

PUBLIC HEALTH REPORTS

VOL. 44

DECEMBER 27, 1929

NO. 52

THE NATIONAL LEPER HOME (UNITED STATES MARINE HOSPITAL), CARVILLE, LA.

REVIEW OF THE MORE IMPORTANT ACTIVITIES DURING THE FISCAL YEAR ENDED
JUNE 30, 1929

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STATISTICAL

The optimism referred to in recent annual reports from this hospital has continued progressively to increase; the hopeful outlook of a considerable proportion of the patients is reflected in both the patients at large and the personnel.

During the fiscal year ended June 30, 1929, 109,685 days of relief were furnished, 49 new patients were admitted, 15 absconded, 9 absconders were readmitted, 1 was deported as not entitled to hospitalization at the expense of the Government, 13 died, and admission was denied to one person who voluntarily presented himself under the impression that he was a leper, careful examination disclosing that he did not have the disease.

Nineteen patients were paroled, with leprosy arrested and as no longer a menace to public health; six additional patients complied with the requirements for parole; but owing to their deformities and disfigurements which could not be corrected, these patients elected to remain in the hospital rather than be subjected to the hardships and humiliations, which are the inevitable outlook of many paroled lepers.

Nativity of patients in hospital

Alabama.....	1	China.....	16	Japan.....	1
Arkansas.....	1	Dutch Guiana.....	1	Kentucky.....	1
Bahama Islands....	2	Finland.....	3	Louisiana.....	103
Bermuda Islands....	2	Florida.....	18	Maryland.....	1
Brazil.....	1	France.....	1	Mexico.....	26
British Guiana.....	2	Georgia.....	3	Minnesota.....	1
British West Indies..	5	Greece.....	13	Mississippi.....	5
California.....	5	Hawaii Territory....	10	Missouri.....	1
Canada.....	2	India.....	2	New Jersey.....	1
Cape Verde Islands..	1	Italy.....	8	New York.....	2
Central America....	1	Jamaica.....	1	North Carolina....	1

Ohio.....	1	Portugal.....	3	Virginia.....	1
Oklahoma.....	1	Rhode Island.....	1	West Indies.....	1
Palestine.....	2	Russia.....	5	Wisconsin.....	1
Panama.....	1	Society Islands.....	1		
Pennsylvania.....	2	South Carolina.....	1		303
Philippine Islands.....	5	Spain.....	5		
Porto Rico.....	5	Texas.....	24		

Admissions of patients by States

California.....	15	Minnesota.....	2	Pennsylvania.....	2
Florida.....	5	Mississippi.....	1	Texas.....	6
Kentucky.....	2	New Jersey.....	2		
Louisiana.....	11	New York.....	1		49
Massachusetts.....	1	Oregon.....	1		

MEDICAL AND SURGICAL SERVICE AND LEPROA THERAPY

There were admitted to the infirmaries 188 patients, of which number 126 were male and 62 female. Ten women and 12 men are permanently in the infirmary owing to deformities and chronic illness which render them helpless.

The average stay of patients admitted to the infirmary for acute conditions was two weeks, although a number remained as long as three and four months.

Of the 303 patients, 137 are taking chaulmoogra oil by mouth as routine treatment, the dosage ranging from 9 drops to 375 drops daily.

One hundred and eighty patients are taking biweekly intramuscular injections of benzocaine-chaulmoogra oil, 5 c. c. at each injection, as routine treatment. A general survey of this group shows some improvement in nearly all.

During the year, 80,000 surgical dressings were made and 7,700 prescriptions were written.

About 40 patients were treated for conjunctivitis and iritis with diphtheria antitoxin with favorable results, especially in relief of pain, and without untoward results from repetition of the antitoxin. There does not seem to follow the same amount of restoration to normal which observers have found to follow similar treatment in nonleprous conditions. A combination of sterilized milk and sugar has given comparable results, although used in a small number of cases. In the summer of 1929 there was a marked reduction in the number of acute eye complications as compared with 1928.

A small group of patients, of retrograding, secondary infection type are being treated with intravenous injections of mercurochrome in 25 per cent glucose. At the beginning, the renal ability to pass the drug is estimated against dilutions of mercurochrome, and all of the group have been found, with one exception, showing normal output, to have from 20 to 40 per cent of normal ability. With this check upon dosage it has been possible to keep the dose just below the

reaction point, and it is felt that this group can be kept thus under the treatment for a sufficient time to secure the maximum beneficial results. Improvement has been noted in a few patients.

A group of 20 patients are receiving intramuscular injections of vaccinated calf serum, with the hope of stimulating nonspecific immune body formation. This experiment is collateral to concurrent use of vaccine lymph, and was begun with the thought that the serum taken at the height of the vaccinia might show similar potency, and provide a more easily regulated dosage.

There is little literature available on the subject of the amount of immune bodies against variola formed in the serum of the calf. Intradermal vaccination by the serum has been tried in three cases with failure, followed by "takes" with usual vaccine matter, and no definite reactions in the leper subjects have been noted. The serum in use is unconcentrated and produces local irritation which subsides within 24 hours, at a maximum practicable dose of 1.5 c. c.

Ten patients who have been able to take from 50 to 150 mg. of chaulmoogra oil three times daily, by mouth, are receiving their usual dosage of chaulmoogra oil exposed to ultra-violet rays. This group gave readings of lowered diffusible blood calcium and phosphorous at the beginning of the treatment, and will be checked for changes after a suitable time, and for clinical evidences of improvement.

The intramuscular injections of the ethyl esters of chaulmoogra oil have continued, but to a very much reduced number of patients.

Gland extracts have been tried in a few small selected groups. Improvement was noted in a few of the patients first treated, but subsequent failure in other cases makes it seem probable that such amelioration as occurred was merely a coincidence.

During the year, many cases of leprous keratitis have been benefited by pericorneal use of the actual cautery after dissecting back the conjunctiva.

The usual number of cases of refractive errors and iritis have appeared at the eye clinic, where 936 treatments were given.

Neuropsychiatric service.—During the year, there were examined in the neuropsychiatric section 58 new patients, 39 male and 19 female, and 82 old patients. Sixteen patients were examined neurologically before their discharge.

A tentative survey was made for establishing the rôle of leprosy in those presenting disturbances of hearing, particularly from a neurological standpoint. Out of 140 patients examined with this point in view, 14 presented disorders of hearing. Such affections in the greater number of cases followed middle ear disease and antedated by many years the first manifestations of leprosy. The acoustic nerve itself was not found to be affected, as most of these patients

responded to bone conduction. It was not thought, therefore, that such affections should be attributed to leprosy. There are still seven patients presenting definite psychopathic entities, one case with a definite manic depressive psychosis.

Orthopedic and physiotherapy.—The total number of treatments given in the orthopedic and physiotherapy departments during the year was 34,471; 386 patients were examined during the year, of which number 74 were new patients.

Experience has indicated that ultra-violet light should be used with caution, especially in very active cases, because of irritation to the skin and aggravation of the general leprous condition. Ultra-violet light is especially valuable in leg ulcers, perforating ulcers, and callosities of the feet and hands; however, its application to these areas should be given with the surrounding parts screened. Infection of skin and infected areas of the deeper structures which are opened have been controlled by soaking in saturated boracic acid solution followed by wet packs of the same. This form of treatment has obviated the necessity of operation, and possibly of amputation, in a number of cases.

Occupational therapy.—Chair caning represents the most useful as well as the most extensive work done. Leather work, however, appeals to some of the patients and their work is remarkably good.

Dental service.—Dental work has continued with prophylaxis, amalgam fillings, gold inlays, synthetic porcelain fillings, cement fillings, denture construction, crown and bridge work, treatments of pyorrhea alveolaris, leprous ulcers, Vincent's stomatitis, abscesses, and leprous stomatitis involving gum tissue, lips, and adjacent tissues. A marked improvement is noted in dental disease and a decrease of leprous lesions in the mouths of patients in this hospital.

X rays.—The continued use of the X ray as an aid to diagnosis and prognosis in the study of bone changes in leprosy is accumulating considerable information which at the proper time will be correlated with certain chemical studies in the attempt to explain the not well understood phenomena.

Laboratory.—The laboratory is in the charge of a full-time medical officer, assisted by a Sister of Charity and two leper orderlies.

EXPERIMENTAL

The consulting dermatologist, after experimenting with heat applied with pressure to localized lepromata, noted gratifying improvements in some cases, and requested that the experiment be continued in the laboratory. Applicators were devised through which water heated to a desired temperature is circulated. The applicator is fitted with a thermometer to gauge the exact temperature of the applications.

Lepromatae of different consistencies require different degrees of temperature; it has been found that temperatures varying between 50° and 52° C. applied with considerable pressure from two to six minutes daily will cause the average lepromata to be absorbed in from one to three months. Since lepromata on the exposed surfaces of the body are very disfiguring, this form of treatment is popular with the patients, for cosmetic reasons. During the past year, 657 such treatments were given.

Beginning August 20, 1926, smallpox virus was used as a treatment in leprosy, when 25 cases were selected and treated over a period of time varying from 2 to 29 months. The first phase of this experiment ended March 1, 1929. (A report is being prepared which will appear elsewhere.) At the end of this fiscal year more than 45 patients were taking this experimental treatment.

Biochemistry.—Specimens of oxalated blood were examined from 43 patients, utilizing Folin-Wu nonprotein filtrate for the determinations of sugar, total nonprotein nitrogen, urea nitrogen, chlorides, and creatinine, and whole oxalated blood for cholesterol.

The following table gives the high, low, and average findings in series of blood specimens. Amounts represent milligrams per 100 c. c.

	Sugar	Non-protein nitrogen	Urea nitrogen	Cholesterol	Chlorides	Creatinine
Number of specimens examined.....	43	39	22	22	36	37
Highest value.....milligrams.....	222	54	37.5	260.9	577.5	2.3
Lowest value.....do.....	71.4	22.5	12	120	445.5	.8
Average.....do.....	117.3	38.4	21	198.6	486.6	1.4

Analyses were made of the sera from 53 patients, 16 physicians in the United States Public Health Service, and 7 negro personnel for calcium total (Clark-Collip Modification Kramer-Tisdall), calcium, diffusible (Moritz), and inorganic phosphorous (Benedict-Theiss). The sera from the physicians and negro personnel were used as controls. Records were made of the per cent of calcium that was diffusible, the calcium-phosphorous balance, and the diffusible calcium-phosphorous balance.

The averages of these findings are tabulated in the accompanying table.

	Calcium, total	Calcium, diffusible	Diffusible calcium	Phosphorous, total	Calcium-phosphorous balance	Diffusible calcium-phosphorous balance
	Milligrams	Milligrams	Per cent	Milligrams		
Patients.....	10.1	4.75	46.8	3.38	34.2	16.1
Physicians.....	10.1	5.8	57.8	3.16	31.9	18.4
Negro personnel.....	10.3	5.2	50.3	3.99	41.3	20.6

A subsequent detailed report of this experiment with interpretations will be made later.

Photography.—Clinical photographic records are made of all patients on admission and later from time to time as clinical changes take place. During the past year, 550 such photographic records were made.

Routine examinations.—Routine examinations included blood, urine, feces, sputum, dark-field for *T. pallidum*, throat and other cultures, agglutination tests, water and milk analyses, animal inoculations, and bacteriological and pathological examinations.

One thousand three hundred and seventy-three smears were made in 772 examinations of patients for the presence of leprosy bacilli. Of these examinations 462, or 57.2 per cent, were negative, and 310, or 42.7 per cent, were positive.

From July 1 to September 30, sera from 189 patients were examined by a modification of Kolmer's qualitative method, with the following results:

	Number	Per cent of total		Number	Per cent of total
Negative.....	124	65.3	++.....	11	5.8
++++.....	47	24.7	+-.....	1	.5
+++.....	6	3.1	Anticomplementary.....	1	.5

On October 1, 1928, Kolmer's quantitative fixation and Kahn's precipitation tests were adopted as routine and since that date have been employed in all serological reactions. Sera from 207 patients have been examined by Kolmer's method and from 206 by Kahn's. Of these sera, 203 were examined by both Kolmer's and Kahn's tests with the following results:

72, or 35.4 per cent, were negative by both methods.

76, or 37.4 per cent, were positive by both methods.

33, or 16.3 per cent, were positive by Kolmer but negative by Kahn.

17, or 8.3 per cent, were positive by Kahn but negative by Kolmer.

5, or 2.4 per cent of these sera were anticomplementary.

