PUBLIC HEALTH REPORTS

VOL. 41 SEPTEMBER 3, 1926 NO. 36

BIOLOGICAL PRODUCTS

ESTABLISHMENTS LICENSED FOR THE PROPAGATION AND SALE OF VIRUSES, SERUMS, TOXINS, AND ANALOGOUS PRODUCTS

There is presented below a list of the establishments holding licenses issued by the Treasury Department in accordance with the act of Congress approved July 1, 1902, entitled "An act to regulate the sale of viruses, serums, toxins, and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes."

The licenses granted to these establishments for the products mentioned do not imply an indorsement of the claims made by the manufacturers for their respective preparations. The granting of a license means that inspection of the establishment concerned and laboratory examinations of samples of its products are made regularly to insure the observance of safe methods of manufacture, to ascertain freedom from contamination, and to determine the potency, or safety, or both, of diphtheria antitoxin, scarlet fever streptococcus antitoxin, tetanus antitoxin, botulinus antitoxin, antidysenteric serum, antimeningococcic serum, antipneumococcic serum, bacterial vaccines made from typhoid bacillus, paratyphoid bacillus A, and paratyphoid bacillus B, diphtheria toxin-antitoxin mixture, diphtheria toxin for Schick test, scarlet fever streptococcus toxin for Dick test, scarlet fever streptococcus toxin for immunization, and the arsphenamines, the only products for which potency standards or tests have been established.

The enumeration of the products is as follows: Serums are placed first, the antitoxins, being more important, heading the list. The other products are arranged generally in the order of their origin. The items in each class are arranged alphabetically.

Establishments Licensed and Products for which Licenses have been Issued

AMERICAN ESTABLISHMENTS

Parke, Davis & Co., Detroit, Mich.—License No. 1:

Diphtheria antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; antianthrax serum; antidysenteric serum; antigonococcic serum; antimeningococcic serum; antipneumococcic serum; antistreptococcic serum; hemostatic serum (Lapenta); normal horse serum; thyroidectomized horse serum; vaccine virus; rabies vaccine (Cumming); tuberculin old; tuberculin T. R.; tuberculin B. E.; tuberculin B. F.; bacterial vaccines made from acne bacillus, acne diplococcus, colon bacillus, Friedlände. bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, prodigiosus bacillus, pseud-

diphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization; animal epidermal extract; animal food extract; vegetable food extract; pollen extract; modified bacterial derivatives made from colon bacillus, gonococcus, paratyphoid bacillus A, paratyphoid bacillus B, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; bacterial antigen made from gonococcus, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, and streptococcus.

H. K. Mulford Co., Philadelphia, Pa.—License No. 2:

Diphtheria antitoxin; erysipelas streptococcus antitoxin; perfringens antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; antianthrax serum; antidysenteric serum; antigonococcic serum; antimelitensis serum; antimeningococcic serum; antipneumococcic serum; antistreptococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); rabies vaccine (killed virus); tuberculin old; tuberculin T. R.; tuberculin B. E.; tuberculin B. F.; tuberculin proteose-free (Lyons); bacterial vaccines made from acne bacillus, cholera vibrio, colon bacillus, dysentery bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, micrococcus melitensis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, plague bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; sensitized bacterial vaccines made from acne bacillus, cholera vibrio, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization; pollen extract; animal epidermal extract; animal food extract; vegetable food extract; poison ivy extract; pneumococcus antibody solution.

Slee Laboratories, Swiftwater, Pa.—License No. 6:

Diphtheria antitoxin; tetanus antitoxin; normal horse serum; vaccine virus; bacterial vaccines made from colon bacillus, gonococcus, paratyphoid bacillus A, paratyphoid bacillus B, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus.

The Cutter Laboratory, Berkeley, Calif.—License No. 8:

Diphtheria antitoxin; tetanus antitoxin; antistreptococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); rabies vaccine (killed virus); tuberculin old; tuberculin B. F.; bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, penumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; pollen extract.

Bureau of Laboratories, Department of Health, New York City.—License No. 14:

Diptheria antitoxin, scarlet fever streptococcus antitoxin, tetanus antitoxin; antimeningococcic serum; antipneumococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); tuberculin old; bacterial vaccines made from gonococcus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test.

Lederle Antitoxin Laboratories, Pearl River, N. Y.—License No. 17:

Diphtheria antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; antianthrax serum; antidysenteric serum; antigonococcic serum; antimeningococcic serum; antipneumococcic serum; antistreptococcic serum; measles immune serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); rabies vaccine (killed virus); tuberculin old; tuberculin B. E.; tuberculin B. F.; bacterial vaccines made from acne bacillus, cholera vibrio, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, plague bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; pollen extract; poison ivy extract; poison oak extract; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization.

Bacterio-Therapeutic Laboratory, Asheville, N. C.—License No. 23:

Watery extract of tubercle bacilli (von Ruck); modified tubercle bacillus derivative (von Ruck).

G. H. Sherman, M. D., Inc., East Jefferson Avenue, Detroit, Mich.—License No. 30:

Bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, nonvirulent tubercle bacillus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; pollen extract.

The Abbott Laboratories, North Chicago, Ill.—License No. 43:

Bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; pollen extract.

Dr. W. T. McDougall, 422 Brotherhood Building, Eighth and Minnesota Avenue, Kansas City, Kans.—License No. 49:
Rabies vaccine (Pasteur).

St. Louis Pasteur Institute, 3514 Lucas Avenue, St. Louis, Mo.—License No. 50:
Rabies vaccine (dilution method).

The Upjohn Co., Kalamazoo, Mich.—License No. 51:
Bacterial vaccines made from colon bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; pollen extract.

E. R. Squibb & Sons' Research and Biological Laboratories, New Brunswick, N. J.—License No. 52:
Diphtheria antitoxin, erysipelas streptococcus antitoxin, scarlet fever streptococcus antitoxin; tetanus antitoxin; antimeningococcic serum; antipneumococcic serum; antistreptococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); rabies vaccine (killed virus); bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus, and typhoid bacillus; leucocytic extract from the horse; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization; pollen extract; arsphenamine; neoarsphenamine; sodium arsphenamine; sulpharsphenamine; solution of arsphenamine.

Dr. James McI. Phillips, 2057 North High Street, Columbus, Ohio.—License No. 54:
Rabies vaccine (dilution method).

Eli Lilly & Co., Indianapolis, Ind.—License No. 56:
Diphtheria antitoxin; erysipelas streptococcus antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; antimeningococcic serum; antistreptococcic serum; normal horse serum; vaccine virus; rabies vaccine (Harris); tuberculin old; tuberculin T. R.; tuberculin B. E.; tuberculin B. F.; bacterial vaccines made from acne bacillus, cholera vibrio, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, meningococcus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, plague bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test.

Swan Myers Co., 219 North Senate Avenue, Indianapolis, Ind.—License No. 58:
Bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, micrococcus tetragenus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; pollen extract; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization.

Gilliland Laboratories, Marietta, Pa.—License No. 63:
Diphtheria antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; antimeningococcic serum antipneumococcic serum; antistreptococcic serum; normal horse serum; vaccine virus; rabies vaccine (Pasteur); tuberculin old; tuberculin B. E.; tuberculin B. F.; bacterial vaccines made from acne bacillus, gonococcus, influenza bacillus, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test.

Antitoxin and Vaccine Laboratory, Department of Public Health, Commonwealth of Massachusetts, Jamaica Plain, Boston 30, Mass.—License No. 64:
Diphtheria antitoxin; scarlet fever streptococcus antitoxin; antimeningococcus serum; antipneumococcus serum; vaccine virus; bacterial vaccines made from paratyphoid bacillus A, paratyphoid bacillus B, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test.

United States Standard Products Co., Woodworth, Wis.—License No. 65:
Diphtheria antitoxin; scarlet fever streptococcus antitoxin; tetanus antitoxin; normal horse serum; bacterial vaccines made from acne bacillus, colon bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid, bacillus B, pertussis bacillus, pneumococcus, pseudodiphtheria bacillus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization.

D. L. Harris Laboratories, Metropolitan Building, St. Louis, Mo.—License No. 66:
Rabies vaccine (Harris).

The Arlington Chemical Co., Yonkers, N. Y.—License No. 67:
Bacterial vaccines made from colon bacillus, micrococcus tetragenus, pneumococcus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, streptococcus; pollen extract; animal epidermal extract; animal food extract; vegetable food extract.

Dermatological Research Laboratories, Philadelphia, Pa. (branch of Abbott Laboratories, Chicago, Ill.)—License No. 68:
Arsphenamine; neoarsphenamine; sulpharsphenamine; bismuth arsphenamine sulphonate.

H. A. Metz Laboratories, 122 Hudson Street, New York City.—License No. 69:
Arsphenamine; neoarsphenamine; sodium arsphenamine; silver arsphenamine; neosilver arsphenamine; sulpharsphenamine.

Synthetic Drugs and Diarsenol Laboratories, Buffalo, N. Y.—License No. 70:
Arsphenamine; neoarsphenamine; sodium arsphenamine; sulpharsphenamine.
Hynson, Westcott & Dunning, Baltimore, Md.—License No. 76:
Suspension of arsphenamine; suspension of neoarsphenamine.
Mallinckrodt Chemical Works, St. Louis, Mo.—License No. 77:
Arsphenamine; neoarsphenamine; sulpharsphenamine.
Agricultural Experiment Station, College of Agriculture, University of Illinois, Urbana, Ill.—License No. 81:
Botulinus antitoxin.
Powers-Weightman-Rosengarten Co., Philadelphia, Pa.—License No. 82:
Arsphenamine; neoarsphenamine; sulpharsphenamine; a compound of glucose with arsphenamine base.
Terrell Laboratories, Texas National Bank Building, Fort Worth, Tex.—License No. 84:
Rabies vaccine (killed virus).
Jensen-Salsbury Laboratories, Kansas City, Mo.—License No. 85:
Botulinus antitoxin; rabies vaccine (killed virus).
Cook Laboratories, 536 Lake Shore Drive, Chicago, Ill.—License No. 86:
Bacterial vaccines made from acne bacillus, colon bacillus, Friedländer bacillus, gonococcus, influenza bacillus, micrococcus catarrhalis, paratyphoid bacillus A, paratyphoid bacillus B, pertussis bacillus, pneumococcus, staphylococcus albus, staphylococcus aureus, streptococcus, and typhoid bacillus; diphtheria toxin-antitoxin mixture.
The Neosol Co., 72 Kingsley St., Buffalo, N. Y.—License No. 90:
Solution of neoarsphenamine; solution of sulpharsphenamine.
Hollister-Stier Laboratories, 312 Old National Bank Bldg., Spokane, Washington.—License No. 91: Pollen extract.
DePree Laboratories, Holland, Michigan.—License No. 93:
Arsphenamine: neoarsphenamine.
The Jackson Infirmary, Jackson, Mississippi.—License No. 96:
Rabies vaccine (Pasteur); rabies vaccine (killed virus).
Medical Arts Laboratory, Medical Arts Bldg., Oklahoma City, Oklahoma.—License No. 98:
Rabies vaccine (killed virus).
Bureau of Laboratories, Department of Health, Lansing, Mich.—License No. 99:
Diphtheria antitoxin; bacterial vaccine made from paratyphoid bacillus A, paratyphoid bacillus B, and typhoid bacillus; diphtheria toxin-antitoxin mixture; diphtheria toxin for Schick test; scarlet fever streptococcus toxin for Dick test; scarlet fever streptococcus toxin for immunization.

FOREIGN ESTABLISHMENTS

Institut Pasteur de Paris, Paris, France.—License No. 11. Selling agents for the United States: Pasteur Laboratories of America, 366 West Eleventh Street, New York City:
Diphtheria antitoxin; tetanus antitoxin; antianthrax serum; antidysenteric serum; antiplague serum; antistreptococcic serum; bacterial vaccines made from cholera vibrio, plague bacillus, staphylococcus albus, and staphylococcus aureus.
Farbwerke Hoechst, vorm. Meister Lucius und Brüning, Hoechst am Main, Germany.—License No. 24. Selling agents for the United States: H. A. Metz Laboratories, 122 Hudson St., New York City:
Diphtheria antitoxin; tetanus antitoxin; antistreptococcic serum; normal horse serum; tuberculin old; tuberculin T. R.; tuberculin B. E.; tuberculin B. F.; bacterial vaccines made from cholera vibrio gonococcus, staphylococcus albus, staphylococcus aureus, and staphylococcus citreus; typhoid bacillus; sensitized bacterial vaccine made from typhoid bacillus; arsphenamine; neoarsphenamine; sodium arsphenamine; silver arsphenamine; neosilverarsphenamine; sulphoxylarsphenamine.
E. Merck, Darmstadt, Germany.—License No. 31. Selling agents for the United States: Merck & Co., 45-47 Park Place, New York City: Tuberculin Ointment (Moro).
ConnaughtAntitoxin Laboratory, University of Toronto, Canada.—License No. 73:
Diphtheria antitoxin; tetanus antitoxin.
Les Etablissements Poulenc Frères, 92 Rue Vieille-du-Temple, Paris, III, France.—License No. 74. Selling agents for the United States: Geo. J. Wallau, 6 Cliff St., New York City:
Bacterial vaccines made from gonococcus, micrococcus tetragenus, pertussis bacillus, staphylococcus albus, staphylococcus aureus, and synococcus.
Laboratoire de Biochimie Médicale, 92 Rue Michel-Ange, Paris, France.—License No. 83. Selling agents for the United States: Anglo-French Drug Co., 1270 Broadway, New York City. Selling agents for Porto Rico: Chas. Vere, Box 216, San Juan, P. R: Sulpharsphenamine.
Instituto Sieroterapico Milanese, Milan, Italy.—License No. 67. Selling agents for the United States: Neother Products Co., 50 Union Square, New York City: Antianthrax serum; bacterial vaccines made from gonococcus, pneumococcus, staphylococcus albus, staphylococcus aureus, staphylococcus citreus, and streptococcus; neoarsphenamine.
Boots Pure Drug Co., Ltd., Nottingham, England.—License No. 92. Selling agents for the United States: The United Drug Co., 43 Leon Street, Boston, Massachusetts: Arsphenamine diglucoside.
Etablissements Mouneyrat, Villaneuve-la-Garenne, Seine, France.—License No. 94. Selling agents for the United States: G. J. Wallau, 6 Cliff Street, New York City: Phospharsphenamine.

Institut National de Vaccinotherapie, 26 Rue Pages, Suresnes (Seine), near Paris, France.—License No. 95.
Selling agents for the United States: Lee S. Smith Manufacturing Co., Pittsburgh, Pa.: Bacterial vaccines made from colon bacillus, enterococcus, Friedländer bacillus, micrococcus catarrhalis, micrococcus tetragenus, pneumococcus, staphylococcus albus, staphylococcus aureus, and streptococcus.

Behringswerke, A. G., Marburg-am-Lahn, Germany.—License No. 97:
Bacterial vaccines made from gonococcus, staphylococcus albus, and staphylococcus aureus.

ENDEMIC GOITER AND PHYSICAL DEVELOPMENT

I. IN CINCINNATI SCHOOL CHILDREN *

By Robert Olesen, Surgeon, and Neil E. Taylor, Acting Assistant Surgeon, United States Public Health Service

INTRODUCTION

While the literature dealing with goiter is voluminous, references to the effects of the endemic type, as it is encountered in the United States, are relatively few and often unconvincing. The etiology, pathology, physiology, distribution, and more recently the prevention of endemic goiter have all received marked attention. At the same time it has seemingly been taken for granted that the manifestations of the affection are so obvious as to require neither recounting nor study.

It has been asserted that endemic goiter is responsible for interference with nutrition and consequently with retardation of normal physical growth. In all probability such impressions have been intensified by contact with and study of simple goiter in regions of marked endemicity, where cretinism, myxedema, and deaf mutism are much more frequent than they are in this country. Nevertheless the subject is a vital one and manifestly requires investigation and study before a conclusion can be reached as to the influence of simple goiter upon the physical development of adolescent boys and girls in the United States.

Function of thyroid in regulating growth.—The action of the thyroid gland in regulating metabolism has aptly been compared to the part played by the governor of an engine or the hairspring of a watch. The thyroid apparatus elaborates its secretion from raw materials in food and drink, being subject to constant call from the processes which regulate growth and govern regular bodily function. Presumably development proceeds normally when ample iodine is available and the thyroid is functioning efficiently.

Trend of opinion in literature.—Many writers maintain that disturbance of thyroid function, such as occurs in well marked endemic goiter, hampers both mental and physical development. Not only

* Editorial Note.—It should be borne in mind that the present study was limited to a single locality, having a moderate incidence of endemic goiter. (Compared with regions of marked endemicity, such as Switzerland, Austria, and Northern India, Cincinnati may be regarded as having only a slight incidence of goiter.) Therefore, the findings can not be accepted as being representative of all portions of the United States. By making further studies it will be possible to ascertain the effects upon physical development in areas of slight and marked goiter prevalence.

is the nutrition of the body disturbed, in their opinion, but growth and physical development are likewise seriously hampered. Moreover, the children affected are said to be below the standard of health and development, look frail, and become fatigued easily. There are a number of noteworthy features peculiar to most of the references relating to endemic goiter and physical growth:

1. There is a marked similarity in the references, suggesting that the statements were obtained from a common source.

2. There is a lack of evidence in support of the statements made.

3. There is no mention at any time of the size of the goiter; the blanket statements of deleterious effects cover all thyroid enlargements from the smallest to the largest.

4. No references are made at any time to locality, to incidence, mildness or severity of goiter, in so far as the goitrous conditions are encountered in the United States. There are, of course, numerous allusions to the severity of goiter and its sequelae in regions of great endemicity in foreign countries. However, goiter and its manifestations in the United States are less intense than in certain other countries and therefore the data are not strictly comparable.

Endemic goiter and overheight.—Despite the numerous contentions that growth is retarded by endemic goiter there is considerable evidence to show that height is actually increased in the presence of this malady. Comparisons of physical measurements in cases of colloid goiter by Hill, Brett, and Smith [1], with the average standards for height and weight, showed that a large majority were above height for age. Examinations of drafted men in the United States showed that tall men were particularly prone to goiter, both simple and exophthalmic [2].

