	22
New Jersey:		Aug. 1 to 31.....	25
July 1 to 31.....	640	Sept. 1 to 30.....	16
Aug. 1 to 31.....	2,114		63
Sept. 1 to 30.....	2,957	Utah:	
Oct. 1 to 25.....	2,247	Aug. 1 to 31.....	5
	3,958	Vermont:	
New Mexico:		July 1 to 31.....	1
July 1 to Sept. 25.....	0	Aug. 1 to 31.....	8
New York (exclusive of New York City):		Sept. 1 to 30.....	23
July 1 to 31.....	2,517	Oct. 1 to 7.....	3
Aug. 1 to 31.....	21,527		35
Sept. 1 to 30.....	21,064	Virginia:	
Oct. 3 to 16.....	238	July 1 to 31.....	24
	3,346	Aug. 1 to 31.....	44
North Carolina:		Sept. 1 to 30.....	45
July 1 to 31.....	0	Oct. 1 to 21.....	22
Aug. 1 to 31.....	2		135
Sept. 1 to 30.....	16	Washington:	
	18	July 1 to 31.....	5
Ohio:		Aug. 1 to 31.....	2
July 1 to 31.....	94	Sept. 1 to 30.....	10
Aug. 1 to 31.....	168	Oct. 1 to 21.....	4
Sept. 1 to 30.....	138		21
	400	West Virginia:	
Oklahoma:		July 1 to 31.....	5
July 1 to 31.....	12	Aug. 1 to 31.....	10
Aug. 1 to 31.....	10	Sept. 1 to 30.....	18
Sept. 1 to 25.....	2	Oct. 1 to 21.....	11
	24		44
Oregon:		Wisconsin:	
Sept. 1 to 30.....	3	July 1 to 31.....	20
Oct. 1 to 14.....	11	Aug. 1 to 31.....	173
	14	Sept. 1 to 30.....	158
Pennsylvania:			351
July 1 to 31.....	107	Wyoming:	
Aug. 1 to 31.....	711	July 1 to 31.....	0
Sept. 1 to 30.....	743	Aug. 1 to 31.....	1
Oct. 8 to 21.....	166	Sept. 1 to 30.....	3
	1,727		4

¹ Not including cases on Crow Reservation.

² Corrected figures. Later report than figures previously published.

³ Disease present, but the number of cases is not known.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports—July 23 to October 21, 1916.

The following table shows the number of cases of poliomyelitis reported to the United States Public Health Service by the health departments of cities which reported five or more cases in any one week:

City.	Cases reported for week ended—												
	July 29.	Aug. 5.	Aug. 12.	Aug. 19.	Aug. 26.	Sept. 2.	Sept. 9.	Sept. 16.	Sept. 23.	Sept. 30.	Oct. 7.	Oct. 14.	Oct. 21.
Akron, Ohio.....	1				1	3	5	5	1				
Atlantic City, N. J.			7	2	5	5		2	2				
Baltimore, Md.....	1	1	5	4	9	16	12	13	10	20	20	23	18
Bayonne, N. J.....	1	4	12	14	4	1	5	1					
Birmingham, Ala.....	3	6	1		2								
Boston, Mass.....	4	4	8	4	8	13	22	38	55	52	77	54	53
Bridgenport, Conn.....	5	6	6		3	3			7	2	2	3	
Brookline, Mass.....				1			1	2	1			5	5
Cambridge, Mass.....		1		2	2	1	2	5	4	5	11	6	11
Camden, N. J.....	2	5	11	13	6	9	5	7	2	1	3		
Chicago, Ill.....	13	15	23	25	22	24	25	21	20	13	10	8	8
Cincinnati, Ohio.....	1	2	2	4	5	2	3	6	3	4	5	1	2
Cleveland, Ohio.....	1	1		1	2	5	2	3	1	1	2		1
Detroit, Mich.....	3	4	1		6	1	4	3	3	11	3	1	2
East Orange, N. J.....	3	7	2	8	10	6	10	3	2	2			
Flint, Mich.....	4	1	3	3	8		4		4	2		2	1
Grand Rapids, Mich.....		1		3	1	1	2	1	6	1		1	1
Harrison, N. J.....			10	10	6								
Hartford, Conn.....	3	3			4	6	7	5	5	4	4		3
Haverhill, Mass.....				1	5		1		1	2			
Indianapolis, Ind.....		2					5	4	2	4	1		1
Jersey City, N. J.....	17	27	22	27	16	22	9	6	8	11	2	5	2
Kearny, N. J.....	3	6	7	4	5								
Long Branch, N. J.....	1	1	1	1	2	3		4	1	1			
Lynn, Mass.....					1	2	2	2	1	2	3	6	
Malden, Mass.....				2				2	6	10	3	4	
Manchester, N. H.....		1				3	5	1					
Minneapolis, Minn.....		8	8	12	14	12	4	5		3		2	
Montclair, N. J.....	1		4	5	2	1	2	1		4	1	1	4
Newark, N. J.....	137	247	260	230	150	89	45	38	30	12	17	9	
Newburyport, Mass.....		1			1	2	5	1	7	2	1	3	
New York, N. Y.....	912	1,117	1,151	865	707	441	352	252	156	142	96	72	45
North Adams, Mass.....					5	2	2	1	4	1			
Northampton, Mass.....				5	2	1	1		1		1	1	4
Orange, N. J.....	10	15	9	8	10	15	4	1					
Perth Amboy, N. J.....	4	5	4	2	3	1	3	2		2			
Philadelphia, Pa.....	16	31	86	106	132	120	125	85	70	47	59	27	26
Pittsburgh, Pa.....	3	1	5	1	3	5	5	2	1	1	1	1	
Pittsfield, Mass.....			1	2	7	2	10	4	6	4	4	5	3
Plainfield, N. J.....	3		2	6	10	1	6	8	2	3	1	3	
Providence, R. I.....	3	3	4	3	2	10	7	10	17	9	9	7	3
Quincy, Mass.....	2							4	5	4			
St. Louis, Mo.....					5	2							
St. Paul, Minn.....	5	13	6	9	6	8	7	2	3	2	4		1
Somerville, Mass.....	1			6	1	2	1	7	1		5	3	4
Springfield, Mass.....	2	2	2		5	5	9	12	8	9	5	3	4
Syracuse, N. Y.....		9	3	23	34	33	49	29	20	12	11	5	
Toledo, Ohio.....	11	11	16	10	10	7	11	1	2	3	1	2	1
Trenton, N. J.....	1		4	7	11	7	11	14	23	34	20	8	12
Waltham, Mass.....								2			8	2	9
Washington, D. C.....	2	2	3	5	7	2	4		1	1	5		
West Holston, N. J.....	3	5	9	3									
Wilmington, Del.....					3	3	3	2	3	8	7	6	3

Maine—Rockland.

Surg. Robinson reported that from August 9 to October 13, 1916, 37 cases of poliomyelitis, with 9 deaths, were notified in Rockland, Me.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.**Massachusetts—Holyoke.**

Surg. Fricks reported that from August 16 to October 3, 1916, 73 cases of poliomyelitis were notified in Holyoke, Mass. The case reports by weeks were as follows: August 16 to 23, 5 cases; August 23 to 30, 3 cases; August 30 to September 5, 7 cases; September 5 to 12, 8 cases; September 12 to 19, 20 cases; September 19 to 26, 20 cases; September 26 to October 3, 10 cases.

New York City.

Surg. Lavinder reported that cases of poliomyelitis had been notified in New York City as follows: October 18, 7 cases; October 19, 6 cases; October 20, 8 cases; October 21, 6 cases; October 22, 8 cases; October 23, 1 case.

State Reports for September, 1916.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia.....	6	Michigan—Continued.	
Louisiana:		Gladwin County—	
Calcasieu Parish.....	1	Bentley Township.....	2
Iberia Parish.....	1	Gladwin Township.....	1
Rapides Parish.....	1	Sherman Township.....	3
Richland Parish.....	1	Gladwin.....	1
St. Mary Parish.....	1	Grand Traverse County—	
Total.....	5	Traverse City.....	1
Michigan:		Grafton County—	
Alcona County—		North Star Township.....	1
Harrisville Township.....	1	Hillsdale County—	
Allegan County—		Somerset Township.....	1
Allegan Township.....	1	Litchfield.....	1
Dorr Township.....	1	Houghton County—	
Douglas.....	1	Chassell Township.....	1
Arenac County—		Franklin Township.....	1
Standish Township.....	1	Ingham County—	
Barry County—		Williamston.....	1
Assyria Township.....	1	Lansing.....	5
Bay County—		Ionia County—	
Gibson Township.....	1	Lyons.....	1
Bay City.....	1	Iosco County—	
Branch County—		Burleigh Township.....	1
Ovid Township.....	1	East Tawas.....	1
Calhoun County—		Isabella County—	
Bedford Township.....	2	Isabella Township.....	1
Battle Creek.....	11	Jackson County—	
Fredonia Township.....	1	Leon Township.....	1
Penfield Township.....	1	Blackman Township.....	1
Sheridan Township.....	1	Kalamazoo County—	
Tekonsha.....	1	Alamo Township.....	1
Albion.....	3	Pavilion Township.....	1
Clinton County—		Kalamazoo.....	2
De Witt Township.....	1	Kent County—	
Du Plain Township.....	1	Grand Rapids Township.....	1
St. Johns.....	1	Grand Rapids.....	8
Eaton County—		Lapeer County—	
Sunfield Township.....	1	Deerfield Township.....	1
Genesee County—		Rich Township.....	1
Atlas Township.....	1	Imlay City.....	1
Clayton Township.....	1	Leelanau County—	
Genesee Township.....	1	Leland Township.....	1
Mount Morris Township.....	1	Lenawee County—	
Mundy Township.....	1	Adrain Township.....	1
Richfield Township.....	1	Franklin Township.....	1
Flint.....	14	Raisin Township.....	1
		Rollin Township.....	1
		Seneca Township.....	1
		Adrain.....	3

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Michigan—Continued.		Minnesota—Continued.	
Livinston County—		Cass County—	
Howell.....	1	Pillager.....	1
Macomb County—		Chippewa County—	
Washington Township.....	1	Monteideo.....	1
Marquette County—		Clay County—	
Marquette.....	1	Moorhead.....	1
Mecosta County—		Georgetown Township.....	1
Barryton.....	1	Goose Prairie Township.....	1
Midland County—		Oakport Township.....	2
Midland.....	1	Crow Wing County—	
Missaukee County—		St. Mathias Township.....	1
West Branch Township.....	1	Dakota County—	
Monroe County—		Hastings.....	1
La Salle Township.....	1	Empire Township.....	1
Monroe.....	3	Greenvale Township.....	1
Newaygo County—		Hampton Township.....	1
Denver Township.....	1	Rosemount Township.....	1
Oakland County—		Vermillion Township.....	1
Waterford Township.....	2	Fillmore County—	
West Bloomfield Township.....	1	Canton.....	1
Clarkston.....	1	Chatfield.....	1
Rochester.....	1	Preston.....	1
Pontiac.....	4	Rushford.....	1
Otsego County—		Freeborn County—	
Gaylord.....	1	Freeman Township.....	1
Saginaw County—		Hayward Township.....	1
Chapin Township.....	3	London Township.....	1
Fremont Township.....	1	Goodhue County—	
James Township.....	1	Belvidere Township.....	1
Richland Township.....	2	Burnside Township.....	1
Swan Creek Township.....	1	Central Point Township.....	1
Saginaw.....	7	Vasa Township.....	1
St. Clair County—		Grant County—	
Emmett Township.....	1	Elbow Lake.....	2
Grant Township.....	2	Hennepin County—	
Wales Township.....	1	Edina.....	1
Sanilac County—		Minneapolis.....	15
Sandusky.....	2	Richfield.....	1
Shiawassee County—		Tonka Bay.....	2
New Haven Township.....	1	Wauzata.....	1
Durand.....	1	Medina Township.....	1
Tuscola County—		Minnetonka Township.....	2
Denmark Township.....	1	Minnetrista Township.....	2
Washtenaw County—		Orono Township.....	1
Sharon Township.....	1	Isanti County—	
Ann Arbor.....	1	Cambridge.....	1
Wayne County—		Kanabec County—	
Highland Park.....	1	Ogile.....	2
River Rouge.....	1	Comfort Township.....	1
Northville.....	1	Kandiyohi County—	
St. Clair Heights.....	1	Ramond.....	1
Detroit.....	6	Aretander Township.....	1
Wexford County—		Kitson County—	
Clam Lake Township.....	4	Poppleton Township.....	1
Cadillac.....	2	Lac Qui Parle County—	
Total.....	166	Camp Release Township.....	1
Minnesota:		Le Sueur County—	
Becker County—		Elysian.....	1
Ogema.....	1	Lexington Township.....	1
Shell Lake Township.....	1	McLeod County—	
Two Inlets Township.....	2	Hutchinson.....	1
White Earth Township.....	1	Winsted.....	1
Beltrami County—		Hassan Valley Township.....	1
Northern Township.....	1	Winsted Township.....	1
Blue Earth County—		Mahnomen County—	
Manvato.....	1	Mahnomen.....	4
Rapidan Township.....	1	La Garde Township.....	2
Brown County—		Naytahwaush.....	1
Sleevy Eve.....	1	Marshall County—	
Linden Township.....	1	Stephen.....	1
Carlton County—		Meeber County—	
Clouet.....	1	Cedar Mills Township.....	2
Blackhoof Township.....	1	Mower County—	
Mahtowa Township.....	1	Frankfort Township.....	1
Carver County—		Murray County—	
Young America Township.....	1	Jona.....	1
		Bondin Township.....	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Minnesota—Continued.		New Jersey—Continued.	
Nicollet County—		Camden County.....	33
St. Peter.....	1	Cape May County.....	17
Lake Prairie Township.....	1	Cumberland County.....	15
Norman County—		Essex County.....	295
Halstad.....	2	Gloucester County.....	19
Good Hope Township.....	1	Hudson County.....	73
Halstad Township.....	2	Hunterdon County.....	8
Olmsted County—		Mercer County.....	117
Rochester.....	3	Middlesex County.....	33
Rock Dell Township.....	1	Monmouth County.....	59
Ottertail County—		Morris County.....	45
Vergas.....	1	Ocean County.....	6
Bffington Township.....	2	Passaic County.....	23
Pipestone County—		Salem County.....	25
Elmer Township.....	1	Somerset County.....	7
Pope County—		Sussex County.....	2
Glenwood.....	1	Union County.....	94
Lowry.....	1	Warren County.....	6
Lake Johanna Towhship.....	1		
Ramsey County—		Total.....	957
St. Paul.....	17		
White Bear.....	1	New York:	
Redwood County—		Albany County.....	13
Revere.....	1	Allegany County.....	3
Delhi Township.....	1	Broome County.....	9
Sheridan Township.....	1	Cayuga County.....	9
Renville County—		Chautauqua County.....	2
Beaver Falls Township.....	1	Chemung County.....	2
St. Louis County—		Chenango County.....	5
Duluth.....	4	Columbia County.....	7
Eveleth.....	1	Cortland County.....	18
Township 50 R. 18 (Part).....	1	Delaware County.....	12
Township 52, R. 21.....	1	Dutchess County.....	26
Scott County—		Erie County.....	4
Shakopee.....	1	Essex County.....	2
Helena Township.....	2	Genesee County.....	1
Sibley County—		Greene County.....	3
Gibbon.....	1	Herkimer County.....	4
Stearns County—		Jefferson County.....	23
Avon.....	2	Lewis County.....	5
Holdingford.....	1	Madison County.....	19
Sauk Center.....	1	Montgomery County.....	11
Brockway Township.....	1	Nassau County.....	78
Millwood Township.....	3	Oneida County.....	22
St. Wendel Township.....	1	Onondaga County.....	153
Steele County—		Orange County.....	53
Owatonna.....	1	Oswego County.....	69
Stevens County—		Otsego County.....	7
Everglade Township.....	1	Putnam County.....	1
Frammas Township.....	1	Rensselaer County.....	11
Swift County—		Rockland County.....	25
Dublin Township.....	1	St. Lawrence County.....	50
Westbank Township.....	1	Saratoga County.....	3
Todd County—		Schenectady County.....	4
Grey Eagle.....	1	Schoharie County.....	2
Eagle Valley Township.....	1	Schuyler County.....	1
Traverse County—		Seneca County.....	2
Monson Township.....	1	Steuben County.....	2
Wabasha County—		Suffolk County.....	120
Lake City.....	1	Sullivan County.....	25
Plainview Township.....	3	Tioga County.....	7
West Albany Township.....	1	Tompkins County.....	33
Waseca County—		Ulster County.....	34
Waseca.....	1	Warren County.....	10
Washington County—		Washington County.....	3
Oakdale Township.....	1	Wayne County.....	5
Winona County—		Westchester County.....	163
Winona.....	4	Wyoming County.....	1
New Hartford Township.....	6	New York City.....	985
Pleasant Hill Township.....	1		
Whitewater Township.....	1	Total.....	2,049
Total.....	186	Ohio:	
New Jersey:		Allen County—	
Atlantic County.....	7	Lima.....	1
Bergen County.....	35	Butler County.....	2
Burlington County.....	35	Champaign County.....	1
		Clarke County.....	1