Of the patients' sera that were positive by Kolmer's but negative by Kahn's, the Kolmer readings were as follows:

	Number	Per cent of disagreements		Number	Per cent of disagreements
Very strongly positive.....	6	18.2	Weakly positive.....	11	33.3
Strongly positive.....	5	15.2	Doubtfully positive.....	5	15.2
Positive.....	6	18.2			

Of the patients' sera that were positive by Kahn and negative by Kolmer, the Kahn readings were as follows:

	Number	Per cent of disagreements		Number	Per cent of disagreements
+++-----	3	17.6	+-----	10	58.8
++-----	1	5.9	±-----	3	17.6
+------	0	0			

Sera from 42 kitchen and dairy personnel were examined by Kolmer's quantitative method and 38 were checked by Kahn's precipitation test with the following findings:

17, or 44.7 per cent, were negative by both.

12, or 31.6 per cent, were positive by both.

1, or 2.6 per cent, was positive by Kolmer but negative by Kahn.

6, or 15.8 per cent, were positive by Kahn but negative by Kolmer.

2, or 5.3 per cent, were anticomplementary by Kolmer.

Of the sera that were not checked by Kahn's, three were negative and one was positive.

The sera tabulated as positive by Kolmer and negative by Kahn gave a doubtfully positive reading.

Of the sera that were tabulated as positive by Kahn's and negative by Kolmer's method, the Kahn's three were read as one + and three as ±.

Acid-fast bacilli.—In some leper hospitals and colonies a high mortality is reported from concomitant tuberculosis and leprosy and it is reported that the coincident presence of the two diseases tends to shorten life. As a matter of purely academic interest the sputa from 210 lepers were examined bacterioscopically for acid-fast bacilli, with the following results:

Type of leprosy	Cases	Bacterioscopically	
		Negative	Positive
Anesthetic:			
Advanced-----	27	18	9
Moderately advanced-----	7	6	1
Early-----	13	12	1
Nodular:			
Advanced-----	41	7	34
Moderately advanced-----	29	10	19
Early-----	22	14	8
Mixed:			
Advanced-----	16	8	8
Moderately advanced-----	37	22	15
Early-----	18	14	4
Total-----	210	111	99

The acid-fast organisms found in many instances were grouped in the manner considered typical of leprosy; certain curved and "Y" forms suggested tuberculosis, others (in minority) did not present sufficient morphologic characteristics to permit a tentative identification. The large percentage of leprosy sputa (47 per cent) showing acid-fast bacilli warranted a more intense study to determine more accurately the identity of acid-fast organisms found.

Accordingly, sputa were collected from 75 lepers in whom acid-fast bacilli had been previously found. Of these sputa, 14, or 18.7 per cent, produced acid-fast colonies on Dorsett's egg media morphologically and tinctorially resembling tuberculosis. The slants not showing evidence of growth were subcultured through several series and discarded when no acid-fast colonies appeared. Six guinea pigs inoculated with the sputum producing acid-fast colonies developed tuberculosis; and one pig inoculated with sputum in which acid-fast bacilli existed in globi formalin only, died 12 days later with bilateral suppurating inguinal adenitis, the pus from which contained many curved and branching forms of acid-fast bacilli. Subsequent cultures on Dorsett's egg media and guinea pig inoculations from this pig were negative. Cultures on artificial media from the original sputum were negative.

A preliminary bacterioscopic examination of the sputum of 210 lepers showed that 99, or 47 per cent, harbored acid-fast bacilli in mucus from some portion of the respiratory tract.

A routine bacteriologic examination of the sputum from 75 lepers in whose sputum acid-fast bacilli had been previously demonstrated, resulted in positive cultures of *B. tuberculosis* from 14 cases, each of which was clinically tuberculous—9 of these progressing to a fatal termination and 5 becoming inactive. One inoculated guinea pig died of suppurating bilateral inguinal adenitis containing acid-fast bacilli but from which further cultures and guinea pig inoculations were negative. Guinea pigs inoculated with the sputum from six lepers died of tuberculosis.

It is evident that the bacterioscopic finding, alone, of acid-fast bacilli in the sputum is not conclusive evidence of either leprosy or tuberculosis.

FARM AND DAIRY

The farm and dairy continued to operate with economy. It is estimated that the milk produced by the station herd saved the hospital \$1,286.04 over market prices; beef slaughtered saved \$177.65; pork raised and slaughtered saved \$746.12; fruit and vegetables produced effected a saving of \$195.44; and alfalfa produced for forage saved \$388.98 over market prices.

REPORT ON THE INTERNATIONAL CONFERENCE FOR THE PROMOTION OF INFANT WELFARE HELD AT STOCKHOLM, SWEDEN, SEPTEMBER 19-24, 1929

Report by E. A. SWEET, *Surgeon, United States Public Health Service*

The conference was called to order the morning of September 19. The following-named persons comprised the list of delegates, those marked with an asterisk being present:

- Miss Carmen Isern Galceran, representing the Spanish Government.
- Mr. Pfeiffer, Vice President of the Association Internationale pour la Protection de l'Enfance.
- *Miss Gros, General Secretary of the French Division of the Association Internationale pour la Protection de l'Enfance.
- *Miss Nevejan, Secretary of the Association Internationale pour la Protection de l'Enfance.
- Mr. MacKenzie, General Secretary of the Union Internationale de Secours aux Enfants.
- *Miss Bonhomme, representing Liga Pernambucano por la Protección de la Infancia.
- *Dr. E. A. Sweet, representing the United States Public Health Service.
- *Mr. Mohamed Ifat Bey, representing the Egyptian Government.
- Dr. Paul Boncour, Paris.
- *Mr. Otto Garde, President of Conseil tutelaire superieur of Copenhagen.
- *Doctor Banu, former Secretary General, Ministère de l'Hygiene, Bucarest.
- *Mr. Olaf J. Skjerbaeck, Senior Inspector, Denmark.
- Dr. Alfred Sandal, Oslo, Norway.
- *Mr. Erik Mandelin, representing the School Board, Helsingfors, Finland.
- *Miss Sigrid Larsson, representing the Public Health Service, Helsingfors, Finland.
- *Mr. Welhaven, representing the Norwegian Government.
- *Miss Furuhjalm, from Finland.

In addition to the delegates, a considerable number of Government officials, social workers, and others interested in welfare work, were present at each of the various sessions.

The morning session of the conference was chiefly occupied with a symposium on school absences, several papers being read on this subject. The discussion was not limited to truancy, as we understand it in America, but rather to the much broader topic of the many various causes of absence from school. For this reason the discussion had something of a medical bearing.

A report submitted by Enrique L. de la Alberca, secretary of the Board for the Protection of Children, Bilboa, Spain, emphasized the economic condition of the parents, particularly the neglect of the family by the father, as the principal cause of absenteeism in Spain. The speaker further mentioned mental abnormalities as a frequent cause of absences, without, however, going into detail. He also spoke of giving premiums to policemen who report the presence of children

in the street during school hours and of furthering the enactment of laws forbidding the children of school age engaging in work.

A second representative from Spain, Dr. Patricio B. Diaz, president of the Tribunal for Children of Zaragoza, presented a paper also dealing with the subject of absenteeism. He cited the fact that there was an inadequate number of schools for the school population in Spain, and stated that until sufficient schools were built, absenteeism could not be remedied.

Doctor Diaz further stated that, in his opinion, the tendency to vagrancy was a less important cause than many others. Numerous family reasons, particularly the negligence of poor or ignorant parents, who do not understand the necessity of education, was a factor of moment. He seemed to think that health conditions generally were less important in Spain as a causative factor than the tendency to vagrancy, distance from school, bad weather, and the like. Theoretically, there was a direct connection between absence from school and delinquency; actually, judging by his personal experience, offenses are not more frequent among children who do not go to school than among those who assiduously attend.

The situation in Belgium is more interesting from a medical standpoint. There the law compels the head of the family to see to it that children from 6 to 14 years of age regularly attend the school where they are registered, except in certain instances where distance from school, physical or mental infirmity, and, strange to say, conscientious objection, prevent. The State, assisted by the police and local officials, chiefly in the person of a district inspector, enforces the provisions of the law. Absences are not permitted beyond three half days a month unless there is good justification for such action. Boarding schools are provided for children of parents with no fixed residence.

In Belgium 56 per cent of all cases of absenteeism is due to slight or temporary illness of the child and 8 per cent to more serious disorders. Four per cent of absenteeism is the direct result of communicable diseases among the family, and 4.5 per cent is caused by death in the family group. This gives us a total of 72.5 per cent brought about by illness of some character—a strikingly large percentage. It would seem that effort in the prevention of illness, particularly medical inspection of school children, is not an unimportant weapon in raising educational standards—a view perhaps which is too little appreciated.

Other causes of school absences in Belgium are given as difficulty of communication, including bad weather, in 10 per cent of the cases, negligence of parents in 6 per cent, and poverty in 1.4 per cent. Only four-tenths of 1 per cent of the cases are due to vagrancy. Religious ceremonies, travel, seasonal labor, and local feasts account for the remaining 9.3 per cent.

The report goes on to state that 39.7 per cent of the children in Belgium must be tabulated as backward or retarded, 22 per cent by one year, 11.3 per cent by two years, and 6.4 per cent by more than two years. Among the causes of backwardness, disease and physical or congenital weakness rank high, accounting for more than 31 per cent of all cases. Weakness of the mind is responsible in 15 per cent, although it is well recognized that many of the cases of so-called intellectual weakness can be traced to defective hearing, bad eyesight, or other physical abnormalities.

Summarizing, the report states that the principal cause of the conditions cited is unquestionably the bad health of the child. When it is considered that the data given are for an entire country and that they are presented by a lay investigator, this statement must be considered impressive.

A brief report covering Luxemburg was also submitted. School attendance is obligatory and applies to the children of aliens, to foundlings, the deaf and dumb, and the blind. The latter two classes, together with the crippled, are cared for in special institutions. It is next to impossible to avoid school obligations. The figures of absenteeism, while covering a territory comparable only to one of our smaller American cities, indicated that illness is a major factor.

A rather voluminous and interesting report on the subject of non-attendance at school compiled by Dr. Paul Boncour, professor of criminology, School of Anthropology, and medical director of the Medical Pedagogical Institute of Vitry, together with a number of coworkers, was submitted by the French National Section.

The report states that the examination of recruits shows that 7 per cent are illiterate and that an additional 22 per cent have received insufficient instruction in the elementary schools, notwithstanding that these men, with few exceptions, are capable of acquiring knowledge, as shown by the fact that, during their military careers, when instruction is given improvement is noted. Additional statistics were presented showing that illiteracy is common in village life where the percentage of illiteracy is even higher than in recruits, and higher among women than men.

Of the 1,979 prisoners examined at the Petite Roquette but 44 had received higher instruction, 175 had received a certificate of elementary instruction, 1,519 knew scarcely how to read or write, and 241 were completely illiterate. The committee concluded that there is a distinct relationship between criminality and poor school attendance.

The symposium developed a mass of statistics on the subject of absenteeism from school, covering schools of every character in all parts of the country, urban and rural, showing that illness of pupils

was the leading cause of absence, even exceeding economic necessity, which plays an important rôle in all European countries.

In conclusion the committee cited *seriatim* the recommendations for the relief of this deplorable situation presented at the International Congress for the Promotion of Child Welfare, held at Brussels, in 1921. They agreed that elementary instruction of children from 6 to 14 years of age should be made compulsory in every State, without exception, and that the number of absences be strictly regulated by the school authorities, with due regard to the agricultural need of the services of those between 12 and 14 years of age. They further advised that leave of absence on account of illness be controlled by duly appointed inspectors of school attendance, assisted by physicians. The numerous recommendations submitted, covering such items as food and clothing for the child, insufficiency of school accommodations, and remoteness and lack of transportation facilities, served only to emphasize the advanced position of America in the compulsory education of children, where problems of this nature assume far less importance than in European countries.

A more detailed subreport covering school absenteeism was submitted by Doctor Laufer, physician-inspector of the schools of Paris. Doctor Laufer stated that "Illness is doubtless the most important cause of nonattendance at school." Absences due to all other causes combined fluctuate between only one-eighth and one-fourth of the total. Contrary to what one might suspect, the Paris statistics show that absences due to transitory indispositions, such as headache, fatigue, colds, and digestive disturbances, greatly outnumber absences on account of the contagious diseases. (In this connection, and quite apart from Doctor Laufer's conclusions, it should be stated that in communities where strict school attendance is compulsory, temporary illness is often given as a reason for absence when in reality it does not exist, inasmuch as it is an excuse which is more or less difficult to controvert and one generally accepted by the authorities without much question.) For this reason Doctor Laufer's figures, as well as those given for other cities, may be somewhat misleading.