Between these varying and often unsupported contentions regarding the influence of endemic goiter upon physical development there is apparently considerable opportunity for research having for its purpose the determination of the true status of the maladjusted thyroid in relation to growth. Particularly is it necessary that conclusions regarding this relationship in the United States be untinged by experiences in Switzerland, Austria, India, and other countries in which simple goiter is known to be responsible for such marked manifestations as cretinism, mutism, and idiocy.

METHOD OF SECURING DATA

In the present study the physical development of thyroid-normal and thyroid-enlarged children were compared by means of estimates and actual measurements. In securing the requisite data, use was

[1] H. Gardiner-Hill, P. C. Brett, and J. Forrest-Smith: Adolescent Goiter: Some Factors of Significance in. Quarterly Journal of Medicine, Oxford, 18, 133, January, 1925.

[2] Army Anthropology. The Medical Department of the United States Army in the World War, Vol. 15, Statistics, Part 1.

made of a form[3] devised by the child hygiene section of the Public Health Service. This form has the advantage of simplicity and yet provides ample information for comparative study. In order to insure uniformity of results, all data were obtained and recorded in a like manner by physicians experienced in work of this character. The "instructions for making physical examinations of children," also prepared by the child hygiene section of the Public Health Service, served as the guide for obtaining the various measurements and estimates.

The estimates made during the course of the study included opinions regarding nutrition and posture. Ten uniform measurements were made of each child, as follows: Standing height, sitting height, weight, chest circumference, chest width, chest depth, vital capacity, head length, head breadth, and head height.

Two thousand nine hundred and seventeen white children were included in the investigation. Of this number 1,341 were boys and 1,576 were girls. The ages of most of the children ranged between 11 and 15 years, during which period thyroid enlargement is very likely to be present, though not to the extent which prevails just after this period. In determining the degrees of thyroid enlargement the standards and classification developed during the Cincinnati survey[4] were followed.

In order to insure representative conditions the children examined were chosen from schools located in different parts of the city. Thus, 3 of the schools were located in the poorer sections of the community, 2 in sections of moderate economic status, and 1 in the best section of the city. In addition there was 1 vocational school, attended largely by part-time girl workers, and 1 junior high school.

In the six elementary schools visited the children examined attended the fifth, sixth, seventh, and eighth grades. In the vocational and junior high schools most of the children were older and attended higher grades. By this means of selection a cross section of the elementary-school population was obtained. Moreover, this cross section was representative of various school ages, grades, sections of the city, environment, and social status.

THE RESULTS

In the following section the results of the physical measurements of children with or without enlargement of the thyroid gland will be set forth by means of comparative tabulations and brief explanation.

Thyroid enlargement.—In Table 1 are displayed the number and percentage of each degree of thyroid enlargement among the 1,341 white boys and 1,576 white girls included in the study, according to

[3] Form 14.

[4] Robert Olesen: Thyroid Survey of 47,493 Elementary-School Children in Cincinnati. Pub. Health Rep., vol. 39, No. 30, July 25, 1924, pp. 1777–1802. (Reprint No 941.)

age. Among the boys there were 515 instances of thyroid enlargement, a percentage of 38.4. A greater number of enlargements, 927, or 58.8 per cent, were recorded among the girls. Owing to the comparatively small number of some of the degrees of thyroid enlargement it was found desirable, for statistical purposes, to reduce the five degrees of enlargement, recorded during the examinations, to three. Thus, the "very slight" and "slight" enlargements were combined and termed "slight." "Moderate" involvement was allowed to stand. "Marked" and "very marked" thickenings were combined and called "marked." In making the various comparisons of measurements all degrees of thyroid enlargement were combined under a single heading. By far the greatest number of enlargements so included were of the slight variety.

TABLE 1.—*Number and percentage of each degree of thyroid enlargement among 1,341 white boys and 1,576 white girls in the Cincinnati public schools, for all ages and for each age between 11 and 15 years*

NUMBER OF CHILDREN

Thyroid status	Age											
	All ages		11		12		13		14		15	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Total	1,341	1,576	155	156	217	229	273	256	305	331	254	426
Normal	826	649	85	65	136	101	159	102	185	139	169	145
Enlarged	515	927	70	91	81	128	114	154	120	192	85	271
Slight	498	794	68	84	81	121	110	139	116	157	79	217
Moderate	14	109	2	7	0	6	3	11	4	25	4	46
Marked	3	24	0	0	0	1	1	4	0	10	2	8

PERCENTAGE OF CHILDREN

Total	100.0	100.0	11.6	9.9	16.7	14.5	20.3	16.2	22.7	21.0	18.9	27.1
Normal	100.0	100.0	10.3	10.1	16.5	15.6	19.2	15.7	22.4	21.5	20.4	22.4
Enlarged	100.0	100.0	13.6	9.8	15.7	13.8	22.1	16.6	23.3	20.7	16.5	29.3
Slight	100.0	100.0	13.6	10.6	16.3	15.2	22.1	17.5	23.4	19.8	15.9	27.3
Moderate	100.0	100.0	14.3	6.4	0	5.5	21.5	10.1	28.6	22.9	28.6	42.2
Marked	100.0	100.0	0	0	0	4.2	33.3	16.7	0	41.7	66.6	33.4

The number and percentage of each degree of thyroid enlargement at each age between 11 and 15 years, as well as for all ages combined, are also shown in Table 1. It will be seen that slight enlargements were more frequent among the girls—50.4 per cent, as against 37.2 per cent for the boys. Moderate and marked enlargements were approximately eight times more commonly encountered among the girls.

Relation of degree of thyroid enlargement to symptomatology.—Inasmuch as thyroid enlargements of marked degree are commonly supposed to exert more positive and decided influences than do slight enlargements, a word of explanation appears desirable at this point.

Probably the following explanation of Bram [5] covers this point most satisfactorily:

> Assuming that reference is had to so-called simple or nontoxic goiter, situated in the usual position, above the sternum, in persons of noncretinous or nonmyxedematous make-up, and assuming that the thyroid gland is not enlarged to the extent of causing pressure symptoms upon the structures of the neck, I would state that, generally speaking, the size of a thyroid enlargement bears no relation to constitutional disturbances, and that neither stature nor other phases of the economy, structurally or physiologically, appear to be influenced by size of thyroid enlargement. This opinion is based upon my 16 years of work with goiter patients, during which more than 9,000 cases were studied. This is an abstract statement, presenting, as all good rules do, frequent exceptions.

Nativity.—The question of racial susceptibility or immunity to goiter is one which has occasioned much conjecture. During the present study the place of birth of each child, and of his parents and grandparents, were carefully recorded. A child whose parents and grandparents, as well as himself, had been born in the United States was termed "native stock." In this way various combinations of birthplaces were noted.

Ninety-three and eight-tenths per cent of the children examined were born in the United States; probably 75 per cent of these were born in the city of Cincinnati or its environs. Of the 826 thyroid-normal boys, 45.3 per cent were of native stock, while 49.3 per cent of the 515 thyroid-enlarged boys were similarly classed. Slightly smaller percentages of girls, 42.5 per cent of the 647 thyroid-normal and 40 per cent of the 927 thyroid-enlarged, were also native stock.

The combinations of parental nativity are shown in Table 2. Among the boys of native stock 59.6 per cent had normal thyroids, while 40.4 per cent had some degree of thyroid enlargement. Compared with the boys of native stock, five of the groups in Table 2 had greater percentages while three groups had smaller percentages of thyroid-normal individuals. Because of their irregularity these tendencies are not particularly significant.

Forty-two and six-tenths per cent of the girls of native stock had normal thyroids and 57.4 per cent had some degree of thyroid enlargement. When the percentage of thyroid-normal girls of native stock is compared with the remaining groups in Table 2 it is apparent that there are smaller percentages of the same type in seven of the eight remaining groups. While the number of girls included in the present study is entirely too small to serve for the drawing of general conclusions, the data at least suggest that there is less thyroid enlargement among the native-born girls. However, much additional evidence is needed to strengthen this assumption.

Heretofore it has been widely believed that the nativity of parents and grandparents has had little to do with the presence or absence

[5] Dr. Israel Bram, Philadelphia, personal communication, May 7, 1926.

of goiter in the child, provided the family has resided in a community sufficiently long to have suffered the iodine deprivation necessary to induce thyroid enlargement. However, additional information on this point is obviously required before the belief can be accepted as fact.

TABLE 2.—*Number of children in certain groups based on nativity of child, parents, and grandparents, and number and percentage of thyroid-normal and thyroid-enlarged in each group*

BOYS

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	Total
Total number in group	626	132	193	63	93	34	129	27	44	1,341
Number thyroid-normal	373	77	117	42	64	19	89	20	25	826
Number thyroid-enlarged	253	55	76	21	29	15	40	7	19	515
Per cent normal	59.6	58.3	60.6	66.6	68.8	55.9	69.0	74.1	56.8	61.6
Per cent enlarged	40.4	41.7	39.4	33.4	31.2	44.1	31.0	25.9	43.2	38.4

GIRLS

Total number in group	647	168	236	95	123	42	155	33	77	1,576
Number thyroid-normal	276	77	99	37	44	12	60	12	32	649
Number thyroid-enlarged	371	91	137	58	79	30	95	21	45	927
Per cent normal	42.6	45.8	41.9	39.0	35.8	28.6	38.7	36.4	41.6	41.2
Per cent enlarged	57.4	54.2	58.1	61.0	64.2	71.4	61.3	63.6	58.4	58.8

Explanation:
(1) Native born (child, both parents, and 4 grandparents born in United States).
(2) Child, both parents, and 3 grandparents born in United States.
(3) Child, both parents, and 2 grandparents born in United States.
(4) Child, both parents, and 1 grandparent born in United States.
(5) Child and both parents born in United States.
(6) Child and 1 parent born in United States.
(7) Child born in United States, parents and grandparents born elsewhere.
(8) Child, both parents, and 4 grandparents born outside of United States.
(9) All other combinations of nativity.

Estimates of development and posture.—In judging development or nutrition the existing standards of height and weight were not considered. Instead, emphasis was placed on general appearance, condition of the skin, amount of subcutaneous fat, muscle tone, alertness, and vitality. During the examinations nutrition was classed as excellent, good, fair, and poor. It was found, however, that most of the estimates fell in the good and fair classes, few notations being entered in the extreme upper and lower groups. Consequently the numbers with excellent and good nutrition were combined, as were those with fair and poor nutrition. Similarly combinations of types of posture and physical build were also found to facilitate statistical interpretation.

Nutrition.—The percentages of good and fair types of nutrition among the children examined are displayed in Table 3. So far as the examiners were able to estimate, the nutrition of those with normal thyroids was consistently and considerably better than those with enlarged thyroids. Thus, 80.8 per cent of the thyroid-normal boys and 81.8 per cent of the thyroid-normal girls had good physical development, while 70.1 per cent of the thyroid-enlarged boys and

79 per cent of the thyroid-enlarged girls had the same state of nutrition. The same superiority among the thyroid-normal individuals, though slight in some instances, is also apparent in the separate age groups, with the exception of the 15-year old boys and the 11-year old girls.

TABLE 3.—*Percentage of good and fair states of nutrition of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, at each age between 11 and 15 years, and according to presence or absence of thyroid enlargement*

Age	Thyroid status	Boys			Girls		
		State of nutrition			State of nutrition		
		Good	Fair	Number of observations	Good	Fair	Number of observations
11	Thyroid normal	78.9	21.1	85	66.2	33.8	66
	Thyroid enlarged	72.9	27.1	70	72.5	27.5	91
12	Thyroid normal	75.8	24.2	136	78.2	21.8	101
	Thyroid enlarged	60.5	39.5	81	71.9	28.1	128
13	Thyroid normal	78.6	21.4	159	82.4	17.6	102
	Thyroid enlarged	66.6	33.4	114	72.7	27.3	154
14	Thyroid normal	84.3	15.7	185	94.3	5.7	139
	Thyroid enlarged	71.6	28.4	120	81.8	18.2	192
15	Thyroid normal	84.6	15.4	169	90.3	9.7	155
	Thyroid enlarged	85.9	14.1	85	83.8	16.2	271
All ages	Thyroid normal	80.8	19.2	826	81.8	18.2	649
	Thyroid enlarged	70.1	29.9	515	79.0	21.0	927

TABLE 4.—*Percentage of good, fair, and poor types of posture of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, at each age between 11 and 15 years, and according to presence or absence of thyroid enlargement*

Age	Thyroid status	Boys				Girls			
		Type of posture				Type of posture			
		Good	Fair	Poor	Number of observations	Good	Fair	Poor	Number of observations
11	Thyroid normal	45.9	45.9	8.2	85	49.2	38.5	12.3	65
	Thyroid enlarged	42.9	48.5	8.6	70	46.2	41.7	12.1	91
12	Thyroid normal	48.5	45.6	5.9	136	53.5	33.6	12.9	101
	Thyroid enlarged	38.3	53.0	8.7	81	46.1	43.8	10.1	128
13	Thyroid normal	54.1	38.4	7.5	159	45.8	38.3	5.9	102
	Thyroid enlarged	49.1	42.1	8.8	114	38.3	51.3	10.4	154
14	Thyroid normal	53.5	39.5	7.0	185	53.2	37.5	9.3	139
	Thyroid enlarged	45.0	44.2	10.8	120	46.8	36.0	17.2	192
15	Thyroid normal	49.1	43.8	7.1	169	52.9	31.6	15.5	155
	Thyroid enlarged	52.9	35.3	11.8	85	39.5	36.2	24.3	271
All ages	Thyroid normal	51.0	42.0	7.0	826	51.0	37.0	12.0	649
	Thyroid enlarged	45.2	45.2	9.6	515	42.8	41.0	16.2	927

Posture.—The estimates of good, fair, and poor posture among the children examined are shown in Table 4. Good posture is consistently more frequent among both boys and girls of the several age groups who have normal thyroids. Conversely, fair and poor posture are found more frequently among those with thyroid enlargements.

Age-weight-height relationship.—The weight and height index of nutrition is subject to the limitation that the establishment of a practicable standard and norm is not feasible. Furthermore, if such a norm could be established an individual deviation in weight would not necessarily indicate an actual departure from normal health. However, the defects in a nutrition index do not seriously mitigate against the validity of comparisons between children with and without thyroid enlargement. In the present investigation the index of nutrition devised by Drs. B. T. Baldwin and T. D. Wood was used. The standards consist of average weights of children of each sex, by ages and standing height. In the application of this standard a variation of 10 per cent from the average is usually classed as normal, but anything below this point is said to indicate malnutrition. In Table 5 the percentages of those more than 10 per cent overweight and of those more than 10 per cent underweight are shown. These data have been prepared for thyroid-normal and thyroid-enlarged boys and girls of each age between 11 and 15 years and also for all ages combined. An examination of this table shows that overweight is, with a single exception, more frequent among the thyroid-normal boys and girls. The 11-year old boys with thyroid enlargement appear to have a slightly greater percentage of overweight than do those with normal thyroids.

TABLE 5.—*Percentage of thyroid-normal and thyroid-enlarged children who are more than 10 per cent over and percentage of those who are more than 10 per cent under the Baldwin-Wood weight-height-age standards, according to age and sex*

MORE THAN 10 PER CENT OVERWEIGHT

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
All ages	17.0	10.6	21.7	14.7
11	17.7	18.5	12.4	12.1
12	17.6	9.8	20.7	12.5
13	22.0	4.3	25.5	18.1
14	14.6	9.1	23.1	13.5
15	16.0	15.2	23.2	15.4

MORE THAN 10 PER CENT UNDERWEIGHT

All ages	10.9	12.8	19.9	24.6
11	7.0	8.6	15.3	18.7
12	13.9	11.1	21.7	24.1
13	10.7	13.1	27.5	22.1
14	13.5	17.5	18.7	29.2
15	8.9	16.5	14.8	27.4

When average underweight is considered it is apparent that children with normal thyroids are less prone to this condition than are thyroid-enlarged individuals. There are two exceptions to this

statement. Greater percentages of 12-year old boys and 13-year old girls with normal thyroids are underweight than are those of the same age with enlarged thyroid glands.

AVERAGE MEASUREMENTS

In a further attempt to distinguish differences between the physical measurements of children with and without thyroid enlargement some averages have been calculated. Thus, in Tables 6 to 15, inclusive, the average standing height, sitting height, chest circumference, chest depth, chest width, vital capacity, head length, head breadth, and head height are displayed, consecutively. The average measurements are given uniformly in each table according to sex for each age between 11 and 15 years. With the exception of the average standing heights, which have been calculated in inches, and the average weights, which have been calculated in pounds, all of the measurements are in the metric system.

TABLE 6.—*Average standing height, in inches, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	55.4	54.2	54.6	56.6
12	57.4	57.1	57.8	58.6
13	59.2	59.3	61.4	60.2
14	61.9	61.5	62.0	62.4
15	63.9	63.9	62.8	63.1

Average standing height.—Inasmuch as several investigators have commented upon the fact that individuals with thyroid enlargement are, on the average, taller than those with normal thyroids, a study of standing and sitting heights of the children included in the Cincinnati study is interesting.

According to Table 6 the advantage in slightly greater height lies with the boys without enlargement of the thyroid, the exception being those in the 13-year group. In the 15-year group the measurements are equal. Therefore, it may be concluded that the comparison of measurements of standing heights among the boys fails to reveal marked differences.

The average standing heights of girls with thyroid enlargement are greater than in those without enlargement, the 13-year group being an exception.

Average sitting height.—Definite differences are apparent when comparisons are made of sitting height or stem length of the children examined (Table 7). The sitting height is consistently greater among

both boys and girls with thyroid enlargement, the single exception being the 11-year old boys.

TABLE 7.—*Average sitting height, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	71.6	71.4	71.3	73.4
12	73.2	73.5	74.6	75.4
13	74.9	75.5	77.2	77.4
14	77.8	78.3	79.9	80.2
15	80.5	81.1	80.0	80.8

Average weight.—It is interesting to note in Table 8 that the average weights of girls between 11 and 15 equal or exceed the weights of boys of corresponding ages. When the average weights of thyroid-normal and thyroid-enlarged children are compared it is apparent that those in the former group are consistently heavier. Thyroid-normal boys are, on the average, 5.6 pounds heavier than the thyroid-enlarged boys. All of the thyroid-normal girls are heavier than thyroid-enlarged girls of similar age except in the 11-year group, the average weight superiority of the first named group being 2.4 pounds.