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Ohio—Continued.		Ohio—Continued.	
Columbiana County—		Seneca County.....	2
East Liverpool.....	1	Summit County.....	13
Cuyahoga County.....	12	Van Wert County.....	1
Darke County.....	4	Warren County.....	1
Defiance County.....	1	Wayne County.....	3
Fairfield County.....	1	Williams County.....	5
Franklin County—		Wood County.....	2
Columbus.....	3	Wyandot County.....	1
Fulton County.....	3		
Gallia County.....	1	Total.....	138
Hamilton County.....	19		
Hancock County.....	3	West Virginia:	
Hardin County.....	2	Greenbrier County.....	2
Henry County.....	4	Hancock County.....	1
Huron County—		Harrison County.....	1
Bellevue.....	1	Kanawha County.....	1
Licking County.....	1	Marshall County.....	1
Logan County.....	2	Marion County.....	1
Lucas County.....	20	Mercer County.....	1
Madison County.....	1	Mineral County.....	1
Mahoning County.....	3	Monongalia County.....	1
Mercer County.....	1	Ohio County.....	1
Montgomery County.....	3	Raleigh County.....	2
Paulding County.....	4	Randolph County.....	1
Pekaway County.....	1	Tyler County.....	1
Portage County.....	1	Wayne County.....	1
Putnam County.....	3	Wetzel County.....	2
Richland County.....	1		
Sandusky County.....	4	Total.....	18

State Reports for August, 1916.

Place.	New cases reported.	Place.	New cases reported.
Montana:		New York—Continued.	
Carbon County.....	3	Monroe County.....	2
Meagher County.....	2	Montgomery County.....	21
Sheridan County.....	1	Nassau County.....	266
Stillwater County.....	1	Niagara County.....	1
Sweet Grass County.....	1	Oneida County.....	28
Yellowstone County.....	2	Ontonago County.....	122
Billings.....	18	Orange County.....	67
Total.....	28	Oswego County.....	32
		Otsego County.....	5
New York:		Putnam County.....	6
Albany County.....	4	Rensselaer County.....	3
Allegany County.....	3	Rockland County.....	12
Broome County.....	3	St. Lawrence County.....	24
Cayuga County.....	3	Saratoga County.....	5
Cattaraugus County.....	8	Schenectady County.....	5
Chemung County.....	3	Schoharie County.....	5
Chenango County.....	1	Steuben County.....	7
Columbia County.....	11	Suffolk County.....	255
Cortland County.....	6	Sullivan County.....	69
Delaware County.....	12	Tioga County.....	7
Dutchess County.....	93	Tompkins County.....	10
Frie County.....	5	Ulster County.....	51
Franklin County.....	1	Warren County.....	11
Fulton County.....	2	Washington County.....	2
Greene County.....	12	Wayne County.....	7
Herkimer County.....	5	Westchester County.....	277
Jefferson County.....	24	Wyoming County.....	2
Lewis County.....	3	New York City.....	3 927
Madison County.....	25		
		Total.....	5,454

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

New York Report for July, 1916.

Place.	New cases reported.	Place.	New cases reported.
New York:		New York—Continued.	
Albany County.....	4	Otsego County.....	2
Allegany County.....	1	Putnam County.....	1
Broome County.....	1	Rensselaer County.....	4
Chautauqua County.....	2	Rockland County.....	10
Chemung County.....	1	Saratoga County.....	10
Columbia County.....	32	Schenectady County.....	1
Cortland County.....	1	Schoharie County.....	1
Delaware County.....	8	Steuben County.....	3
Dutchess County.....	69	Suffolk County.....	62
Erle County.....	2	Sullivan County.....	25
Fulton County.....	1	Tioga County.....	1
Greene County.....	6	Tompkins County.....	31
Jefferson County.....	1	Ulster County.....	1
Montgomery County.....	1	Warren County.....	1
Nassau County.....	128	Washington County.....	1
Niagara County.....	2	Westchester County.....	64
Oneida County.....	2	Wyoming County.....	1
Onondaga County.....	6	New York City.....	3,443
Orange County.....	29		
Oswego County.....	1	Total.....	3,960

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich.....	1		Montclair, N. J.....	1	1
Baltimore, Md.....	20	6	Morristown, N. J.....	1	
Boston, Mass.....	77	19	Newark, N. J.....	17	
Bridgeport, Conn.....	3		New Britain, Conn.....	3	
Brookline, Mass.....	1		Newburyport, Mass.....	1	1
Cambridge, Mass.....	11		New London, Conn.....	2	
Camden, N. J.....	3		Newton, Mass.....	1	1
Chicago, Ill.....	10	2	New York, N. Y.....	96	46
Chicopee, Mass.....	2		Norristown, Pa.....	1	
Cincinnati, Ohio.....	5	1	Northampton, Mass.....	1	
Cleveland, Ohio.....	2		Philadelphia, Pa.....	59	12
Columbia, S. C.....	1		Pittsburgh, Pa.....	1	
Detroit, Mich.....	3	3	Pittsfield, Mass.....	4	2
Duluth, Minn.....	2		Plainfield, N. J.....	1	1
Evansville, Ind.....	1		Portland, Ore.....	3	
Everett, Mass.....	3		Providence, R. I.....	9	1
Hagerstown, Md.....	1		Reading, Pa.....	1	
Hartford, Conn.....	4		Richmond, Va.....	1	
Indianapolis, Ind.....	1		Rochester, N. Y.....	1	
Jackson, Mich.....	3		Saginaw, Mich.....	1	
Jersey City, N. J.....	2		St. Paul, Minn.....	4	
Johnstown, Pa.....	2	1	Salt Lake City, Utah.....	1	
Kansas City, Mo.....	1		Somerville, Mass.....	5	
Lancaster, Pa.....	1		Springfield, Mass.....	5	
Los Angeles, Cal.....	1		Syracuse, N. Y.....	11	2
Lowell, Mass.....	1		Toledo, Ohio.....	1	
Lynchburg, Va.....	1		Trenton, N. J.....	20	
Lynn, Mass.....	3	2	Waltham, Mass.....	8	
Madison, Wis.....	1		Washington, D. C.....	5	2
Malden, Mass.....	3	1	Wilmington, Del.....	7	3
Milwaukee, Wis.....	1				

RABIES IN MAN.

City Report for Week Ended Oct. 7, 1916.

During the week ended October 7, 1916, a fatal case of rabies in man was reported at Kansas City, Mo.

RABIES IN ANIMALS.

City Reports for Week Ended Oct. 7, 1916.

During the week ended October 7, 1916, a case of rabies in animals was reported at Detroit, Mich., and one at Kansas City, Mo.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 3002.

SMALLPOX.

Massachusetts—Great Barrington—Lee.

Collaborating Epidemiologist Kelley reported October 18 that 4 cases of smallpox had been notified at Great Barrington, Mass., and 1 case at Lee, Mass.

Minnesota.

Collaborating Epidemiologist Bracken reported that during the week ended October 21, 1916, two new foci of smallpox infection were reported in Minnesota, one case having been notified in the village of Casson, Dodge County, and one in Albany village, Stearns County.

Ohio—Cleveland.

Surg. Holt reported October 23, 1916, that 58 cases of smallpox had been notified in Cleveland, Ohio, since October 1. All the patients attended one parochial school. No deaths have occurred.

State Reports for September, 1916.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Maryland:						
Washington County— Hagerstown.....	1				1	
Michigan:						
Genesee County— Flint.....	1				1	
Grand Traverse County— Traverse City.....	7				7	
Ingham County— Lansing.....	2				2	
Isabella County— Sherman Township.....	1					1
Kent County— Grand Rapids.....	1				1	
Lenawee County— Woodstock Township.....	1			1		
St. Clair County— Wales Township.....	1				1	
Wayne County— Detroit.....	2				2	
Wayne.....	1			1		
Total.....	17			2	14	1

SMALLPOX—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Minnesota:						
Clay County—						1
Glyndon.....	1					
Morrison County—					1	
Little Falls.....	1					
Norman County—					2	
Gary.....	2					
Ramsey County—					1	
St. Paul.....	1					
Mounds View Township	2			1	1	
Total.....	7			1	5	1
Ohio:						
Ashtabula County—					3	9
Conneaut.....	12				2	
Athens County—	2					
Cuyahoga County—						4
Cleveland.....	4					
Lucas County—					1	3
Toledo.....	4					
Mahoning County—						3
Youngstown.....	3				1	
Shelby County.....	1				1	
Williams County.....	6				1	5
Wood County.....	1				1	
Total.....	33				9	24

Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
District of Columbia (Sept. 1 to 30).....	2		New York (July 1 to 31):		
			Cortland County.....	1	
			Niagara County.....	1	
			Total.....	2	
Montana (Aug. 1 to 31):			New York (Aug. 1 to 31):		
Chouteau County.....	1		Erie County.....	1	
Deer Lodge County.....	1				
Fergus County.....	1		Oregon (Aug. 1 to 31):		
Hill County.....	5		Lake County.....	1	
Prairie County.....	5		Multnomah County—		
Sheridan County.....	5		Portland.....	9	
Silverbow County—			Total.....	10	
Butte.....	2				
Total.....	20				

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Butte, Mont.....	2		New Orleans, La.....	2	
Cleveland, Ohio.....	6		Portland, Oreg.....	2	
Detroit, Mich.....	6		St. Joseph, Mo.....	3	
Kansas City, Mo.....	1		St. Paul, Minn.....	1	
New Castle, Pa.....	1		Wilksburg, Pa.....	1	

TETANUS.

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.	1	1	Lowell, Mass.	1	
Cleveland, Ohio.		1	Mobile, Ala.		1
Erie, Pa.	1		Omaha, Neb.		1
Galveston, Tex.		1	Philadelphia, Pa.	1	1
Lexington, Ky.		1	Portland, Oreg.		1
Los Angeles, Cal.		1	St. Louis, Mo.	1	

TUBERCULOSIS.

See diphtheria, measles, scarlet fever, and tuberculosis. page 3002.

TYPHOID FEVER.

State Reports for September, 1916.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia	76	Michigan--Continued.	
Louisiana:		Berrien County--	
Allen Parish	1	Bainbridge Township	7
Avoyelles Parish	1	Buchanan Township	5
Beauregard Parish	4	Watervliet	2
Bossier Parish	1	Branch County--	
Caddo Parish	6	Coldwater	1
Calcasieu Parish	8	Calhoun County--	
Concordia Parish	1	Albion	1
De Soto Parish	3	Battle Creek	3
East Baton Rouge Parish	1	Burlington Township	1
East Carroll Parish	3	Washington Heights	1
East Feliciana Parish	1	Cass County--	
Iberia Parish	1	Dowagiac	1
Jefferson Davis Parish	2	Mason Township	1
La Salle Parish	1	Charlevoix County--	
Livingston Parish	3	Boyer City	1
Morehouse Parish	2	East Jordan	1
Natchitoches Parish	2	Chippewa County--	
Plaquemines Parish	1	Daffer Township	1
Pointe Coupee Parish	1	Rudyard Township	1
Rapides Parish	17	Sault Ste. Marie	6
Sabine Parish	2	Clare County--	
St. Landry Parish	3	Clare	1
St. Mary Parish	3	Hatton Township	1
Tangipahoa Parish	2	Clinton County--	
Union Parish	4	Olive Township	1
Vermillion Parish	5	Eaton County--	
Vernon Parish	3	Potterville	1
Washington Parish	1	Emmet County--	
West Carroll Parish	1	West Traverse Township	1
Winn Parish	3	Genesee County--	
Total	86	Flint	33
Michigan:		Gladwin County--	
Allegan County		Buckeye Township	1
Oscego	2	Sherman Township	1
Alpena County		Grand Traverse County--	
Alpena	2	Traverse City	2
Arenac County		Gratiot County--	
Clayton Township	1	Alma	5
Barry County		Newark Township	1
Hastings	1	Hillsdale County--	
Irving Township	1	Pittsford Township	1
Bay County		Houghton County--	
Bay City	47	Calumet Township	1
Mercer Township	1	Huron County--	
Portsmouth Township	2	Port Austin	1
Benzie County		Ingham County--	
Thompsonville	2	Delhi Township	1
		East Lansing	1
		Ingham Township	1
		Lansing	32

TYPHOID FEVER—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Michigan—Continued.		Michigan—Continued.	
Ionia County—		Van Buren County—	
Belding.....	2	Columbia Township.....	1
Berlin Township.....	1	Decatur.....	4
Ionia.....	1	Washtenaw County—	
Lyons.....	1	Ann Arbor.....	30
Odessa Township.....	1	Ypsilanti.....	1
Iosco County—		Wayne County—	
Baldwin Township.....	1	Detroit.....	66
Sherman Township.....	1	Hamtramck Township.....	1
Isabella County—		Highland Park.....	5
Shepherd.....	1	St. Clair Heights.....	1
Jackson County—		Springwells Township.....	1
Jackson.....	7	Wexford County—	
Liberty Township.....	1	Cassilac.....	2
Kalamazoo County—		Harrietta.....	1
Kalamazoo.....	4	Total.....	388
Ross Township.....	1		
Kalamazoo County—		Minnesota:	
Kalamazoo.....	4	Aitkin County—	
Ross Township.....	1	Aitkin.....	1
Kalamazoo County—		Beltrami County—	
Kalamazoo.....	4	Baudette.....	1
Ross Township.....	1	Bemidji.....	1
Kalamazoo County—		Nymore.....	2
Kalamazoo.....	4	Frohn Township.....	1
Ross Township.....	1	Bigston County—	
Kalamazoo County—		Ortonville.....	2
Kalamazoo.....	4	Carlton County—	
Ross Township.....	1	Cloquet.....	7
Kalamazoo County—		Cass County—	
Kalamazoo.....	4	Backus.....	1
Ross Township.....	1	Crow Wing County—	
Kalamazoo County—		Brainerd.....	2
Kalamazoo.....	4	Klonjyke Township.....	1
Ross Township.....	1	Douglas County—	
Kalamazoo County—		Osakis.....	1
Kalamazoo.....	4	Faribault County—	
Ross Township.....	1	Wells.....	1
Kalamazoo County—		Dunbar Township.....	1
Kalamazoo.....	4	Hennepin County—	
Ross Township.....	1	Minneapolis.....	22
Kalamazoo County—		Osseo.....	1
Kalamazoo.....	4	West Minneapolis.....	2
Ross Township.....	1	Jackson County—	
Kalamazoo County—		Heron Lake.....	1
Kalamazoo.....	4	Kanabec County—	
Ross Township.....	1	Arthur Township.....	1
Kalamazoo County—		Kandiyohi County—	
Kalamazoo.....	4	Pennock.....	1
Ross Township.....	1	Kitson County—	
Kalamazoo County—		Donalton.....	1
Kalamazoo.....	4	Koochiching County—	
Ross Township.....	1	Rapid River Township.....	1
Kalamazoo County—		Lake County—	
Kalamazoo.....	4	Two harbors.....	2
Ross Township.....	1	Lyon County—	
Kalamazoo County—		Marshall.....	1
Kalamazoo.....	4	Marshall County—	
Ross Township.....	1	Warren.....	1
Kalamazoo County—		Olmsted County—	
Kalamazoo.....	4	Rochester.....	2
Ross Township.....	1	Pine County—	
Kalamazoo County—		Rutledge.....	1
Kalamazoo.....	4	Sandstone.....	1
Ross Township.....	1	Polk County—	
Kalamazoo County—		Crookston.....	2
Kalamazoo.....	4	Fisher.....	1
Ross Township.....	1	Pope County—	
Kalamazoo County—		Hoff Township.....	1
Kalamazoo.....	4	Ramsey County—	
Ross Township.....	1	St. Paul.....	6
Kalamazoo County—		White Bear Township.....	1
Kalamazoo.....	4	Rice County—	
Ross Township.....	1	Faribault.....	1
Kalamazoo County—		Roseau County—	
Kalamazoo.....	4	Warroad.....	1
Ross Township.....	1		
Kalamazoo County—			
Kalamazoo.....	4		
Ross Township.....	1		