The Paris statistics show that absences on account of illness, as one would suppose, are highest during the first year of school life and gradually diminish up to the fifth year. There is also a seasonal variation, the percentage being highest in April and May.

Among the remedial measures Doctor Laufer referred to the preventive inoculation for diphtheria and progress in the knowledge of infectious diseases. For example, whooping cough, of which the period of contagion has been found to be shorter than was formerly believed, no longer requires the keeping of children at home for prolonged periods. He also emphasized the importance of the school nurse, especially in the matter of attention to cleanliness and the

early care of minor complaints. As a conclusion he further states that the attention of the child, and therefore its pedagogical progress, is far more under the influence of physiological and somatic conditions than is that of the adult. For this reason it is most essential that such items as ventilation and comfort of the pupil receive attention.

Finally a highly technical paper was presented by Doctor Neron, assistant physician at the Clinique Neuro-Psychiatrique of the Paris Medical Faculty, dealing with absence from school through the tendency to vagrancy. Doctor Neron took up in detail the instinctively perverse child, the child with the so-called paranoical temper, the unstable child, and children of an emotional type. He recommended systematic psychical examination of school children, the creation of special schools for the unstable and undisciplined, and manual training or labor for the intellectually weak.

Two members of the conference submitted papers which minimized health conditions as a leading cause of absenteeism. One of them went so far as to state that "nonattendance is especially due to social conditions; health is only a secondary factor." Neither of these investigators presented any statistics to substantiate the conclusions advanced.

One of the most interesting papers of the conference was by Dr. Carl Schiotz, medical inspector of the schools of Oslo, Norway (read in his absence by his assistant, Dr. A. Sundahl), on Medical Inspection of Schools at Oslo. The lecture was supplemented by a considerable number of lantern slides, charts, and the like. From the medical standpoint it was most instructive.

The school inspection service was inaugurated in Oslo in 1920, since which time complete records covering every pupil are available. A thorough physical examination is made of each pupil twice a year. For this purpose there is an eye and ear specialist, a psychiatrist, and a dentist, supplementing the regular staff of physicians and nurses. The pupils are examined stripped. Inasmuch as more than ordinary attention is paid to nutrition, elaborate weight charts are kept. A number of these charts showing increase in weight and making comparison by schools were shown on the screen.

Contact with the home is made through the school nurses, of whom there are several. It would seem that the results obtained through this excellent follow-up system had been most encouraging. Just as the public health nurse aims to correct insanitary conditions in the homes, the school nurse likewise attempts to bring about improved conditions if it is evident that the health or physical development of the child is affected. Where the parents, through poverty or otherwise, are unable to provide adequate medical treatment of the child, the nurse sees to it that treatment is furnished either through one of the city dispensaries or in some other way.

The physical development of the children is also under the supervision of the school physician. In most of the advanced countries of Europe "sport," as it is called, and gymnastics are a much more integral and essential part of elementary-school instruction than in America. The school physician, and not the private physician, decides as to whether or not the child shall be exempt from physical training.

An ingenious device was presented for determining the physical age of a child. As is well known, most of the competitions in America are conducted on the basis of scholastic grades or of age. This gives the large 14-year old boy in the eighth grade the advantage over his smaller rival of the same class. In Oslo the physical age is determined at a glance by the use of this method, which, in all cases, is based on a composite of the chronological age, height, and weight. By this method boys and girls of like physical attainments are matched.

Many other interesting features of school medical inspection service were brought out. For example, a child absent from school for more than eight days must appear before the school physician for examination before being readmitted. All notices to parents are in writing. Children who are not making adequate progress are examined by the school physician, as well as the psychiatrist, to determine the cause. When the child shows an insufficient gain in weight for his age, or falls below his fellows, the matter is investigated.

A number of other papers bearing on medical or public health matters were also submitted.

Public health nursing in Finland was reviewed by Miss Sigrid Larsson, inspector of public health nursing for the leading child welfare league of that country. Miss Larsson traced the development of the movement in her country, its accomplishments in disease prevention, particularly in the prevention of rickets, and in the reduction in the infant mortality rate. This paper was briefly discussed by the writer. It was pointed out that the public health or community nurse in America had become a most essential part of health organizations throughout the country and that much of the success achieved in health work could be attributed to the efforts of such nurses.

Some of the discussions, nearly all of which were in French, also concerned matters other than medical. A comprehensive paper having to do with the Preventive Protection of Childhood in Denmark was read by Olaf J. Skjerbaeck, chief inspector of public educational institutions of that country. He pointed out that Denmark had established many baby clinics, subvented in part by the state, where advice and direction to mothers, as well as milk for the children, were given. In addition, there were numerous day nurseries for nursing infants where children of working mothers are received,

14 in Copenhagen alone. There are also the usual kindergartens, or organizations corresponding thereto, public, private, and parochial. The day homes or workshops for children, where children of school age are received out of class hours and are taught weaving, metal working, binding, woodworking, and similar vocations, are numerous in Denmark. There are 40 schools of this character in Copenhagen. Summer holidays for poor children are provided by several agencies, as in Germany, and country families gratuitously receive city children to the number of several thousand a year. While some of these children are cared for by relatives or friends, the majority come from families quite unknown. Transportation is furnished by the state, and over 1,000,000 crowns was appropriated last year for this purpose. When it is considered that Denmark is an exceptionally small country, and that travel from one end of the land to the other by train can be accomplished within a few hours, some idea of the size of this summer recreational movement can be estimated.

A scholarly paper entitled "Enforcing of the Feeling of Responsibility in Youth" was presented by Einar Gauffin, one of the most prominent educators of Sweden. In this paper Mr. Gauffin dwelt upon a number of pedagogical problems, emphasizing the importance of awakening a feeling of responsibility among the students and a development of a moral foundation for life. He mentioned in particular the George Junior Republics in America as an example of the benefits obtained by society when the love of humanity and an intelligent psychology are awakened in the souls of children who have gone astray. He also referred at some length to the honor system as it exists in America.

Not only the theoretical but the practical side of child life was brought before the conference in a number of different ways. In September of each year in Sweden, as well as in Denmark, two days are devoted to festivities in celebration of childhood and the promotion of child welfare. On these holidays there are processions through the streets, sales of flowers, usually a lottery, and concerts and amusements. The collected sums are devoted to institutions promoting the welfare of children.

The festivities this year in Stockholm were of a highly interesting character. On one of the evenings a pageant depicting oriental life was put on in the Stockholm stadium and was viewed by many thousand people; the fireworks were especially brilliant. On the following day an exceedingly beautiful performance was given by the boys and girls of Stockholm in the stadium. A boys' band of more than 200 pieces furnished music; there were competitions of various kinds, following which was dancing by 2,000 young girls, by groups of hundreds, costumed in the national colors.

The members of the conference were also privileged to visit many of the relief and welfare institutions in Stockholm. The arrangements on all these occasions were under the charge of Kanslirad von Kock, who was unsparing of his time and who devoted himself wholeheartedly to the arranged program, a program which was most complete and was carried out without any of the mistakes and annoyances frequently attending meetings of this nature.

On one of the afternoons the new Stockholm Public Library, a striking building architecturally and especially well equipped for a city the size of Stockholm, was visited. The delegates also visited a home for crippled children. While this institution is not as well housed as it deserves to be, it is accomplishing a work of high importance to the community and state. The inmates, most of whom are victims of infantile paralysis, are taught various trades, ranging from sewing and weaving to metal working and the manufacture of orthopedic appliances, while receiving treatment for their affliction. In this connection it should be recalled that one of the earliest outbreaks of this disease was first studied in Sweden.

Another institution visited was the Sabyholms School for the industrial and agricultural training of boys and girls, an endowed school of a philanthropic nature located in the country.

In addition to the foregoing, the opportunity was afforded of visiting a model high school, a child-welfare center, a domestic-economy and nursery school, and one of the newer hospitals for children. On the whole the impression was gained that Sweden ranks especially high in all social-welfare work. A recent survey published by order of the Swedish Government, entitled "Social Work and Legislation in Sweden" presents in succinct form a review of what has been accomplished for the protection of workers, what is being done for the public health and care of the sick, the various means adopted for the protection of infants, and what is being attempted in other lines of social endeavor.

The social side of the conference was by no means neglected. The Swedish people are notoriously hospitable, and on this occasion even the higher officials of the Government not only showed an interest in the conference itself but also saw to it that the various delegates were entertained throughout their stay. It is certain that every delegate carried away with him the most pleasant recollections of a successful conference and also memories of a delightful people.

The next conference is scheduled to be held in June, 1930, in Liege, Belgium.

CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES ¹

November 3–November 30, 1929

The prevalence of certain important communicable diseases as indicated by weekly telegraphic reports from State health departments ² to the Public Health Service is summarized below. This summary is prepared from the data published weekly in the Public Health Reports under the section entitled "Prevalence of Disease."

Smallpox.—The high incidence of smallpox reported last month became even higher in November. During the 4-week period ended November 30 the number of cases reported was 3,042, which was about 75 per cent above the average of the three preceding years.

The heaviest incidence centered in the Great Lake States—Ohio (534 cases), Indiana (529), Illinois (470), and Michigan (239). A few of the West Central and Pacific Coast States showed fairly high rates.

In Alabama a rural epidemic was reported, totaling 203 cases in about six weeks.

Meningococcus meningitis.—The reported incidence (446 cases) continues to be about double the average of recent years. The highest case rates this month were reported from Arizona, Utah, and Michigan.

Typhoid fever.—The incidence (1,217 cases) underwent the customary seasonal decline and continues to be well below the average of recent years.

Poliomyelitis.—The disease has apparently receded from the slight excess over the normal which had prevailed in October. The reported cases numbered 180.

Influenza.—Approximately normal (2,037 cases).

Measles.—There was a moderate seasonal rise, but the reported incidence (8,176 cases) was about half the average of the three preceding years.

Diphtheria.—The reported incidence (8,757 cases) was slightly below the normal of recent years.

Scarlet fever.—There was a seasonal rise, but the reported cases (13,178) were not far from the seasonal normal.

Mortality from all causes.—The mortality from all causes, as taken from the Weekly Health Index of the Census Bureau, averaged 11.9 per 1,000 population (annual basis) compared with 12.4 for the corresponding period of last year.

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

² The numbers of States reporting for the various diseases are as follows: Typhoid fever, 41; poliomyelitis, 43; meningococcus meningitis, 42; smallpox, 42; measles, 33; diphtheria, 42; scarlet fever, 41; influenza, 31.

ENDEMIC GOITER

The results of six years' study of endemic goiter, also known as simple goiter, by the United States Public Health Service are incorporated in Public Health Bulletin No. 192.¹ The conclusion is reached that this form of goiter, which is present to a considerable extent in certain parts of the United States, is simple in name only, for the etiological factors concerned in its production are undoubtedly numerous, even complex. This bulletin, which contains a foreword by Dr. David Marine, eminent American authority on goiter, will prove of interest to physicians, public health officials, nurses, educators, and others concerned with the prevention and treatment of goiter.

The goiter studies of the Public Health Service, conducted from headquarters located in Cincinnati, Ohio, were directed along three principal lines:

1. Studies of the distribution of simple goiter.
2. Studies of the causes and effects of simple goiter.
3. Dissemination of authentic information.

Thyroid surveys were made by the same officers of the Public Health Service in the States of Colorado, Connecticut, Massachusetts, Oregon, Tennessee, South Carolina, and in the city of Cincinnati, Ohio. As a result of these investigations it has been possible to distinguish variations in goiter incidence within individual States and indicate the places in which goiter prophylaxis is required. Graphic representations of characteristic incidence curves are shown.

The findings of several investigations, having for their purpose the determination of the causes and effects of simple goiter, are also set forth in the bulletin. Thus efforts were made to learn whether communicable diseases, routine physical exercise, or potential foci of infection, such as may exist in decayed teeth and diseased tonsils, are responsible for endemic goiter. The effects of endemic goiter upon intelligence, physical growth, and school attendance are indicated. Interesting accounts of the gross and microscopic anatomy, as well as the physiology and pathology of the thyroid gland, are included. Detailed instructions for making thyroid surveys, with suggestions for interpreting and utilizing the information gathered, are a feature of the bulletin.

The etiology of simple goiter is considered in detail. There is also a critical consideration of the various prophylactic measures and their relative value. The importance of iodine prophylaxis during pregnancy has received particular emphasis. While suggestions are given for the appropriate treatment of endemic goiter, the self-

¹ Olesen, Robert: Endemic Goiter, United States Public Health Bulletin No. 192.

administration of iodine, either for prophylaxis or treatment, is condemned.

The value of the bulletin is enhanced by photographs of a number of thyroid-normal and thyroid-enlarged individuals, both in profile and full front view. Other illustrations show the topographic relations of the thyroid gland.