TABLE 8.—*Average weight, in pounds, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years, and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	76	70.1	73	81.1
12	86	81.0	87	86.6
13	94	90.2	103	97.8
14	104	98.5	114	106.4
15	117	109.2	117	110.0

The average chest measurements, including circumference, transverse, and antero-posterior measurements, are displayed in Tables 9, 10, and 11. With a few minor exceptions all of the measurements are slightly greater among the children having normal thyroid glands.

Average chest circumference.—An examination of Table 9 shows that the average chest circumferences are slightly greater among the thyroid-normal boys with the exception of those in the 14-year group. Among the girls the average chest circumferences are greater in all of those with normal thyroids except the 11-year group.

TABLE 9.—*Average chest circumference, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years, and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	65.7	65.3	64.1	65.5
12	68.3	67.1	67.9	67.5
13	70.2	70.1	72.0	69.3
14	72.6	73.0	74.5	66.5
15	75.8	74.2	74.6	73.1

Average transverse chest measurements.—The average transverse chest measurements are shown in Table 10. These measurements are slightly greater among the thyroid-normal boys. In the 12-year group the measurements are identical among boys with and without involvement of the thyroid. The average transverse chest measurements are slightly greater among all thyroid-normal girls except those of the 11-year group.

TABLE 10.—*Average transverse chest measurement, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years, and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	22.2	20.3	21.4	21.8
12	23.0	23.0	22.8	22.7
13	23.8	23.4	24.0	23.6
14	24.8	24.6	24.9	24.4
15	26.1	25.3	25.3	24.8

Antero-posterior chest measurements.—It is apparent from Table 11 that the average antero-posterior chest measurements are slightly greater among thyroid-normal boys and girls with the exception of those in the 11-year group.

TABLE 11.—*Average antero-posterior chest measurement, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years, and presence or absence of thyroid enlargement.*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	17.7	18.3	17.1	17.2
12	18.3	18.0	18.5	17.7
13	18.8	18.5	19.0	18.5
14	19.7	19.4	19.9	19.1
15	20.4	20.1	19.9	18.1

Average vital capacity.—The average superiority in vital capacity of boys over girls ranges between 0.1 and 0.6 of a liter. These and other data are shown in Table 12. Among the boys the average vital capacity is very slightly greater among the thyroid-normal individuals in the 12, 14, and 15 year groups, equal in the 13-year group, and less in the 11-year group. Collectively, the average vital capacity is slightly greater among the boys with normal thyroids.

TABLE 12.—*Average vital capacity, in liters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	2.0	2.5	1.9	1.9
12	2.3	2.2	2.1	2.1
13	2.4	2.4	2.3	2.3
14	2.8	2.7	2.6	2.4
15	3.1	3.0	2.5	2.5

The average vital capacity is the same among thyroid-normal and thyroid-enlarged girls of the 11, 12, 13, and 15-year groups. In the 14-year group the average vital capacity is slightly greater among the thyroid-normal girls.

Summarizing, it may be stated that a very slight advantage in increased average vital capacity apparently rests with the thyroid-normal children, a slightly greater advantage being among the boys than among the girls.

Head measurements.—In Tables 13, 14, and 15 average measurements of head length, head breadth, and head height are presented. It will be noted that the head measurements of the boys exceed those of the girls. There are also slight differences in average measurements between thyroid-normal and thyroid-enlarged individuals.

TABLE 13.—*Average head length, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	18.1	18.0	17.5	17.5
12	18.0	18.0	17.5	17.9
13	18.1	18.1	18.5	17.7
14	18.3	18.3	17.9	17.9
15	18.4	18.3	17.9	18.0

Average head length.—No significant or uniform differences in average head length was noted between thyroid-normal and thyroid-enlarged boys and girls. (Table 13).

Average head breadth.—The differences in head breadth among boys with normal and those with enlarged thyroids, as shown in Table 14, are at no time marked. However, thyroid-normal boys, except those in the 12-year group, have a slightly greater head breadth than have the individuals with enlarged thyroids.

TABLE 14.—*Average head breadth, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	14.5	14.0	14.0	14.1
12	14.4	14.5	14.2	14.3
13	14.5	14.4	14.3	14.2
14	14.5	14.4	14.4	14.3
15	14.6	14.5	14.4	14.3

Among the thyroid-normal girls of the 13, 14, and 15 year groups, the average head breadth is one-tenth of a centimeter greater than among the thyroid-enlarged. In the 11 and 12 year groups the difference just cited is reversed.

Average head height.—In Table 15 it is seen that average head height is slightly greater among the thyroid-enlarged boys. The average head height in each group is the same among the thyroid-normal and thyroid-enlarged girls except in the 12-year group, where it is slightly greater among the latter.

TABLE 15.—*Average head height, in centimeters, of 1,204 white boys and 1,398 white girls in the Cincinnati public schools, according to ages between 11 and 15 years, and presence or absence of thyroid enlargement*

Age	Boys		Girls	
	Thyroid status		Thyroid status	
	Normal	Enlarged	Normal	Enlarged
11	14.3	14.4	13.7	13.7
12	14.1	14.5	13.7	13.9
13	14.1	14.1	13.7	13.7
14	14.2	14.4	13.9	13.9
15	14.2	14.4	13.7	13.7

SUMMARY

1. For the purpose of determining the effect of endemic goiter upon physical development, 1,341 white boys and 1,576 white girls were examined in eight Cincinnati public schools.

2. Five hundred and fifteen, or 38.4 per cent, of the boys had some degree of thyroid enlargement, and 927, or 58.8 per cent, of the girls had such involvements.

3. There were 498 slight, 14 moderate, and 3 marked enlargements among the boys, and 794 slight, 109 moderate, and 24 marked thickenings among the girls. Slight enlargements were one and six-tenths times more frequent among the girls than among the boys. Moderate and marked involvements were approximately eight times more frequent among the girls.

4. Estimates of nutrition and posture, as well as 10 uniform measurements, were made of each child.

5. A record of the birthplace of each child, and of his parents and grandparents was also kept. The data suggest that thyroid enlargement is slightly less frequent among the girls who are native born. The available information on this point among the boys is insufficient for the making of satisfactory deductions.

6. According to the estimates of the examiners, better nutrition and posture were slightly more frequent among thyroid-normal boys and girls.

7. Considerably greater percentages of thyroid-normal children were more than 10 per cent overweight than were thyroid-enlarged individuals. Underweight was more frequent among thyroid-enlarged children.

8. There was little significant difference between the average standing heights of thyroid-normal and thyroid-enlarged boys. The standing heights of thyroid-enlarged girls were greater than those of thyroid-normal girls.

9. Average sitting height was consistently greater among boys and girls with thyroid enlargement.

10. The average weights of thyroid-normal boys and girls were greater than of those having enlarged thyroids.

11. Average chest circumferences, transverse, and antero-posterior chest measurements were slightly greater among children having normal thyroid glands.

12. There were very slight differences in average vital capacities between thyroid-normal and thyroid-enlarged children; the advantage found in this group apparently resting with the former, the greater advantage being with the boys.

13. There were no significant or uniform differences in head length between the thyroid-normal and thyroid-enlarged groups.

14. Thyroid-normal boys, except in the 12-year group, had slightly greater average head breadth than had the thyroid-enlarged. The differences were not marked among the girls.

15. The average head height was slightly greater among the thyroid-enlarged boys. Among the girls there were no significant differences.

COMMENT

In interpreting the results of the present investigation it should be recalled that the measurements and estimates were made in a relatively small group of children in a district of moderate goiter prevalence. Moreover, the majority of the children examined had endemic thyroid enlargements of small size.

Despite obvious limitations, the study has apparently shown that children with normal thyroid glands have a definite superiority in certain physical measurements. Consequently it may be assumed that thyroid-normal children are, to some extent, better developed physically. Thyroid-enlarged children, however, appear to have the advantage of slightly greater height, particularly in the sitting position.

Whether the results of this examination of a relatively small number of children indicate a constant, uniform, and significant difference in physical measurements of normal and thyroid-enlarged individuals can be ascertained only by further and more extensive investigations of similar character. Certainly the findings are suggestive and indicate the need for maintaining a normal thyroid gland lest a retarding influence be exerted upon physical growth.

CURRENT WORLD PREVALENCE OF DISEASE

REVIEW OF THE MONTHLY EPIDEMIOLOGICAL REPORT ISSUED JULY 15, 1926, BY THE HEALTH SECTION OF THE LEAGUE OF NATIONS' SECRETARIAT[1]

During the spring months cholera spread slowly to all parts of the Indo-Chinese peninsula. At the end of May and the beginning of June the incidence of cases was declining in British India, in Siam, and in southern Indo-China, but the disease was still spreading in the upper part of Indo-China, especially in the Province of Tonking and in Kwang-Chow-Wan, according to the data made available in the Epidemiological Report for July 15, 1926, published by the health section of the League of Nations' Secretariat.

Telegraphic reports from the Singapore bureau for the week ended July 3 reported one case of cholera at Shanghai, China, and the second week after that (July 11–17) 37 cases were reported. According to newspaper reports cholera spread rapidly in the Chinese

[1] From the Office of Statistical Investigations, U. S. Public Health Service.

sections of Shanghai in the beginning of August, and many persons died of the disease.

In British India, cholera deaths declined during May in nearly all the Provinces, and the total number of deaths reported for the four weeks ended June 5 was only 50 per cent of the number reported in the corresponding period of 1926. The Epidemiological Report comments as follows on the cholera situation in the various provinces:

The Punjab, Kashmir, and the North-West Frontier Province were entirely free from cholera; Bombay Presidency, practically free. United Provinces were but little affected, apart from an outbreak in the district of Azamgarh, and only three districts were infected in the Central Provinces. The cholera incidence decreased in May in Bengal, and moderately severe outbreaks were reported in Bihar from the districts Muzaffarpur and Cuttack only. The number of cases reported in Assam was relatively high. The epidemic in the southern part of Madras Presidency continued to decrease; only in the district of Trichinopoly was a certain recrudescence noted in May.

TABLE 1.—*Cholera deaths reported in the Provinces of India*

Province	1926		1925
	Apr. 19–May 8	May 9–June 5	May 10–June 6
North-West Frontier	0	0	29
Kashmir	0	0	4,059
Punjab	2	2	565
Delhi	0	0	3
United Provinces	350	422	166
Bihar and Orissa	3,070	1,745	2,250
Bengal	3,510	902	863
Assam	493	691	247
Central Provinces	124	178	60
Madras Presidency	438	415	1,468
Hyderabad	0	0	6
Bombay Presidency	1	5	1
Burma	737	551	146
Other Indian States	42	26	4
Total	8,767	4,937	9,801

The cholera outbreak in Bangkok reached its peak about the middle of May, and the number of new cases steadily diminished throughout June and July. In the last week of July only 5 new cases were reported, as compared with 362 cases in the week ended May 22. For Siam as a whole the figures are not so recent, but the number of cases seems to have reached a maximum in the week ended May 22, when 710 cases were reported, after which a sharp decline occurred, 414 cases being reported in the week ended May 29, 487 cases in the week ended June 5, and 391 in the week ended June 12.

Table 2 shows the number of cases reported from the various provinces of French Indo-China and from Kwang-Chow-Wan by 10-day periods.

TABLE 2.—*Cholera cases reported in French Indo-China and in Kwang-Chow-Wan June 1 to July 20, 1926*

Province	June			July	
	1-10	11-20	21-31	1-10	11-20
French Indo-China:					
Annam	10	88	30	34	34
Cambodia	175	128	218	181	125
Cochin-China	403	489	267	240	119
Tonkin	200	143	381	254	241
Kwang-Chow-Wan	1	42	28		

In the principal ports of the Far East, where cholera outbreaks were reported in the early summer, the situation was greatly improved at the end of July; Saigon and Cholon and Haiphong had no cases in the last two weeks of July; Rangoon reported one death in each of the last two weeks, and Negapatam reported one death the week ended July 24 and none in the last week.

Plague.—"The plague incidence in Egypt increased slightly in June," states the Report; 41 cases were reported during the four weeks ended July 1, as compared with 30 cases during the preceding four weeks, and 21 cases during the first four months of the year. Apart from 4 cases at Suez, the cases occurred in three widely separated Provinces, namely, 21 cases at Beni-Suef and 3 at Girga, in Upper Egypt, and 13 at Beheira in Lower Egypt.

The plague outbreak in Tunisia, referred to last month, apparently reached a maximum in the early part of June and the incidence rapidly declined, although the infection spread from Kairwan Province to the Province of Susa. From the beginning of the outbreak, May 11, to June 31, 157 cases were reported in Kairwan, 14 in Susa, 2 at Kef, and 1 at Sfax. During the first 10 days of July, 6 cases were reported in Kairwan Province and 5 in the Province of Susa.

One case of plague was reported at Constantinople on June 3, one case at Patras, Greece, on June 7, and at Algiers one case was reported in the period June 21 to 30 and one July 1 to 10.

Plague incidence increased markedly in Uganda during April and May. The season of high prevalence is normally from May to September. The cases reported in each week are shown in Table 3.

TABLE 3.—*Plague cases and deaths reported in Uganda, by weeks, from April 4 to June 12, 1926*

Week ended—	Number of cases	Number of deaths	Week ended—	Number of cases	Number of deaths
Apr. 10	10	10	May 15	53	43
Apr. 17	29	23	May 22	67	48
Apr. 24	29	24	May 29	101	64
May 1	35	32	June 5	54	38
May 8	58	47	June 12	82	58

In Senegal an outbreak of plague occurred in May, and 129 cases with 71 deaths were reported, as against 12 cases in April.

In Kenya and Madagascar a slight recrudescence in plague occurred in June. Cases reported in Kenya for the four months March, April, May, and June numbered 81, 37, 40, and 79, respectively. For the same months, cases in Madagascar numbered 186, 103, 26, and 66.

The number of new cases of plague at Baghdad began to decline in the latter part of May; 40 cases were reported in the city in the two weeks ended June 5, as against 83 in the preceding two weeks, and 31 cases were reported in the two weeks ended June 19. Cases were also reported from the surrounding district.

In India the deaths from plague showed a gradual decline during May. The plague situation in the present year has been quite favorable except in the northwestern part of the country, particularly in the Punjab, where 15,350 deaths were reported in the four weeks ended June 5, as against 1,148 in the corresponding four weeks of 1925.

TABLE 4.—*Plague deaths reported in India from March to June 1924–1926*

Fortnight ended—	1924	1925	1926
Mar. 13	18,407	8,696	10,558
Mar. 27	21,756	11,911	14,229
Apr. 10	25,656	9,468	18,345
Apr. 24	30,916	8,477	17,435
May 8	24,877	5,031	16,277
May 22	20,588	1,679	13,889
June 5	14,131	938	8,704
June 19	8,670	1,084	

In French Indo-China there were 21 cases of plague reported during June in Cochin-China. At Kwang-Chow-Wan 12 cases of plague were reported in May and 18 cases from June 10 to 19. Plague has been reported in several localities in southern China, but none at either Shanghai or Hongkong. At Amoy 90 cases of plague were reported from May 1 to July 10.

At Yokohama three cases of plague were reported in the week ended July 10.

Typhus fever.—The incidence of typhus fever was less during the past winter, on the whole, than during the winter of 1924–25 in eastern Europe, but its seasonal decline in the spring was somewhat retarded and, therefore, in the late spring the incidence became higher than in the corresponding period of 1925 in a number of countries. The report gives the following summary of the situation in eastern Europe:

Typhus was thus but little less in evidence in Poland in May than in April; 437 cases were reported during the four weeks ended June 5, as against 518 cases during the preceding four weeks, and 402 cases during the corresponding period of 1925. Similarly, there were 66 typhus cases in May in Lithuania, as against

68 in April and 40 in May, 1925. The outbreak in Sub-Carpathian Ruthenia has come to an end; only 6 cases were reported in May and 1 during the first half of June. Hungary remained free from typhus except for 1 case. In Rumania 354 cases were reported in April, as against 384 during the previous month and 153 in April, 1925.

In the U. S. S. R., March returns were, in general, low and differed little from those of the previous month with the exception of western Russia, where there was a certain recrudescence of typhus in the Governments of Smolensk, Pskov, and Gomel. Data for White Russia are not as yet available.

Typhus fever cases were reported by the countries in northern Africa as follows: 214 cases in Algeria and 296 cases in Tunisia in the first six months of 1926; 579 cases in Morocco during the first five months; 631 cases in Egypt during the first 20 weeks of the year.

Relapsing fever.—Relapsing fever was rare in Europe outside of Russia during the first half of 1926. In Poland 7 cases were reported in the first 5 months; in Lithuania 2 cases were reported in the same period; and in the Kingdom of the Serbs, Croats, and Slovenes 1 case was reported down to June 14.

In Russia the March reports showed a decrease in cases compared with the preceding two months. The disease has become rare in the northern part of the country, but was more common in the Black Earth district, on the Volga, and in the Caucasus, though no government reported as many as 100 cases in March.

Smallpox.—The smallpox outbreaks in Japan, Kwantung, and South Manchuria were abating at the end of May. In Japan only 31 cases were reported in the week ended June 5, as against 80 and 150, respectively, during the two preceding weeks. In Korea little change in the prevalence of the disease was indicated; 180 cases were reported in May, 168 in April, and 200 in March.

The incidence of smallpox in northern England was decreasing at the end of June, but was higher than that recorded at the corresponding season during any of the last 20 years. Four hundred and fifty-six cases were reported during the 3 weeks ended July 3, as compared with 614 in the preceding 3 weeks.

Enteric fever.—"The incidence of enteric fever was, everywhere in Europe, lower in May than during the corresponding period of 1925," states the Report. In Italy and Germany an increase in incidence was noted in the June reports. During the four weeks ended June 19, 606 cases were reported in Germany as compared with 403 during the preceding four weeks.

In Japan typhoid fever was more prevalent during the first five months of the current year than at the corresponding season for several years past; 14,804 cases of typhoid and 926 paratyphoid cases were reported between January 1 and May 29, as against 11,634 typhoid and 669 paratyphoid cases during the corresponding period of 1925.

Dysentery.—A lower incidence of dysentery was indicated by the reports for May and the early part of June in nearly all European countries.

In Japan the summer rise in dysentery began in May, with 695 cases reported during the four weeks ended June 5 as compared with 292 cases during the preceding four weeks.

Influenza.—A considerable prevalence of influenza in Russia was indicated, with 637,535 cases reported for the whole country in March, as compared with 316,137 cases in March, 1925.

In previous reports reference has been made to the widespread prevalence of influenza during March and April both in Europe and the United States. Mortality data available show that the number of deaths from this cause declined markedly during May.