TYPHOID FEVER—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Minnesota—Continued.		New York—Continued.	
St. Louis County—		Oswego County.....	2
Duluth.....	14	Otsego County.....	8
Ely.....	4	Rensselaer County.....	11
Virginia.....	1	Rockland County.....	6
Winton.....	3	St. Lawrence County.....	14
Carson Lake.....	2	Saratoga County.....	10
Stuntz Township.....	2	Schenectady County.....	3
Sterns County—		Schoharie County.....	1
St. Cloud.....	1	Seneca County.....	1
Steele County—		Steuben County.....	7
Owatonna.....	2	Suffolk County.....	7
Wabasha County—		Sullivan County.....	4
Lake City.....	1	Tompkins County.....	3
Minneiska Township.....	2	Ulster County.....	40
Washington County—		Warren County.....	3
Marine.....	1	Washington County.....	5
Stillwater.....	1	Wayne County.....	3
Yellow Medicine County—		Westchester County.....	23
Echo Township.....	1	Wyoming County.....	1
Total.....	108	New York City.....	281
		Total.....	725
New Jersey:		Ohio:	
Atlantic County.....	26	Adams County.....	1
Bergen County.....	21	Allen County.....	21
Burlington County.....	32	Ashland County.....	1
Camden County.....	32	Athens County.....	14
Cape May County.....	3	Auglaize County.....	1
Cumberland County.....	15	Brown County.....	6
Essex County.....	38	Butler County.....	10
Gloucester County.....	23	Champaign County.....	5
Hudson County.....	34	Clarke County—	
Hunterdon County.....	3	Springfield.....	17
Mercer County.....	11	Clermont County.....	10
Middlesex County.....	10	Clinton County.....	3
Monmouth County.....	27	Columbiana County.....	5
Morris County.....	6	Coshocton County.....	7
Ocean County.....	1	Crawford County.....	2
Passaic County.....	5	Cuyahoga County.....	45
Salem County.....	9	Darke County.....	56
Somerset County.....	3	Defiance County.....	1
Sussex County.....	2	Delaware County—	
Union County.....	12	Delaware.....	13
Total.....	313	Erie County.....	4
		Fairfield County.....	5
New York:		Fayette County.....	12
Albany County.....	15	Franklin County.....	42
Allegany County.....	4	Gallia County.....	3
Broome County.....	3	Greene County.....	1
Cattaraugus County.....	8	Guernsey County.....	9
Cayuga County.....	3	Hamilton County.....	22
Chautauqua County.....	19	Hancock County.....	7
Chemung County.....	18	Hardin County.....	22
Chenango County.....	2	Harrison County.....	25
Clinton County.....	14	Henry County.....	16
Columbia County.....	7	Highland County.....	1
Cortland County.....	10	Hocking County.....	3
Delaware County.....	4	Holmes County.....	3
Dutchess County.....	9	Huron County.....	7
Erie County.....	75	Jackson County.....	12
Franklin County.....	9	Jefferson County.....	2
Fulton County.....	2	Knox County.....	
Genesee County.....	2	Mount Vernon.....	25
Greene County.....	2	Lake County.....	1
Herkimer County.....	4	Lawrence County.....	14
Jefferson County.....	10	Licking County.....	19
Madison County.....	2	Logan County.....	5
Monroe County.....	19	Lorain County.....	10
Montgomery County.....	1	Lucas County.....	54
Nassau County.....	2	Madison County.....	11
Niagara County.....	21	Mahoning County.....	39
Oneida County.....	10	Marion County.....	52
Onondaga County.....	2	Medina County.....	7
Ontario County.....	10	Meigs County.....	2
Orange County.....	4	Mercer County.....	1
Orleans County.....	2	Miami County.....	19

TYPHOID FEVER—Continued.

State Reports for September, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Ohio—Continued.		West Virginia—Continued.	
Monroe County.....	3	Brooke County.....	1
Montgomery County.....	16	Calhoun County.....	11
Morgan County.....	2	Doddridge County.....	3
Morrow County.....	3	Fayette County.....	5
Muskingum County.....	8	Gilmer County.....	7
Noble County.....	1	Hampshire County.....	11
Paulding County.....	9	Hardy County.....	3
Perry County.....	20	Jackson County.....	3
Pickaway County.....	2	Jefferson County.....	8
Pike County.....	3	Kanawha County.....	13
Portage County.....	7	Lewis County.....	18
Preble County.....	8	Logan County.....	4
Putnam County.....	2	McDowell County.....	6
Richland County.....	10	Marshall County.....	11
Ross County.....	12	Marion County.....	21
Sandusky County.....	14	Mineral County.....	4
Scioto County.....	15	Mingo County.....	1
Seneca County.....	4	Monongalia County.....	4
Shelby County.....	5	Monroe County.....	15
Stark County.....	44	Morgan County.....	11
Summit County.....	13	Nicholas County.....	2
Trumbull County.....	14	Ohio County.....	
Tuscarawas County.....	31	Wheeling.....	18
Union County.....	4	Pendleton County.....	12
Van Wert County.....	4	Pocahontas County.....	4
Vinton County.....	2	Preston County.....	11
Warren County.....	1	Putnam County.....	8
Washington County.....	2	Raleigh County.....	17
Wayne County.....	5	Ritchie County.....	4
Williams County.....	44	Roane County.....	7
Wood County.....	6	Tucker County.....	2
Wyandot County.....	3	Upshur County.....	15
Belmont County.....	12	Wayne County.....	2
Total.....	1,002	Webster County.....	4
West Virginia:		Wood County.....	7
Berkeley County.....	19	Wyoming County.....	9
Braxton County.....	2	Total.....	308

State Reports for August, 1916.

Place.	New cases reported.	Place.	New cases reported.
Montana:		New York:	
Blaine County.....	2	Albany County.....	24
Big Horn County.....	1	Allegany County.....	5
Carbon County.....	1	Broome County.....	3
Great Falls.....	5	Cattaraugus County.....	6
Chouteau County.....	2	Cayuga County.....	6
Custer County.....	5	Chautauqua County.....	8
Dawson County.....	1	Chemung County.....	3
Deer Lodge County.....	1	Chenango County.....	1
Anaconda.....	2	Clinton County.....	7
Flathead County.....	1	Columbia County.....	7
Fergus County.....	1	Delaware County.....	2
Bozeman.....	1	Dutchess County.....	3
Hill County.....	7	Erie County.....	63
Helena.....	8	Essex County.....	1
Lincoln County.....	2	Franklin County.....	3
Madison County.....	1	Fulton County.....	1
Missoula County.....	1	Genesee County.....	4
Phillips County.....	2	Greene County.....	4
Ravalli County.....	1	Herkimer County.....	8
Rosebud County.....	1	Jefferson County.....	16
Silver Bow County.....	1	Lewis County.....	3
Butte.....	7	Livingston County.....	1
Stillwater County.....	3	Madison County.....	3
Wibaux County.....	1	Monroe County.....	21
Yellowstone County.....	7	Montgomery County.....	6
Billings.....	3	Nassau County.....	4
Total.....	68	Niagara County.....	5
		Oneida County.....	5
		Onondaga County.....	3

TYPHOID FEVER—Continued.

State Reports for August, 1916— Continued.

Place.	New cases reported.	Place.	New cases reported.
New York—Continued.		New York—Continued.	
Orange County.....	7	Washington County.....	2
Orleans County.....	3	Wayne County.....	2
Oswego County.....	6	Westchester County.....	17
Otsego County.....	10	Wyoming County.....	2
Rensselaer County.....	12	Yates County.....	1
Rockland County.....	2	New York City.....	258
St. Lawrence County.....	5	Total.....	604
Saratoga County.....	8		
Schenectady County.....	1	Oregon:	
Schoharie County.....	2	Linn County.....	2
Seneca County.....	1	Marion County.....	2
Steuben County.....	9	Umatilla County.....	2
Suffolk County.....	12	Wallowa County.....	2
Sullivan County.....	7	Multnomah County—	
Tioga County.....	2	Portland.....	2
Tompkins County.....	5	Total.....	10
Ulster County.....	2		
Warren County.....	2		

New York Report for July, 1916.

Place.	New cases reported.	Place.	New cases reported.
New York:		New York—Continued.	
Albany County.....	13	Onondaga County.....	3
Broome County.....	3	Orange County.....	4
Cattaraugus County.....	4	Oswego County.....	2
Chautauque County.....	5	Otsego County.....	2
Chemung County.....	1	Rensselaer County.....	9
Chenango County.....	2	Rockland County.....	1
Clinton County.....	9	St. Lawrence County.....	4
Columbia County.....	5	Saratoga County.....	10
Delaware County.....	2	Schenectady County.....	5
Erie County.....	24	Schuyler County.....	1
Essex County.....	1	Seneca County.....	1
Franklin County.....	7	Steuben County.....	1
Fulton County.....	9	Suffolk County.....	3
Genesee County.....	1	Sullivan County.....	1
Greene County.....	1	Tioga County.....	1
Hamilton County.....	1	Tompkins County.....	3
Jefferson County.....	5	Warren County.....	5
Lewis County.....	2	Washington County.....	3
Livingston County.....	1	Wayne County.....	1
Madison County.....	1	Westchester County.....	16
Monroe County.....	6	Wyoming County.....	2
Montgomery County.....	2	New York City.....	132
Nassau County.....	3	Total.....	348
Niagara County.....	16		
Oneida County.....	13		

City Reports for Week Ended Oct. 7, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Harbor, Mich.....	6		Chelsea, Mass.....	2	
Atlantic City, N. J.....	2		Chicago, Ill.....	26	2
Baltimore, Md.....	27	1	Cincinnati, Ohio.....	6	
Berkeley, Cal.....	1		Cleveland, Ohio.....	8	
Birmingham, Ala.....	12	1	Coffeyville, Kans.....	1	1
Boston, Mass.....	13	3	Columbia, S. C.....	2	1
Bridgeport, Conn.....	2		Columbus, Ohio.....	5	
Butte, Mont.....	2		Concord, N. H.....	1	
Cairo, Ill.....	1		Covington, Ky.....	3	
Camden, N. J.....	4		Denver, Colo.....	7	
Canton, Ohio.....	1		Detroit, Mich.....	15	1
Charleston, S. C.....	1		Duluth, Minn.....	4	

TYPHOID FEVER—Continued.

City Reports for Week Ended Oct. 7, 1916—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Elgin, Ill.		1	North Adams, Mass.	2	
El Paso, Tex.	4		Oklahoma, Okla.	1	
Evans ile, Ind.	2	1	Omaha, Nebr.	6	
Fall River, Mass.	9		Pasadena, Cal.	1	
Flint, Mich.	12		Pawtucket, R. I.	1	1
Fort Worth, Tex.	1		Perth Amboy, N. J.	1	
Galesburg, Ill.	3		Philadelphia, Pa.	31	5
Grand Rapids, Mich.	6		Pittsburgh, Pa.	1	1
Hagerstown, Md.	8		Portland, Me.	2	
Harrisburg, Pa.	94	1	Portland, Oreg.	1	
Hartford, Conn.	1		Providence, R. I.	2	
Herhill, Mass.	3		Racine, Wis.	2	1
Indianapolis, Ind.	28		Reading, Pa.	41	3
Jac son, Mich.	1		Richmond, Va.	5	1
Jersey City, N. J.	3		Roanoke, Va.	2	
Johnstown, Pa.	1	2	Rochester, N. Y.	5	1
Kalamazoo, Mich.	2		Saginaw, Mich.	2	1
Kansas City, Mo.	3	1	St. Louis, Mo.	33	4
Kenosha, Wis.	2		St. Paul, Minn.	3	
Kokomo, Ind.	1		Salt Lake City, Utah.	2	
Lawrence, Mass.	3		San Diego, Cal.	1	
Lexington, Ky.	1		San Francisco, Cal.	7	1
Little Rock, Ark.	2		Seattle, Wash.	2	
Lorain, Ohio.	2		Schenectady, N. Y.	2	
Los Angeles, Cal.	2		Springfield, Ill.	1	
Lowell, Mass.		1	Springfield, Ohio.	2	1
Lynchburg, Va.	5	2	Steelt on, Pa.	1	
Lynn, Mass.		1	Steuvenville, Ohio.	1	
Malden, Mass.	3		Superior, Wis.	4	
Manchester, N. H.	1		Syracuse, N. Y.	3	
Melford, Mass.	3		Tacoma, Wash.	1	
Milwaukee, Wis.	3		Taunton, Mass.	1	
Minneapolis, Minn.	5		Toledo, Ohio.	16	
Mobile, Ala.	2	1	Topeka, Kans.	4	
Nashville, Tenn.	4		Trenton, N. J.	3	
Newark, N. J.	5		Washington, D. C.	12	1
New Bedford, Mass.	2		Wheeling, W. Va.	2	2
New Castle, Pa.	2		Wichita, Kans.	4	
New Haven, Conn.	2		Wilkes-Barre, Pa.	9	
New London, Conn.	1		Wilkinsburg, Pa.	2	
New Orleans, La.	1		Williamsport, Pa.	1	
New York, N. Y.	93	11	Wilmington, Del.	4	
Niagara Falls, N. Y.	1	1	Worcester, Mass.	1	
Norfolk, Va.	4		York, Pa.	3	
Norristown, Pa.	4		Zanesville, Ohio.	5	

TYPHUS FEVER.

Texas—El Paso—Laredo.

Acting Asst. Surg. Tappan reported that during the two weeks ended October 16, 1916, 6 cases of typhus fever were notified at El Paso, Tex., making a total of 17 cases since July 1.

Acting Asst. Surg. Hamilton reported a case of typhus fever at Laredo, Tex., October 21, 1916, and another case October 23, making three cases since October 16.

City Reports for Week Ended Oct. 7, 1916.

During the week ended October 7, 1916, a case of typhus fever was reported at Austin, Tex.; three cases were reported at El Paso, Tex.; and three cases at New York City, N. Y.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for September, 1916.

Place.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.
District of Columbia.....	40	14	37
Louisiana.....	28	15	22
Michigan.....	394	114	222
Minnesota.....	178	31	86
New Jersey.....	235	.....	53
New York.....	789	342	223
Ohio.....	665	158	409
West Virginia.....	116	74	61

State Reports for August, 1916.

During the month of August, 1916, 8 cases of diphtheria, 40 cases of measles, and 11 cases of scarlet fever were reported in Montana; 816 cases of diphtheria, 1,063 cases of measles, and 181 cases of scarlet fever were reported in New York; and 6 cases of diphtheria, 45 cases of measles, and 10 cases of scarlet fever were reported in Oregon.

New York Report for July, 1916.