A limited number of these bulletins are available for free distribution. Requests for copies should be addressed to the Surgeon General, United States Public Health Service, Washington, D. C.

MORTALITY FROM AUTOMOBILE ACCIDENTS, 1928

The Department of Commerce announces that in the death registration area in continental United States there were 23,765 accidental deaths in 1928 charged to automobile accidents (excluding collisions with railroad trains and street cars), and that the death rate from this cause was 20.8 per 100,000 population, as against 19.5 in 1927, 17.9 in 1926, 17 in 1925, and 15.7 in 1924.

In 1928 the registration area included 44 States, the District of Columbia, and 10 cities in nonregistration States. These States and cities together included 95.4 per cent of the total population of the United States. On this basis the number of deaths due to automobile accidents is estimated at 24,900 for the whole country.

For purposes of comparison it may be helpful to consider the increase for the 38 States which were continuously in the registration area during the 5-year period. Counting only the same class of fatalities throughout this period—namely, automobile accidents, excluding collisions with railroad trains and street cars—there was an increase from 14,806 deaths in 1924 to 21,513 in 1928. This represents an increase in rates from 15.7 to 21.4, or 36.3 per cent.

It should be noted that the deaths assigned to automobile accidents do not include those due to collisions of automobiles with street cars or with railroad trains. In 1928 there were 542 deaths due to collisions with street cars and 2,041 deaths due to collisions with railroad trains; these, if added to the 23,765 referred to above, would make a total for the registration area of 26,348 deaths due to accidents in which automobiles were involved and would raise the rate from 20.8 per 100,000 population to 23.

These deaths constitute 1.9 per cent of all deaths and 29 per cent of all deaths from accidents. In 1925 this class of deaths constituted 1.6 per cent of all deaths and 23.9 per cent of all deaths from accidents.

As has been frequently pointed out, uncorrected figures showing deaths from automobile accidents, especially in cities, may be very misleading, because many who are fatally injured outside the city

are brought to city hospitals, and since deaths are tabulated according to the place of occurrence there is usually a higher city death rate than would otherwise be shown. The third and fourth columns in the accompanying table show how many such deaths are known to have occurred in 1928 and in 1927. The importance of this factor is well illustrated by the figures for Camden, Trenton, New Haven, Albany, and Reading for 1928, and for Camden, Hartford, New Haven, Albany, and Wilmington for 1927, which show that at least half of the deaths were due to accidents which occurred outside of the city.

Deaths and death rates in the registration area in continental United States, registration States, and 68 cities, from accidents caused by automobiles, motor trucks, and commercial motor vehicles: 1924 to 1928

[For each year total deaths are shown regardless of place of accident. For 1927 and 1928 deaths are also shown where accidents are known to have occurred outside of State or city limits]

Area	Number of deaths ¹				Rate per 100,000 estimated population				
	Total		From accidents outside		1928	1927	1926	1925	1924
	1928	1927	1928	1927					
Registration area.....	23,765	21,160	-----	-----	20.8	19.5	17.9	17.0	15.7
Registration States ²	23,427	20,704	-----	-----	20.7	19.4	17.8	16.9	15.6
Alabama.....	375	361	10	-----	14.6	14.2	12.6	10.1	(9)
Arizona.....	123	140	-----	2	25.9	30.5	26.1	(9)	(9)
Arkansas.....	211	170	4	3	10.9	8.8	(9)	(5)	(9)
California.....	1,755	1,628	2	1	38.5	36.7	33.9	31.7	32.0
Colorado.....	221	234	4	1	20.3	21.8	16.5	14.0	15.7
Connecticut.....	407	327	6	2	24.4	20.0	19.1	21.6	18.4
Delaware.....	75	62	-----	1	30.7	25.5	20.8	15.5	19.8
Florida.....	404	425	-----	2	28.6	31.2	39.1	35.5	19.7
Georgia.....	468	(9)	2	(9)	14.6	(9)	(9)	(9)	10.1
Idaho.....	90	76	1	1	16.5	14.2	14.8	11.0	11.2
Illinois.....	1,743	1,512	13	5	23.6	20.7	18.6	17.9	15.5
Indiana.....	784	665	8	4	24.7	21.1	17.5	16.4	15.8
Iowa.....	329	284	9	5	13.6	11.7	10.9	11.2	8.7
Kansas.....	304	253	6	2	16.6	13.8	13.2	13.2	9.4
Kentucky.....	342	290	7	6	13.4	11.8	11.0	9.4	8.0
Louisiana.....	348	295	1	-----	17.8	15.3	14.1	12.7	11.3
Maine.....	115	112	-----	-----	14.5	14.1	12.7	12.5	11.7
Maryland.....	343	330	3	5	21.2	20.7	19.7	17.4	16.2
Massachusetts.....	724	696	9	8	16.9	16.4	16.2	17.6	16.7
Michigan.....	1,247	1,266	2	-----	27.2	28.2	28.3	22.3	21.2
Minnesota.....	435	369	1	6	10.0	13.7	12.3	13.8	14.5
Mississippi.....	253	243	6	3	14.1	13.6	12.0	9.5	7.0
Missouri.....	625	517	11	6	17.7	14.7	14.1	14.6	13.0
Montana.....	118	73	-----	1	(9)	10.2	13.4	12.5	11.0
Nebraska.....	217	198	3	4	15.4	14.2	11.1	9.1	8.4
New Hampshire.....	76	71	9	4	16.7	15.6	15.0	19.2	13.6
New Jersey.....	1,015	973	3	5	26.6	26.0	21.5	21.4	21.7
New York.....	2,584	2,384	17	11	22.1	20.9	19.3	18.9	18.0
North Carolina.....	577	503	2	4	19.6	17.4	15.9	13.4	12.0
North Dakota.....	79	72	1	-----	12.3	11.2	10.9	9.2	7.0
Ohio.....	1,708	1,494	14	13	25.0	22.3	20.0	19.9	16.5
Oklahoma.....	330	(9)	1	(9)	13.6	(9)	(9)	(9)	(9)
Oregon.....	249	194	3	-----	27.6	21.8	21.3	16.7	17.3
Pennsylvania.....	1,882	1,890	20	15	19.1	19.1	18.0	16.6	16.7
Rhode Island.....	154	131	6	1	21.5	18.6	18.3	19.6	16.9
South Carolina.....	251	279	-----	1	13.5	15.1	16.5	9.9	9.5
Tennessee.....	382	345	23	23	15.3	13.9	12.6	11.4	9.6
Utah.....	123	79	3	-----	23.2	15.1	15.6	17.7	16.7
Vermont.....	69	60	1	-----	19.6	17.0	12.8	15.9	13.6

¹ Excluding collisions with railroad trains and street cars.

² Including District of Columbia.

³ Not added to the registration area until a later date.

⁴ In 1925 State registration law declared unconstitutional; State readmitted in 1928.

⁵ Estimate of population unsatisfactory.

Deaths and death rates in the registration area in continental United States, registration States, and 68 cities, from accidents caused by automobiles, motor trucks, and commercial motor vehicles: 1924 to 1928—Continued

Area	Number of deaths				Rate per 100,000 estimated population				
	Total		From accidents outside		1928	1927	1926	1925	1924
	1928	1927	1928	1927					
Virginia.....	412	376	6	6	16.0	14.8	12.0	10.9	9.9
Washington.....	424	365	1	1	26.7	23.4	22.2	19.8	18.2
West Virginia.....	283	298	8	6	16.4	17.6	13.8	12.7	(9)
Wisconsin.....	620	511	2	2	21.0	17.5	13.3	13.9	13.1
Wyoming.....	59	66	1	1	23.9	27.4	23.7	29.3	27.2
Total of the 68 cities of 100,000 population or more in 1920.....	7,671	7,246	5	5	24.0	23.0	21.7	21.1	19.8
Akron.....	83	75	21	27	(9)	(9)	(9)	(9)	(9)
Albany.....	39	36	22	18	32.4	30.1	34.5	29.7	23.9
Atlanta.....	71	65	7	15	27.8	26.1	(9)	(9)	(9)
Baltimore.....	185	171	57	30	22.3	20.9	22.0	19.8	16.4
Birmingham.....	63	51	29	23	28.3	23.4	27.1	24.8	27.4
Boston.....	138	140	11	20	17.3	17.7	18.9	19.8	18.4
Bridgeport.....	44	25	12	4	(9)	(9)	(9)	(9)	(9)
Buffalo.....	151	137	22	21	27.2	24.9	24.8	22.1	21.0
Cambridge.....	26	28	5	3	20.7	22.6	15.6	18.4	22.8
Camden.....	77	65	47	45	56.9	48.8	45.1	33.3	28.5
Chicago.....	884	787	38	24	28.0	25.4	22.7	21.5	19.0
Cincinnati.....	132	119	21	17	(9)	28.9	26.5	28.1	20.8
Cleveland.....	273	250	14	10	27.0	25.4	27.6	24.7	24.1
Columbus.....	100	72	31	13	33.4	24.7	24.5	25.4	22.0
Dallas.....	66	49	19	15	30.3	23.2	30.1	30.4	19.2
Dayton.....	64	44	18	21	34.7	24.3	29.4	25.4	15.4
Denver.....	55	61	16	14	18.7	21.0	16.8	13.2	14.5
Des Moines.....	25	30	3	3	16.5	20.1	20.6	16.3	12.1
Detroit.....	360	403	28	9	26.1	30.2	30.9	27.8	25.5
Fall River.....	24	11	10	3	17.9	8.3	14.5	13.2	12.5
Fort Worth.....	44	31	13	4	25.8	18.9	18.8	20.6	18.2
Grand Rapids.....	33	35	11	10	20.1	21.6	20.5	29.2	20.9
Hartford.....	51	49	25	25	29.6	29.1	28.0	33.1	21.1
Houston.....	71	57	29	17	(9)	(9)	(9)	(9)	19.4
Indianapolis.....	120	84	28	18	31.4	22.4	22.6	21.7	20.2
Jersey City.....	48	65	3	1	14.8	20.2	12.9	20.3	17.9
Kansas City, Kans.....	18	20	5	7	15.2	17.0	6.8	23.3	15.6
Kansas City, Mo.....	96	80	25	8	24.6	20.9	21.8	23.7	24.2
Los Angeles.....	337	353	38	24	(9)	(9)	(9)	(9)	(9)
Louisville.....	80	81	21	15	24.3	25.3	20.6	21.2	19.8
Lowell.....	17	16	4	4	15.4	14.5	19.9	23.6	20.8
Memphis.....	80	68	37	29	42.1	38.0	32.3	29.7	23.2
Milwaukee.....	127	121	17	20	23.3	22.6	19.5	20.0	16.8
Minneapolis.....	89	64	7	12	19.5	14.3	15.9	17.9	20.6
Nashville.....	43	46	20	13	30.8	33.4	28.5	27.9	27.5
Newark, N. J.....	117	122	5	9	24.7	26.1	23.7	24.3	23.3
New Bedford.....	20	16	9	3	16.7	13.4	9.2	15.1	10.9
New Haven.....	49	48	26	25	26.1	26.0	23.1	22.3	27.3
New Orleans.....	114	96	20	29	26.5	22.6	20.3	18.8	20.5
New York.....	1,120	1,099	10	8	13.6	18.4	18.3	18.0	17.2
Bronx Borough.....	172	156	1	1	18.1	16.8	13.2	13.4	14.4
Brooklyn Borough.....	369	349	2	2	16.0	15.3	15.1	15.5	15.1
Manhattan Borough.....	418	461	4	3	23.9	25.4	26.3	24.9	21.9
Queens Borough.....	128	108	2	1	15.0	13.3	13.4	14.3	13.4
Richmond Borough.....	33	25	1	1	21.9	17.1	20.3	11.6	16.3
Norfolk.....	25	35	10	15	13.6	19.5	14.4	14.2	(9)
Oakland.....	72	53	9	4	26.3	19.8	19.6	17.3	19.8
Omaha.....	45	49	10	9	20.2	22.4	15.3	16.5	13.9
Paterson.....	57	52	16	16	39.3	36.2	23.8	28.9	34.8
Philadelphia.....	318	324	19	11	15.4	15.9	16.4	15.0	13.5
Pittsburgh.....	160	215	40	39	23.7	32.3	25.6	26.3	29.7
Portland, Oreg.....	64	62	16	14	(9)	(9)	(9)	(9)	14.7
Providence.....	77	64	31	17	26.9	22.8	22.2	29.5	22.0
Reading.....	30	30	15	14	26.0	26.2	16.7	16.8	21.5
Richmond.....	52	46	18	16	26.7	24.0	19.6	22.0	18.0
Rochester.....	68	62	12	13	20.7	19.1	20.3	17.0	15.3
St. Louis.....	205	159	17	15	24.2	18.9	20.7	24.5	24.2

¹ Not added to the registration area until a later date.