Tanganyika Territory reported an influenza outbreak in April, with 1,200 notified cases.

Acute poliomyelitis.—"Data for the month of May showed a low prevalence of poliomyelitis both in Europe and in the United States, and no summer increase had begun. The incidence was somewhat higher than normal in Australia during the first months of the year, but decreased in May; 135 cases were reported during the first 20 weeks of 1926, as compared with 121 cases during the corresponding period of the previous year. During the same period there were only 9 cases of poliomyelitis in New Zealand, where a serious epidemic occurred in 1925, 1,230 being reported in the corresponding 20 weeks."

Scarlet fever and diphtheria.—Both scarlet fever and diphtheria were declining in incidence during the spring months in countries of the Northern Hemisphere, where the seasonal minimum normally occurs in the summer months.

Puerperal fever.—The Epidemiological Report this month publishes a table showing the cases of puerperal fever notified in the various countries during 1924, 1925, and the first quarter of 1926. In many European countries this disease is notifiable, but an extremely wide range in the incidence is indicated and "it appears that the notification is hardly seriously enforced in more than a small number of European countries."

PASTEURIZATION OF MILK AND THE NONPULMONARY TUBERCULOSIS DEATH RATE IN NEW YORK CITY [1]

The practice of pasteurizing New York City's milk was started in 1912. At that time approximately 50 per cent of the milk consumed in New York City was subjected to pasteurization. In 1914 the

[1] From the Weekly Bulletin, August 21, 1926, published by the Department of Health of the city of New York.

pasteurization of all milk, save that grade termed certified, was made obligatory by law. The results of this practice are vividly reflected in our nonpulmonary tuberculosis rates. The table below clearly shows the constantly declining death rate for nonpulmonary tuberculosis.

Nonpulmonary tuberculosis death rates in New York City, 1910–1925

Year	Rate per 1,000 population	Year	Rate per 1,000 population
1910	0.29	1918	0.24
1911	.30	1919	.20
1912	.28	1920	.17
1913	.28	1921	.14
1914	.27	1922	.13
1915	.27	1923	.12
1916	.23	1924	.14
1917	.24	1925	.12

Of even greater significance than the declining death rate for nonpulmonary tuberculosis is the fact that the examination of tuberculous glands of the neck made in the years previous to pasteurization, revealed that in more than 50 per cent the process was due to the bovine bacillus, whereas in only six of 50 specimens obtained since pasteurization has become general, was the bovine bacillus found, and five out of these six cases were from out-of-town patients who had been fed on raw milk.

The subject of pasteurization is now being actively discussed by health authorities. There is a considerable difference as to the degree of temperature to which the milk to be pasteurized should be exposed. Commercial interests and even certain scientists of very high repute oppose an increase in the temperature employed for pasteurization above 142° F. The Conference of State and Provincial Health Authorities of North America meeting with representatives of the United States Public Health Service in Washington, D. C., on May 24, 1926, unanimously agreed upon a temperature of 145° F. maintained for 30 minutes as the standard for pasteurization. Many cities, fearing that a lower temperature does not give an adequate margin of safety, have adopted the 145° F. standard as their legal requirement. The safety of the lower standard—142° F.—which is the legal requirement in New York City, is therefore brought into question. The commercial interests protest against a higher standard as being unnecessary and claim that if the present thermal requirement is raised, it will necessitate the installation of new equipment and increase the cost of milk to the consumer. They agree, however, that safety is the paramount and primary consideration. The Department of Health of the City of New York is committed to the latter principle, and the commissioner of health is now making a careful

but rapid inquiry to make sure whether we are justified in adhering to our present standard, or whether, in the interest of safety, 145° F. should be made the legal standard even at the sacrifice of a little of the cream line.

A decision will be made only after due consideration and study of the opposing viewpoints, and after conference with those who are qualified to give counsel and testimony

PUBLIC HEALTH ENGINEERING ABSTRACTS

Experiences with Cross Connections in Chicago. Arthur E. Gorman, Chief Sanitary Engineer, Division of Water Safety Control, City of Chicago. *Journal of the American Water Works Association,* Vol. 15, No. 6, June, 1926, pp. 587–599. (Abstract by Arthur E. Gorman.)

A two years' survey of cross connections in the public water system in Chicago located 491 such connections, 194 of which were of the direct or dangerous type. There were 297 indirect cross connections, such as connections on the suction of pumps, but constituting a relatively low public health risk. The policy followed in Chicago was to require the physical disconnections of direct cross connections, while indirect connections already in existence were permitted where the danger was relatively remote.

The cross connection work was developed with a minimum amount of friction with big industries and with excellent cooperation with the fire underwriters. The sizes of cross connections ranged from ½-inch to 18 inches, the more frequent being—

2-inch (21.4 per cent).
3-inch (14.0 per cent).
4-inch (11.6 per cent).
¾-inch (10.8 per cent).

Special studies were made of cross connections between private water systems within institutions and the public sewers. Dangerous connections were found between swimming pools and pressure filters used on drinking water systems in private institutions, such as apartment hotels and clubs, on account of the frequent backflow of sewage due to flooding of the main sewers. Several types of cross connections are discussed and illustrated by diagrams.

Pollution Affecting Navigation or Commerce on Navigable Waters. Report from Chief of Engineers, United States Army. House of Representatives Document No. 417, Sixty-ninth Congress, first session, June 4, 1926, 28 pages. (Abstract by J. K. Hoskins.)

This is a report of the Chief of Engineers, "giving the results of the investigation, authorized by section 9 of the oil pollution act, of 1924, of the general subject of pollution affecting navigation or

commerce on the navigable waters of the United States or the fisheries therein, together with recommendations for remedial legislation."

Polluting substances contributed to watercourses are divided into two general classes: (1) Domestic sewage and (2) industrial wastes, among the most injurious of which are (*a*) oil, (*b*) coal mining, (*c*) coal distillation, (*d*) metal trades, (*e*) pulp and paper mills, (*f*) tanneries, (*g*) textile, (*h*) miscellaneous.

The source and nature of each of these classes of wastes are briefly discussed, as well as their effect on navigation, commerce, and fisheries. It is stated that, "except in isolated and unimportant instances, the pollution of waters by domestic sewage and industrial wastes does not directly interfere with commerce or commercial navigation." Acid wastes indirectly affect the boilers and hulls of boats and metal parts of locks and dams, necessitating more frequent repairs. Floating oil creates an extra fire hazard but contributes little danger as an origin of fire because it is difficult to ignite. Fisheries are directly affected by toxic products in industrial and oil wastes. Untreated domestic sewage contains little or nothing that is toxic to aquatic life, and the addition of such sewage to the waterways up to a certain pollution density is beneficial to fish life because of the decomposition products, carbon dioxide and nitrates, which stimulate growth of aquatic plants and thereby produce fish food.

A table is included giving a list of navigable and nonnavigable waters into which polluting substances are being deposited to such an extent as to endanger or interfere with navigation and fisheries, the nature of pollution and its effect in each instance being stated in general terms. A summary of the more important findings is given.

Existing Federal laws relating to the pollution of navigable waters are cited, as well as the extent to which each of the States has adopted legislation dealing with pollution in State waters. Interstate agreements for pollution control are briefly mentioned.

The conclusions and recommendations deal with (*a*) fisheries and (*b*) commerce and navigation. In regard to fisheries, while certain streams are now too seriously polluted to support fish life, the economic factors involved do not justify prohibition of such pollution, since, as a general rule, "the value of the products of the fisheries is small as compared to the total value of the products of all the industries which use the waters." Should the Federal Government undertake control of pollution generally, it is probable that State and local authorities would tend to relax their efforts both of study and of law enforcement, "with the result that the entire problem would be left to the Federal Government, which would be confronted with the necessity for providing a large organization to cope with the many local problems which would arise," and accord-

ingly no Federal legislation is recommended so far as the effect of pollution of fisheries is concerned. Federal agencies, such as the Public Health Service, the Bureau of Mines, and the Bureau of Fisheries, are available to communities for assistance in studying their pollution problems.

In regard to the effect on navigation and commerce, Federal legislation for the prevention of pollution by acid mine drainage is not recommended, pending further information on the subject and because the State courts are able to redress individuals or corporations for damages resulting from such pollution. Federal jurisdiction over oil pollution should be extended to include control of such pollution from any source, so that the department may be in a position to cope with all such situations in any of the tidal waters of the United States, as well as those of the Great Lakes. (The act of 1924 applies only to the discharge of oil from oil-burning or oil-carrying vessels).

Studies in Regard to the Lighting of Post Offices, Made by the United States Public Health Service. James E. Ives and Edgar Sydenstricker. *Journal of Industrial Hygiene*, vol. 8, No. 5, May, 1926, pp. 232–247. (Abstract by Leonard Greenburg.)

This paper presents the results of lighting studies made during the years 1921–1923 in the general and City Hall post offices, New York City. These post offices differ in that in the City Hall office practically the only sources of illumination are artificial, while in the general post office 40 per cent is natural. In both offices the artificial illumination averaged about 3.5 foot candles; but this average is misleading, for the illumination was found to be better in the general post office, due to the natural illumination present. Examination of the vision and eye defects of 2,449 employees in these offices revealed a larger number of defects and a smaller percentage of normal vision in the City Hall than the general post office.

The percentage of normal vision in one or both eyes was found to vary with age, being approximately 75 per cent at 22 years of age and falling to 20 per cent at about 57 years of age. These figures were confirmed by other studies, by the investigators of the United States Public Health Service, on nearly 5,000 native white school boys and nearly 6,500 white industrial workers. It was also found that visual acuity was low at 5 years of age (among the school children) and reached a peak at 18 years. The least change in visual acuity was found to occur between the ages of 25 to 45 years. It was found that those persons doing the most intensive eye work have the poorest vision and the greatest number of eye defects.

Since the comparative studies in the two post offices indicated better vision and fewer defects in the well-illuminated office, it seemed reasonable to suppose that at he City Hall post office more illumination was necessary. Card-sorting studies and tests were therefore inaugurated in order to find the relation between speed of sorting and illumination, it being assumed that the illumination yielding the higher sorting rate would be that which would be best for the eyes. Accordingly, the speed of sorting 1,000 typed white cards under various degrees of illumination ranging from 2.8 to 14 foot candles was determined for three groups of workers having vision of 20/20, 20/20 to 20/30, and 20/30 to 20/40, respectively. It was found that those persons having 20/20 and 20/20 to 20/30 reached their maximum rate of production at 8 foot candles and this, plus a 20 per cent allowance for deterioration (making 10 foot candles), has been suggested as a standard.

The authors discuss the various tests which have been suggested or used for the determination of the sufficiency of illumination. It appears that the rate of production method is one of the most satisfactory methods, and the authors have therefore used this method in their further studies on lighting.

In the studies on production rates, six series of tests were made under different conditions of illumination, each test of three or four days' duration. The amount of mail sorted by each of eight clerks in the dispatching and in the delivery departments was counted with the illumination varying from 3.3 to 7.7 foot candles. Curves are given for the relation between production rate and illumination.

Several interesting questions are raised at the close of the paper, on which is based the present work of the Public Health Service in these investigations. The two most interesting are (1) the question of why there is a lag in production when illumination is changed, and (2) the determination of ocular fatigue under different degrees of illumination.

DEATHS DURING WEEK ENDED AUGUST 21, 1926

Summary of information received by telegraph from industrial insurance companies for week ended August 21, 1926, and corresponding week of 1925. (From the Weekly Health Index, August 25, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended Aug. 21, 1926	Corresponding week, 1925
Policies in force	65, 099, 898	60, 810, 078
Number of death claims	10, 020	8, 839
Death claims per 1,000 policies in force, annual rate	8. 0	7. 6

Deaths from all causes in certain large cities of the United States during the week ended August 21, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, August 25, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Aug. 21, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Aug. 21, 1926 [3]
	Total deaths	Death rate [1]		Week ended Aug. 21, 1926	Corresponding week, 1925	
Total (65 cities)	5,801	10.5	10.8	808	852	[3] 65
Akron	34			3	7	32
Albany [4]	27	11.8	15.0	3	4	63
Atlanta	78			9	13	
White	39			5		
Colored	39	(5)		4		
Baltimore [4]	212	13.7	12.6	24	28	99
White	154			26		93
Colored	58	(5)		8		130
Birmingham	57	14.1	14.2	5	6	
White	23			1		
Colored	34	(5)		4		
Boston	177	11.7	11.5	37	24	104
Bridgeport	27			2	2	34
Buffalo	117	11.2	11.6	18	18	75
Cambridge	18	7.7	10.0	4	2	66
Camden	27	10.7	14.2	4	12	68
Canton	17	8.1	6.4	3	3	67
Chicago [4]	536	9.2	9.8	58	69	51
Cincinnati	141	17.9	15.5	22	16	137
Cleveland	164	8.9	8.8	19	22	49
Columbus	62	11.3	13.6	11	14	101
Dallas	54	14.1	14.8	13	6	
White	43			12		
Colored	11	(5)		1		
Dayton	25	7.4	9.3	4	5	63
Denver	65	11.9	15.0	1	16	
Des Moines	26	9.3	6.3	1	0	17
Detroit	201	8.1	10.4	33	58	53
Duluth	23	10.6	8.5	1	0	23
El Paso	35	16.7	16.4	4	7	
Erie	25			4	3	76
Fall River [4]	31	12.3	7.7	7	4	102
Flint	16	6.1	8.0	1	5	17
Fort Worth	26	8.5	9.9	8	5	
White	21			7		
Colored	5	(5)		1		
Grand Rapids	34	11.4	10.5	4	7	58
Houston	46			5	6	
White	36			4		
Colored	10	(5)		1		
Indianapolis	53	13.2	10.6	11	6	81
White	80			8		68
Colored	13	(5)		3		165
Jersey City	56	9.2	7.8	5	4	35
Kansas City, Kans	26	11.6	11.2	2	1	35
White	18			2		42
Colored	8	(5)		0		0
Kansas City, Mo	93	12.9	12.2	12	8	
Los Angeles	196			19	30	53
Louisville	91	15.3	15.9	7	15	60
White	73			7		70
Colored	18	(5)		0		0
Lowell	25			5	5	93
Lynn	16	8.0	8.6	4	2	100
Memphis	49	14.4	20.6	8	12	
White	22			6		
Colored	27	(5)		2		
Milwaukee	76	7.7	6.5	15	3	69
Minneapolis	73	8.8	10.3	7	12	39
Nashville [4]	39	14.8	15.7	4	7	
White	24			2		
Colored	15	(5)		2		
New Bedford	22			4	0	70

See footnotes at end of table.

Deaths from all causes in certain large cities of the United States during the week ended August 21, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued

City	Week ended Aug. 21, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Aug. 21, 1926 [2]
	Total deaths	Death rate [1]		Week ended Aug. 21, 1926	Corresponding week, 1925	
New Haven	22	6.3	6.7	2	3	27
New Orleans	146	18.2	20.5	19	24	
White	90			11		
Colored	56	(5)		8		
New York	1,079	9.4	9.5	163	141	66
Bronx borough	111	6.4	7.4	7	13	23
Brooklyn borough	386	9.0	8.7	67	49	68
Manhattan borough	447	12.4	12.3	79	62	87
Queens borough	101	6.9	6.6	8	10	36
Richmond borough	25	9.1	12.1	2	7	35
Newark, N. J	87	9.9	9.0	18	14	86
Norfolk	43	12.9	9.6	10	9	186
White	21			5		149
Colored	22	(5)		5		249
Oakland	44	8.8	9.9	6	3	69
Oklahoma City	28			6	4	
Omaha	47	11.1	11.1	4	7	42
Paterson	36	16.9	9.6	1	1	17
Philadelphia	465	10.5	11.0	54	63	72
Pittsburgh	122	10.0	13.4	26	30	86
Portland, Oreg	63			2	3	20
Providence	63	11.9	11.1	11	5	91
Richmond	59	13.8	10.9	9	6	113
White	25			5		98
Colored	25	(5)		4		140
Rochester	59	9.6	10.4	5	14	40
St. Louis	163	10.2	13.5	18	35	
St. Paul	51	10.7	9.3	4	3	36
Salt Lake City [4]	32	12.5	11.5	5	1	69
San Antonio	60	15.3	15.5	18	16	
San Diego	28	13.3	15.7	1	3	21
San Francisco	151	13.9	11.1	1	9	6
Schenectady	20	11.2	11.2	7	1	202
Somerville	10	5.2	7.9	2	2	52
Spokane	26	12.4	9.1	2	2	47
Springfield, Mass	23	8.3	10.3	4	2	58
Syracuse	42	11.9	8.0	4	9	51
Tacoma	29	14.3	9.5	1	1	23
Toledo	73	12.9	12.5	11	12	107
Trenton	30	11.7	13.0	2	7	33
Utica	13	6.6	10.8	2	2	44
Washington, D. C	90	8.9	11.1	17	17	97
White	51			7		58
Colored	39	(5)		10		182
Waterbury	14			4	1	86
Wilmington, Del	24	10.1	9.4	5	2	117
Worcester	28	7.6	10.4	3	5	35
Yonkers	17	7.6	8.3	3	2	67

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births. Cities left blank are not in the registration area for births.
[3] Data for 62 cities.
[4] Deaths for week ended Friday, August 20, 1926.
[5] In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta 31, Baltimore, 15, Birmingham 39, Dallas 15, Fort Worth 14, Houston 25, Indianapolis 11, Kansas City, Kans., 14, Louisville 17, Memphis 38, Nashville 30, New Orleans 26, Norfolk 38, Richmond 32, and Washington, D. C., 25.