During the month of July, 1916, 1,405 cases of diphtheria, 5,194 cases of measles, and 523 cases of scarlet fever were reported in the State of New York.

City Reports for Week Ended Oct. 7, 1916.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	584,605	.....	16	1	1	.....	4	.....	33	18
Boston, Mass.....	745,139	209	33	2	3	.....	9	.....	58	11
Chicago, Ill.....	2,447,045	633	197	15	15	.....	67	2	210	63
Cleveland, Ohio.....	656,975	178	50	4	3	.....	8	.....	32	16
Detroit, Mich.....	554,717	167	97	6	1	1	19	1	24	18
New York, N. Y.....	5,468,190	1,215	121	6	11	2	26	1	318	148
Philadelphia, Pa.....	1,683,664	448	47	2	2	.....	11	.....	80	50
Pittsburgh, Pa.....	571,984	168	38	3	4	1	14	.....	14	17
St. Louis, Mo.....	745,988	206	65	2	5	.....	16	1	44	29
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.....	461,335	136	21	1	1	.....	8	.....	23	14
Cincinnati, Ohio.....	406,706	118	41	1	3	.....	6	.....	23	9
Jersey City, N. J.....	300,133	72	7	.....	.....	.....	2	.....	17	8
Los Angeles, Cal.....	463,367	94	15	1	1	.....	5	.....	50	10
Milwaukee, Wis.....	428,062	90	16	2	1	.....	19	1	24	4
Minneapolis, Minn.....	353,460	.....	28	.....	.....	.....	10	.....	.....	.....
Newark, N. J.....	399,000	.....	9	.....	1	.....	1	.....	19	14
New Orleans, La.....	366,484	.....	22	.....	14	.....	1	.....	39	24
San Francisco, Cal.....	1,416,912	117	10	1	7	.....	9	.....	21	12
Seattle, Wash.....	330,834	46	3	1	5	.....	1	.....	17	6
Washington, D. C.....	358,679	106	11	.....	6	.....	6	.....	14	11

¹ Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended Oct. 7, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.....	209,722	68	10				2		7	4
Denver, Colo.....	253,161	46	9		1					9
Indianapolis, Ind.....	265,578		36				11		3	
Kansas City, Mo.....	289,879	59	11	2			2		6	
Portland, Ore.....	272,833	57	4		23		5	1		5
Providence, R. I.....	270,025	44	9	2			5			3
Rochester, N. Y.....	250,747		3				1		6	2
St. Paul, Minn.....	241,999	44	8				1		20	6
From 100,000 to 200,000 inhabitants:										
Birmingham, Ala.....	174,108	41	4				6		5	8
Bridgeport, Conn.....	118,434	31	4						2	4
Cambridge, Mass.....	111,669	30	5		9		2		9	3
Camden, N. J.....	104,349		1							
Fall River, Mass.....	126,904	39	3			1			11	10
Grand Rapids, Mich.....	125,759	37	3				2		1	2
Hartford, Conn.....	108,969	40	3						1	4
Lowell, Mass.....	112,124	32	9	3	5		1		8	3
Lynn, Mass.....	100,316	20	2	1			2		3	3
Nashville, Tenn.....	115,978	31	5	1	6		5		4	4
New Bedford, Mass.....	114,691	35					1		4	4
New Haven, Conn.....	147,095		4		3				4	5
Omaha, Nebr.....	135,455	45	13	2			2		1	4
Reading, Pa.....	105,094	37	1	1			1			3
Richmond, Va.....	154,674	60	17		1		4	1	7	4
Salt Lake City, Utah.....	113,567	34	3	1	32		13			
Springfield, Mass.....	103,216	32	5	1			1		5	3
Syracuse, N. Y.....	152,534		9		2		2		5	2
Tacoma, Wash.....	108,091	12			44					
Toledo, Ohio.....	187,840	70	9				8		3	7
Trenton, N. J.....	109,212	42	4				1		6	2
Worcester, Mass.....	190,524	43		1	1				9	4
From 50,000 to 100,000 inhabitants:										
Atlantic City, N. J.....	55,806				2		1			
Bayonne, N. J.....	67,582		4				1		2	
Berkeley, Cal.....	54,879				1		2			1
Binghamton, N. Y.....	53,082	26	12	1	1				1	2
Brockton, Mass.....	65,746	10	2						5	
Canton, Ohio.....	59,139	12	6				3			1
Charleston, S. C.....	60,427	23								3
Covington, Ky.....	56,529	11	2				1		2	1
Duluth, Minn.....	91,913				1				3	
El Paso, Tex.....	51,936	21	4	1	5		1			5
Erie, Pa.....	73,798		2						7	39
Evansville, Ind.....	72,125	14	5	1			5		2	2
Flint, Mich.....	52,159	15	11						5	2
Fort Worth, Tex.....	99,528		1						1	1
Harrisburg, Pa.....	70,734	26	1						1	1
Hoboken, N. J.....	76,104	19							4	1
Johnstown, Pa.....	66,585	24								
Kansas City, Kans.....	96,834		7				4			
Lancaster, Pa.....	50,269								1	
Lawrence, Mass.....	98,197	23	3	1	1		5		2	2
Little Rock, Ark.....	55,158	16							1	
Malden, Mass.....	50,067	12	3				1		2	
Manchester, N. H.....	76,959	19					2			
Mobile, Ala.....	56,536	23	1				1		2	2
New Britain, Conn.....	52,203						2			
Norfolk, Va.....	88,076	25	2						2	2
Oklahoma, Okla.....	88,158	9	1		1		5			1
Passaic, N. J.....	69,010	17							4	
Pawtucket, R. I.....	58,156	17	4							1
Portland, Me.....	63,014	28	3		1		1			5
Sacramento, Cal.....	64,806	16								
Saginaw, Mich.....	54,815	18								2
St. Joseph, Mo.....	83,974	19					5			
San Diego, Cal.....	51,115		7				1		1	1
Schenectady, N. Y.....	95,265	12	1	1	1		4		2	4
Somerville, Mass.....	85,460	23	1	1					2	
Springfield, Ill.....	59,468	21	6				1			1

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

City Reports for Week Ended Oct. 7, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants—Continued.										
Springfield, Ohio.....	50,804	16	1				2		4	1
Troy, N. Y.....	77,738		1				1		6	2
Wichita, Kans.....	67,847		1							1
Wilkes-Barre, Pa.....	75,218	17	3				2		1	
Wilmington, Del.....	93,161	33	2				1			
York, Pa.....	50,543						1			
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.....	27,031	2	4							
Austin, Tex.....	34,016	2	3	1	1					
Brookline, Mass.....	31,934	4								
Butler, Pa.....	26,587	8	3	1			2			
Butte, Mont.....	42,918	34	2	1					15	5
Chelsea, Mass.....	132,452	10	1						2	
Chicopee, Mass.....	28,688	10	2							
Columbia, S. C.....	34,058	17								
Cumberland, Md.....	25,564	7	1		1		2			1
Lanville, Ill.....	31,554	3	1							
Eavenport, Iowa.....	47,127						5			
Dubuque, Iowa.....	39,650								1	1
East Orange, N. J.....	41,155	12					1			
Elgin, Ill.....	27,844	8								1
Everett, Mass.....	38,307	4	1						1	
Fitchburg, Mass.....	41,144	8								1
Galveston, Tex.....	41,076	7					2		1	
Hagerstown, Md.....	25,283				16		1			
Haverhill, Mass.....	47,774		4						1	1
Jackson, Mich.....	34,730		2				2			
Kalamazoo, Mich.....	47,364	15			1					
Kenosha, Wis.....	30,319	4	8				1			1
La Crosse, Wis.....	31,522	4	1							
Lexington, Ky.....	39,703	17	14	1			6		1	1
Lincoln, Nebr.....	46,028	14	1				4		4	
Lorain, Ohio.....	35,662		1				2			
Lynchburg, Va.....	32,385	11							1	1
Madison, Wis.....	30,084	2					3			2
Medford, Mass.....	25,737	6			1		1			
Montclair, N. J.....	25,550	5							2	1
New Castle, Pa.....	40,351		1				1		3	
Newport, R. I.....	29,631	6								1
Newton, Mass.....	43,085	6	4						2	
Niagara Falls, N. Y.....	36,240	7	2						4	
Norristown, Pa.....	30,833	7	2						1	
Ogden, Utah.....	30,466	5	1							
Orange, N. J.....	32,524	8							3	
Pasadena, Cal.....	43,859	6					1		3	1
Perth Amboy, N. J.....	39,725		1		1				4	
Pittsfield, Mass.....	37,580	11	3	1					1	
Portsmouth, Va.....	38,610	6	7							
Quincy, Ill.....	36,764	12	3	1			1			2
Quincy, Mass.....	37,251	9							1	
Racine, Wis.....	45,507	9	1							1
Roanoke, Va.....	41,929	12	3	1						1
San Jose, Cal.....	37,994	11	1						2	1
Staubenville, Ohio.....	26,631	5	1							
Stockton, Cal.....	34,508	16	1				1			1
Superior, Wis.....	45,285	6	2							
Taunton, Mass.....	35,957	19	1						1	1
Topeka, Kans.....	47,914	5	1		1		1			
Waltham, Mass.....	30,129	7	1		1					
West Hoboken, N. J.....	41,693	10							1	1
Wheeling, W. Va.....	43,097	12	1				1		1	1
Williamsport, Pa.....	33,495		3				1			
Zanesville, Ohio.....	30,406	7	1				3			1
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.....	14,979	5								1
Braddock, Pa.....	21,310	8	2						1	1
Cairo, Ill.....	15,593	4								
Clinton, Mass.....	13,075				1		1			

¹ Population April 15, 1910; no estimate made.

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

City Reports for Week Ended Oct. 7, 1916—Continued.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants—Continued.										
Coffeyville, Kans.....	16,765		2							
Concord, N. H.....	22,480	5	1							
Galesburg, Ill.....	23,923	2	1							
Kokomo, Ind.....	20,312	5	5		5					
Long Branch, N. J.....	15,057	3							1	
Morristown, N. J.....	13,158	2							1	
Nanticoke, Pa.....	22,441	4	2							
Newburyport, Mass.....	15,195	7							1	
New London, Conn.....	20,771	2								
North Adams, Mass.....	22,019	7			2				1	1
Northampton, Mass.....	19,846	4	1		11				1	1
Plainfield, N. J.....	23,280	6							2	
Rutland, Vt.....	14,624	2	1				1			
Saratoga Springs, N. Y.....	12,842	4								
Steelton, Pa.....	15,337	3		1						
Wilkinsburg, Pa.....	22,361	11	1				1			
Woburn, Mass.....	15,862	2								

¹ Population Apr. 15, 1910; no estimate made.

FOREIGN.

BRAZIL.

Plague—Bahia District.

Plague was reported present in the Bahia District, Brazil, October 24, 1916.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Diseases.	Sept 21-30, 1916.		Remain- ing under treatment Sept. 30, 1916.
	Cases.	Deaths.	
Diphtheria.....	3	.....	2
Malaria.....	4	.....	18
Measles.....	24	1	22
Paratyphoid fever.....	.....	.....	7
Scarlet fever.....	3	.....	3
Typhoid fever.....	4	2	39
Varicella.....	1	.....	1

¹ From the interior of the Republic.

MEXICO.

Typhus Fever—Mexico City.

During the period from August 1, 1915, to September 9, 1916, cases of typhus fever in Mexico City were reported by weeks as follows:

Week ended—	Cases.	Week ended—	Cases.
1915.		1916.	
Aug. 7.....	20	Jan. 1.....	1,011
14.....	29	8.....	962
21.....	57	15.....	874
28.....	119	22.....	664
Sept. 4.....	111	29.....	601
11.....	39	Feb. 5.....	712
18.....	38	12.....	685
25.....	102	19.....	543
Oct. 2.....	79	26.....	588
9.....	66	Mar. 4.....	492
16.....	144	11.....	418
23.....	93	18.....	365
30.....	230	25.....	308
Nov. 6.....	206	Apr. 1.....	273
13.....	294	8.....	353
20.....	352	15.....	290
27.....	418	22.....	251
Dec. 4.....	896	30.....	181
11.....	770	May 6.....	99
18.....	687	13.....	134
25.....	773	20.....	127

Week ended—	Cases.	Week ended—	Cases.
1916.		1916.	
May 27.....	117	July 29.....	73
June 3.....	119	Aug. 5.....	93
10.....	90	12.....	97
17.....	73	19.....	105
24.....	74	26.....	106
July 1.....	36	Sept. 2.....	137
8.....	83	9.....	107
15.....	92		
22.....	87	Total.....	16,989

UNION OF SOUTH AFRICA.

Plague—Vicinity of Port Elizabeth.

On October 19, 1916, two deaths from plague were reported 20 miles from Port Elizabeth, Union of South Africa.

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

Reports Received During Week Ended Oct. 27, 1916.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton.....	Aug. 11-20.....		10	
India:				
Bombay.....	Sept. 3-9.....	11	11	
Karachi.....	do.....	3		
Madura District.....	do.....	5	1	
Rangoon.....	Aug. 20-26.....	1		
Indo-China:				
Saigon.....	Aug. 14-Sept. 2.....	24	17	
Japan:				
Kobe.....	Sept. 4-24.....	217	94	Since Aug. 14, 1916: Cases, 294; deaths, 216.
Nagasaki.....	Sept. 11-17.....	38	20	
Osaka.....	Sept. 5-20.....	325	170	Since Aug. 13, 1916: Cases, 705; deaths, 332.
Java.....				East Java, July 22-Aug. 4, 1916: Cases, 7; deaths, 6. Mid Java, July 15-Aug. 4: Cases, 58; deaths, 47. West Java, July 26-Aug. 17: Cases, 228; deaths, 146.
Philippine Islands:				
Manila.....	Aug. 27-Sept. 9.....	184	109	Not previously reported: Cases, 23; deaths, 3.
Provinces.....				Aug. 23-Sept. 16, 1916: Cases, 1,529; deaths, 963.
Albay.....	Aug. 28-Sept. 16.....	96	48	
Bataan.....	do.....	27	20	
Bulacan.....	do.....	191	130	
Batangas.....	Sept. 8-16.....	12	5	
Camarines.....	Aug. 28-Sept. 16.....	87	55	
Cavite.....	do.....	6	6	
Iloilo.....	do.....	711	400	
Laguna.....	do.....	36	23	
Mindoro.....	Sept. 3-16.....	6	4	
Misamis.....	Aug. 28-Sept. 16.....	42	25	
Pampanga.....	do.....	30	28	
Negros Occidental.....	Sept. 3-16.....	24	12	
Nueva Ecija.....	Sept. 10-16.....	1		
Rizal.....	Aug. 28-Sept. 16.....	218	124	
Romblon.....	Sept. 2-9.....	4	3	
Samar.....	Aug. 28-Sept. 2.....	1	1	
Tayabas.....	Sept. 3-9.....	1		
Zambales.....	Aug. 28-Sept. 16.....	36	24	
Siam:				
Bangkok.....	Aug. 6-12.....	1	1	
Turkey in Asia:				
Jaffa.....	July 11-29.....	13	10	
Mersina.....	Aug. 6-12.....	5	2	
Trebizond.....	Sept. 3-9.....	5	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 Oct. 27, 1916—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton.....	Aug. 1-10.....		3	
Egypt:				
Alexandria.....	Sept. 10-16.....	1		
India:				
Bombay.....	Sept. 3-9.....	10	8	
Karachi.....	do.....	3	1	
Madras Presidency.....	do.....	338	225	
Rangoon.....	Aug. 20-Sept. 2....	32	31	
Indo-China:				
Saigon.....	Aug. 14-Sept. 2....	9	4	
Java:				
Residency—				
Kediri.....	July 22-28.....	2	2	
Paseroean.....	do.....	3	3	
Surabaya.....	July 22-Aug. 4....	6	6	
Siam:				
Bangkok.....	July 31-Aug. 19...	11	11	

SMALLPOX.