² Estimate of population unsatisfactory.

³ Rates from 1925 to 1928 computed on population by State census, 1925. Decrease between 1920 and 1925; no estimate made.

Deaths and death rates in the registration area in continental United States, registration States, and 68 cities, from accidents caused by automobiles, motor trucks, and commercial motor vehicles: 1924 to 1928—Continued

Area	Number of deaths				Rate per 100,000 estimated population				
	Total		From accidents outside		1928	1927	1926	1925	1924
	1928	1927	1928	1927					
St. Paul.....	58	57	11	11	(⁹)	22.8	18.5	17.1	22.5
Salt Lake City.....	45	30	12	6	32.6	22.1	24.7	32.1	26.4
San Antonio.....	64	48	18	15	29.3	22.7	19.5	19.7	11.5
San Francisco.....	138	166	9	13	23.6	28.8	22.6	18.8	20.6
Scranton.....	33	34	12	8	22.8	23.6	22.4	23.2	17.0
Seattle.....	90	79	21	9	23.5	21.0	(⁹)	(⁹)	(⁹)
Spokane.....	26	21	9	4	23.8	19.3	24.8	19.3	21.0
Springfield, Mass.....	26	24	9	10	17.4	16.3	26.2	14.8	19.2
Syracuse.....	59	43	21	17	29.6	21.8	23.7	15.9	22.7
Toledo.....	85	108	30	25	27.1	35.4	25.1	23.3	16.4
Trenton.....	50	40	29	13	36.0	28.3	24.6	29.5	26.2
Washington, D. C.....	124	108	45	29	22.5	20.0	18.6	17.1	22.2
Wilmington, Del.....	49	40	21	22	38.1	31.6	23.3	17.2	24.2
Worcester.....	35	46	13	14	17.7	23.5	16.5	21.0	15.3
Yonkers.....	19	25	2	1	15.7	21.0	16.3	13.2	14.4
Youngstown.....	63	56	15	15	36.2	33.1	25.5	26.9	25.1

⁹ Estimate of population unsatisfactory.

DEATHS DURING WEEK ENDED DECEMBER 14, 1929

Summary of information received by telegraph from industrial insurance companies for the week ended December 14, 1929, and corresponding week of 1928. (From the Weekly Health Index, December 18, 1929, issued by the Bureau of the Census, Department of Commerce)

	Week ended Dec. 14, 1929	Corresponding week, 1928
Policies in force.....	75, 198, 818	72, 568, 998
Number of death claims.....	14, 796	14, 112
Death claims per 1,000 policies in force, annual rate.....	10.3	10.2

Deaths from all causes in certain large cities of the United States during the week ended December 14, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, December 18, 1929, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Dec. 14, 1929		Annual death rate per 1,000, corresponding week, 1923	Deaths under 1 year		Infant mortality rate, week ended Dec. 14, 1929 ¹
	Total deaths	Death rate ¹		Week ended Dec. 14, 1929	Corresponding week, 1928	
Total (64 cities).....	7,637	13.6	14.8	666	753	60
Akron.....	42			4	3	41
Albany ⁴	44	19.1	15.6	6	2	119
Atlanta.....	78	16.0	18.4	10	7	104
White.....	36			3	3	
Colored.....	42	(⁵)	(⁵)	7	4	
Baltimore ⁴	256	16.1	16.0	16	26	51
White.....	190			9	18	36
Colored.....	66	(⁵)	(⁵)	7	8	111
Birmingham.....	67	15.8	16.9	7	12	63
White.....	36			1	7	15
Colored.....	31	(⁵)	(⁵)	6	5	137
Boston.....	213	13.9	13.8	17	23	47
Bridgeport.....	23			4	5	69
Buffalo.....	178	16.7	16.1	16	16	69
Cambridge.....	30	12.5	11.2	4	3	72
Camden.....	47	18.1	19.3	8	7	138
Canton.....	17	7.6	9.8	1	4	24
Chicago ⁴	746	12.4	15.6	64	96	57
Cincinnati.....	143			12	12	70
Cleveland.....	236	12.2	10.5	22	19	65
Columbus.....	85	14.9	13.6	7	4	66
Dallas.....	72	17.3	12.0	4	4	
White.....	53			3	2	
Colored.....	19	(⁵)	(⁵)	1	2	
Dayton.....	49	13.9	13.0	5	4	79
Denver.....	88	15.6	33.8	8	14	77
Des Moines.....	19	6.5	17.6	1	4	18
Detroit.....	317	12.0	11.7	57	49	92
Duluth.....	24	10.7	14.8	1	4	24
El Paso.....	37	16.4	20.0	7	1	
Erie.....	29			7	8	143
Fall River ⁴	33	12.8	11.7	0	0	0
Flint.....	20	7.0	7.7	3	6	36
Fort Worth.....	29	8.9	11.0	4	4	
White.....	26			3	4	
Colored.....	3	(⁵)	(⁵)	1	0	
Grand Rapids.....	20	6.4	22.0	3	9	45
Houston.....	64			4	13	
White.....	39			3	10	
Colored.....	25	(⁵)	(⁵)	1	3	
Indianapolis.....	110	15.1	20.3	9	13	72
White.....	87			9	13	83
Colored.....	23	(⁵)	(⁵)	0	0	0
Jersey City.....	78	12.6	10.9	6	8	46
Kansas City, Kans.....	27	11.9	30.5	1	12	22
White.....	21			1	10	25
Colored.....	6	(⁵)	(⁵)	0	2	0
Knoxville.....	22	10.9	12.4	3	4	66
White.....	20			2	4	49
Colored.....	2	(⁵)	(⁵)	1	0	211
Los Angeles.....	323			28	29	82
Louisville.....	105	16.7	15.2	5	8	41
White.....	74			5	6	47
Colored.....	31	(⁵)	(⁵)	0	2	0
Lowell.....	30			2	3	45
Lynn.....	36	17.8	10.4	5	1	137
Memphis.....	59	16.2	19.8	4	5	47
White.....	27			3	4	57
Colored.....	32	(⁵)	(⁵)	1	1	31
Milwaukee.....	129	12.4	12.2	18	18	79
Minneapolis.....	93	10.7	11.9	3	4	19
Nashville.....	62	23.2	19.9	3	9	48
White.....	32			3	3	65
Colored.....	30	(⁵)	(⁵)	0	6	0
New Bedford.....	25			3	3	64
New Haven.....	51	14.2	12.8	3	3	46

(Footnotes at end of table.)

Deaths from all causes in certain large cities of the United States during the week ended December 14, 1929, infant mortality, annual death rate, and comparison with corresponding week of 1928. (From the Weekly Health Index, December 18, 1929, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended Dec. 14, 1929		Annual death rate per 1,000, corresponding week, 1928	Deaths under 1 year		Infant mortality rate, week ended Dec. 14, 1929 ¹
	Total deaths	Death rate ¹		Week ended Dec. 14, 1929	Corresponding week, 1928	
New Orleans.....	177	21.6	20.6	15	9	74
White.....	108			9	4	63
Colored.....	69	(²)	(²)	6	5	101
New York.....	1,561	13.6	13.1	114	142	47
Bronx Borough.....	194	10.7	11.0	18	20	53
Brooklyn Borough.....	518	11.7	11.8	43	57	44
Manhattan Borough.....	634	18.9	17.9	38	50	46
Queens Borough.....	178	10.9	9.9	13	12	53
Richmond Borough.....	37	12.8	14.9	2	3	36
Newark, N. J.....	120	13.2	12.0	8	13	42
Oakland.....	61	11.6	13.2	6	4	67
Oklahoma City.....	49			6	0	120
Omaha.....	52	12.2	24.4	2	6	23
Paterson.....	47	17.0	9.4	4	1	71
Philadelphia.....	513	13.0	14.7	46	39	65
Pittsburgh.....	198	15.4	18.4	30	23	103
Portland, Oreg.....	70			4	5	46
Providence.....	86	15.7	13.7	7	9	62
Richmond.....	51	13.7	13.7	6	3	84
White.....	30			3	3	64
Colored.....	21	(²)	(²)	3	0	123
Rochester.....	81	12.9	15.5	6	7	51
St. Louis.....	247	15.2	17.4	10	15	34
St. Paul.....	58			4	3	41
Salt Lake City ⁴	33	12.5	21.2	2	5	31
San Antonio.....	85	20.4	16.5	9	11	
San Diego.....	55			3	3	57
San Francisco.....	158	14.1	16.4	5	7	32
Schenectady.....	25	14.0	11.8	1	4	32
Seattle.....	72	9.8	16.2	7	2	74
Somerville.....	21	10.7	9.2	0	3	0
Spokane.....	36	17.3	32.6	2	1	52
Springfield, Mass.....	38	13.3	14.0	3	0	50
Syracuse.....	45	11.8	14.2	6	5	72
Tacoma.....	24	11.4	15.6	2	1	51
Toledo.....	85	14.2	16.2	5	5	47
Trenton.....	44	16.6	16.2	6	7	109
Utica.....	20	10.0	21.6	3	2	76
Washington, D. C.....	157	14.9	14.3	17	10	100
White.....	97			12	7	102
Colored.....	60	(²)	(²)	5	3	95
Waterbury.....	18			4	2	102
Wilmington, Del.....	24	9.8	15.5	3	3	78
Worcester.....	32	8.5	11.4	3	7	38
Yonkers.....	26	11.2	10.8	1	2	23
Youngstown.....	41	12.3	12.6	6	4	86

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 72 cities.

⁴ Deaths for week ended Friday.

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; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; 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 Weeks Ended December 14, 1929, and December 15, 1928

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended December 14, 1929, and December 15, 1928

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928
New England States:								
Maine.....	10	4	8	56	7	278	0	0
New Hampshire.....	3	3			28	18	0	0
Vermont.....	2			1	30		0	0
Massachusetts.....	122	123	11	21	203	645	4	2
Rhode Island.....	12	12		1		32	0	0
Connecticut.....	27	36	4	14	5	174	9	5
Middle Atlantic States:								
New York.....	185	78	124	168	215	782	15	24
New Jersey.....	129	139	21	54	65	97	6	6
Pennsylvania.....	165	275			469	1,210	10	7
East North Central States:								
Ohio.....	92	137	44	718	549	353	7	6
Indiana.....	36	35		2,280	31	138	9	0
Illinois.....	225	253	24	2,196	370	277	15	11
Michigan.....	122	124		244	80	40	12	9
Wisconsin.....	17	30	23	583	574	160	0	5
West North Central States:								
Minnesota.....	32	22		1,238	248	68	5	3
Iowa.....	13	13			171		0	1
Missouri.....	74	75	14	11,683	84	88	11	24
North Dakota.....	2	11		7,355	4	15	5	9
South Dakota.....				167	4	35	0	0
Nebraska.....	25	13		2,590	149	6	3	1
Kansas.....	35	23	6	68,843	105	12	0	2
South Atlantic States:								
Delaware.....	5			4	1	10	0	0
Maryland.....	28	31	43	72	26	23	1	0
District of Columbia.....	14	20		29	2	1	2	0
Virginia.....								
West Virginia.....	34	29	22	461	20	56	3	0
North Carolina.....	119	121	28		7	28	4	0
South Carolina.....	49	45	945	8,912		3	0	0
Georgia.....	25	17	122	4,462	40	88	0	1
Florida.....	20	15	12	93	8	5	0	0

¹ New York City only.

² Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended December 14, 1929, and December 15, 1928—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928
East South Central States:								
Kentucky.....	18	55	—	3,946	84	—	1	—
Tennessee.....	22	33	73	2,559	9	1	1	1
Alabama.....	45	49	138	622	9	28	2	0
Mississippi.....	37	24	—	2,038	—	—	1	1
West South Central States:								
Arkansas.....	8	28	88	412	2	16	19	0
Louisiana.....	53	47	45	136	6	40	3	1
Oklahoma ¹	53	75	96	1,014	17	6	3	2
Texas.....	238	105	101	37	21	14	1	1
Mountain States:								
Montana.....	4	1	—	6,060	22	72	4	10
Idaho.....	—	1	—	79	31	7	0	4
Wyoming.....	6	—	—	450	2	—	0	0
Colorado.....	17	1	—	1,146	9	2	2	8
New Mexico.....	40	11	—	1,757	1	1	1	1
Arizona.....	9	10	10	2,615	1	28	2	0
Utah ¹	1	—	—	224	67	2	3	8
Pacific States:								
Washington.....	15	12	5	407	22	37	6	2
Oregon.....	8	11	26	1,851	21	88	1	2
California.....	68	76	84	6,655	315	14	18	19

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928
New England States:								
Maine.....	0	0	49	53	0	12	1	3
New Hampshire.....	0	0	12	35	0	0	0	1
Vermont.....	0	0	11	12	1	1	0	0
Massachusetts.....	4	1	299	251	0	0	8	5
Rhode Island.....	0	0	14	16	0	0	1	0
Connecticut.....	0	2	83	55	0	0	1	0
Middle Atlantic States:								
New York.....	6	8	357	447	9	1	14	18
New Jersey.....	1	1	180	110	0	0	6	3
Pennsylvania.....	1	1	354	520	11	0	13	24
East North Central States:								
Ohio.....	2	1	383	250	114	53	6	4
Indiana.....	0	0	148	107	216	35	3	6
Illinois.....	0	1	617	346	153	84	5	11
Michigan.....	0	1	16	293	99	13	4	4
Wisconsin.....	0	1	130	146	41	16	5	1
West North Central States:								
Minnesota.....	0	2	115	143	15	5	5	3
Iowa.....	2	1	65	91	140	70	6	1
Missouri.....	0	1	104	102	22	35	5	6
North Dakota.....	0	1	45	42	33	10	0	2
South Dakota.....	0	0	17	12	10	6	0	1
Nebraska.....	0	1	76	45	73	44	0	2
Kansas.....	0	0	124	100	52	11	2	2
South Atlantic States:								
Delaware.....	0	0	7	11	0	0	1	0
Maryland ¹	1	0	79	61	0	0	9	4
District of Columbia.....	0	0	17	14	0	0	1	1
Virginia.....	—	2	—	—	—	—	—	—
West Virginia.....	1	0	78	61	19	35	7	1
North Carolina.....	0	1	103	78	11	3	5	1
South Carolina.....	2	3	24	22	1	0	11	13
Georgia.....	2	0	27	34	0	0	3	9
Florida.....	0	1	10	21	4	0	5	3

¹ Week ended Friday.¹ Figures for 1929 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended December 14, 1929, and December 15, 1928—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928	Week ended Dec. 14, 1929	Week ended Dec. 15, 1928
East South Central States:								
Kentucky.....	0	0	52	84	17	4	3	23
Tennessee.....	1	0	30	31	8	3	11	4
Alabama.....	0	0	34	45	5	0	7	4
Mississippi.....	0	0	23	20	0	0	11	3
West South Central States:								
Arkansas.....	0	0	23	42	2	2	10	12
Louisiana.....	0	0	19	28	1	9	6	8
Oklahoma ¹	0	3	66	53	51	45	12	32
Texas.....	0	0	114	66	25	15	12	4
Mountain States:								
Montana.....	0	0	30	14	26	18	6	3
Idaho.....	0	0	27	7	9	27	0	0
Wyoming.....	0	0	1	13	9	1	0	0
Colorado.....	0	0	32	9	13	3	15	0
New Mexico.....	0	0	9	14	3	0	6	1
Arizona.....	0	0	1	4	0	0	0	2
Utah ¹	0	0	14	6	1	3	1	0
Pacific States:								
Washington.....	3	4	37	24	78	55	2	1
Oregon.....	0	1	39	40	12	46	3	1
California.....	1	3	382	179	56	24	3	4

¹ Week ended Friday.² Figures for 1929 are exclusive of Oklahoma City and Tulsa.

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	Menin- gococcus menin- gitis	Diph- theria	Influ- enza	Ma- laria	Mea- sles	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>October, 1929</i>										
California.....	34	304	137	13	248	7	12	768	121	68
<i>November, 1929</i>										
District of Columbia.....		62	3		4		0	53	0	6
Maine.....	4	32	27		81		0	161	0	20
Nebraska.....	2	90	19		156		1	144	116	1
New Jersey.....	21	655	25	1	141		4	558	0	26
Tennessee.....	18	322	361	108	114	10	8	346	40	120

October, 1929

California:	Cases
Anthrax.....	1
Chicken pox.....	800
Dysentery (amebic).....	3
Dysentery (bacillary).....	5
Food poisoning.....	29
German measles.....	49
Granuloma, coccidioidal.....	4
Hookworm disease.....	1
Leprosy.....	2
Lethargic encephalitis.....	2
Mumps.....	1, 182
Ophthalmia neonatorum.....	2
Paratyphoid fever.....	2

California—Continued.

	Cases
Rabies in animals.....	70
Tetanus.....	2
Trachoma.....	20
Undulant fever.....	14
Whooping cough.....	491
<i>November, 1929</i>	
Chicken pox:	
District of Columbia.....	58
Maine.....	430
Nebraska.....	177
New Jersey.....	964
Tennessee.....	155

Conjunctivitis:	Cases	Septic sore throat:	Cases
Maine.....	3	Maine.....	3
Dysentery:		Nebraska.....	13
New Jersey.....	2	Tennessee.....	4
Tennessee.....	8	Tetanus:	
German measles:		Maine.....	2
Maine.....	6	Tennessee.....	1
New Jersey.....	38	Trachoma:	
Lead poisoning:		New Jersey.....	1
New Jersey.....	4	Tennessee.....	7
Lethargic encephalitis:		Typhus fever:	
Maine.....	1	Tennessee.....	1
Tennessee.....	2	Undulant fever:	
Mumps:		Tennessee.....	2
Maine.....	166	Vincent's angina:	
Nebraska.....	249	Maine.....	5
Tennessee.....	7	Tennessee.....	65
Ophthalmia neonatorum:		Whooping cough:	
New Jersey.....	7	District of Columbia.....	19
Tennessee.....	8	Maine.....	129
Paratyphoid fever:		Nebraska.....	67
Maine.....	2	New Jersey.....	492
New Jersey.....	2	Tennessee.....	135
Tennessee.....	2		
Rabies in man:			
Nebraska.....	1		
Tennessee.....	1		

PATIENTS IN INSTITUTIONS FOR THE CARE OF EPILEPTICS, APRIL TO JUNE, 1929

Reports for the second quarter of the year 1929 have been received from 10 institutions for the care and treatment of epileptics located in 10 States. The total number of patients in these institutions on June 30, 1929, including those on parole or otherwise absent but still on the books, was 6,972.

The first admissions were as follows:

	Male	Female	Total
April.....	62	36	98
May.....	40	35	75
June.....	57	39	96
Total.....	159	110	269

Of the new admissions during the three months 59.1 per cent were males and 40.9 per cent were females, giving a ratio of 145 males per 100 females.

On June 30, 1929, there were 3,699 male patients on the books of the institutions and 3,273 females, giving a ratio of 113 males per 100 females.

During the three months 108 patients were discharged—78 males and 30 females. Fifty-four males and thirty-nine females died.

The annual death rates based on the estimated population of the institutions the middle of May were: Males, 59 per 1,000; females, 48.1 per 1,000; persons, 53.9 per 1,000.

The following table shows for the 10 institutions the number of patients in the hospitals and on parole, and the percentage of the total on parole at the end of each month of the second quarter of the year.

	Apr. 30, 1929	May 31, 1929	June 30, 1929
Patients in hospitals:			
Male.....	3,408	3,402	3,367
Female.....	3,100	3,089	3,062
Total.....	6,508	6,491	6,429
Patients on parole:			
Male.....	267	269	332
Female.....	146	172	211
Total.....	413	441	543
Total patients:			
Male.....	3,675	3,671	3,699
Female.....	3,246	3,261	3,273
Total.....	6,921	6,932	6,972
Per cent of total patients on parole:			
Male.....	7.3	7.3	9.0
Female.....	4.5	5.3	6.4
Total.....	6.0	6.4	7.8

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 93 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregated population of more than 30,630,000. The estimated population of the 88 cities reporting deaths is more than 29,560,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended December 7, 1929, and December 8, 1928

	1929	1928	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	2,359	2,304	-----
93 cities.....	871	964	1,078
Measles:			
43 States.....	2,969	3,773	-----
93 cities.....	580	864	-----
Meningococcus meningitis:			
46 States.....	149	132	-----
93 cities.....	57	78	-----
Poliomyelitis:			
46 States.....	38	47	-----
Scarlet fever:			
46 States.....	4,260	3,898	-----
93 cities.....	1,485	1,148	1,127
Smallpox:			
46 States.....	1,044	687	-----
93 cities.....	99	22	26
Typhoid fever:			
46 States.....	244	265	-----
93 cities.....	29	49	56
<i>Deaths reported</i>			
Influenza and pneumonia:			
88 cities.....	868	1,149	-----
Smallpox:			
88 cities.....	0	0	-----

City reports for week ended December 7, 1929

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that 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 weeks 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 the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1920 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation 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, 1928, 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.....	78,600	37	2	0	-----	0	1	3	2
New Hampshire:									
Concord.....	(1)	0	1	0	-----	0	16	0	0
Manchester.....	85,700	0	3	0	-----	0	0	0	2
Vermont:									
Barre.....	(1)	0	0	0	-----	0	0	0	0
Massachusetts:									
Boston.....	799,200	76	43	24	3	2	11	48	18
Fall River.....	134,300	2	5	3	1	1	0	0	2
Springfield.....	149,800	56	5	7	-----	0	0	8	2
Worcester.....	197,600	40	5	2	-----	0	5	4	0
Rhode Island:									
Pawtucket.....	73,100	9	2	1	-----	0	0	0	0
Providence.....	286,300	1	11	8	-----	0	2	0	2
Connecticut:									
Bridgeport.....	(1)	6	8	2	1	2	1	1	0
Hartford.....	172,300	14	8	3	1	0	0	1	.3
New Haven.....	187,900	24	2	0	-----	0	0	17	4
MIDDLE ATLANTIC									
New York:									
Buffalo.....	555,800	49	21	19	-----	0	1	9	17
New York.....	6,017,500	203	107	118	34	18	25	57	169
Rochester.....	328,200	11	7	3	-----	0	1	4	5
Syracuse.....	199,300	38	6	0	-----	0	0	29	5
New Jersey:									
Camden.....	135,400	4	7	6	-----	0	1	1	4
Newark.....	473,600	53	20	41	3	0	29	7	15
Trenton.....	139,000	3	6	0	-----	0	17	0	4
Pennsylvania:									
Philadelphia.....	2,064,200	148	79	29	10	8	15	30	46
Pittsburgh.....	673,800	87	25	11	-----	2	20	3	23
Reading.....	115,400	31	3	1	-----	0	2	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	413,700	24	17	6	-----	1	0	1	9
Cleveland.....	1,010,300	213	51	20	22	2	12	3	26
Columbus.....	299,000	17	12	3	-----	2	0	1	8
Toledo.....	313,200	147	12	2	-----	0	160	9	13
Indiana:									
Fort Wayne.....	105,300	4	6	3	-----	0	1	0	4
Indianapolis.....	382,100	60	12	3	-----	1	2	13	17
South Bend.....	86,100	3	2	0	-----	0	1	0	1
Terre Haute.....	73,500	8	2	2	-----	1	0	0	3
Illinois:									
Chicago.....	3,157,400	201	108	163	7	6	8	25	76
Springfield.....	67,200	5	2	0	-----	0	0	1	2

¹ No estimate of population made.