PREVALENCE OF DISEASE

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

UNITED STATES

CURRENT WEEKLY STATE REPORTS

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

Reports for Week Ended August 28, 1926

ALABAMA

	Cases
Chicken pox	4
Dengue	1
Diphtheria	24
Influenza	3
Malaria	130
Measles	13
Mumps	11
Ophthalmia neonatorum	1
Pellagra	13
Pneumonia	25
Scarlet fever	14
Smallpox	6
Tuberculosis	168
Typhoid fever	114
Typhus fever	4
Whooping cough	19

ARIZONA

Diphtheria	3
Mumps	1
Scarlet fever	2
Smallpox	1
Trachoma	1
Tuberculosis	9
Typhoid fever	1
Whooping cough	3

ARKANSAS

Chicken pox	11
Diphtheria	1
Hookworm disease	7
Influenza	1
Malaria	102
Measles	2
Mumps	2
Ophthalmia neonatorum	1

ARKANSAS—continued

	Cases
Paratyphoid fever	6
Pellagra	7
Poliomyelitis	1
Scarlet fever	1
Smallpox	4
Trachoma	2
Tuberculosis	9
Typhoid fever	58
Whooping cough	13

COLORADO

Diphtheria	5
Mumps	1
Pneumonia	1
Poliomyelitis	2
Scarlet fever	9
Tuberculosis	31
Typhoid fever	12
Vincent's angina	6
Whooping cough	3

CONNECTICUT

Chicken pox	3
Conjunctivitis (infectious)	3
Diphtheria	10
German measles	2
Measles	10
Mumps	1
Pneumonia (bronchо)	6
Pneumonia (lobar)	2
Poliomyelitis	1
Scarlet fever	8
Septic sore throat	24
Tuberculosis (pulmonary)	25
Typhoid fever	4
Whooping cough	21

DELAWARE

	Cases
Diphtheria	1
Poliomyelitis	5
Scarlet fever	3
Typhoid fever	2
Whooping cough	2

FLORIDA

Cerebrospinal meningitis	1
Chicken pox	2
Dengue	1
Diphtheria	11
Influenza	36
Lethargic encephalitis	2
Malaria	23
Measles	10
Mumps	4
Pneumonia	57
Scarlet fever	5
Smallpox	8
Tetanus	5
Tuberculosis	90
Typhoid fever	32
Typhus fever	4
Whooping cough	7

GEORGIA

Chicken pox	1
Dengue	1
Diphtheria	12
Dysentery	6
Hookworm disease	2
Influenza	25
Malaria	64
Measles	2
Mumps	7
Paratyphoid fever	7
Pneumonia	8
Poliomyelitis	1
Scarlet fever	7
Septic sore throat	3
Smallpox	1
Trachoma	1
Tuberculosis	12
Typhoid fever	76
Whooping cough	6

IDAHO

Diphtheria	14
Measles	1
Poliomyelitis—Garden Valley	1
Scarlet fever	1
Smallpox	1
Tuberculosis	1
Typhoid fever	4
Whooping cough	15

ILLINOIS

Chicken pox	23
Diphtheria	50
Influenza	8
Lethargic encephalitis:	
Cook County	1
Cumberland County	1
Measles	71
Mumps	16

ILLINOIS—continued

	Cases
Pneumonia	79
Poliomyelitis:	
Cook County	2
Edgar County	1
Edwards County	1
Lake County	1
La Salle County	1
Macon County	1
Tazewell County	1
Scarlet fever	53
Smallpox	2
Tuberculosis	374
Typhoid fever	63
Whooping cough	134

INDIANA

Cerebrospinal meningitis	1
Chicken pox	9
Diphtheria	27
Influenza	4
Measles	51
Pneumonia	4
Scarlet fever	36
Smallpox	11
Tuberculosis	22
Typhoid fever	20
Whooping cough	67

IOWA

Diphtheria	18
German measles	2
Lethargic encephalitis	1
Measles	2
Scarlet fever	7
Smallpox	1
Tuberculosis	6
Typhoid fever	7
Whooping cough	20

KANSAS

Chicken pox	2
Diphtheria	9
Influenza	6
Lethargic encephalitis	1
Measles	8
Pneumonia	26
Poliomyelitis:	
Hoisington	1
Hutchinson	3
Isabel	1
Scarlet fever	9
Smallpox	4
Tetanus	1
Tuberculosis	19
Typhoid fever	37
Whooping cough	21

LOUISIANA

Diphtheria	5
Influenza	7
Malaria	30
Pneumonia	20
Scarlet fever	3
Smallpox	5
Trachoma	1
Tuberculosis	31
Typhoid fever	30

MAINE

	Cases
Cerebrospinal meningitis	1
Chicken pox	8
Conjunctivitis	1
Diphtheria	4
German measles	1
Measles	25
Mumps	7
Scarlet fever	13
Septic sore throat	4
Tuberculosis	3
Typhoid fever	4
Whooping cough	37

MARYLAND [1]

Cerebrospinal meningitis	2
Chicken pox	4
Diphtheria	9
Dysentery	9
Impetigo contagiosa	1
Influenza	1
Lethargic encephalitis	1
Measles	1
Mumps	5
Paratyphoid fever	3
Pneumonia (broncho)	4
Pneumonia (lobar)	3
Poliomyelitis	1
Scarlet fever	6
Tuberculosis	94
Typhoid fever	49
Typhus fever	2
Whooping cough	61

MASSACHUSETTS

Cerebrospinal meningitis	1
Chicken pox	15
Conjunctivitis (suppurative)	2
Diphtheria	36
German measles	6
Influenza	5
Lethargic encephalitis	2
Measles	36
Mumps	29
Ophthalmia neonatorum	6
Pneumonia (lobar)	16
Poliomyelitis	22
Scarlet fever	56
Tetanus	3
Trachoma	2
Tuberculosis (pulmonary)	100
Tuberculosis (other forms)	17
Typhoid fever	28
Whooping cough	93

MICHIGAN

Diphtheria	50
Measles	23
Pneumonia	12
Scarlet fever	31
Smallpox	9
Tuberculosis	72
Typhoid fever	12
Whooping cough	89

[1] Week ended Friday.

MINNESOTA

	Cases
Chicken pox	8
Diphtheria	31
Influenza	1
Lethargic encephalitis	1
Measles	11
Poliomyelitis	1
Scarlet fever	68
Tuberculosis	49
Typhoid fever	7
Whooping cough	19

MISSISSIPPI

Diphtheria	20
Scarlet fever	3
Smallpox	4
Typhoid fever	52

MISSOURI

Chicken pox	7
Diphtheria	21
Influenza	4
Measles	1
Pneumonia	2
Poliomyelitis	1
Rabies (in animals)	2
Scarlet fever	25
Smallpox	6
Tetanus	1
Tuberculosis	59
Typhoid fever	64
Whooping cough	42

MONTANA

Diphtheria	2
German measles	2
Measles	2
Mumps	1
Poliomyelitis	1
Smallpox	6
Tuberculosis	4
Typhoid fever	2
Whooping cough	5

NEBRASKA

Chicken pox	2
Diphtheria	3
Measles	2
Mumps	1
Pneumonia	1
Poliomyelitis	1
Scarlet fever	7
Smallpox	1
Tuberculosis	9
Typhoid fever	8
Whooping cough	10

NEW JERSEY

Cerebrospinal meningitis	1
Chicken pox	9
Diphtheria	47
Dysentery	3
Influenza	1
Malaria	1
Measles	31

NEW JERSEY—continued

	Cases
Paratyphoid fever	1
Pneumonia	30
Scarlet fever	28
Typhoid fever	23
Whooping cough	95

NEW MEXICO

Malaria	1
Measles	2
Mumps	1
Rabies (in animals)	7
Scarlet fever	1
Tuberculosis	42
Typhoid fever	4
Whooping cough	7

NEW YORK

(Exclusive of New York City)

Chicken pox	20
Diphtheria	41
Dysentery	4
German measles	7
Malaria	17
Measles	79
Mumps	19
Ophthalmia neonatorum	1
Pneumonia	45
Poliomyelitis	52
Scarlet fever	36
Septic sore throat	2
Tetanus	3
Trachoma	1
Typhoid fever	30
Vincent's angina	6
Whooping cough	173

NORTH CAROLINA

Chicken pox	8
Diphtheria	37
German measles	4
Malaria	21
Measles	27
Poliomyelitis	7
Scarlet fever	14
Septic sore throat	4
Smallpox	2
Typhoid fever	97
Whooping cough	175

OKLAHOMA

(Exclusive of Oklahoma City and Tulsa)

Cerebrospinal meningitis:	
Bryan County	1
Woods County	1
Diphtheria	10
Influenza	39
Malaria	212
Measles	16
Pellagra	15
Scarlet fever	10
Typhoid fever	140
Whooping cough	20

[1] Deaths.

OREGON

	Cases
Chicken pox	4
Diphtheria	11
Influenza	7
Malaria	3
Measles	27
Mumps	5
Pneumonia	[1] 7
Scarlet fever	16
Smallpox	4
Tuberculosis	[1] 3
Typhoid fever	10
Whooping cough	4

PENNSYLVANIA

Anthrax—Philadelphia	1
Cerebrospinal meningitis—Harrisburg	1
Chicken pox	34
Diphtheria	83
German measles	8
Impetigo contagiosa	5
Measles	136
Mumps	7
Ophthalmia neonatorum—Philadelphia	1
Pneumonia	10
Poliomyelitis:	
Philadelphia	2
Scattering	2
Puerperal fever—Hellertown	1
Scarlet fever	67
Tetanus:	
Pittsburgh	1
Pottsville	1
Trachoma—Philadelphia	1
Tuberculosis	138
Typhoid fever	55
Whooping cough	291

RHODE ISLAND

Diphtheria	2
Scarlet fever	6
Tuberculosis	15
Typhoid fever	1
Whooping cough	3

SOUTH DAKOTA

Cerebrospinal meningitis	1
Diphtheria	2
Measles	1
Scarlet fever	10
Typhoid fever	4
Whooping cough	3

TENNESSEE

Chicken pox	2
Diphtheria	10
Dysentery	1
Influenza	1
Malaria	87
Measles	22
Mumps	2
Pellagra	7
Pneumonia	1
Scarlet fever	20
Tuberculosis	31
Typhoid fever	162
Whooping cough	48

TEXAS

	Cases
Cerebrospinal meningitis	1
Diphtheria	4
Influenza	4
Measles	2
Mumps	1
Pneumonia	7
Poliomyelitis	1
Scarlet fever	3
Tuberculosis	4
Typhoid fever	6
Whooping cough	23

UTAH

Cerebrospinal meningitis	1
Chicken pox	2
Diphtheria	5
Measles	6
Scarlet fever	3
Typhoid fever	2
Whooping cough	33

VERMONT

Diphtheria	2
Measles	3
Mumps	9
Whooping cough	23

WASHINGTON

Cerebrospinal meningitis:	
Pierce County	1
Thurston County	3
Chicken pox	7
Diphtheria	9
German measles	2
Measles	4
Mumps	5
Pneumonia	2
Poliomyelitis	3
Scarlet fever	14
Smallpox	11
Tuberculosis	39
Typhoid fever	18
Whooping cough	27

WEST VIRGINIA

	Cases
Chicken pox	4
Diphtheria	16
Influenza	9
Measles	18
Scarlet fever	15
Smallpox	3
Tuberculosis	65
Typhoid fever	46
Whooping cough	48

WISCONSIN

Milwaukee:	
Chicken pox	9
Diphtheria	6
Measles	4
Mumps	7
Pneumonia	3
Scarlet fever	13
Tuberculosis	22
Typhoid fever	1
Whooping cough	79
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	6
Diphtheria	22
German measles	3
Influenza	2
Measles	138
Mumps	1
Pneumonia	4
Poliomyelitis	2
Scarlet fever	22
Smallpox	1
Tuberculosis	38
Typhoid fever	8
Whooping Cough	121

WYOMING

Chicken pox	1
German measles	1
Scarlet fever	6
Whooping cough	6

Reports for Week Ended August 21, 1926

DISTRICT OF COLUMBIA

	Cases
Diphtheria	7
Measles	3
Pneumonia	15
Scarlet fever	6
Tuberculosis	16
Typhoid fever	4
Whooping cough	14

FLORIDA

Cerebrospinal meningitis	2
Dengue	3
Diphtheria	16
Malaria	18
Measles	6
Mumps	1
Pneumonia	4
Scarlet fever	8
Smallpox	11

FLORIDA—continued

	Cases
Tuberculosis	7
Typhoid fever	14
Typhus fever	1
Whooping cough	5

NORTH DAKOTA

Chicken pox	6
Diphtheria	5
German measles	3
Influenza	1
Leprosy	1
Lethargic encephalitis	1
Measles	25
Pneumonia	1
Poliomyelitis	2
Scarlet fever	44
Smallpox	1
Trachoma	1

NORTH DAKOTA—continued

	Cases
Tuberculosis	10
Typhoid fever	5
Whooping cough	15

SOUTH CAROLINA

Chicken pox	9
Dengue	8
Diphtheria	13
Hookworm disease	36
Influenza	50
Malaria	368
Measles	1
Paratyphoid fever	9
Pellagra	67
Poliomyelitis	1
Scarlet fever	5
Smallpox	3
Tuberculosis	44
Typhoid fever	141
Whooping cough	43

WISCONSIN

Milwaukee:	Cases
Chicken pox	4
Diphtheria	4
Measles	17
Mumps	5
Pneumonia	3
Scarlet fever	3
Tuberculosis	32
Whooping cough	53
Scattering:	
Chicken pox	15
Diphtheria	14
German measles	6
Influenza	23
Measles	220
Mumps	11
Pneumonia	11
Poliomyelitis	1
Scarlet fever	40
Trachoma	2
Tuberculosis	18
Typhoid fever	3
Whooping cough	124

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever [2]
July, 1926										
Alabama	4	33	22	335	308	130	3	32	97	417
Idaho	3	11			32		0	28	21	13
Illinois	13	232	386	7	1,980		9	488	95	107
Indiana	3	97	27		638		2	171	185	65
Kansas	5	49	5		180		3	89	21	87
Maine	2	10	2		359	1	0	70	12	6
Montana	2	1	11		44		0	41	29	14
Michigan	0	333	5		950		2	641	36	43
Minnesota	5	165	11		596		8	535	5	20
Mississippi	0	41	234	9,418	326	1,123	10	25	13	643
Missouri	11	163	5	11	407		0	189	26	152
North Carolina	5	60			606		36	54	101	310
Ohio	7	302	12	1	941		16	417	93	85
Oklahoma [1]	5	24	87	332	63	139	4	51	16	413
Oregon	3	89	52	8	156		1	101	108	42
South Carolina		49	305	1,725	40	615	19	17	46	644
South Dakota	2	29			152		1	115	16	11
West Virginia	6	42	34		391		0	64	45	81
Wyoming		1	1		20		0	26	1	2

[1] Exclusive of Tulsa and Oklahoma City.

[2] Including paratyphoid fever.

SMALLPOX IN TEXAS

The State Board of Health of Texas has compiled statistics showing that smallpox is increasing in that State. During the first seven months of 1924, 857 cases of smallpox were reported. During the same period of later years the number of cases was as follows: 1925, 1,228 cases; 1926, 1,668. Dr. H. O. Sappington, State health officer, urges health officers to use every means possible to secure vaccination of citizens in their respective localities.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

Diphtheria—For the week ended August 14, 1926, 38 States reported 699 cases of diphtheria. For the week ended August 15, 1925, the same States reported 881 cases of this disease. Ninety-nine cities, situated in all parts of the country and having an aggregate population of more than 30,200,000, reported 402 cases of diphtheria for the week ended August 14, 1926. Last year for the corresponding week they reported 440 cases. The estimated expectancy for these cities was 534 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty-six States reported 1,117 cases of measles for the week ended August 14, 1926, and 461 cases of this disease for the week ended August 15, 1925. Ninety-nine cities reported 332 cases of measles for the week this year, and 257 cases last year.

Poliomyelitis.—The health officers of 38 States reported 87 cases of poliomyelitis for the week ended August 14, 1926. The same States reported 289 cases for the week ended August 15, 1925.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-eight States—this year, 852 cases; last year, 654 cases; 99 cities—this year, 294 cases; last year, 325 cases; estimated expectancy, 240 cases.

Smallpox.—For the week ended August 14, 1926, 38 States reported 304 cases of smallpox. Last year for the corresponding week they reported 156 cases. Ninety-nine cities reported smallpox for the week as follows: 1926, 40 cases; 1925, 40 cases; estimated expectancy, 27 cases. One death from smallpox was reported by these cities for the week this year—at Portland, Oreg.

Typhoid fever.—One thousand one hundred and fifty-three cases of typhoid fever were reported for the week ended August 14, 1926, by 37 States. For the corresponding week of 1925, the same States reported 1,290 cases of this disease. Ninety-nine cities reported 204 cases of typhoid fever for the week this year and 264 cases for the corresponding week last year. The estimated expectancy for these cities was 229 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia were reported for the week by 94 cities with a population of nearly 29,700,000, as follows: 1926, 292 deaths; 1925, 347 deaths.

City reports for week ended August 14, 1926

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

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	75,333	0	1	0	0	0	1	1	0
New Hampshire:									
Concord	22,546	0	0	0	0	0	2	0	0
Manchester	83,097	0	0	0	0	1	0	0	0
Vermont:									
Barre	10,068	0	0	0	0	0	0	0	0
Burlington	24,089	0	0	0	0	0	0	0	0
Massachusetts:									
Boston	779,620	8	31	5	0	0	23	10	4
Fall River	128,993	1	2	2	0	0	0	1	0
Springfield	142,065	1	1	0	0	0	1	0	0
Worcester	190,757	0	2	0	0	0	0	0	2
Rhode Island:									
Pawtucket	69,760	0	0	0	0	0	0	0	0
Providence	267,918	0	3	4	0	0	1	0	1
Connecticut:									
Bridgeport	(1)	0	4	1	0	0	1	0	1
Hartford	160,197	0	3	1	0	0	0	1	1
New Haven	178,927	2	1	0	0	0	0	0	4
MIDDLE ATLANTIC									
New York:									
Buffalo	538,016	4	11	8	0	0	2	0	1
New York	5,873,356	18	114	84	11	1	12	21	80
Rochester	316,786	1	4	0	0	0	2	0	3
Syracuse	182,003	1	3	0	----	----	19	2	2
New Jersey:									
Camden	128,642	0	2	1	0	0	1	1	2
Newark	452,513	6	8	0	2	0	7	5	7
Trenton	132,020	0	1	1	2	0	0	0	1
Pennsylvania:									
Philadelphia	1,979,364	14	34	24	----	1	7	2	14
Pittsburgh	631,563	3	14	6	----	0	13	0	13
Reading	112,707	1	2	0	----	0	3	0	1
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	409,333	0	5	3	0	0	1	6	9
Cleveland	936,485	19	18	31	0	0	2	4	6
Columbus	279,836	0	2	1	0	0	1	0	1
Toledo	287,380	2	5	3	0	0	2	0	3
Indiana:									
Fort Wayne	97,846	0	2	0	0	0	3	0	1
Indianapolis	358,819	2	5	2	0	0	2	0	3
South Bend	80,091	1	1	1	0	0	3	0	0
Terre Haute	71,071	0	0	1	0	0	0	0	0
Illinois:									
Chicago	2,995,239	24	60	35	1	0	64	8	15
Peoria	81,564	0	1	0	0	0	1	1	0
Springfield	63,923	1	0	0	0	0	0	0	0
Michigan:									
Detroit	1,245,824	10	25	55	0	0	6	0	11
Flint	130,316	0	4	1	0	0	6	0	1
Grand Rapids	153,698	0	2	0	0	0	0	1	1

[1] No estimate made.