China:				
Canton.....	Aug. 1-10.....		1	
Cuba:				
Cienfuegos.....	Sept. 24-30.....	2		
India:				
Bombay.....	Sept. 3-9.....	4	2	
Madras.....	do.....	11	5	
Rangoon.....	Aug. 20-Sept. 2....	5	1	
Java:				East Java, July 22-Aug. 4, 1916: Cases, 15. Mid Java, July 15-Aug. 4: Cases, 33; deaths, 7. West Java, July 28-Aug. 17: Cases, 109; deaths, 13.
Mexico:				
Aguascalientes.....	Sept. 25-Oct. 1....		4	
Straits Settlements:				
Singapore.....	Aug. 20-26.....	1		
Switzerland:				
Basel.....	Aug. 13-Sept. 23...	4		

TYPHUS FEVER.

China:				
Antung.....	Sept. 4-10.....	1		
Egypt:				
Alexandria.....	Sept. 10-16.....	5	2	
Java:				East Java, July 22-Aug. 4, 1916: Case, 1. Mid Java, July 15-Aug. 4: Cases, 14; deaths, 2. West Java, July 28-Aug. 17: Cases, 28; deaths, 5.
Mexico:				
Aguascalientes.....	Sept. 25-Oct. 1....		14	
Sweden:				
Stockholm.....	Sept. 3-16.....	3		
Switzerland:				
Basel.....	Aug. 20-26.....	3		
Turkey in Asia:				
Haifa.....	July 24-30.....	15	7	

YELLOW FEVER.

Barbados.....	Sept. 24-30.....	3	2	
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CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from July 1 to Oct. 20, 1916.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary.....				
Austria.....	Mar. 26-Apr. 8.....	2		Mar. 12-May 6, 1916: Cases, 425; deaths, 155.
Do.....	July 9-13.....	1		
Bosnia-Herzegovina.....	Mar. 12-May 20.....	398	147	
Hungary.....	Mar. 20-Apr. 2.....	2		
Ceylon:				
Colombo.....	June 25 July 1.....	1	1	May 7-20, 1916: Cases, 43; deaths, 5, from s. s. Hong Kheng from Halfong; total to June 1: Cases, 61; deaths, 37. May 28-June 10, 1916: Cases, 19, from the port.
China:				
Dairen.....	Aug. 6-12.....	1		On s. s. Taihei Maru from Hongkong and Chefoo. Present. Chinese.
Hongkong.....	Aug. 19-Sept. 2.....	9	9	
Macao.....	Aug. 17.....			
Shanghai.....	Aug. 20-26.....		2	
Egypt:				
Suez.....	May 18-20.....	5	2	From s. s. Pei-ho from Bombay. Do.
Tor. quarantine station.....	May 22-June 3.....	112	42	
Greece:				
Moeschopolis.....	July 25-31.....	15	8	
India:				
Akyab.....	June 11-July 8.....		2	
Bassein.....	Apr. 23-June 10.....		3	
Bombay.....	May 14-July 1.....	21	9	
Do.....	July 2-Sept. 2.....	129	84	
Calcutta.....	May 7-July 1.....		259	
Do.....	July 2-Aug. 12.....		59	
Henzada.....	Apr. 23-July 22.....		7	
Karachi.....	Aug. 23-Sept. 2.....	2	1	
Madras.....	June 25-July 1.....	1	1	
Do.....	July 2-22.....	5	3	
Madura District.....	Aug. 28-Sept. 2.....	1	1	
Mandalay.....	July 23-29.....		1	
Pakokku.....	July 2-8.....		1	
Pegu.....	June 4-10.....		1	
Rangoon.....	May 24-July 29.....	13	9	
Do.....	July 1-31.....	1	1	
Indo-China.....				Dec. 1-31, 1915: Cases, 510; deaths, 395. Jan. 1-Mar. 31, 1916: Cases, 2,013; deaths, 1,100.
Provinces—				
Anam.....	Dec. 1-31.....	493	388	
Do.....	Jan. 1-Mar. 31.....	1,753	1,024	
Cambodia.....	Jan. 1-Feb. 29.....	11	10	
Cochin-China.....	Jan. 1-Mar. 31.....	10	4	
Tonkin.....	Dec. 1-31.....	17	7	
Do.....	Jan. 1-Mar. 31.....	244	62	
Saigon.....	May 1-July 2.....	162	74	
Do.....	July 3-Aug. 5.....	45	28	
Japan:				
Kobe.....	Aug. 30.....	46		
Nagasaki.....	Aug. 8-Sept. 10.....	279	118	
Osaka.....	Aug. 30.....	353		
Yokohama.....	Aug. 15.....	6	5	55 cases, with 9 deaths in quarantine, from s. s. Hawaii Maru from Hongkong via ports.
Do.....	Sept. 4-10.....	12	3	Total to Sept. 10, 1916: Cases, 29; deaths, 15.
Suburbs of city.....	Aug. 14-20.....	8	4	
Districts.....	Sept. 4-10.....	21	8	Total to Sept. 10, 1916: Cases, 82; deaths, 45.
Java:				
Batavia.....	Apr. 13-June 29.....		80	East Java, Apr. 8-June 30, 1916: Cases, 50; deaths, 25. July 1-24: Cases, 6; deaths, 2. Mid Java, June 3-30, 1916: Cases, 30; deaths, 28. July 1-24: Cases, 20; deaths, 18. West Java, Apr. 3-June 29, 1916: Cases, 661; deaths, 409. July 7-27: Cases, 334; deaths, 218. Including Malang, 2 cases, and Sidoarjo and Malang, 3 cases, with 2 deaths.
Do.....	July 7-13.....	16	12	
Malang.....	Apr. 8-14.....	2	2	
Malang and Djombank.....	Apr. 28-May 5.....	2	2	
Surabaya residency.....	May 6-19.....	5	2	
Do.....				
Korea.....				Sept. 23, 1916: In southern and central Korea, 108 cases.
Chemulpo.....	Sept. 18.....	2		
Fusan.....	Aug. 1-Sept. 2.....	2	1	

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Persia:				
Asterabad.....	June 10.....			Present, with 4 or 5 deaths daily.
Enveli.....	July 1-31.....	7	4	
Foumen.....	May 9.....	3	2	Previously erroneously included in cases at Recht.
Ghazian.....	June 13.....	2	1	
Kazvin.....	July 1-31.....	22	15	
Mohammerah.....	June 12.....			Present.
Recht.....	July 1-31.....	19	2	
Teheran.....	Sept. 1.....			Do.
Urumiah.....	July 1-31.....	25		
Philippine Islands:				
Manila.....	May 14-July 1.....	36	25	
Do.....	Aug. 6-26.....	174	94	Not previously reported: Cases, 16; deaths, 1.
Provinces:				
Albay.....	July 2-Aug. 26.....	218	109	July 16-Aug. 26, 1916: Cases, 1,675; deaths, 943.
Bataan.....	do.....	5	2	
Batangas.....	July 30-Aug. 26.....	18	9	
Bulacan.....	June 18-July 1.....	17	4	
Do.....	July 2-Aug. 26.....	618	302	
Cagayan.....	June 25-July 1.....	2	1	
Do.....	Jul. 2-8.....	2		
Camarines.....	June 18-July 1.....	69	32	
Do.....	Jul. 2-Aug. 26.....	843	528	
Cavite.....	June 11-Jul. 1.....	14	11	
Do.....	July 2-Aug. 26.....	25	19	
Iloilo.....	Aug. 20-26.....	23	17	
Laguna.....	Mar. 21-July 1.....	31	20	
Do.....	July 2-Aug. 26.....	121	91	
Mindanao.....	Jul. 16-Aug. 5.....	19	11	
Misamis.....	July 16-Aug. 26.....	176	94	
Pampanga.....	July 9-Aug. 5.....	61	52	
Do.....	Aug. 6-26.....	43	35	
Rizal.....	Mar. 24-July 1.....	11	9	
Do.....	July 2-Aug. 26.....	153	89	
Romblon.....	June 18-Jul. 1.....	68	39	
Do.....	Jul. 9-Aug. 26.....	19	16	
Tarabas.....	June 10-24.....	11	8	
Do.....	Aug. 6-12.....	1	1	
Zambales.....	Aug. 20-26.....	13	7	
Siam:				
Bangkok.....	May 15-27.....	22	21	
Do.....	July 16-29.....	4	4	
Straits Settlements:				
Singapore.....	May 27-June 24.....	8	3	
Do.....	Aug. 13-19.....	1	1	
Turkey in Europe:				
Constantinople.....	May 19-July 6.....	118	63	Present among soldiers June 14.
Turkey in Asia:				
Adana.....	June 16-July 9.....	106	60	
Alexandria.....	June 15-25.....	47	16	
Bardad.....	June 15-July 5.....	78	18	
Beirut.....	July 14-19.....	39	17	
Damascus.....	June 16-July 3.....	77	50	
Jaffa.....	June 17-25.....	67	39	
Do.....	Jul. 1-26.....	99	28	July 9-15: Cases, 39; deaths, 25.
Smyrna.....	June 15-25.....	22	13	Epidemic. Estimated number cases daily, 50.
Trebizond.....	Aug. 6-Sept. 2.....	37	7	
At sea:				
Steamship Hong-Kheng.....	Apr. 27-May 9.....	17	11	En route from Haifong, Indo-China, to Colombo.
Steamship Pei-ho.....	Apr. 19-30.....	1	1	From Faigon, Indo-China, for Colombo.
Do.....	May 5-17.....	8	8	From Colombo for Suez.

PLAGUE.

Brazil:				
Pernambuco, State.....	Jan. 1-Mar. 31.....			Several cases.
Ceylon:				
Colombo.....	Apr. 30-July 1.....	49	46	
Do.....	July 2-Aug. 19.....	42	39	
Chile:				
Mejillones.....	May 28-June 3.....	1		
Antofagasta.....	June 4-July 22.....	2		

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	July 16-Aug. 5.....			Present. Present in vicinity
Hongkong.....	May 23-June 30.....	7	7	Aug. 12.
Do.....	July 23-Sept. 2.....	3	3	
Ecuador:				
Ambato.....	May 1-31.....			Epidemic.
Bahia.....	do.....			Country district, vicinity of
Dauile.....	June 1-30.....	4	2	Bahia.
Quavaquill.....	May 1-June 30.....	10	3	
Manta.....	May 1-31.....			Country district, vicinity of
Egypt.....				Manta.
Alexandria.....	May 26-Sept. 9.....	46	28	Jan. 1-Aug. 31, 1916: Cases, 1,690; deaths, 823. Jan. 1-June 29, 1916: Cases, 1,634; deaths, 792.
Cairo.....	July 10.....	1		Imported.
Port Said.....	May 7-June 28.....	11	10	
Do.....	July 20-Aug. 3.....	5	4	
Provinces—				
Assiout.....	May 27-June 29.....	9	8	
Beni-Souef.....	May 26-June 25.....	34	15	
Do.....	July 1-10.....	2	1	
Fayoum.....	May 26-June 30.....	112	45	
Do.....	July 1-Aug. 3.....	9	2	
Galioulah.....	June 7.....	1		
Gingeb.....	June 9-21.....	3	1	
Do.....	July 7-10.....	7	7	
Menou eh.....	June 12-30.....	9	4	
Do.....	July 1-31.....	5	3	
Minieh.....	May 29-June 30.....	37	14	
Do.....	July 3-10.....	5	2	
Great Britain:				
Bristol.....	Aug. 18-31.....	3		
Full.....	Aug. 19-31.....	2	1	
Liverpool.....	Sept. 22-29.....	5	3	
Greece:				
Island of Chios—				
Mitylene.....	Sept. 29.....			Present.
Volo.....	do.....			Slight epidemic.
India:				May 7-Aug. 12, 1916: Cases, 12,118; deaths, 8,610. ¹
Bassein.....	Apr. 23-July 29.....		242	
Bombay.....	May 14-July 1.....	290	234	
Do.....	July 2-Sept. 2.....	108	93	
Calcutta.....	May 7-July 1.....		14	
Benazada.....	Apr. 23-July 1.....		14	
Do.....	July 9-22.....		4	
Karachi.....	May 14-July 1.....	72	61	
Do.....	July 2-Aug. 2.....	3	5	
Madras Presidency.....	May 14-June 24.....	139	94	
Do.....	July 9-Sept. 2.....	1,092	726	
Mandalay.....	May 14-June 3.....		1	
Moulmein.....	Apr. 23-June 10.....		37	
Do.....	July 2-29.....		69	
Pegu.....	June 11-July 15.....		3	
Prome.....	Apr. 23-May 20.....		1	
Do.....	July 2-29.....		39	
Rangoon.....	Apr. 23-July 1.....	467	440	Apr. 16-22, 1916: Cases, 54;
Do.....	July 2-Aug. 19.....	209	192	deaths, 52.
Toungoo.....	June 25-July 1.....	2	2	
Do.....	July 9-29.....		9	
Indo-China.....				Dec. 1-31, 1915: Cases, 90; deaths, 70. Jan. 1-Mar. 31, 1916: Cases, 290; deaths, 191.
Provinces—				
Anam.....	Dec. 1-31.....	36	20	
Do.....	Jan. 1-Mar. 31.....	131	93	
Cambodia.....	Dec. 1-31.....	27	36	
Do.....	Jan. 1-Feb. 29.....	77	71	
Cochin China.....	Dec. 1-31.....	4	1	
Do.....	Jan. 1-Mar. 31.....	82	27	
Tonkin.....	Dec. 1-31.....	23	23	
Saigon.....	May 15-July 2.....	55	30	
Do.....	July 24-Aug. 12.....	7	3	

¹ Reports for week ended May 20 and 27, 1916, not received.

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Java:				
Residences—				
Kediri.....	Apr. 9-May 19.....	18	18	
Paserocean.....	Apr. 9-June 30.....	13	12	
Do.....	July 1-14.....	1	1	
Surabaya.....	Apr. 9-June 30.....	28	25	
Do.....	July 1-14.....	8	7	
Surkarta.....	Apr. 9-June 30.....	15	24	
Japan:				
Taiwan—				
Tamsuil.....	July 15-22.....	2	2	17 miles from capital city.
Mauritius.....	Apr. 15-June 21.....	6	8	
Persia:				
Recht.....	May 2-19.....	20	14	
Siam:				
Bangkok.....	Apr. 30-July 1.....	66	50	
Do.....	July 2-29.....	29	23	
Straits Settlements:				
Singapore.....	Apr. 30-July 1.....	5	1	
Do.....	July 2-Aug. 5.....	1	4	
Union of South Africa:				
Orange Free State.....	Jan. 23-Mar. 26.....	36	23	Remaining under treatment Mar. 26, 6 cases.

SMALLPOX.

Australia:					
New South Wales.....					
Angledool.....	July 21-Aug. 3.....	1		Aug. 4-17, 1916: Cases, 6.	
Guildford.....	June 9-22.....	2			
Lake Macquarie.....	Aug. 4-17.....	2			
Narrabri.....	May 23-June 7.....	8			
Do.....	July 7-Aug. 17.....	19			
Swansea.....	Aug. 4-17.....	1			
Sydney.....	June 23-30.....	1			
Do.....	July 1-Aug. 3.....	4			
Tamworth.....	June 9-22.....	1			
Do.....	July 7-20.....	1			
Walgett.....	July 21-Aug. 3.....	6			
Austria-Hungary:					
Austria.....					
Galicia, Province.....	Apr. 23-May 20.....	464		Feb. 13-May 20, 1916: Cases, 2,175.	
Prague.....	July 2-Sept. 9.....	6	2		
Vienna.....	May 27-July 1.....	4	1		
Do.....	July 9-Aug. 5.....	3			
Hungary—					
Budapest.....	May 21-July 1.....	38	15		
Do.....	July 2-Sept. 9.....	1	1		
Brazil:					
Bahia.....	July 2-Aug. 26.....	8	8		
Para.....	July 2-8.....		4		
Rio de Janeiro.....	Apr. 9-June 17.....	94	13		
Do.....	July 9-Aug. 19.....	55	8		
Santos.....	May 8-14.....		1		
British East Africa:					
Mombasa.....	Apr. 24-May 31.....	4	2		
Do.....	July 1-31.....		1		
Canada:					
Ontario:					
Fort William and Port Arthur.....	July 9-15.....	1			
Niagara Falls.....	July 2-8.....	1			
Toronto.....	June 25-July 29.....	3			
Ceylon:					
Columbo.....	May 7-June 3.....	4			
China:					
Antung.....	May 22-June 18.....	2	1		
Chunking.....	May 7-June 24.....				
Do.....	July 2-Aug. 21.....				
Dairen.....	May 21-July 1.....	2	1		
Do.....	July 16-Aug. 26.....	3	2		
Foochow.....	May 7-27.....				
Do.....	July 2-Aug. 5.....				
				Present.	
				Do.	
				Do.	
				Do.	