City reports for week ended December 7, 1929—Continued

Division, State, and city	Population, July 1, 1928, 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									
Michigan:									
Detroit.....	1, 378, 900	140	60	88	4	1	82	51	35
Flint.....	148, 800	39	5	2		0	2	0	1
Grand Rapids.....	164, 200	13	4	5		0	2	0	1
Wisconsin:									
Kenosha.....	56, 500	18	2	0		0	1	0	1
Madison.....	50, 500	1	1	0		0	15	4	0
Milwaukee.....	544, 200	177	24	3		0	2	36	9
Racine.....	74, 400	2	3	0		0	1	1	0
Superior.....	(1)	4	1	1		0	32	0	5
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	116, 800	19	1	0		1	19	0	0
Minneapolis.....	455, 900	245	29	11		5	60	36	9
St. Paul.....	(1)	41	17	0		2	3	13	8
Iowa:									
Davenport.....	(1)	3	1	1			0	0	
Des Moines.....	151, 900	0	4	0			13	0	
Sioux City.....	80, 000	14	2	0		0	0	3	
Waterloo.....	37, 100	22	0	1			16	0	
Missouri:									
Kansas City.....	391, 000	50	10	8		1	3	2	13
St. Joseph.....	78, 500	3	2	1		0	0	0	3
St. Louis.....	848, 100	15	48	21	2		3	2	
North Dakota:									
Fargo.....	(1)		0						
Grand Forks.....	(1)	8	0	0			0	0	
South Dakota:									
Aberdeen.....	(1)	19	0	0			0	4	
Sioux Falls.....	(1)	0	0	0			0	0	
Nebraska:									
Omaha.....	222, 800	13	9	17		0	5	0	3
Kansas:									
Topeka.....	62, 800	9	3	2	3	0	1	10	0
Wichita.....	99, 300	21	4	2		0	2	0	5
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	128, 500	4	3	1		0	0	1	1
Maryland:									
Baltimore.....	830, 400	78	34	16	4	2	2	1	28
Cumberland.....	(1)	0	1	1	1	0	0	0	0
Frederick.....	(1)	0	1	0		0	0	0	1
District of Columbia:									
Washington.....	552, 000	22	21	10	1	1	0	0	10
Virginia:									
Lynchburg.....	38, 600	14	4	1		0	0	7	2
Norfolk.....	184, 200	0	3	1		0	1	4	5
Richmond.....	194, 400	0	15	9		3	0	1	5
Roanoke.....	64, 600	0	4	5		0	0	0	0
West Virginia:									
Charleston.....	55, 200	9	2	1		1	0	0	2
Wheeling.....	(1)	8	3	0		0	0	1	1
North Carolina:									
Raleigh.....	(1)	0	2	2		0	0	0	1
Wilmington.....	39, 100	1	2	1		0	0	0	1
Winston-Salem.....	80, 000	8	3	4		0	0	6	2
South Carolina:									
Charleston.....	75, 900	0	0	1	52	0	0	1	4
Columbia.....	50, 600	1	1	0		2	0	0	2
Georgia:									
Atlanta.....	255, 100		6						
Brunswick.....	(1)	0	0	0		0	0	0	0
Savannah.....	99, 900	4	2	3	5	3	0	0	4
Florida:									
Miami.....	156, 700	0	2	2		0	3	2	2
St. Petersburg.....	53, 300								
Tampa.....	113, 400	0	3	2		0	0	0	0

¹ No estimate of population made.

City reports for week ended December 7, 1929—Continued

Division, State, and city	Population, July 1, 1928, estimated	Chick- en pox, cases re- ported	Diphtheria		Influenza		Meas- les, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths re- ported
			Cases, esti- mated expect- ancy	Cases re- ported	Cases re- ported	Deaths re- ported			
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	59,000	1	1	5		1	0	0	4
Tennessee:									
Memphis.....	190,200	4	8	8		1	0	0	9
Nashville.....	139,600	1	3	1		2	2	0	11
Alabama:									
Birmingham.....	222,400	7	6	12	18	4	0	1	4
Mobile.....	69,600	1	2	4	3	0	0	0	4
Montgomery.....	63,100	1	2	3			0	0	
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith.....	(1)	4	1	1			0	1	
Little Rock.....	79,200	0	2	2		0	0	7	7
Louisiana:									
New Orleans.....	429,400	0	13	22	6	7	8	0	21
Shreveport.....	81,300	7	1	6		0	0	0	5
Oklahoma:									
Tulsa.....	170,500	16	5	10			3	1	
Texas:									
Dallas.....	217,800	17	16	28	1	0	3	1	4
Fort Worth.....	170,600	19	7	9		0	0	1	5
Galveston.....	50,600	0	1	1		0	0	0	2
Houston.....	(1)	1	9	21		0	1	0	11
San Antonio.....	218,100	1	5	14		5	0	0	11
MOUNTAIN									
Montana:									
Billings.....	(1)	0	0	0		0	0	34	0
Great Falls.....	(1)	5	0	0		0	1	41	0
Helena.....	(1)	0	0	0		0	0	1	0
Missoula.....	(1)	1	0	0		0	0	2	1
Idaho:									
Boise.....	(1)	3	0	0		0	1	0	1
Colorado:									
Denver.....	294,200	80	14	12		1	3	8	12
Pueblo.....	44,200	10	2	0		0	0	0	0
New Mexico:									
Albuquerque.....	(1)	1	1	0		0	1	0	0
Utah:									
Salt Lake City.....	138,000		5						
Nevada:									
Reno.....	(1)	0	0	0		0	0	0	0
PACIFIC									
Washington:									
Seattle.....	383,200		6						
Spokane.....	109,100		3						
Tacoma.....	110,500	33	3	3		0	1	1	5
Oregon:									
Portland.....	(1)	27	12	4		1	0	7	9
Salem.....	(1)	6	0	0		0	0	2	0
California:									
Los Angeles.....	(1)	32	47	22	36	1	3	16	24
Sacramento.....	75,700	4	3	2	2	2	1	20	4
San Francisco.....	585,300	58	20	7	8	1	149	20	11

1 No estimate of population made.

City reports for week ended December 7, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland.....	2	5	0	0	0	0	0	0	0	0	30
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	7
Manchester.....	2	2	0	0	0	1	0	0	0	0	20
Vermont:											
Barre.....	1	0	0	0	0	0	0	0	0	0	1
Massachusetts:											
Boston.....	52	73	0	0	0	4	1	0	0	59	213
Fall River.....	3	3	0	0	0	1	0	1	0	5	14
Springfield.....	7	4	0	0	0	1	0	0	0	13	30
Worcester.....	11	9	0	0	0	1	0	0	0	1	51
Rhode Island:											
Pawtucket.....	1	2	0	0	0	0	0	0	0	0	20
Providence.....	8	14	0	0	0	2	0	0	0	9	68
Connecticut:											
Bridgeport.....	8	0	0	0	0	1	0	0	0	1	33
Hartford.....	6	9	0	0	0	0	0	0	0	8	55
New Haven.....	5	4	0	0	0	1	0	0	0	2	35
MIDDLE ATLANTIC											
New York:											
Buffalo.....	23	30	0	0	0	17	1	0	0	7	142
New York.....	164	108	0	0	0	93	15	7	3	24	1,479
Rochester.....	8	2	0	0	0	2	1	0	0	1	62
Syracuse.....	10	19	0	0	0	4	0	0	0	35	57
New Jersey:											
Camden.....	5	3	0	0	0	0	1	0	0	0	31
Newark.....	17	15	0	0	0	16	1	0	0	9	110
Trenton.....	3	20	0	0	0	1	0	0	0	2	43
Pennsylvania:											
Philadelphia.....	74	83	0	0	0	54	3	1	0	35	572
Pittsburgh.....	39	23	0	0	0	14	1	0	0	16	222
Reading.....	2	4	0	0	0	1	0	0	0	5	30
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	16	24	0	0	0	6	1	0	0	8	143
Cleveland.....	35	62	1	1	0	12	1	0	0	36	204
Columbus.....	12	16	0	2	0	5	0	0	0	3	91
Toledo.....	13	10	0	1	0	5	1	0	0	3	78
Indiana:											
Fort Wayne.....	3	2	0	16	0	0	0	1	0	1	32
Indianapolis.....	14	22	4	1	0	0	0	0	0	15	107
South Bend.....	3	3	0	0	0	0	0	0	0	0	20
Terre Haute.....	4	4	0	0	0	0	0	0	0	0	30
Illinois:											
Chicago.....	111	316	1	4	0	48	4	3	1	72	711
Springfield.....	2	0	0	0	0	0	0	0	0	6	17
Michigan:											
Detroit.....	88	118	1	0	0	23	2	1	0	31	316
Flint.....	12	17	1	17	0	0	0	0	0	14	22
Grand Rapids.....	10	4	0	0	0	1	0	0	0	10	29
Wisconsin:											
Kenosha.....	2	3	0	0	0	0	0	0	0	5	10
Madison.....	1	9	0	0	0	0	0	0	0	4	—
Milwaukee.....	22	37	1	0	0	4	0	0	0	28	120
Racine.....	6	8	0	0	0	1	0	1	0	3	16
Superior.....	2	5	0	0	0	0	0	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	9	3	0	0	0	0	0	1	0	6	17
Minneapolis.....	50	7	2	0	0	3	1	0	0	5	96
St. Paul.....	25	13	4	0	0	4	1	0	0	18	75

City reports for week ended December 7, 1929--Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expec- tancy	Cases, re- ported	Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expec- tancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Iowa:											
Davenport.....	1	0	0	8			0	1		0	
Des Moines.....	10	14	0	2			0	0		0	85
Sioux City.....	3	0	1	0			0	0		1	
Waterloo.....	3	2	0	22			0	0		5	
Missouri:											
Kansas City....	14	42	0	0	0	7	1	0	1	5	117
St. Joseph.....	3	1	1	0	0	1	0	0	0	0	20
St. Louis.....	34	29	1	9	0	12	2	0	0	2	215
North Dakota:											
Fargo.....	3		0				0				
Grand Forks....	0	0	0	2			0	0		0	
South Dakota:											
Aberdeen.....	1	0	0	0			0	0		1	
Sioux Falls.....	0	0	0	14			0	0		0	12
Nebraska:											
Omaha.....	6	0	2	1	0	2	0	0	0	0	43
Kansas:											
Topeka.....	2	8	0	0	0	1	0	0	0	0	17
Wichita.....	5	13	0	1	0	0	0	0	0	0	26
SOUTH ATLANTIC											
Delaware:											
Wilmington....	5	0	0	0	0	2	0	0	0	2	25
Maryland:											
Baltimore.....	24	29	0	0	0	18	3	2	0	25	216
Cumberland.....	1	0	0	0	0	1	0	0	1	0	17
Frederick.....	1	5	0	0	0	0	1	0	0	0	5
District of Colum- bia:											
Washington....	20	11	0	0	0	7	2	0	0	2	158
Virginia:											
Lynchburg.....	2	0	0	0	0	0	0	0	0	17	10
Norfolk.....	2	6	0	0	0	1	0	0	0	1	
Richmond.....	6	8	0	0	0	2	1	0	0	0	52
Roanoke.....	3	1	0	0	0	0	0	1	1	0	20
West Virginia:											
Charleston.....	2	6	0	0	0	2	0	0	1	8	49
Wheeling.....	2	2	0	0	0	0	1	0	0	5	24
North Carolina:											
Raleigh.....	1	0	0	0	0	1	0	0	0	0	23
Wilmington....	0	0	0	0	0	0	0	0	0	0	17
Winston-Salem..	3	2	0	0	0	1	0	0	0	2	15
South Carolina:											
Charleston.....	1	2	0	0	0	2	1	0	0	3	35
Columbia.....	0	0	1	0	0	0	0	0	0	2	20
Georgia:											
Atlanta.....	5		0				1				
Brunswick.....	0	1	0	0	0	0	0	0	0	0	6
Savannah.....	1	2	0	0	0	4	1	0	0	0	31
Florida:											
Miami.....	2	0	0	0	0	0	0	0	0	0	21
Tampa.....	0	1	1	0	0	2	0	0	0	2	34
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	4	0	0	0	1	0	0	0	0	31
Tennessee:											
Memphis.....	7	7	0	0	0	0	1	0	0	0	83
Nashville.....	3	1	0	0	0	2	1	1	0	0	54
Alabama:											
Birmingham...	4	9	1	0	0	5	1	6	0	0	68
Mobile.....	1	0	0	0	0	2	0	0	1	0	28
Montgomery....	0	0	0	0			0	0		0	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	4	0	0			0	0		0	
Little Rock....	2	2	0	0	0	3	1	0	0	0	
Louisiana:											
New Orleans...	8	8	0	0	0	11	1	0	0	0	179
Shreveport....	2	5	0	0	0	0	1	0	0	0	37

1 Nonresident.

City reports for week ended December 7, 1929—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culo- sis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases, re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST SOUTH CENTRAL—contd.											
Oklahoma:											
Tulsa.....	2	3	0	6			0	0		2	
Texas:											
Dallas.....	7	13	1	1	0	1	0	0	1	0	74
Fort Worth.....	2	6	0	0	0	1	0	0	0	0	41
Galveston.....	0	0	0	0	0	1	1	0	0	0	16
Houston.....	3	6	1	2	0	4	0	0	0	0	67
San Antonio.....	2	3	0	2	0	13	0	0	0	0	73
MOUNTAIN											
Montana:											
Billings.....	1	3	0	0	0	1	0	0	1	0	8
Great Falls.....	2	16	0	0	0	1	0	2	0	0	12
Helena.....	1	0	0	0	0	0	0	0	0	0	3
Missoula.....	1	3	1	8	0	0	0	0	0	0	5
Idaho:											
Boise.....	1	1	0	1	0	0	0	0	0	0	9
Colorado:											
Denver.....	12	9	0	0	0	7	0	0	0	17	74
Pueblo.....	2	1	0	0	0	1	0	1	0	0	7
New Mexico:											
Albuquerque.....	1	0	0	0	0	8	0	1	0	0	14
Utah:											
Salt Lake City.....	3		2				0				
Nevada:											
Reno.....	0	4	0	0	0	0	0	0	0	0	4
PACIFIC											
Washington:											
Seattle.....	7		2				0				
Spokane.....	10		3				0				
Tacoma.....	5	1	2	11	0	0	0	0	0	1	26
Oregon:											
Portland.....	8	4	7	4	0	6	1	1	0	0	76
Salem.....	0	0	0	0	0	0	0	0	0	3	
California:											
Los Angeles.....	28	53	2	0	0	12	2	0	0	10	176
Sacramento.....	1	24	1	0	0	4	0	0	0	2	36
San Francisco.....	16	49	0	0	0	8	1	0	0	0	171