City reports for week ended August 14, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Wisconsin:									
Kenosha	50,891	2	0	0	0	0	11	0	1
Madison	46,385		0						
Milwaukee	509,192	12	10	7	0	0	22	3	3
Racine	67,707	1	0	3	0	0	2	2	0
Superior	39,671	0	0	8	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	110,502	0	2	0	0	0	8	0	0
Minneapolis	425,435	7	12	6	0	0	2	0	4
St. Paul	246,601	0	11	3	0	1	5	0	4
Iowa:									
Davenport	52,469	0	0	0	0		0	0	
Sioux City	76,411		0						
Waterloo	36,771	0	1	0	0		4	0	
Missouri:									
Kansas City	367,481	1	3	2	0	0	0	0	1
St. Joseph	78,342	0	0	0	0	0	1	0	0
St. Louis	821,543	2	17	16	0	0	11	2	
North Dakota:									
Fargo	26,403	0	0	0	0	0	1	0	0
South Dakota:									
Aberdeen	15,036	0	0	0	0		0	0	
Sioux Falls	30,127		0						
Nebraska:									
Lincoln	60,941	0	0	0	0	1	1	1	1
Omaha	211,768	1	5	0	0	0	0	0	2
Kansas:									
Topeka	55,411	0	0	0	0	0	0	0	1
Wichita	88,367	0	0	0	0	0	1	0	0
SOUTH ATLANTIC									
Delaware:									
Wilmington	122,049	0	1	0	0	0	0	0	0
Maryland:									
Baltimore	796,296	1	11	6	1	0	24	6	5
Cumberland	33,741	0	0	0	0	0	0	0	1
Frederick	12,035	0	0	0	0	0	0	0	0
District of Columbia:									
Washington	497,906	0	3	4	0	0	4	0	6
Virginia:									
Lynchburg	30,395	0	0	0	0	0	0	0	0
Norfolk	(1)	0	0	0	0	0	0	0	0
Richmond	186,403	0	4	7	0	0	7	1	4
Roanoke	58,208	0	1	0	0	0	0	0	2
West Virginia:									
Charleston	49,019	0	0	0	0	0	0	0	0
Huntington	63,485	0	1	4	0	0	0	0	0
Wheeling	56,208	0	0	0	0	0	0	0	0
North Carolina:									
Raleigh	30,371	0	1	1	0	0	0	0	0
Wilmington	37,061	0	0	0	0	0	0	0	0
Winston-Salem	69,031	0	1	4	0	0	6	0	1
South Carolina:									
Charleston	73,125	0	0	0	4	0	0	0	0
Columbia	41,225	0	0	0	0	0	0	0	0
Greenville	27,311	0	0	0	0	0	0	0	0
Georgia:									
Atlanta	(1)	0	2	4	12	0	1	0	5
Brunswick	16,869	0	0	0	0	0	0	0	0
Savannah	93,134	0	1	0	1	0	0	0	4
Florida:									
Miami	69,754	0		5	0	0	0	0	3
St. Petersburg	26,847		0			0			1
Tampa	94,743	0	1	0	0	0	1	1	2

[1] No estimate made.

City reports for week ended August 14, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,309	0	0	0	0	0	0	0	0
Louisville	305,935	1	3	3	0	0	0	0	1
Tennessee:									
Memphis	174,533	3	2	3	0	0	4	0	4
Nashville	136,220	0	1	3	0	1	1	0	1
Alabama:									
Birmingham	205,670	1	2	2	0	1	0	2	4
Mobile	65,955	0	0	0	0	0	0	0	0
Montgomery	46,481	0	1	0	0	0	1	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	1	0	0	0	----	0	0	----
Little Rock	74,216	0	0	0	0	0	0	0	1
Louisiana:									
New Orleans	414,493	0	6	2	1	2	0	0	9
Shreveport	57,857	0	1	1	0	0	0	0	1
Oklahoma:									
Oklahoma City	(1)	0	1	0	5	0	0	0	3
Texas:									
Dallas	194,450	0	3	2	0	1	0	0	4
Galveston	48,375	0	0	0	0	0	0	0	2
Houston	164,954	0	2	1	0	0	0	0	7
San Antonio	198,069	0	1	0	0	0	1	0	0
MOUNTAIN									
Montana:									
Billings	17,971	----	0	0	0	0	0	----	0
Great Falls	29,883	0	1	0	0	0	0	0	1
Helena	12,037	0	0	0	0	0	0	0	0
Missoula	12,668	0	0	0	0	0	0	0	0
Idaho:									
Boise	23,042	0	0	1	0	0	0	0	0
Colorado:									
Denver	280,911	1	9	5	----	0	4	0	4
Pueblo	43,787	0	1	0	0	0	0	0	2
New Mexico:									
Albuquerque	21,000	0	1	0	0	0	0	0	1
Arizona:									
Phoenix	38,669	0	0	0	0	0	0	0	1
Utah:									
Salt Lake City	130,948	2	2	2	0	0	3	7	1
Nevada:									
Reno	12,665	0	0	0	0	0	0	0	1
PACIFIC									
Washington:									
Seattle	(1)	0	3	2	0	----	8	3	----
Spokane	108,897	2	2	4	0	----	2	0	----
Tacoma	104,455	3	2	3	0	0	0	0	0
Oregon:									
Portland	282,383	1	3	5	0	0	10	0	5
California:									
Los Angeles	(1)	5	23	24	1	0	6	2	10
Sacramento	72,260	1	2	0	0	0	0	2	0
San Francisco	557,530	1	13	6	0	0	19	1	1

[1] No estimate made.

City reports for week ended August 14, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	0	2	0	0	0	0	1	0	0	9	14
New Hampshire:											
Concord	1	0	0	0	0	0	1	0	0	0	9
Manchester	1	2	0	0	0	0	0	0	0	0	19
Vermont:											
Barre	0	0	0	0	0	1	0	0	0	0	2
Burlington	1	0	0	0	0	0	0	0	0	3	5
Massachusetts:											
Boston	12	19	0	0	0	18	3	1	0	44	181
Fall River	0	0	0	0	0	1	2	1	0	5	21
Springfield	2	0	0	0	0	0	1	0	0	6	17
Worcester	2	1	0	0	0	6	0	0	0	2	49
Rhode Island:											
Pawtucket	0	0	0	0	0	1	0	0	0	0	19
Providence	2	1	0	0	0	1	1	0	0	4	50
Connecticut:											
Bridgeport	2	3	0	0	0	1	1	2	0	2	29
Hartford	1	3	0	0	0	2	1	1	0	3	22
New Haven	1	0	0	0	0	3	3	2	0	3	31
MIDDLE ATLANTIC											
New York:											
Buffalo	5	2	0	0	0	3	3	1	0	14	109
New York	25	37	0	0	0	[1] 103	39	34	4	69	1,107
Rochester	3	0	0	0	0	2	1	2	0	10	39
Syracuse	2	0	0	0	0	0	0	0	0	11	43
New Jersey:											
Camden	1	4	0	0	0	2	2	2	0	1	33
Newark	4	6	0	0	0	6	2	1	0	56	85
Trenton	1	1	0	0	0	7	1	2	0	0	31
Pennsylvania:											
Philadelphia	16	7	0	0	0	26	12	3	0	51	381
Pittsburgh	9	3	1	0	0	6	3	2	0	54	130
Reading	1	0	0	0	0	3	1	1	0	18	33
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	2	4	1	0	0	11	3	4	0	3	137
Cleveland	6	9	1	0	0	11	5	2	0	94	173
Columbus	2	3	1	0	0	4	2	0	0	5	68
Toledo	4	5	1	4	0	8	2	1	0	42	59
Indiana:											
Fort Wayne	1	1	1	0	0	3	1	1	0	4	23
Indianapolis	2	1	1	2	0	6	2	2	0	16	104
South Bend	1	0	0	0	0	0	0	0	0	4	7
Terre Haute	0	0	0	0	0	1	1	0	0	0	16
Illinois:											
Chicago	25	25	0	0	0	43	6	7	2	57	497
Peoria	1	0	0	0	0	0	0	0	0	1	9
Springfield	0	2	0	0	0	1	0	0	0	8	20
Michigan:											
Detroit	20	23	3	0	0	24	5	11	1	75	261
Flint	3	4	0	0	0	1	1	0	0	6	20
Grand Rapids	1	1	0	0	0	0	1	0	0	2	32
Wisconsin:											
Kenosha	1	0	1	0	0	0	0	1	0	10	10
Madison	0		0				0				
Milwaukee	7	5	1	0	0	4	1	0	0	86	80
Racine	1	0	0	0	0	0	0	1	0	4	
Superior	1	3	0	0	0	0	0	0	0	0	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth	3	6	0	0	0	2	1	0	0	1	21
Minneapolis	9	13	2	0	0	6	2	2	0	2	75
St. Paul	5	6	1	0	0	5	1	1	0	14	47

[1] Pulmonary tuberculosis only.

City reports for week ended August 14, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—contd.											
Iowa:											
Davenport	0	0	0	0	-------	-------	0	0	-------	0	-------
Sioux City	0	-------	0	-------	-------	-------	0	-------	-------	-------	-------
Waterloo	1	0	0	0	-------	-------	0	4	-------	0	-------
Missouri:											
Kansas City	2	1	0	0	0	7	3	2	2	6	99
St. Joseph	0	1	0	0	0	0	1	0	0	0	-------
St. Louis	5	21	0	1	0	15	7	2	0	20	218
North Dakota:											
Fargo	1	2	0	1	0	0	0	0	0	5	2
South Dakota:											
Aberdeen	0	0	0	0	-------	-------	0	0	-------	0	-------
Sioux Falls	0	-------	0	-------	-------	-------	0	-------	-------	-------	-------
Nebraska:											
Lincoln	0	0	0	0	0	0	0	0	1	2	17
Omaha	1	5	1	0	0	1	0	0	0	3	40
Kansas:											
Topeka	1	1	0	0	0	0	1	0	0	3	17
Wichita	0	2	1	0	0	0	2	0	0	15	25
SOUTH ATLANTIC											
Delaware:											
Wilmington	1	0	0	0	0	1	1	0	1	1	24
Maryland:											
Baltimore	6	3	0	0	0	14	9	12	1	97	186
Cumberland	0	1	0	0	0	0	1	1	0	0	9
Frederick	0	0	0	0	0	0	0	0	0	0	4
District of Columbia:											
Washington	3	2	0	2	0	16	5	3	1	19	139
Virginia:											
Lynchburg	0	1	0	0	0	0	1	9	0	7	12
Norfolk	1	2	0	0	0	1	2	4	1	15	-------
Richmond	2	3	0	1	0	3	3	2	0	0	71
Roanoke	0	1	0	1	0	1	2	0	0	0	14
West Virginia:											
Charleston	0	0	0	1	0	1	2	0	0	5	19
Huntington	1	1	0	0	0	0	1	0	0	0	-------
Wheeling	1	0	0	0	0	0	1	0	0	0	13
North Carolina:											
Raleigh	0	0	0	0	0	1	1	0	0	21	14
Wilmington	0	0	0	1	0	1	1	0	0	14	7
Winston-Salem	1	0	0	0	0	4	3	2	0	0	19
South Carolina:											
Charleston	0	0	0	0	0	3	3	-------	1	0	30
Columbia	0	1	0	0	0	0	2	3	0	0	-------
Greenville	0	0	0	0	0	0	1	0	0	0	9
Georgia:											
Atlanta	2	1	1	0	0	5	4	10	0	1	81
Brunswick	0	0	0	0	0	0	0	0	0	0	2
Savannah	0	0	1	0	0	0	2	0	0	0	27
Florida:											
Miami	-------	0	-------	0	0	1	-------	3	0	2	17
St. Petersburg	0	-------	0	-------	0	0	0	-------	0	-------	5
Tampa	0	1	0	0	0	1	1	6	2	0	38
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	0	0	1	0	0	1	0	0	0	23
Louisville	1	5	0	0	0	5	5	6	0	4	63
Tennessee:											
Memphis	1	1	0	2	0	4	6	10	1	18	78
Nashville	1	2	0	0	0	4	7	8	1	17	49
Alabama:											
Birmingham	2	1	0	2	0	8	7	0	0	11	75
Mobile	0	0	1	0	0	1	1	2	0	0	19
Montgomery	1	0	0	0	0	0	1	1	0	0	14

City reports for week ended August 14, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0			1	0	0	0	
Little Rock	0	0	0	0	0	1	3	0	0	0	
Louisiana:											
New Orleans	1	1	0	5	0	9	5	1	1	2	143
Shreveport	0	0	0	0	0	4	3	1	2	0	29
Oklahoma:											
Oklahoma City	1	2	0	0	0	1	2	4	0	0	23
Texas:											
Dallas	2	4	0	0	0	5	4	1	0	3	55
Galveston	0	0	0	0	0	1	0	0	0	0	14
Houston	0	0	0	0	0	1	1	4	0	0	50
San Antonio	0	0	0	0	0	0	1	4	0	0	
MOUNTAIN											
Montana:											
Billings	0	1	0	0	0	0	0	0	0		
Great Falls	1	0	0	8	0	0	0	0	0	2	10
Helena	0	0	0	0	0	1	0	0	0	0	3
Missoula	0	0	0	0	0	0	0	0	0	0	5
Idaho:											
Boise	0	1	1	0	0	0	0	0	0	0	2
Colorado:											
Denver	2	2	1	0	0	4	2	1	0	4	70
Pueblo	1	0	0	0	0	0	1	3	0	0	12
New Mexico:											
Albuquerque	0	0	0	0	0	6	1	0	0	1	20
Arizona:											
Phoenix		0	0	0	0	5	0	0	0	0	14
Utah:											
Salt Lake City	1	0	0	0	0	0	2	1	0	19	25
Nevada:											
Reno	0	0	0	0	0	0	0	3	0	0	4
PACIFIC											
Washington:											
Seattle	3	4	2	0			1	0		13	
Spokane	2	5	2	0			0	0		5	
Tacoma	1	5	1	8	0	1	0	0	0	3	24
Oregon:											
Portland	2	9	5	4	1	4	1	1	0	1	75
California:											
Los Angeles	6	11	2	4	0	33	5	0	3	2	190
Sacramento	1	1	0	0	0	2	1	6	0	0	16
San Francisco	5	6	0	0	0	5	2	5	0	3	113

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston	0	0	1	0	0	0	1	1	1
Springfield	0	0	0	0	0	0	0	8	0
Worcester	0	0	0	1	0	0	0	5	1
Rhode Island:									
Providence	0	2	0	0	0	0	1	1	0
MIDDLE ATLANTIC									
New York:									
Buffalo	0	0	1	1	0	0	0	16	2
New York	0	1	6	2	0	0	7	3	0
Syracuse	0	0	0	0	0	0	1	11	3
Pennsylvania:									
Philadelphia	0	0	1	0	0	0	0	3	0

City reports for week ended August 14, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland [1]	0	0	1	0	0	0	1	2	0
Illinois:									
Chicago	0	0	0	0	1	1	4	0	0
Wisconsin:									
Milwaukee	1	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
Kansas City	0	0	1	1	0	0	0	0	0
Kansas:									
Topeka	1	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore	0	0	1	0	0	0	1	3	2
Cumberland	0	0	1	0	0	0	0	0	0
Virginia:									
Richmond	0	0	0	0	0	0	0	1	0
North Carolina:									
Raleigh	0	0	0	0	0	1	0	0	0
Winston-Salem	0	0	0	0	1	0	0	0	0
South Carolina:									
Charleston	0	0	0	0	12	3	0	0	0
Georgia:									
Savannah	0	0	0	0	0	0	0	1	0
Florida:									
Miami [2]	0	0	0	0	0	0		1	0
EAST SOUTH CENTRAL									
Tennessee:									
Nashville	0	0	0	0	0	1	0	0	0
Alabama:									
Birmingham	0	0	0	0	1	0	0	0	0
Mobile	0	0	0	0	0	0	0	1	0
Montgomery	0	0	0	0	0	0	0	1	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock	0	0	0	0	0	1	0	0	0
Texas:									
Dallas	0	0	0	0	0	1	0	0	0
MOUNTAIN									
Montana:									
Missoula	1	0	0	0	0	0	0	0	0
Utah:									
Salt Lake City	1	0	0	0	0	0	0	0	0
PACIFIC									
California:									
Los Angeles [1]	0	0	0	1	0	0	1	3	0
Sacramento	0	0	0	0	1	0	0	0	0

[1] Rabies (human), 1 case and 1 death at Cleveland, Ohio, and 1 death at Los Angeles, Calif.
[2] Dengue, 1 case at Miami, Fla.