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Harbin.....	May 2-June 18.....	3	1	
Do.....	July 9-Aug. 13.....	3	2	
Hongkong.....	May 7-June 24.....	68	50	
Do.....	July 2-Sept. 2.....	14	13	
Nanking.....	June 11-Aug. 19.....	.....	.....	Present.
Tientsin.....	May 14-July 1.....	45	11	
Do.....	July 2-29.....	3	1	
Egypt:				
Alexandria.....	May 28-June 17.....	4	2	
Cairo.....	Jan. 22-May 27.....	154	57	
Port Said.....	Mar. 12-May 27.....	6	6	
France:				
Paris.....	May 14-July 1.....	9	.....
Do.....	July 2-8.....	1	.....
Germany:				
Breslau.....	May 21-27.....	1	.....
Hamburg.....	June 11-17.....	1	.....
Königsburg.....	July 2-Sept. 2.....	4	.....
Great Britain:				
Cardiff.....	June 4-17.....	1	1	
London.....	.....do.....	1	.....
Southampton.....	July 31-Aug. 5.....	1	.....
Greece:				
Athens.....	Apr. 1-June 13.....	178	37	
Do.....	July 9-23.....	.....	.....	Present. Estimated occurrence. 10 cases weekly.
India:				
Bassein.....	May 7-June 10.....	.....	2	
Bombay.....	May 14-July 1.....	153	79	
Do.....	July 2-Sept. 2.....	47	32	
Calcutta.....	May 7-June 3.....	.....	3	
Do.....	July 2-Aug. 5.....	.....	2	
Karachi.....	Aug. 6-Sept. 2.....	5	4	
Madras.....	May 14-July 1.....	139	42	
Do.....	July 2-Sept. 2.....	94	47	
Rangoon.....	Apr. 23-July 1.....	260	135	
Do.....	July 2-29.....	10	5	
Indo-China				
Provinces—				
Anam.....	Dec. 1-31.....	48	.....
Do.....	Jan. 1-Mar. 31.....	68	5	
Cambodia.....	Dec. 1-31.....	19	13	
Do.....	Jan. 1-Mar. 31.....	38	14	
Cochin China.....	Dec. 1-31.....	1	1	
Do.....	Feb. 1-Mar. 31.....	23	2	
Saigon.....	July 24-Aug. 13.....	4	4	
Tonkin.....	Dec. 1-31.....	6	.....
Do.....	Jan. 1-Mar. 31.....	270	6	Dec. 1-31, 1915: Cases, 74; deaths, 14. Jan. 1-Mar. 31, 1916: Cases, 399; deaths, 27.
Japan:				
Kobe.....	May 29-June 25.....	24	4	
Do.....	July 24-Sept. 3.....	11	2	
Nagasaki.....	June 26-July 2.....	1	1	
Java				
Batavia.....	Apr. 13-June 29.....	31	9	East Java, Apr. 8-June 30, 1916: Cases, 88; deaths, 11. July 1-21: Cases, 27; deaths, 1. Mid Java, Apr. 1-June 30, 1916: Cases, 233; deaths, 47. July 1-21: Cases, 23; deaths, 7. West Java, Apr. 13-June 29: Cases, 278; deaths, 59. June 30-July 27: Cases, 144; deaths, 21.
Do.....	June 30-July 13.....	6	4	
Samarang.....	May 13-19.....	2	2	
Surabaya.....	May 9-June 16.....	2	1	
Malta				
.....	Apr. 1-30.....	7	1	
Mexico:				
Aguaascalentas.....	June 12-July 2.....	.....	33	
Do.....	July 3-Sept. 24.....	.....	40	
Frontera.....	May 23-June 10.....	4	1	
Guadalajara.....	June 11-17.....	35	9	
Mazatlan.....	May 31-June 6.....	.....	4	
Mexico City.....	Aug. 23-Sept. 23.....	39	.....
Tenosique.....	June 14.....	.....	.....
Vera Cruz.....	June 4-July 2.....	.....	9	
Do.....	July 3-Sept. 3.....	.....	4	
Netherlands:				
Amsterdam.....	May 29-June 3.....	1	.....	175 miles south of Frontera: Epidemic among troops.

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands:				
Manila.....	.....do.....	1		
Do.....	July 1-8.....	3		
Porto Rico.....				June 19-25, 1916: Cases, 33.
Aguas Buenas.....	June 19-25.....	5		
Arecibo.....	.....do.....	2		
Do.....	Aug. 7-13.....	1		
Bayamon.....	June 19-July 2.....	2		
Naranjito.....	June 26-July 2.....	4		
Rio Piedras.....	.....do.....	1		
San Juan.....	.....do.....	24		
Toa Alta.....	.....do.....	12		
Portugal:				
Lisbon.....	May 21-July 1.....	15		
Do.....	July 9-Aug. 26.....	9		
Russia:				
Moscow.....	Apr. 30-July 1.....	222	59	
Do.....	July 2-Aug. 26.....	72	142	
Riga.....	Apr. 6-May 31.....	1	1	
Do.....	July 1-22.....	2		Apr. 1-30, 1916: 1 case.
Petrograd.....	Apr. 23-July 1.....	162	35	
Do.....	July 2-Aug. 19.....	70	17	
Siam:				
Bangkok.....	May 24-30.....	2		
Spain:				
Cadiz.....	July 1-31.....		1	
Madrid.....	May 1-31.....		13	June 1-30, 1916: Cases, 10.
Do.....	July 1-Aug. 31.....		34	
Malaga.....	May 1-31.....		7	
Seville.....	May 1-June 30.....		5	
Do.....	Aug. 1-31.....		4	
Valencia.....	May 21-July 1.....	12	4	
Do.....	July 8-Sept. 2.....	8		
Straits Settlements:				
Penang.....	May 14-20.....	3		
Singapore.....	Apr. 30-July 1.....	5	3	
Do.....	July 16-Aug. 19.....	4	2	
Switzerland:				
Basel.....	May 13-July 1.....	29		
Do.....	July 2-15.....	9		
Union of South Africa:				
Durban.....	June 1-30.....	1		
Johannesburg.....	May 28-June 3.....	1		
Venezuela:				
Maracaibo.....	Sept. 2-22.....		3	
Zanzibar:				
Zanzibar.....	May 12.....	1		From s. s. Dilmara.
At sea:				
Steamship Katuna.....				Case of smallpox landed at Colombo, Ceylon, May 12, 1916. Vessel arrived May 27 at Fremantle, Australia, was ordered to quarantine, and proceeded to Melbourne direct for disinfection.

TYPHUS FEVER.

Austria-Hungary:				
Austria.....				Feb. 13-May 20, 1916: Cases, 2,407.
Galicia, province.....	Apr. 22-May 20.....	1,311		
Vienna.....	July 2-15.....	3		
Hungary.....				Feb. 21-Mar. 5, 1916: Cases, 35; deaths, 7.
Budapest.....	May 21-June 24.....	14	2	
Do.....	July 2-Sept. 9.....	5	1	
Belgium:				
Liege.....	Aug. 12-19.....		1	
Canada:				
New Brunswick—				
St. John.....	July 29.....	4		
Canary Islands:				
Santa Cruz de Tenerife.....	July 31-Aug. 5.....		1	

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Antung.....	June 19-25.....	1	1	
Do.....	July 22-Aug. 27.....	3		
Harbin.....	May 2-8.....	1		
Do.....	July 3-16.....	1		
Tientsin.....	May 14-20.....		1	
Egypt:				
Alexandria.....	May 21-July 1.....	235	93	
Do.....	July 2-Sept. 9.....	150	66	
Cairo.....	Jan. 8-May 27.....	500	400	
Port Said.....	Mar. 18-May 27.....	41	21	
Germany:				
Aix la Chapelle.....	July 2-Aug. 12.....		2	
Barmen.....	Aug. 13-19.....		1	
Berlin.....	June 18-24.....		1	
Do.....	July 16-Aug. 19.....		8	
Bremen.....	July 16-Aug. 12.....	6		
Breslau.....	Aug. 15-21.....	3		
Chemnitz.....	May 28-June 3.....		1	
Frankfort on Main.....	June 11-17.....		1	
Hanover.....	May 7-27.....	4	1	
Do.....	July 1-29.....	3		
Konigsberg.....	June 4-10.....	1		
Do.....	July 9-Aug. 26.....	13		
Leipzig.....	June 4-10.....		1	
Stettin.....	July 16-Aug. 19.....		3	
Great Britain:				
Belfast.....	July 16-Sept. 9.....	12	4	
Glasgow.....	July 9-Aug. 12.....	8	6	
Greece:				
Athens.....	July 24-Aug. 21.....		2	
Saloniki.....	May 1-July 2.....		61	
Do.....	July 3-Aug. 21.....		49	
Italy:				
Palermo.....	June 29-July 5.....	1	1	
Japan:				
Hakodate.....	July 16-22.....	2		
Tokyo.....	May 22-July 25.....	114		
Java:				
Batavia.....	Apr. 13-June 29.....	46	13	
Do.....	July 7-27.....	24	4	
Samarang.....	Apr. 1-June 30.....	20	8	
Surabaya.....	Apr. 8-May 12.....	6	6	
Do.....	July 1-7.....	1		
Mexico:				
Aguascalientes.....	June 12-July 2.....		32	
Do.....	July 3-Sept. 24.....		167	
Chihuahua.....	Sept. 7.....	40		Sept. 20: Estimated number of cases, 100.
Durango.....	Sept. 1.....			Present.
Juarz.....	Sept. 7-20.....	18		
Guadalajara.....	June 11-17.....	4	1	
Mexico City.....	Aug. 28-Sept. 23.....	699		
Vera Cruz.....	June 4-9.....		2	
Do.....	July 24-Sept. 24.....		8	
Zacatecas, State.....				Sept. 7: Prevalent.
Netherlands:				
Rotterdam.....	July 30-Aug. 5.....		1	
Norway:				
Bergen.....	do.....		1	
Russia:				
Moscow.....	Apr. 30-July 1.....	909	52	
Do.....	July 9-Aug. 26.....	254	12	
Petrograd.....	Apr. 23-July 1.....	59	13	
Do.....	July 3-Aug. 19.....	22	5	
Spain:				
Madrid.....	Aug. 1-31.....		1	
Sweden:				
Stockholm.....	June 21-27.....	1		
Do.....	July 9-29.....	5		
Switzerland:				
Basel.....	July 24-Aug. 13.....	5		
Geneva.....	May 21-27.....	1		
Zurich.....	July 23-Sept. 2.....	5		

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

Reports Received from July 1 to Oct. 20, 1916—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Turkey in Asia:				
Adana.....	May 13-June 25.....			Present.
Do.....	July 2-8.....			Do.
Bagdad.....	June 27.....			Do.
Haifa.....	Apr. 24-June 11.....	35	13	
Do.....	July 10-23.....	53	24	
Jaffa.....	Apr. 23-June 25.....		47	Mar. 19-Apr. 1, 1916: Present.
Mersina.....	May 7-June 25.....	9		Apr. 2-8, 1916: Cases, 3. May 6-20: Many cases.
Do.....	July 2-8.....			Do.
Tarsus.....	May 13-27.....			Present.
Do.....	July 2-8.....			Do.
Trebizond.....	Aug. 6-12.....	3	1	

YELLOW FEVER.

Barbados.....	Sept. 17-23.....	3	2	
Ecuador:				
Babahoyo.....	June 1-30.....	2		
Guayaquil.....	May 1-June 30.....	76	51	
Milagro.....	June 1-30.....	1	1	
Mexico:				
Merida.....	July 1-Sept. 23.....	25	7	
Progreso.....	Aug. 13-Sept. 2.....	2	1	

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

DISTRICT OF COLUMBIA.

Tuberculosis—School Attendance. (Reg. Commissioners, Sept. 8, 1916.)

Section 7 of the regulations to prevent the spread of tuberculosis in the District of Columbia has been amended to read as follows:

SEC. 7. No person suffering from laryngeal or pulmonary tuberculosis, or from tuberculosis in any other communicable form, shall attend any public or private school, either as teacher, pupil, janitor, or helper. No superintendent, principal, or teacher, and no parent, guardian, or other person having power and authority to prevent, shall permit any person suffering from laryngeal or pulmonary tuberculosis, or from tuberculosis in any other communicable form, to attend any public or private school, either as teacher, pupil, janitor, or helper: *Provided, however,* That the provisions of this section shall not apply to schools maintained solely for the instruction of persons suffering from tuberculosis.

Advertisements—False or Misleading, Prohibited. (Act No. 83, United States Congress, May 29, 1916.)

That it shall be unlawful in the District of Columbia for any person, firm, association, corporation, or advertising agency, either directly or indirectly, to display or exhibit to the public in any manner whatever, whether by handbill, placard, poster, picture, film, or otherwise; or to insert or cause to be inserted in any newspaper, magazine, or other publication printed in the District of Columbia; or to issue, exhibit, or in any way distribute or disseminate to the public; or to deliver, exhibit, mail, or send to any person, firm, association or corporation any false, untrue, or misleading statement, representation, or advertisement with intent to sell, barter, or exchange any goods, wares, or merchandise; or anything of value, or to deceive, mislead, or induce any person, firm, association, or corporation to purchase, discount, or in any way invest in or accept as collateral security any bonds, bills, share of stock, note, warehouse receipt, or any security; or with the purpose to deceive, mislead, or induce any person, firm, association, or corporation to purchase, make any loan upon or invest in any property of any kind; or use any of the aforesaid methods with the intent or purpose to deceive, mislead, or induce any other person, firm, or corporation for a valuable consideration to employ the services of any person, firm, association, or corporation so advertising such services.

SEC. 2. That prosecution hereunder shall be in the police court of the District of Columbia upon information filed by the United States District Attorney for the District of Columbia, or one of his assistants.

SEC. 3. That any person, firm, or association violating any of the provisions of this act shall, upon conviction thereof, be punished by a fine of not more than \$500 or by imprisonment of not more than 60 days, or by both fine and imprisonment, in the discretion of the court. A corporation convicted of an offense under the provisions of this act shall be fined not more than \$500, and its president or such other officials as may be responsible for the conduct and management thereof shall be imprisoned not more than 60 days, in the discretion of the court.

MASSACHUSETTS.

Poliomyelitis—Prevention—Local Boards of Health Authorized to Make Regulations. (Ch. 313, Act Sept. 14, 1916.)

SECTION 1. Boards of health in cities and towns or the selectmen in towns having no board of health may make such rules and regulations as are necessary and proper to check the spread of the disease known as infantile paralysis, and to cause its eradication by quarantine or otherwise. It shall be the duty of the said boards of health or selectmen to notify forthwith the State department of health of any such rule or regulation made by them.

SEC. 2. The State department of health shall have the power to revoke or revise any rule or regulation made under the provisions of section 1 which it may deem unnecessary or unreasonable, and no rule or regulation made under the provisions of this act shall have any force or effect after the fifteenth day of January in the year 1917.

NEW JERSEY.

Foodstuffs—Cold Storage—Regulation.¹ (Reg. Dept. of H., Aug. 8, 1916.)