The following table gives the rates per 100,000 population for 102 cities for the five-week period ended August 14, 1926, compared with those for a like period ended August 15, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 102 cities reporting cases had

an estimated aggregate population of nearly 30,000,000 in 1925 and nearly 30,500,000 in 1926. The 96 cities reporting deaths had more than 29,250,000 estimated population in 1925 and more than 29,750,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, July 11 to August 14, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	July 18, 1925	July 17, 1926	July 25, 1925	July 24, 1926	Aug. 1, 1925	July 31, 1926	Aug. 8, 1925	Aug. 7, 1926	Aug. 15, 1925	Aug. 14, 1926
102 cities	76	[2] 94	75	[2] 90	[3] 75	[2] 80	[4] 83	[5] 79	77	[6] 69
New England	60	78	60	33	60	40	79	40	89	31
Middle Atlantic	96	101	90	109	92	103	83	88	78	62
East North Central	68	109	63	99	69	83	94	[7] 105	68	[7] 101
West North Central	83	[2] 107	103	[2] 95	97	[2] 85	[8] 105	[2] 52	107	[9] 56
South Atlantic	50	32	42	34	[3] 48	21	52	[10] 46	69	49
East South Central	11	21	11	10	11	21	26	10	32	57
West South Central	26	26	66	39	40	39	22	[11] 35	48	26
Mountain	120	109	111	64	148	91	[12] 66	[12] 121	157	73
Pacific	94	159	99	175	64	119	141	102	80	105

MEASLES CASE RATES

102 cities	153	[2] 215	101	[2] 155	[3] 70	[2] 103	[4] 51	[5] 67	46	[6] 57
New England	252	180	208	109	180	83	127	83	125	69
Middle Atlantic	198	129	127	108	77	63	69	42	57	33
East North Central	178	365	111	243	68	171	44	[7] 96	35	[7] 77
West North Central	28	[2] 191	18	[2] 183	30	[2] 93	[8] 10	[2] 58	24	[9] 69
South Atlantic	140	203	90	128	[3] 68	115	42	[10] 50	40	81
East South Central	74	171	58	125	26	93	11	42	16	31
West South Central	0	17	4	13	0	9	0	[11] 10	9	4
Mountain	28	191	37	173	102	127	[12] 19	[12] 139	18	64
Pacific	61	329	19	213	33	121	28	121	19	94

SCARLET FEVER CASE RATES

102 cities	58	[2] 93	55	[2] 83	[3] 54	[2] 73	[4] 51	[5] 61	57	[6] 51
New England	77	99	69	85	72	118	98	104	81	69
Middle Atlantic	45	73	42	75	37	52	33	38	36	30
East North Central	63	118	63	93	60	85	48	[7] 79	54	[7] 56
West North Central	105	[2] 185	115	[2] 127	121	[2] 143	[8] 117	[2] 101	129	[9] 121
South Atlantic	44	45	15	36	[3] 34	34	21	[10] 40	38	30
East South Central	74	52	26	93	58	62	58	31	37	47
West South Central	22	52	31	82	26	39	53	[11] 15	66	22
Mountain	83	91	157	64	83	36	[12] 38	[12] 65	92	36
Pacific	58	94	44	92	47	86	61	84	83	86

[1] The figures given in this table are rates per 100,000 population, annual basis—and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.
[2] Sioux Falls, S. Dak., not included.
[3] Tampa, Fla., not included.
[4] Waterloo, Iowa, and Helena, Mont., not included.
[5] Madison, Wis., Sioux Falls, S. Dak., Norfolk, Va., Houston, Tex., and Helena, Mont., not included.
[6] Madison, Wis., Sioux City, Iowa, and Sioux Falls, S. Dak., not included.
[7] Madison, Wis., not included.
[8] Waterloo, Iowa, not included.
[9] Sioux City, Iowa, and Sioux Falls, S. Dak., not included.
[10] Norfolk, Va., not included.
[11] Houston, Tex., not included.
[12] Helena, Mont., not included.

Summary of weekly reports from cities, July 11 to August 14, 1926—Annual rates per 100,000 population—Compared with rates for the corresponding period of 1925—Continued

SMALLPOX CASE RATES

	Week ended—									
	July 18, 1925	July 17, 1926	July 25, 1925	July 24, 1926	Aug. 1, 1925	July 31, 1926	Aug. 8, 1925	Aug. 7, 1926	Aug. 15, 1925	Aug. 14, 1926
102 cities	14	[2] 7	10	[2] 6	[3] 9	[2] 5	[4] 9	[5] 7	7	[6] 7
New England	2	0	5	0	0	0	0	0	0	0
Middle Atlantic	1	1	0	0	0	1	0	1	0	0
East North Central	9	6	8	8	3	6	6	[7] 9	3	[7] 1
West North Central	16	[2] 26	12	[2] 14	14	[2] 4	[8] 8	[2] 14	16	[9] 4
South Atlantic	8	6	15	6	[3] 2	2	2	[10] 8	2	11
East South Central	42	5	37	10	21	5	47	16	21	26
West South Central	13	13	4	13	4	4	13	[11] 15	9	22
Mountain	18	9	0	27	55	9	[12] 19	[12] 9	9	73
Pacific	113	22	64	8	80	32	64	24	64	32

TYPHOID FEVER CASE RATES

102 cities	36	[2] 22	33	[2] 18	[3] 40	[2] 30	[4] 40	[5] 28	46	[6] 35
New England	31	12	22	9	22	14	26	12	38	17
Middle Atlantic	25	11	21	9	30	23	23	19	33	24
East North Central	11	5	8	6	10	10	20	[7] 12	17	[7] 19
West North Central	42	[2] 14	38	[2] 12	46	[2] 22	[8] 41	[2] 18	55	[9] 23
South Atlantic	52	58	50	47	[3] 64	54	56	[10] 70	86	100
East South Central	205	166	163	135	168	259	252	182	200	140
West South Central	128	56	163	30	154	47	123	[11] 50	97	47
Mountain	18	0	46	46	55	36	[12] 104	[12] 28	102	73
Pacific	30	22	28	8	44	11	17	30	41	30

INFLUENZA DEATH RATES

96 cities	2	[2] 4	2	[2] 3	[3] 1	[2] 2	[12] 2	[5] 2	2	[13] 1
New England	0	0	0	2	0	0	5	0	0	0
Middle Atlantic	2	4	3	2	1	1	2	2	3	1
East North Central	3	4	1	4	0	1	3	[7] 1	3	[7] 0
West North Central	0	[2] 0	4	[2] 2	0	[2] 0	0	[2] 0	0	[2] 2
South Atlantic	4	6	4	4	[3] 2	2	6	[10] 4	0	0
East South Central	0	21	5	5	0	5	5	0	5	10
West South Central	10	9	0	9	0	24	5	[11] 6	0	14
Mountain	0	9	9	9	0	0	[12] 0	[12] 9	9	0
Pacific	4	4	0	4	0	4	0	11	0	0

PNEUMONIA DEATH RATES

96 cities	54	[2] 60	48	[2] 54	[3] 59	[2] 48	[12] 52	[5] 54	60	[13] 50
New England	48	57	50	33	53	33	36	54	29	31
Middle Atlantic	62	74	51	64	65	41	65	56	73	62
East North Central	44	46	37	46	48	48	36	[7] 42	47	[7] 65
West North Central	53	[2] 36	40	[2] 40	40	[2] 57	51	[2] 51	42	[2] 25
South Atlantic	48	54	52	58	[3] 60	51	50	[10] 70	73	56
East South Central	68	109	58	99	68	62	63	52	58	52
West South Central	73	85	63	57	116	76	68	[11] 101	82	113
Mountain	83	36	55	64	74	55	[12] 28	[12] 65	55	82
Pacific	40	46	58	35	62	71	69	57	80	39

[2] Sioux Falls, S. Dak., not included.
[3] Tampa, Fla., not included.
[4] Waterloo, Iowa, and Helena, Mont., not included.
[5] Madison, Wis., Sioux Falls, S. Dak., Norfolk, Va., Houston, Tex., and Helena, Mont., not included.
[6] Madison, Wis., Sioux City, Iowa, and Sioux Falls, S. Dak., not included.
[7] Madison, Wis., not included.
[8] Waterloo, Iowa, not included.
[9] Sioux City, Iowa, and Sioux Falls, S. Dak., not included.
[10] Norfolk, Va., not included.
[11] Houston, Tex., not included.
[12] Helena, Mont., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases.		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total	102	96	29, 930, 185	30, 458, 186	29, 251, 658	29, 764, 201
New England	12	12	2, 176, 124	2, 206, 124	2, 176, 124	2, 206, 124
Middle Atlantic	10	10	10, 346, 970	10, 476, 970	10, 346, 970	10, 476, 970
East North Central	16	16	7, 481, 656	7, 655, 436	7, 481, 656	7, 655, 436
West North Central	13	11	2, 580, 151	2, 619, 719	2, 461, 380	2, 499, 036
South Atlantic	21	21	2, 716, 070	2, 776, 070	2, 716, 070	2, 776, 070
East South Central	7	7	993, 103	1, 004, 953	993, 103	1, 004, 953
West South Central	8	6	1, 184, 057	1, 212, 057	1, 078, 198	1, 103, 695
Mountain	9	9	563, 912	572, 773	563, 912	572, 773
Pacific	6	4	1, 888, 142	1, 934, 084	1, 434, 245	1, 469, 144

FOREIGN AND INSULAR

SMALLPOX ON VESSEL

Steamship from Glasgow, Scotland.—On July 17, 1926, a steamship arrived at Greenock, Scotland, from Canada, with history of a smallpox case removed from the vessel at a quarantine station on the vessel's outward journey from Glasgow to Canadian port. The vessel left Glasgow June 25 and the patient, a resident of Glasgow, was taken ill July 2, 1926. No history of smallpox in the patient's family was discovered, but it was found that four cases of chicken pox had occurred in the family and a small school epidemic of chicken pox had occurred in the district.

THE FAR EAST

Report for week ended July 31, 1926.—The following report for the week ended July 31, 1926, was transmitted by the far eastern bureau of the health section of the secretariat of the League of Nations, located at Singapore, to the headquarters at Geneva:

Maritime towns	Plague		Cholera		Smallpox		Maritime towns	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths		Cases	Deaths	Cases	Deaths	Cases	Deaths
Egypt:							Siam: Bangkok	0	0	5	4	9	7
Alexandria	2	0	0	0	5	1	China:						
Suez	2	0	0	0	0	0	Amoy	5	----	0	0	0	0
British India:							Shanghai	0	0	314	60	0	0
Bombay	----	1	----	1	8	7	Japan:						
Madras	----	0	----	0	3	1	Yokohoma [1]	1	2	0	0	0	0
Rangoon	----	7	----	1	0	0	Osaka	0	0	0	0	1	0
Karachi	----	0	----	0	1	1	U. S. S. R.: Vladivostok	0	0	0	0	1	0
Ceylon: Colombo	0	0	0	0	1	0							

[1] One infected rat has been found outside of the port area.

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

ASIA

Iraq.—Basra.

British India.—Negapatam, Chittagong, Cochin, Tuticorin, Vizagapatam.

Federated Malay States.—Port Swettenham.

Straits Settlements.—Penang, Singapore.

Dutch East Indies.—Batavia, Surabaya, Samarang, Cheribon, Belawan Deli, Palembang, Sabang, Makassar, Menado, Banjermasin, Balik-Papan, Tarakan, Padang, Samarinda.

Sarawak.—Kuching.
British North Borneo.—Sandakan, Jesselton, Kudat, Tawao.
Portuguese Timor.—Dilly.
Philippine Islands.—Manila, Iloilo, Jolo, Cebu, Zamboanga.
French Indo-China.—Saigon and Cholon, Turane, Haiphong.
China.—Hongkong.
Formosa.—Keelung.
Kwantung.—Port Arthur, Dairen.
Japan.—Nagasaki, Moji, Kobe, Niigata, Tsuruga, Hakodate, Simonoseki.
Korea.—Chemulpo, Fusan.
Manchuria.—Antung, Mukden, Changchun, Harbin.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.
New Guinea.—Port Moresby.
New Zealand.—Auckland, Wellington, Christchurch, Invercargil, Dunedin.
New Caledonia.—Noumea.
Fiji.—Suva.
Hawaii.—Honolulu.

AFRICA

Egypt.—Port Said.
Anglo-Egyptian Sudan.—Port Sudan, Suakin.
Eritrea.—Massaua.
French Somaliland.—Jibuti.
British Somaliland.—Berbera.
Italian Somaliland.—Mogadiscio.
Kenya.—Mombasa.
Zanzibar.—Zanzibar.
Tanganyiki.—Dar-es-Salaam.
Seychelles.—Victoria.
Mauritius.—Port Louis.
Portuguese East Africa.—Mozambique, Beira, Lourenço-Marques.
Union of South Africa.—Durban, East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from:

British India.—Calcutta.
Dutch East Indies.—Pontianak.
Madagascar.—Tamatave, Majunga.

CANADA

Communicable diseases, week ended August 14, 1926.—The Canadian Ministry of Health reports cases of certain communicable diseases in seven Provinces of Canada for the week ended August 14, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever			1	1		1		3
Influenza	10							10
Poliomyelitis				2				2
Smallpox				6		1		7
Typhoid fever	1		6	11	5		7	30

Communicable diseases—Ontario—July, 1926—Comparative.—During the month of July, 1926, communicable diseases were reported in the Province of Ontario, Canada, as follows:

Disease	July, 1926		July, 1925	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis	6	3		4
Chancroid	1		1	
Chicken pox	503		330	
Diphtheria	183	14	151	19
German measles	150		6	
Gonorrhea	131		144	
Influenza		10		5
Lethargic encephalitis	5	4		10
Measles	1,955	8	642	
Mumps	37		108	
Pneumonia		137		77
Poliomyelitis			4	
Scarlet fever	289	3	252	3
Smallpox	41		8	
Syphilis	118		65	
Tuberculosis	177	72	158	82
Typhoid fever	57		57	3
Whooping cough	325	3	345	9

Smallpox.—Smallpox was reported at 12 localities in the Province of Ontario, the greatest number being reported at MacTier and Peterboro, viz, 9 each; and at Belleville, with 6 cases; at Kingston and Parry Sound, 4 cases each were reported; at Ottawa and Richmond Township, 2 cases each; and at 5 localities, including Toronto, 1 case each.

CHINA

Morbidity—Mortality—Shanghai—July 1, 1925–June 30, 1926.—During the year ended June 30, 1926, there were reported at Shanghai China, 10,816 deaths among Chinese and 554 deaths in the foreign population. Cases of disease and causes of death were reported as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Beriberi	6	34	Measles [1]		332
Cerebrospinal meningitis	2	6	Scarlet fever	106	556
Cholera	23	93	Smallpox	82	205
Diarrhea (acute) [1]		29	Tuberculosis [3]	52	996
Diphtheria	36	98	Typhoid fever [4]	88	347
Dysentery [2]	81	159	Typhus fever	1	1
Influenza		28			

[1] Not notifiable.
[2] Amebic, 38; bacillary, 43.
[3] All forms.
[4] Including 20 paratyphoid cases.
Population: Foreign, 38,046; Chinese, 1,098,065. Cases reported, foreign; deaths, Chinese.

Examination of rats.—During the same period, 28,114 rats were examined at Shanghai for plague infection. No plague-infected rats were found.

Arrivals from Canton subject to quarantine.—Under date of July 26, 1926, vessels arriving from Canton were declared subject to quarantine in the port of Shanghai on account of cholera.

CUBA

Communicable diseases—Habana—July, 1926.—During the month of July, 1926, communicable diseases were reported at Habana, Cuba, as follows:

Disease	New cases	Deaths	Remaining under treatment July 31, 1926	Disease	New cases	Deaths	Remaining under treatment July 31, 1926
Cerebrospinal meningitis	1	1		Measles	24	1	25
Chicken pox	2			Paratyphoid fever	3		2
Diphtheria	9	1		Scarlet fever	6		4
Malaria [1]	84	3	34	Typhoid fever [1]	57	12	43

[1] Many of these cases from the interior.

GREAT BRITAIN (SCOTLAND)

Further relative to typhus fever—Glasgow.[1]—Under date of August 3, 1926, seven cases of typhus fever were reported at Glasgow, Scotland. Later information showed that the occurrence was in persons belonging to the same family group and that previous illnesses had occurred in the family, one case about six weeks previous to the appearance of recognized typhus, and one, July 16, which ended fatally. To August 7, 1926, a total of nine cases of typhus was reported in this group.

JAMAICA

Smallpox (alastrim)—Other communicable diseases—June 27 to July 31, 1926.—During the period June 27 to July 31, 1926, 85 cases of smallpox (reported as alastrim) were reported in localities other than Kingston in the Island of Jamaica. Other communicable diseases were reported as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chicken pox	4	11	Tuberculosis	5	53
Leprosy	6	6	Typhoid fever	12	86
Puerperal fever		2	Yaws		15

JAPAN

Cholera—Yokohama—August 25, 1926.—The occurrence of a case of cholera at Yokohama, Japan, was reported August 25, 1926.

[1] Public Health Reports, Aug. 13, 1926, p. 1750, and Aug. 27, 1926, p. 1867.

LATVIA

Communicable diseases—June, 1926.—During the month of June, 1926, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	6	Puerperal fever	1
Diphtheria	32	Rabies	4
Dysentery	20	Scarlet fever	199
Erysipelas	30	Tetanus	5
Leprosy	1	Trachoma	51
Measles	186	Typhoid fever	74
Mumps	13	Typhus fever	12
Paratyphoid fever	3	Whooping cough	50

Population, 1,850,000; estimated.

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

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

Reports Received During Week Ended September 3, 1926[1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
China:				
Swatow	July 11-17		15	Stated to be apparently increasing.
India				June 20-26, 1926: Cases, 1,212; deaths, 778.
Calcutta	July 4-10	39	36	
Rangoon	do	7	11	
Japan:				
Yokohama	Aug. 25	1		
Philippine Islands:				
Manila	July 11-17	3	1	
Siam:				
Bangkok	July 4-10	18	4	

PLAGUE

Azores:				
Fayal Island—Horta	Aug. 2-8	1	1	
St. Michaels Island	June 27-July 10	3	1	At Arrifes, Furnas, and San Roque.
China:				
Amoy	July 11-24	13		Deaths not reported.
Nanking	July 4-24			Prevalent.
India				June 20-26, 1926: Cases, 464; deaths, 337.
Karachi	July 11-17	1	1	
Madras Presidency	July 18-24	18	12	
Rangoon	July 4-10	1	1	
Japan:				
Yokohama	July 24-30	3	2	Total: July 2-Aug. 2, 1926—cases, 9; deaths, 7.
Java:				
Batavia	July 3-9	6	6	

SMALLPOX

Brazil:				
Bahia	July 4-10		7	
Para	July 18-31	4	2	
Rio de Janeiro	do	180	70	
Canada:				
Ontario				Aug. 8-14, 1926: Cases, 6.
Saskatchewan				Aug. 8-14, 1926: 1 case.