1. No warehouse will be considered to be properly equipped unless the rooms in which foods are to be stored can be held at temperatures sufficiently low to preserve such foods without decomposition. The temperatures of the rooms in which foods are stored must not be allowed to rise above the maximum point at which foods can be so preserved.

2. Articles of food intended for cold storage shall, when they are offered for or placed in storage, be inclosed in boxes, barrels, crates, or other packages sufficiently strong and tight to prevent them from being injured by careless handling, unless the articles are of such character that it is impracticable to pack them in containers.

3. When articles of food contained in packages are placed in cold storage each package shall be legibly marked with the words "Cold storage," and with the word "Received," followed by the month, day, and year when said articles were placed in storage. The word "Delivered," followed by the month, day, and year when such articles are taken from storage, shall be stamped upon foods or packages before being removed therefrom.

When articles of food not contained in packages are placed in cold storage or removed therefrom each individual article must be marked in the above manner.

All letters or figures must be in plain type not less than three-eighths of an inch in height.

The word "Received" may be written "Rec'd" and the word "Delivered" may be written "Del'd." Figures separated by hyphens may be used to indi-

¹ Pub. Health Reports, Aug. 4, 1916, p. 2122.

cate dates and will be regarded as sufficient date if following the word "Rec'd" or "Del'd," as the case may be. The last two figures of the number indicating the year when such foods were placed or taken from storage may be used. e. g., "Received July 5, 1916," may be written "Cold storage, rec'd 7-5-16." or "Delivered August 5, 1916," may be written "Del'd 8-5-16."

Whenever tags or labels are used on which dates are to be marked they must be securely fastened to the articles to which they are affixed.

4. Articles which are held at low temperatures for temporary protection only, for periods less than 30 days, will not, for the purpose of this act, be regarded as being held in cold storage, and such articles need not be dated, but such articles must be kept in separate rooms or inclosures from which articles are kept in cold storage, and persons operating cold-storage warehouses must keep an accurate record of the date of receipt and removal of such articles, which record shall at all times be open to inspection by representatives of the department of health of the State of New Jersey: *Provided, however,* That if articles of food which have been kept at a low temperature for temporary protection are held for more than 30 days at such low temperature they shall then be regarded as having been placed in cold storage, and shall be marked, in the manner provided in rule 3, with the words "Cold storage" and with the word "Received," followed by the month, day, and year when the period of temporary protection began, and such article shall be removed from the room or inclosure in which articles temporarily protected are kept, and shall be placed in rooms or inclosures used for cold storage.

5. Articles of foods held at low temperatures during the process of manufacture will not be regarded as being held in cold storage within the meaning of this act, and such articles need not be dated.

6. When articles of food have been kept in cold storage 12 calendar months report of such fact shall be made to the State department of health by the persons having custody of such articles, and such articles shall be held in cold storage by such persons until they have been inspected by the agents of the State department of health and released by order of said department.

7. For the purpose of facilitating the removal of articles of food from cold storage before the expiration of the statutory period of 12 calendar months, persons operating cold-storage warehouses shall notify the owners of all articles of food stored by them of the date when such articles will have been in storage 12 months at least 15 days before such 12 months have elapsed.

8. Until further notice the following classification of foods shall be used by persons operating cold-storage warehouses in making monthly reports of articles of food held in cold storage: Eggs, case; eggs, broken; butter; cheese; poultry; game; meat, fresh; fish; edible fats; miscellaneous milk products.

Shell eggs are to be reported in terms of cases and dozens; all other articles to be reported as packages and, in so far as the same is practicable, by weight.

9. Requests for permission to store food for a longer period than 12 calendar months must be made by the owners thereof to the State department of health upon blanks which will be furnished by the department upon application. Such requests shall include statements of the kind and amounts of food and the length of extension desired. Before such requests are granted the articles of food to which they refer must be inspected by representatives of the department of health of the State of New Jersey. Requests should, therefore, be made at least two weeks before the statutory time limit for storage has expired.

10. No materials in a state of decomposition or putrefaction, or in any other condition which renders them unfit for food, or in any condition which may cause deterioration in other food products, shall be placed in cold storage in the same room or inclosure with articles intended for use as food.

11. When articles of food held in cold storage are removed from the packages in which they were contained and placed in other packages the date of original entry into cold storage of such articles shall be placed upon the containers into which they have been transferred; and if articles of food which have been placed in cold storage on different dates are packed in the same container the date of storage of the article longest stored shall be placed upon the container to which such articles have been transferred.

12. Any article of food, if intended for use other than human consumption, shall be plainly and legibly labeled or marked with the words "Not for human consumption," in letters not less than 1 inch in height.

13. All rooms in which food products are stored shall be provided with smooth, water-tight floors which can be readily cleansed. Floors must be kept in a clean condition at all times.

14. The side walls and ceilings of all rooms shall be of smooth material, free from crevices, and must be kept clean at all times.

15. Waste materials must not be permitted to accumulate in or around buildings but must be removed daily. Receptacles in which refuse material, resulting from the sorting or repacking of eggs, can be placed shall be provided. Such receptacles shall contain a suitable denaturant while in use.

16. Adequate toilet facilities shall be provided for employees; if possible these toilets should be provided with flush closets and urinals. All toilets must be kept clean at all times.

17. No employer shall require, permit, or allow any person to work in a cold-storage warehouse who is affected with any communicable disease.

18. The license granted by the State department of health to operate a cold-storage warehouse shall be framed and displayed in the warehouse.

Oyster-Shucking Houses—Sanitary Regulation. (Reg. Dept. of H., Aug. 22, 1916.)

1. Every building or room used as a shucking house shall be constructed and equipped as hereinafter provided, and the operations carried on in such building or rooms shall be conducted in such a manner that the purity and wholesomeness of the shellfish handled therein shall not be impaired.

2. All rooms in which shucked oysters are packed, stored, washed, or otherwise handled shall be separate and apart from the rooms in which oysters are opened.

3. Rooms in which oysters are shucked and in which shucked oysters are packed shall be provided with smooth, water-tight floors which can be readily cleansed, and such floors must be cleansed daily. The side walls of such rooms shall be constructed of smooth, hard material. Side walls and ceilings shall be kept in a clean condition at all times.

4. All shucking houses shall be adequately lighted and ventilated and shall be provided with an abundant supply of hot and cold water. During the fly season all windows and doors shall be provided with screens.

5. All shucking houses must be provided with adequate drainage to lead all waste liquids outside the building and into a suitable sewer or cesspool, or to some other point where they can be disposed of without creating a nuisance. Waste liquids must not be disposed of by emptying into any stream in which shellfish are grown or floated.

6. Shucking benches constructed of smooth, hard material which can be readily cleansed must be provided, and such benches shall be kept in a clean condition.

7. Suitable receptacles for shells and waste materials, conveniently located to the benches where oysters are shucked, must be provided.

8. All utensils and containers in which shucked oysters are placed must be of such material and construction as to enable them to be readily cleansed. They must be thoroughly cleansed and then scalded out with hot water or steam before beginning each day's work. Knives used by shuckers must be subjected to the same treatment.

9. Shucked oysters may be washed with clean, unpolluted water for a period not in excess of five minutes. The soaking of shucked oysters in fresh or salt water is prohibited.

10. A solid pack shall be required when shucked oysters are sold by measure. For the purpose of this rule a solid pack will be understood to mean oysters which have been drained substantially of all their adhering liquor.

11. Shucked oysters offered for shipment must be packed in closed containers and thoroughly iced. Oysters must not be packed in contact with ice.

12. Oysters must be shipped the same day they are opened unless stored at a temperature of 45° F. or below, or packed in shipping containers and thoroughly iced.

13. Cans in which shucked oysters are shipped must not be used a second time for this purpose.

14. Waste materials must not be permitted to accumulate in rooms where shucked oysters are packed and such materials must be removed daily.

15. All shucking houses shall be provided with running water, soap and clean towels to enable employees to wash their hands. Employees shall be required to wash their hands before beginning work and after visiting the toilet.

16. The outer clothing worn by persons engaged in shucking oysters shall be of material which can be readily cleansed and only clean garments shall be worn.

17. No persons with infectious wounds in the hands or arms shall be permitted to open oysters or handle the same.

18. No person afflicted with any communicable disease shall be employed in any shucking house nor shall any person so affected be permitted to enter the rooms of such shucking house where oysters are opened, packed or otherwise handled.

19. No person shall be allowed to live or sleep in any room where oysters are shucked or packed.

OHIO.

Poliomyelitis—Quarantine—Disinfection. (Reg. Bd. of H., Sept. 21, 1916.)

1. The minimum period of quarantine for cases of acute poliomyelitis shall be six weeks.

2. The minimum period of quarantine for all children under 16 years of age, who have come in contact with cases of acute poliomyelitis, shall be 14 days from date of last exposure.

3. The quarantine of a house for acute poliomyelitis shall include all inmates thereof: *Provided*, That if proper isolation of the patient and attendants is carried out, all working members of the family over 16 years of age, may resume their work, if such occupation does not bring them in close contact with children, with the permission and under the supervision of the local board of health or health officer.

4. Isolation of the patient shall include screening of the room to exclude insects, the exclusion of domestic animals, and proper disinfection for all articles taken out of the room. The number of attendants shall be restricted to the necessities of the case, and such attendants shall not mingle with other persons.

5. The sputum and nasal secretions and excretions from the intestines shall be destroyed or disinfected in accordance with the regulations of the State board of health, as outlined in the pamphlet on disinfection. The intestinal discharges so disinfected shall be placed in a flush closet, if one is available, or in a properly constructed privy vault, fly-proof and water-tight, or be buried in a suitable place.

6. Quarantine shall persist until disinfection of the room and house has been performed by the health officer or some one appointed for the purpose, in the manner specified by the State board of health.

7. Quarantine of a house for acute poliomyelitis shall preclude the production, sale, handling, or exchange of all food products, including milk, butter, or cream: *Provided*, That where such production, sale, handling, or exchange can be moved to noninfected premises and performed by persons who have not come in contact with the disease, permission to continue may be granted by the local board of health or health officer.

VIRGINIA.

Poliomyelitis—Notification of Cases—Quarantine—Placarding—Disinfection. (Reg. Bd. of H., Aug. 24, 1916.)

86. As soon as a diagnosis of acute anterior poliomyelitis (or infantile paralysis) is made by the attending physician, he shall notify the parent, householder, or other responsible person of the existence of acute anterior poliomyelitis on the premises, and quarantine shall begin immediately without further action. The attending physician shall then immediately notify the local health officer and the State board of health of the existence and location of the case. The patient shall at once be placed and shall remain until released (as hereinafter provided) in strict isolation; that is to say, the patient and nurse or attendant shall occupy a room or rooms to themselves, completely protected by screening against flies and other insects and as far away from the rest of the family as possible. No other persons except the attending physician or the health officer shall enter this room or these rooms during the period of isolation. No article of food, clothing, or of anything that can carry the germs of the disease shall be taken from the isolated room or rooms except after being properly disinfected under the direction of the physician or health officer. This shall apply with all force to all body wastes and the other vessels used therefor, as well as to food, clothing, flowers, books, toys, mail, etc. No domestic animal or fowl shall be allowed within the room or rooms during the period of isolation and any such animals or fowls within the building at the time quarantine is declared shall be kept from the building and safely confined away from possible contact with patient until the end of the period of isolation.

87. During the period of isolation all persons 16 years of age or under, resident on the premises, shall be confined to the premises and may not leave during the period of isolation, except as provided by rule 90. Adults, other than those excepted below, may attend their regular vocation, but shall not enter any school, church, Sunday school, public meeting or other place which children frequent or attend. Adults engaged in any industry connected with the prep-

eration or handling of milk or food, or with any factory, school, office, shop, store, or other place where persons 16 years of age or under are or may be employed or may congregate shall not work at or frequent such places during the period of isolation.

88. At the entrance to the premises under quarantine there shall be posted notice announcing the presence of the disease and warning persons not to enter. No person, except adults resident on such premises, health officers, and attendant physicians shall be permitted to enter the premises during the period of isolation unless given permission to do so by the health officer.

89. When the case has recovered and all active symptoms have ceased, but not in any case until at least six weeks after the onset of the disease and after all infected rooms and goods shall have been disinfected, the isolation shall be terminated.

90. Children exposed to infantile paralysis but who have not developed symptoms of the disease may, in the discretion of the health officer, be isolated elsewhere than on the infected premises, provided such isolation shall not be on premises where there are children 16 years of age or under. If the children so isolated do not develop infantile paralysis, they may be released by the health officer after 14 days from time of transfer.

91. Disinfection for infantile paralysis shall be in accordance with sections 49 to 56,¹ inclusive, of the rules and regulations of May 5, 1916, and the burial of persons dying of infantile paralysis shall be in accordance with the provisions of sections 57 and 58² of the rules and regulations of May 5, 1916, which are hereby extended to include infantile paralysis.

92. The State health commissioner is authorized to amend and issue supplemental orders and rules to meet emergencies, in dealing with infantile paralysis, not covered by these rules and regulations or by others heretofore issued.

Poliomyelitis—Prevention—Entrance of Children into State. (Reg. Bd. of H., Aug. 24, 1916.)

RULE 1. No steam railway, steamship, motor, electric or other transportation company or common carrier and no individual operating any boat, ferry, motor car, carriage, van, wagon, or any other conveyance of any sort shall transport into Virginia any person suffering from or reasonably suspected of suffering from acute anterior poliomyelitis or any person under 16 years of age who, within the two weeks preceding the time such person seeks to enter Virginia shall have come directly or indirectly from the State of New York, the State of Pennsylvania, or the State of New Jersey, unless such person be a lawful resident of the State of Virginia.

RULE 2. Lawful residents of the State of Virginia under 16 years of age, temporarily in the State of New York, the State of Pennsylvania, or the State of New Jersey may return by direct journey to their residence within the State of Virginia, unless they be suffering from infantile paralysis; but they shall report within 12 hours after their arrival to the nearest health officer and shall remain in quarantine under his direction for two weeks, subject also to such quarantine as may be imposed by the local board of health.

RULE 3. No person whom any railroad, steamship, motor, electric, or other transportation company or common carrier or whom any individual operating any boat, ferry, motor car, carriage, van, wagon, or any other conveyance of any sort is prohibited from transporting into Virginia shall enter the State on foot, by water, or in any other manner; and such person attempting to

¹ Pub. Health Reports, July 28, 1916, p. 2037.

² *Ibid.*, p. 2039.

enter the State shall be jointly liable with the company or individual transporting such person, in addition to incurring the penalties by law provided in such cases.

RULE 4. Every steam railway, steamship, motor, electric, or other transportation company, every common carrier and every individual operating any boat, ferry, motor car, carriage, van, wagon, or any other conveyance of any sort by which any person under 16 years of age may enter Virginia shall exercise due diligence in seeing that this quarantine is observed. To that end, every such company, carrier, and individual aforesaid, transporting persons into Virginia shall prepare and require every person under 16 years of age who is a lawful resident of Virginia and wishes to return to the State from the State of New York, the State of Pennsylvania, or the State of New Jersey, either to sign in person or through the guardian or other person accompanying such person under 16 years of age, a certificate in the following form, to wit:

.....
 (Place and date.)

My lawful residence in Virginia is:
 (Place: Street and number also for cities.)

My parents are:
 (Names.)

Their address is:
 (If same as personal address, write "same.")

I am returning from:
 (Place of departure in New York, New Jersey, or Pennsylvania.)

I agree to travel directly to my lawful residence, to report within 12 hours after my arrival to the nearest health office and to observe the quarantine requirements of the State and local boards of health.

(Signed)
 (Write legibly.)

By
 (Name of attendant, if child can not write.)

Railroad Co. and }
 Ticket destination } (To be noted by conductor, purser, etc.)

RULE 5. It shall be optional with the transportation company, common carrier, or individual transporting into Virginia any lawful resident of State, under the age of 16 years, as provided in rules 3 and 4 to require such person to sign the certificate prescribed in rule 4 either prior to purchasing or bargaining for transportation, or while making the journey into Virginia, but in case any such person while making the journey into Virginia, declines to sign the said certificate, or is reasonably suspected of fraud in doing so, the said transportation company, common carrier, or individual transporting such person shall forthwith return the said person to the Virginia line, separated from other persons who may be on the same train, boat, ferry, motor car, electric car, or other conveyance.

RULE 6. The certificates signed as required in rule 5 shall be collected by the conductor, purser, driver, chauffeur, or other person responsible for the transportation of any person permitted to sign such certificate. He shall write on such certificate the ticket-destination of such person, or the point to which said

person has purchased transportation, and shall daily, either directly or through his company, forward same to the State health commissioner. The health commissioner shall thereupon notify the local health officer at the destination of the arrival of such person, in order that the quarantine imposed by these rules may be strictly and lawfully enforced.

RULE 7. Exceptional cases affected by this quarantine may be handled in the discretion of the health commissioner, who is hereby authorized to use the powers conferred upon him by law and to make such supplemental orders and rules as emergency may require.

Tuberculosis—Restraint of Persons Suffering From, Who are a Menace to Others. (Ch. 226, Act Mar. 17, 1916.)

1. That all persons who are suffering from tuberculosis who shall violate the laws prohibiting expectoration in public places and vehicles, or who shall deliberately and continuously place the health of any other person in danger of infection with such disease, shall, upon motion of any member of the board of health of any county or city in the Commonwealth, before the circuit court of said county or city, be summoned to appear before said court to answer said charges, and if, after a hearing, it be found that such person is guilty of the conduct charged and is a menace to the health of the public, or is unnecessarily exposing other persons to infection with tuberculosis, the said court may order such person be restrained and detained for a period not exceeding 12 months in some suitable place, or be required to give bond in a penalty to be determined by said court, conditioned upon a cessation of the practices complained of for such period, not exceeding 12 months, as the court may determine. Said court may at any time, for good cause shown, rescind or modify such order or make such other disposition of said person as may be authorized by existing laws.

Tuberculosis—Establishment and Maintenance of Sanatoria by Counties and Cities. (Ch. 397, Act Mar. 20, 1916.)

1. Whenever a petition is presented to the circuit court of any county or corporation court of any city, signed by a number of qualified voters equal to 15 per cent of those voting at the last preceding general election, who are resident freeholders of such county or city, setting forth the desirability of establishing therein a sanatorium for residents of the same who are suffering from tuberculosis, said court shall order a special vote, which may be held on any regular election day, for the determination of the question whether such sanatorium shall be established.

2. The manner of calling and holding such election shall be the same as that for calling and holding elections as to the issuance of county and city bonds, and the qualifications of voters at such elections shall be the same as those entitled to vote at elections on the question of issuing bonds.

3. Special ballots shall be used at such election, upon which shall be printed "For sanatorium" and "Against sanatorium," and the voters shall indicate their preference by erasing the words which do not represent their views.

4. If a majority of the voters voting at such election shall be in favor of the establishment of such sanatorium, then the board of supervisors of the county or the council or other governing body of the city shall levy a tax to procure a sum sufficient to establish said sanatorium, which shall be erected and maintained for such county or city in such location and under such management as shall be chosen by the board of health of such county or city. The board of health shall have the right to lease or purchase such grounds and buildings, apparatus, and supplies as in their judgment may be necessary to establish

and equip such sanatorium, and shall in all respects have full management and control of the property and persons employed in the maintenance and operation of the sanatorium, and said board, with the concurrence of circuit court by proper decree entered, may sell land and building bought for this purpose and buy others.

5. The board of health of such county or city shall have the right to call upon the State board of health for expert examination of locations and buildings, and advice as to the construction and equipment of all structures to be used in the work of the institution.

6. The board of health of such county or city shall adopt regulations for the admission of patients, fixing the amounts to be contributed by them to their care and treatment, and shall have the right to provide for the care and treatment of such as may be unable to make such contribution.

7. If two or more counties, or a city and one or more counties, or a county and one or more cities in any judicial circuit in this State shall at the same time, or different times, vote for the establishment of a sanatorium in each of said counties and cities, the board of health of part or all of said cities and counties may jointly petition the judge of the court to permit the said counties or cities aforesaid to unite in the establishment of a sanatorium for persons suffering from tuberculosis in any of said counties and cities, or to unite in the maintenance of any sanatorium which may have been established by any one or more of said counties or cities; and the said judge or court may permit the joint maintenance of such sanatorium, and in that event said judge or court shall appoint, in his discretion, not less than one nor more than three residents of each of the counties or cities uniting in said petition, who shall constitute the sanatorium board for such judicial circuit. Said board shall have all the powers and duties of a city or county board of health as set forth in sections 4, 5, and 6 of this act.

In addition, it may receive contributions made by each of the cities and counties uniting in the establishment or maintenance of the said sanatorium from individual societies or other sources and shall be under the general supervision of the State board of health. All the members of said board shall hold office for a period of four years from the date of their appointment and until their successors have qualified. They shall receive no salary, but the said counties and cities may make such provision as they may deem proper for the payment of the actual expenses of the members of the said board.

8. The board of supervisors of any county and the council or other governing body of any city or town may unite with other counties, cities, or towns in establishing and maintaining, without the referendum above mentioned, such institutions, which shall thereafter be under the joint management of the contributing counties, cities, or towns in the same manner as those mentioned in the preceding sections of this act.

Tuberculosis—Indigent Patients—Maintenance at State Sanatoria. (Ch. 260, Act Mar. 16, 1916.)

1. That an act entitled an act providing funds to help maintain indigent consumptives at the Catawba sanatorium, approved the 15th day of March, 1910, be amended and reenacted so as to read as follows:

The board of supervisors of any county or council or other governing body of and city or town may, at their discretion, on the advice of the State or county board of health, appropriate money to convey to and help to maintain at any of the State sanatoria any indigent person known to be suffering from tuberculosis: *Provided*, That all persons so helped shall have been residents and citizens of such county, city, or town for at least 12 months.

State Board of Health—Organization. (Ch. 192, Act Mar. 16, 1916.)

1. That section 1 of an act entitled an act to amend and reenact sections 1, 2, 3, and 4 of an act entitled an act providing for the appointment of a State board of health and of local boards of health, defining the duties and powers and compensation thereof, and of the members, officers, and agents in connection with the preservation of public health; and prescribing penalties against witnesses failing to obey subpoenas issued by said State board of health, or any authorized member thereof, for refusing to testify or otherwise acting in contempt of said State board or its duly authorized members, approved March 7, 1900 (section 173*d*, code of 1904); to repeal sections 1714, 1715, 1716, 1717, and 1718 of the Code of Virginia, 1887, and all other acts and parts of acts in conflict herewith; to provide for the appointment of a health commissioner and assistants, to define their duties, to provide for their compensation, and to appropriate money to carry the provisions of this act into effect, approved March 14, 1908, to be amended and reenacted so as to read as follows:

SECTION 1. On and after the 1st day of July, 1908, the State board of health shall consist of 12 members appointed by the governor, who shall be members of the State medical society, one of whom shall be chosen from each congressional district in the State, and in addition two from the city of Richmond. These members shall hold office for the period of one, two, three, and four years, respectively, as may be determined by lot after their appointment, and thereafter there shall be annually appointed three members to serve for the term of four years, respectively.

In addition to the members above mentioned, two residents from the State at large shall be appointed for a term of four years, one of whom shall be a member of the State dental association.

The board shall meet annually in the city of Richmond and at such other times and places as they may determine. They shall elect from their number a president and secretary, who shall perform the usual duties of such offices, in addition to the particular duties prescribed by law. The board may adopt by-laws for their government and may make such rules and regulations not inconsistent with law as they may deem proper. Five members shall constitute a quorum for the transaction of any lawful business.

Common Towels—Prohibited in Public Lavatories. (Ch. 160, Act Mar. 11, 1916.)

1. That it shall be unlawful for any person, firm, or corporation to use, permit to be used, or place for use roller towels or other towels used in common in any public lavatory, in any building, or in any railway train or steamboat.

2. Any person, firm, or corporation violating the provisions of this act shall be guilty of a misdemeanor, punishable by a fine of not less than \$5 nor more than \$100 for each offense.

Water Supplies—Supervision and Control by State Board of Health. (Ch. 360, Act Mar. 20, 1916.)

1. That the term "waterworks," whenever used in this act, shall be construed to mean and include all structures and appliances used in connection with the collection, storage, purification, and treatment of water for drinking or domestic use and the distribution thereof to the public or more than 25 individuals, except only the piping and fixtures inside the buildings where such water is delivered. The term "water supply," whenever used in this

act, shall be construed to mean and include water that shall have been taken into waterworks as hereinbefore defined from all streams, springs, lakes, and other bodies of surface water, natural or impounded, and the tributaries thereto, and all impounded ground water: *Provided*, That nothing in this act shall be held to apply to any waters above the point of intake of such waterworks.

2. The State board of health shall have general supervision and control, in accordance with the provisions of this act, over all water supplies and waterworks in the State in so far as the sanitary and physical quality of waters furnished may affect the public health or comfort.

3. Said board may cause examination of such water supplies to be made to ascertain their purity and fitness for drinking or domestic use or their liability to impair the public health.

4. Said board shall, when requested, consult with and advise the authorities of cities and towns and persons having or intending to have waterworks installed as to the most appropriate source of water supply and the best method of assuring its purity, without any expense to such authorities or persons; but said board shall not prepare plans, specifications, or detailed estimates for any proposed improvement.

5. No individual, firm, institution, corporation, or municipal corporation shall supply water for drinking or domestic purposes to the public within the State from or by means of any waterworks that shall hereafter be constructed or extended, either in whole or in part, without a written permit from the State board of health for the supplying of such water; except that this provision shall not apply to the extension of water pipes for the distribution of water. The application for such a permit shall be accompanied by a certified copy of the maps, plans, and specifications for the construction of such waterworks or extensions, and a description of the source or sources from which it is proposed to derive the supply and the manner of storage, purification, or treatment proposed for the supply previous to its delivery to consumers; and no other or additional source of supply shall subsequently be used for any such waterworks, nor any change in the manner of storage, purification, or treatment of the supply be made without an additional permit to be obtained in a similar manner from the State board of health. Whenever application shall be made to the State board of health for a permit under the provisions of this section it shall be the duty of said board to examine the application without delay, and as soon as practicable thereafter to issue said permit if, in its judgment, the proposed supply appears not to be prejudicial to the public health, or to make an order stating the conditions under which said permit will be granted.

6. Whenever an investigation of any water supply or waterworks within the boundaries of the State is undertaken by the State board of health to ascertain the purity or fitness of the water furnished to the public for drinking or domestic purposes, it shall be the duty of the individual, firm, institution, corporation, or municipal corporation having in charge the water supply or waterworks under investigation to furnish, on demand, to the State board of health, or the authorized agent of said board, such information relative to the source or sources from which the said supply is derived, and the manner of storage, purification, or treatment of the water before its delivery to the consumers, as may be necessary or desirable for the determination of its sanitary or physical quality. In making said investigation authorized agents of said board shall be allowed to enter any premises or buildings constituting a part of a water supply or waterworks for the purpose of inspecting same and ascertaining whether orders, as provided for under this act, are obeyed.

7. When, upon investigation, the State board of health finds that a water supply furnished to the public for drinking or domestic purposes is a menace to health, said board is hereby given authority to make an order requiring such changes in the source or sources of said water supply or such alterations or extensions in the waterworks as said board may deem necessary. Said board shall name in its order such date for the completion of the works as said board may deem reasonable and proper, and it shall be the duty of the individual, firm, institution, corporation, or municipal corporation having in charge such water supply or waterworks to fully comply with said order within the time prescribed. As soon as said order of the State board of health, or the modified form of the order of the court, as hereinafter provided for, shall have been shown, upon investigation, to have been complied with fully, said board shall issue a written permit to the individual, firm, institution, corporation, or municipal corporation to furnish water to the public for drinking or domestic purposes.

8. Every permit issued by the State board of health under this act shall be revocable at any time it is shown by investigation that the waterworks can no longer be depended upon to furnish a water safe for drinking or domestic use, or that the capacity of said waterworks is inadequate for the purpose of furnishing water safe for drinking or domestic use, provided that a written notice is sent by said board to the individual, firm, institution, corporation, or municipal corporation in charge, together with an order requiring such changes in the water supply or waterworks as, in its judgment, may be necessary to safeguard the public health. Any permit issued by the State board of health may be specified to run a certain definite period, and said permit shall become inoperative at the expiration of the period of time without notice to that effect having been given by the State board of health.

9. Whenever the board shall issue an order to an individual, firm, institution, or corporation under the provisions of this act said board shall appoint a time and place within the county, city, or town where such waterworks exist for a hearing on the subject, said hearing to be not less than two nor more than six months from the entry of such order. At such a hearing the State board of health shall attend in person or shall deputize a committee of said board to attend or shall authorize the State health commissioner to act for and in the name of said board touching said hearing. At any such hearing all persons interested may appear and be heard and may present the testimony of expert and other witnesses, and said board may hear witnesses called upon its own motion. The State board of health shall have power to issue, in the name of the board, subpoenas for the attendance of witnesses and the production of books, papers, and maps relative to the sources of the water supply and the manner of storage, purification, or treatment of said supply before its delivery to the public, at any hearing before said board in any part of the State, as provided by law. The officer of said board presiding at any hearing shall have power to administer oaths and certify to all official acts of the board. After such hearings said board shall issue such final order as, in its judgment, may be required to protect the public health, and notice of said final order shall be sent to all parties concerned.

10. Any individual, firm, institution, or corporation dissatisfied with such order or final order of, or by the granting or refusal to grant any permit by the State board of health, or believing that such order granting or refusal to grant such permit to be illegal or unreasonable or that said order is not necessary for the protection of the public health, may, within 30 days after the making of said order or final order or the granting or refusal to grant such permit, appeal to any court of competent jurisdiction, and the said court shall

render a decision approving, setting aside, or modifying the said order or final order or stating the conditions for the granting of said permit.

11. Failure on the part of an individual, firm, institution, or corporation to obtain a written permit from the State board of health, as provided for under 5, or to comply fully with an order issued by said board, under the provisions of this act shall be deemed a misdemeanor and punishable by a fine of not less than \$20 nor more than \$100 for each offense, each day in which such failure is made being considered to constitute a separate offense. All penalties under this act are to be recovered by the State in civil action brought by the attorney general in the name of the Commonwealth.

12. Any municipal corporation disobeying any order duly issued by the State board of health, under the provisions of this act, may be compelled to obey same by mandamus or other appropriate remedy by any court of competent jurisdiction.

13. In all actions and proceedings for the enforcement of orders of the State board of health, under the provisions of this act, the attorney general shall represent the said board, except in proceedings to which the State or any of its public institutions is a party defendant, and in such cases the board is authorized to employ special counsel.

14. Any provisions in any charter heretofore granted to any person, company, institution, corporation, or municipal corporation in conflict with the provisions of this act are hereby repealed.

Schools—Construction of Privies—Drinking Fountains or Individual Drinking Cups Required. (Reg. Bd. of H., Aug. 24, 1916.)

No county school board or district school trustees shall authorize or permit the opening of any public school in the Commonwealth, and no president, principal, board of trustees, or other responsible head of any private school of any description in the Commonwealth shall authorize or permit the opening of any such school in the Commonwealth of Virginia for the session of 1916-17 until said school shall have been provided with two sanitary privies, one for females and one for males, each of which privies shall be so constructed that the contents thereof shall not be accessible to flies and can not endanger any source of water supply.

Nor shall any county school board or district school trustees authorize or permit the opening of any public school in the Commonwealth, or any president, principal, board of trustees, or other responsible head of any private school of any description authorize or permit the opening of any such school in the Commonwealth of Virginia for the session of 1916-17 until said school shall have been provided with a sanitary drinking fountain of a type approved by this board, or shall have required the public [sic] of such school to have and to use individual drinking cups or glasses.

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