[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 September 3, 1926—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China:				
Chungking	July 11-17			Present.
Hongkong	June 27-July 3	1	1	
Manchuria—				
Dairen	June 28-July 18	3	2	
Harbin	July 15-21	5		
Manchurian Railway stations.	July 18-24	3		
Nanking	July 4-24			Prevalent.
Shanghai	July 11-24	2	2	Cases, foreign; deaths, Chinese and foreign.
Do	July 1, 1925-June 30, 1926.	82	205	Cases, foreign; deaths, native and foreign in international settlement and concessions.
India				June 20-26, 1926: Cases, 3,783; deaths, 1,053.
Bombay	July 4-17	42	22	
Calcutta	July 4-10	8	7	
Karachi	July 18	2		
Madras	do	4	3	
Rangoon	July 4-10	1		
Italy:				
Rome	June 14-20	4		Entire consular district, including Island of Sardinia.
Jamaica				June 27-July 31, 1926: Cases, 85. Reported as alastrim.
Mexico:				
Guadalajara	Aug. 10-16		1	
San Luis Potosi	Aug. 8-14		1	
Netherlands:				
Amsterdam	July 18-24		9	
Persia:				
Teheran	Apr. 21-May 21		7	
Siam:				
Bangkok	July 4-10	15	16	
Union of South Africa:				
Orange Free State	June 27-July 3			Outbreak. On farm.
Transvaal—				
Johannesburg	July 11-17	1		
On vessel:				
Steamship ———	July 2	1		Vessel from Glasgow, Scotland, for Canada. Patient from Glasgow; removed at quarantine on outward voyage. Contact shown with epidemic chicken pox.

TYPHUS FEVER

Egypt:				
Port Said	July 9-15	3	1	
Great Britain (Scotland):				
Glasgow	July 30-Aug. 7	9		In same family.
Latvia				June, 1926: Cases, 12.
Palestine:				
Haifa	July 13-19	1		
Majdal District	do	1		
Nazareth District	do	3		
Poland				June 6-26, 1926: Cases, 156; deaths, 10.
Union of South Africa:				
Cape Province—				
Glen Grey District	June 27-July 3			Outbreaks.

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

Reports Received from June 26 to August 27, 1926 [1]

CHOLERA

Place	Date	Cases	Deaths	Remarks
Ceylon				Apr. 18–May 29, 1926: Cases, 31; deaths, 29.
China:				
Shanghai	Reported July 20	35	8	
French Settlements in India				Mar. 7–May 15, 1926: Cases, 19; deaths, 18.
India				Apr. 25–June 19, 1926: Cases, 17,314; deaths, 10,753.
Bombay	May 30–June 5	1	1	
Calcutta	Apr. 4–May 29	478	418	
Do	June 13–26	73	69	
Do	June 27–July 3	48	46	
Madras	May 16–June 5	2	1	
Rangoon	May 9–June 26	67	44	
Do	June 27–July 3	9	6	
Indo-China:				
Saigon	May 2–15	52	48	
Do	May 22–June 26	42	32	
Do	June 27–July 3	19	14	
Philippine Islands:				
Manila	May 18–24	2	2	
Do	June 27–July 3	1		
Provinces—				
Albay	Apr. 18–24	1	1	
Mindoro	Feb. 21–Mar. 6	3	3	
Romblon	Dec. 14–31	42	43	
Do	Jan. 2–23	16	12	
Siam:				
Bangkok	May 2–June 12	1,325	736	
Do	June 20–26	56	26	
Do	June 27–July 3	36	18	

PLAGUE

Algeria:				
Algiers	June 21–30	1		Under date of July 16, 2 cases reported.
Azores:				
St. Michaels—				
Arrifes	May 9–June 26	2		
Livramente	May 15–29	2	1	
British East Africa:				
Kisumu	May 16–22	1	1	
Uganda	Mar. 1–31	35	34	
Ceylon:				
Colombo	May 29–June 5	1	1	
Chile:				
Iquique	June 20–26		1	
China:				
Amoy	Apr. 18–June 26	40	30	
Do	June 27–July 3	8		
Foochow	June 6–12			Several cases. Not epidemic.
Nanking	May 9–July 3			Prevalent.
Ecuador:				
Guayaquil	May 16–June 30	6		Rats taken, 30,914; found infected, 31.
Do	July 1–15			Rats taken, 10,020; found infected, 8.
Egypt				Jan. 1–July 8, 1926: Cases, 100.
City—				
Suez	May 21–July 1	9	5	
Provinces—				
Beni-Suef	May 28–June 8	8	2	
Gharbieh	June 2	1	1	
France:				
Marseille	July 8	1	1	Reported July 24.
St. Denis	Reported Aug. 2	1		Vicinity of Paris.
Greece:				
Athens	Apr. 1–May 31	16	4	Including Piræus.
Patras	May 27–June 12	4	1	
Zante	May 17	1		
Hawaii:				
Paauhau	July 18–24			Plague-infected rat trapped.

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

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

Reports Received from June 26 to August 27, 1926—Continued

PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
India				Apr. 25–June 19, 1926: Cases, 52,537; deaths, 41,239.
Bombay	May 2–June 26	16	15	
Karachi	May 23–June 26	15	13	
Madras Presidency	Apr. 25–June 26	162	93	
Rangoon	May 9–June 26	20	15	
Do	June 27–July 3	2	3	
Indo-China:				
Saigon	May 23–June 26	8	3	
Iraq:				
Baghdad	Apr. 18–June 12	161	108	
Japan:				
Yokohama	July 2–21	6	3	
Java:				
Batavia	Apr. 24–June 19	65	65	
Do	June 26–July 2	12	11	Province.
Cheribon	Apr. 11–24	3	3	
East Java and Madoera	June 13–19	1	1	
Madagascar:				
Ambositra Province	May 1–15	4	4	Septicemic.
Moramanga Province	Apr. 1–15	2	2	Do.
Tananarive Province				Apr. 1–June 15, 1926: Cases, 119; deaths, 111.
Tamatave (Port)	May 16–31	1	1	
Tananarive Town	Apr. 1–May 15	6	6	
Other localities	do	80	77	Bubonic, pneumonic, septicemic.
Nigeria				Feb. 1–Apr. 30, 1926: Cases, 115; deaths, 92.
Peru				May–June, 1926: Cases, 57; deaths, 16.
Departments—				
Ancash	May 1–31			Present.
Cajamarca	May 1–June 30	10	4	
Ica	May 1–31	1		
Libertad	do	4		Pacasmayo, cases, 2; Trujillo district, cases, 2.
Lima	May 1–June 30	29	12	
Piura	June 1–30	13		In Huancabamba district.
Russia				Jan. 1–Mar. 31, 1926: Cases, 37.
Senegal				Nov. 1–30, 1926: Cases, 3; deaths, 2. Mar. 1–Apr. 30, 1926: Cases, 15; deaths, 4.
Siam:				
Bangkok	May 23–June 26	2	2	
Straits Settlements:				
Singapore	May 2–8	1	1	
Syria:				
Beirut	July 1–10	1		
Tunisia	May 11–June 20	150		
Kairouan	June 9	3		9 cases 30 miles south of Kairouan.
Union of South Africa:				
Cape Province	May 16–22	5	3	
Calvinia District	June 13–26	12	6	
Do	June 27–July 3	1		
Williston District	June 13–26	2		
Do	June 27–July 3	1		
Orange Free State—				
Hoopstad District—				
Protestpan	May 9–22	3	3	

SMALLPOX

Algeria:				
Algiers	May 21–June 30	14		
Do	July 1–10	1		
Bolivia:				
La Paz	May 1–June 30	14	7	
Brazil:				
Bahia	June 20–26	1		
Do	June 27–July 3	1		
Manaos	Apr. 1–30		5	
Para	May 16–June 26	26	25	
Do	June 27–July 17	10	6	
Rio de Janeiro	May 2–June 19	132	91	
Santos	Mar. 1–7		1	

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

Reports Received from June 26 to August 27, 1926—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
British East Africa:				
Tanganyika	May 2-22		12	
Uganda	Mar. 1-31	1		
British South Africa:				
Northern Rhodesia	May 18-24	17	6	Natives.
Do	June 8-14	5		
Canada				May 30-June 12, 1926; Cases, 46.
Alberta	May 30-June 12	3		
Do	June 27-July 1	1		
Manitoba	May 30-June 26	24		
Do	June 27-July 24	7		
Winnipeg	June 6-12	5	1	
Do	July 4-17	6		
Ontario				May 30-June 26, 1926: Cases, 36. June 27-Aug. 7: Cases, 43.
Fort William	July 25-Aug. 7	2		
Kingston	May 23-June 26	5		
Do	July 11-17	2	1	
Kitchener	Apr. 26-May 29	3	1	
North Bay	May 2-22	5		
Do	July 25-31	2		
Orillia	Apr. 26-May 29	7		
Ottawa	July 18-24	1		
Packenham	do	10		
Toronto	do	7		
Waterloo	do	6		
Saskatchewan				May 30-June 19, 1926: Cases, 16. June 27-Aug. 7: Cases, 36.
Regina	July 4-10	2		
Ceylon				Mar. 14-May 29, 1926: Cases, 44; deaths, 3.
Chile:				
Antofagasta	June 6-12	1		
China:				
Amoy	May 1-June 26	4	8	
Do	July 4-10	1		
Antung	May 17-June 19	5		
Do	July 4-18	2		
Canton	May 1-31	4	2	
Chungking	May 2-July 10			Present.
Foochow	do			Do.
Hongkong	May 2-June 26	19	10	
Manchuria	July 6-17	10		Railway stations.
An-shan	May 16-June 12	5		South Manchurian Railway.
Antung	May 16-June 19	5		
Changchun	May 16-June 26	6		Do.
Do	June 27-July 3	1		Do.
Dairen	Apr. 26-June 20	69	16	
Fushun	May 16-June 5	4		Do.
Harbin	May 14-June 30	21		Do.
Do	July 1-7	2		
Kai-yuan	May 16-June 30	10		Do.
Kungchuling	June 13-19	1		Do.
Liao-yang	May 16-June 30	4		Do.
Mukden	do	4		Do.
Penhsihu	May 16-June 19	4		Do.
Ssupingkai	May 16-June 30	2		Do.
Teshihchiao	do	2		Do.
Wa-feng-tien	do	3		Do.
Nanking	May 8-July 3			Present.
Shanghai	May 2-June 26	10	25	Cases: Foreign. Deaths, population of international concession, foreign and native.
Do	June 27-July 10	1	1	
Swatow	May 9-July 10			Sporadic.
Tientsin	June 2-26		1	Reported by British municipality.
Wanshien	May 1			Prevalent.
Chosen				Mar. 1-Apr. 30, 1926: Cases, 368; deaths, 85.
Fusan	May 1-31	1		
Seishun	do	2	1	
Egypt:				
Alexandria	May 15-July 1	18	3	
Cairo	Jan. 29-Feb. 4	1	1	
Esthonia				May 1-June 30, 1926: Cases, 3.
France				Mar. 1-Apr. 30, 1926: Cases, 92.
St. Etienne	Apr. 18-June 15	7	3	
French Settlements in India	Mar. 7-May 15	205	205	
Gold Coast	Mar. 1-Apr. 30	626	13	

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

Reports Received from June 26 to August 27, 1926—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Great Britain:				
England and Wales				May 23–July 3, 1926: Cases, 1,068. July 4–31, 1926: Cases, 376.
Bradford	May 23–29	1		
Newcastle-on-Tyne	June 6–12	1		
Do	July 11–17	1		
Nottingham	May 2–June 5	7		
Sheffield	June 13–19	1		
Do	July 4–10	1		
Greece:				
Saloniki	June 1–14		3	
Guatemala:				
Guatemala City	June 1–30		2	
India				Apr. 25–June 19, 1926: Cases, 51,068; deaths, 13,718.
Bombay	May 2–June 26	220	134	
Do	June 27–July 3	12	8	
Calcutta	Apr. 4–May 29	171	152	
Do	June 13–26	24	18	
Do	June 27–July 3	5	5	
Karachi	May 16–June 26	44	18	
Do	June 27–July 10	6	4	
Madras	May 16–June 26	7	4	
Do	June 27–July 10	2		
Rangoon	May 9–June 26	10	5	
Indo-China:				
Saigon	do	2		
Iraq:				
Bagdad	do	8	3	
Do	July 4–10	1	1	
Basra	Apr. 18–June 22	34	25	
Italy				Mar. 28–June 5, 1926: Cases, 26.
Jamaica				Apr. 25–June 26, 1926: Cases, 201. (Reported as alastrim.)
Japan				Apr. 11–May 29, 1926: Cases, 564.
Kobe	May 30–June 5	1		
Nagoya	May 16–22		1	
Do	July 4–10	1		
Taiwan Island	May 11–20	24		
Do	June 1–20	23		
Tokyo	June 26–July 3	2		
Yokohama	May 2–8	2		
Java:				
Batavia	May 15–June 25	2		Province.
East Java and Madoera	Apr. 11–June 19	78	5	
Malang	Apr. 4–10	6	1	Interior.
Surabaya	May 16–22	14	1	
Latvia				Apr. 1–30, 1926: Cases, 3.
Mexico				Feb. 1–Mar. 31, 1926: Deaths, 602.
Aguascalientes	June 13–26		5	
Guadalajara	June 8–14		2	
Do	June 29–Aug. 9		4	
Mexico City	May 16–June 5	3		Including municipalities in Federal District.
Saltillo	July 18–24		1	
San Antonio de Arenales	Jan. 1–June 30			Present: 100 miles from Chihuahua.
San Luis Potosi	June 13–26		7	
Do	July 4–Aug. 7		8	
Tampico	June 1–10		2	
Torreon	May 1–June 30		17	
Do	July 1–31		5	
Nigeria				Feb. 1–Apr. 30, 1926: Cases, 404; deaths, 33.
Peru:				
Arequipa	June 1–30		1	
Poland				Mar. 28–May, 1926: Cases, 12; deaths, 1.
Portugal:				
Lisbon	Apr. 26–June 19	10	3	
Oporto	May 23–June 5	4		
Do	July 11–24	2		
Russia				Jan. 1–Mar. 31, 1926: Cases, 2,103.
Siam:				
Bangkok	May 2–June 12	23	20	
Straits Settlements:				
Singapore	Apr. 25–May 1	1		
Switzerland:				
Lucerne Canton	June 1–30	1		
Tunisia				Apr. 1–June 30, 1926: Cases, 17.

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

Reports Received from June 26 to August 27, 1926—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Union of South Africa:				
Cape Province	June 20–26			Outbreaks.
Idutya district	May 23–29			Do.
Orange Free State	June 20–July 3			Do.
Natal	May 30–June 5			Do.
Transvaal				June 6–12, 1926: Outbreaks in Pietersburg and Rustenburg Districts.
Johannesburg	May 9–June 12	5		
Yugoslavia				Apr. 15–30, 1926: Cases, 2; deaths, 1.
On vessel				Three cases, 1 death, at Aden, Arabia, stated to have been imported by sea.
S. S. Karapara				At Zanzibar, June 7, 1926. One case of smallpox landed. At Durban, Union of South Africa, June 16, 1926: One suspect case landed.

TYPHUS FEVER

Algeria:				
Algiers	May 21–June 30	7	1	
Argentina:				
Rosario	Feb. 1–28	2		
Bolivia:				
La Paz	June 1–30		1	
Bulgaria				Mar. 1–Apr. 30, 1926: Cases, 64, deaths, 12.
Chile:				
Antofagasta	May 23–June 26	4		
Do	June 27–July 3	1		
Valparaiso	Apr. 29–May 5		1	
China:				
Antung	June 14–27	7	1	
Do	June 28–July 18	14	1	
Canton	May 1–31	1		
Ichang			1	Reported May 1, 1926. Occurring among troops.
Wanshien				Present among troops, May 1, 1926. Locality in Chungking consular district.
Chosen				Feb. 1–Apr. 30, 1926: Cases, 640; deaths, 66.
Chemulpo	May 1–June 30	38	2	
Gensan	June 1–30	1		
Seoul	do	8	3	
Czechoslovakia				Jan. 1–May 31, 1926: Cases, 154; deaths, 4
Egypt:				
Port Said	June 4–24	4	1	
Cairo	Jan. 29–Feb. 18	8	4	
Great Britain:				
Scotland—				
Glasgow		7		Reported Aug. 3, 1926.
Ireland (Irish Free State):				
Cobh (Queenstown)	May 30–June 5	1		
Do	June 27–July 3	1	1	
Cork	June 5	1		
Kerry County—				
Dingle	June 27–July 3	1		
Italy				Mar. 28–May 8, 1926: Cases, 3
Japan				Mar. 28–May 29, 1926: Cases, 37.
Latvia				May 1–31, 1926: Cases, 7.
Lithuania				Mar. 1–May 31, 1926: Cases, 172; deaths, 21.
Mexico				Feb. 1–Mar. 31, 1926: Deaths, 73.
Durango	July 1–31		1	
Mexico City	May 16–June 5	20		Including municipalities in Federal District.
Do	June 13–19	9		Do.
San Luis Potosi	June 13–26			Present, city and country.
Morocco				Mar. 1–May 31, 1926: Cases, 414.

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

Reports Received from June 26 to August 27, 1926—Continued

TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Palestine				March, 1926: Cases, 6. Exclusive of Bedouin tribes and the British military forces.
Gaza	July 6–12	1		
Jaffa District	June 15–28	5		
Peru:				
Arequipa	Jan. 1–31		2	
Poland				Mar. 28–June 5, 1926: Cases, 1,116; deaths, 75.
Rumania				Mar. 1–Apr. 30, 1926; Cases, 395; deaths, 49.
Russia				Jan. 1–Mar. 31, 1926: Cases, 14,814.
Tunisia				Apr. 1–June 30, 1926: Cases, 110.
Tunis	June 11–30	3		
Turkey:				
Constantinople	June 16–22	1		
Union of South Africa				Apr. 1–May 31, 1926: Cases, 153; deaths, 19.
Cape Province				Apr. 1–May 31, 1926: Cases, 116; deaths, 15. Native.
Do	May 31–July 3			Outbreaks.
Grahamstown	do	1		Sporadic.
Natal				Apr. 1–May 31, 1926; Cases, 17, Native.
Orange Free State				Apr. 1–May 31, 1926; Cases, 15; deaths, 1.
Do	June 6–12			Outbreaks.
Transvaal				Apr. 1–30, 1926: Cases, 3; deaths, 3. Native.
Walkkerstroom district	June 20–26			Outbreaks.
Wolmaransstad district	do			Do.
Yugoslavia				Apr. 15–June 30, 1926: Cases, 48; deaths, 7.
Zagreb	May 15–21	1		

YELLOW FEVER

Brazil	Reported June 26			Present in interior of Bahia, Pirapora, and Minas.
Bahia	May 9–29	4	3	
Do	June 6–26	6	4	
Gold Coast	Apr. 1–10	3	1	