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Maine:									
Portland	1	0	0	0	0	0	0	0	0
Massachusetts:									
Boston	2	2	0	0	0	0	1	3	1
Worcester	0	0	1	1	0	0	0	0	0
Rhode Island:									
Providence	1	2	1	1	0	0	0	1	0
Connecticut:									
Bridgeport	1	0	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo	1	0	0	0	0	0	0	0	0
New York	13	9	11	1	0	1	2	0	0
New Jersey:									
Newark	2	1	0	0	0	0	1	0	0
Pennsylvania:									
Philadelphia	2	1	1	1	0	0	0	0	0
Pittsburgh	1	2	0	1	0	0	0	0	0

City reports for week ended December 7, 1929—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Polioomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	1	0	0	0	0	0	0	1	0
Cleveland.....	0	0	0	0	0	0	0	1	0
Toledo.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	5	8	0	0	0	0	0	0	0
Michigan:									
Detroit.....	6	3	3	2	0	0	1	0	0
Flint.....	2	0	0	0	0	0	0	0	0
Wisconsin: ¹									
Milwaukee.....	1	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Missouri:									
Kansas City.....	2	2	0	0	0	0	0	0	0
St. Joseph.....	2	0	0	0	0	0	0	0	0
St. Louis.....	2	0	0	0	0	0	0	0	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	1	0	1	0	0	0	0	0	0
District of Columbia:									
Washington.....	1	1	0	0	0	0	0	0	0
Virginia:									
Richmond.....	0	1	0	0	0	0	0	0	0
South Carolina:									
Charleston ²	0	0	0	0	2	1	0	0	0
Columbia.....	0	0	0	0	0	1	0	0	0
Georgia: ¹									
Brunswick.....	0	0	0	0	0	1	0	0	0
Florida:									
Miami.....	1	0	0	0	0	0	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	0	1	0	0	0	0	0	0	0
Tennessee:									
Memphis.....	2	1	0	0	0	0	0	0	0
Nashville.....	0	0	0	0	0	0	0	1	0
Alabama: ¹									
Birmingham.....	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	1	0	0	0	1	0	0	0	0
Shreveport.....	1	0	0	0	0	1	0	0	0
Texas:									
Dallas.....	0	0	0	0	0	2	1	0	0
MOUNTAIN									
Montana:									
Great Falls.....	1	0	0	0	0	0	0	0	0
Colorado:									
Denver.....	1	1	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland.....	1	0	0	0	0	0	1	0	0
California:									
Los Angeles.....	2	2	0	0	0	0	0	1	0
Sacramento.....	1	0	0	0	0	0	0	0	0

¹ Typhus fever: 3 cases—1 case at Racine, Wis., 1 case at Savannah, Ga., and 1 case at Mobile, Ala.² Dengue; 1 case at Charleston, S. C.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended December 7, 1929, compared with those for a like period ended December 8, 1928. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have an estimated aggregate population of more than 31,000,000. The 91 cities reporting deaths have nearly 30,000,000 estimated population. 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, November 3 to December 7, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928*¹

DIPHTHERIA CASE RATES

	Week ended—									
	Nov. 9, 1929	Nov. 10, 1928	Nov. 16, 1929	Nov. 17, 1928	Nov. 23, 1929	Nov. 24, 1928	Nov. 30, 1929	Dec. 1, 1928	Dec. 7, 1929	Dec. 8, 1928
98 cities.....	157	155	160	161	¹ 186	165	140	152	¹ 148	166
New England.....	120	122	170	159	118	140	179	195	113	209
Middle Atlantic.....	104	109	112	135	123	137	123	131	110	159
East North Central.....	194	169	205	165	301	182	166	185	191	190
West North Central.....	200	211	165	198	169	186	113	164	⁴ 122	149
South Atlantic.....	126	260	122	222	135	230	144	128	¹ 118	143
East South Central.....	217	238	231	126	238	147	156	175	224	140
West South Central.....	498	276	443	243	462	272	269	223	376	259
Mountain.....	61	71	44	249	¹ 89	124	17	53	⁶ 136	35
Pacific.....	100	79	87	97	62	105	57	72	⁷ 111	100

MEASLES CASE RATES

98 cities.....	44	74	56	95	¹ 72	110	74	116	¹ 99	148
New England.....	20	402	45	382	57	582	70	605	81	736
Middle Atlantic.....	20	43	26	69	34	59	33	46	54	46
East North Central.....	68	57	91	86	94	105	101	132	93	187
West North Central.....	94	43	50	63	81	102	100	66	⁴ 218	194
South Atlantic.....	9	59	7	90	24	65	22	69	⁴ 4	55
East South Central.....	7	0	14	0	14	7	0	0	14	14
West South Central.....	4	8	20	12	28	4	40	16	47	41
Mountain.....	61	177	253	204	¹ 107	239	131	230	⁶ 57	186
Pacific.....	117	43	147	51	289	15	257	72	⁷ 505	43

SCARLET FEVER CASE RATES

98 cities.....	192	165	206	168	¹ 219	176	213	173	¹ 253	201
New England.....	278	175	267	193	251	212	260	186	278	237
Middle Atlantic.....	102	95	135	108	127	109	116	102	148	142
East North Central.....	294	233	310	245	347	227	360	237	409	250
West North Central.....	186	254	138	225	223	284	183	221	⁴ 229	264
South Atlantic.....	167	153	238	109	163	147	139	145	⁶ 145	176
East South Central.....	177	161	156	224	156	274	136	161	143	259
West South Central.....	158	178	158	199	162	146	123	186	162	219
Mountain.....	357	89	226	97	¹ 267	106	348	115	⁶ 421	80
Pacific.....	182	169	185	143	269	194	274	261	⁷ 416	197

SMALLPOX CASE RATES

98 cities.....	9	4	14	4	¹ 24	7	14	6	¹ 17	4
New England.....	2	0	25	0	0	0	0	5	0	2
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	15	7	22	4	33	21	13	12	26	10
West North Central.....	29	6	42	2	50	2	48	8	⁴ 64	2
South Atlantic.....	0	0	0	2	2	0	0	6	⁶ 0	0
East South Central.....	0	0	0	7	0	14	0	0	0	28
West South Central.....	8	4	4	0	40	8	12	12	20	4
Mountain.....	17	9	9	89	¹ 71	0	35	35	⁶ 102	0
Pacific.....	20	15	32	3	115	18	77	8	⁷ 36	8

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, 1929 and 1928, respectively.

² Reno, Nev., not included.

³ Fargo, N. Dak., Atlanta, Ga., Salt Lake City, Utah, and Seattle and Spokane, Wash., not included.

⁴ Fargo, N. Dak., not included.

⁵ Atlanta, Ga., not included.

⁶ Salt Lake City, Utah, not included.

⁷ Seattle and Spokane, Wash., not included.

Summary of weekly reports from cities, November 3 to December 7, 1929—Annual rates per 100,000 population, compared with rates for the corresponding period of 1928—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Nov. 9, 1929	Nov. 10, 1928	Nov. 16, 1929	Nov. 17, 1928	Nov. 23, 1929	Nov. 24, 1928	Nov. 30, 1929	Dec. 1, 1928	Dec. 7, 1929	Dec. 8, 1928
98 cities.....	9	10	8	10	13	10	5	6	5	8
New England.....	11	9	23	16	11	7	2	5	2	5
Middle Atlantic.....	8	7	3	10	10	9	2	7	4	7
East North Central.....	6	5	6	6	9	5	5	5	4	7
West North Central.....	12	4	4	14	12	16	6	8	2	4
South Atlantic.....	13	17	9	11	19	11	4	10	6	8
East South Central.....	20	42	14	14	34	35	34	0	48	14
West South Central.....	12	41	8	20	36	12	16	16	0	49
Mountain.....	17	27	44	18	36	9	26	9	34	0
Pacific.....	7	3	10	5	5	13	2	3	7	5

INFLUENZA DEATH RATES

91 cities.....	8	13	9	15	8	17	11	34	16	50
New England.....	5	5	9	9	5	9	5	9	11	9
Middle Atlantic.....	8	12	4	9	9	15	5	10	14	17
East North Central.....	8	9	9	10	6	3	10	14	9	18
West North Central.....	3	3	3	9	6	9	21	18	27	64
South Atlantic.....	4	8	11	13	4	13	17	31	25	84
East South Central.....	37	38	22	23	30	31	15	31	59	84
West South Central.....	12	87	32	33	16	33	57	54	49	54
Mountain.....	0	27	26	53	9	44	17	310	11	514
Pacific.....	16	40	10	64	7	94	13	239	13	293

PNEUMONIA DEATH RATES

91 cities.....	105	94	99	105	103	126	107	139	137	161
New England.....	120	80	88	57	88	106	93	85	75	80
Middle Atlantic.....	115	105	103	125	108	128	101	142	189	149
East North Central.....	78	77	71	82	96	106	83	120	126	135
West North Central.....	108	98	120	110	102	104	136	180	125	190
South Atlantic.....	137	75	107	132	94	165	129	145	132	170
East South Central.....	89	169	230	161	252	169	222	184	237	306
West South Central.....	130	92	126	71	134	129	162	141	248	179
Mountain.....	131	97	157	115	107	159	157	186	159	337
Pacific.....	75	125	89	98	59	169	108	239	144	293

² Reno, Nev., not included.

³ Fargo, N. Dak., Atlanta, Ga., Salt Lake City, Utah, and Seattle and Spokane, Wash., not included.

⁴ Fargo, N. Dak., not included.

⁵ Atlanta, Ga., not included.

⁶ Salt Lake City, Utah, not included.

⁷ Seattle and Spokane, Wash., not included.

⁸ Fargo, N. Dak., Atlanta, Ga., and Salt Lake City, Utah, not included.

Number of cities included in summary of weekly reports and aggregate population of cities of each group, approximated as of July 1, 1929, and 1928, respectively

Groups of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1929	1928	1929	1928
Total.....	98	91	31,568,400	31,052,700	29,995,100	29,498,600
New England.....	12	12	2,305,100	2,273,900	2,305,100	2,273,900
Middle Atlantic.....	10	10	10,809,700	10,702,200	10,809,700	10,702,200
East North Central.....	16	16	8,181,900	8,001,300	8,181,900	8,001,300
West North Central.....	12	9	2,712,100	2,673,300	1,786,900	1,768,100
South Atlantic.....	19	19	2,783,200	2,782,900	2,783,200	2,782,900
East South Central.....	6	5	767,900	745,500	704,200	682,400
West South Central.....	8	7	1,319,100	1,289,900	1,285,000	1,264,400
Mountain.....	9	9	598,800	590,200	598,800	590,200
Pacific.....	6	4	2,090,600	2,043,500	1,860,800	1,861,200

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended November 30, 1929.—The Department of Pensions and National Health reports cases of certain communicable diseases in Canada for the week ended November 30, 1929, as follows:

Province	Cerebro-spinal fever	Poliomy-elitis	Smallpox	Typhoid fever
Prince Edward Island ¹				
Nova Scotia ¹				
New Brunswick.....				4
Quebec.....		1		5
Ontario.....	2	1	5	23
Manitoba ¹				
Saskatchewan.....	1	5	9	
Alberta.....	3		4	
British Columbia.....	1		6	
Total.....	7	7	24	32

¹ No case of any disease included in the table was reported for the week.

Ontario Province—Communicable diseases (comparative)—Five weeks ended November 30, 1929.—The following table shows the cases and deaths of certain communicable diseases reported in the Province of Ontario for the five weeks ended November 30, 1929, as compared with the corresponding period of the year 1928:

Disease	1929		1928	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	8	4	5	
Chancroid.....			2	
Chicken pox.....	2,065		810	
Conjunctivitis.....	1			
Diphtheria.....	500	20	210	10
Dysentery.....				1
Erysipelas.....			1	
German measles.....	66		15	
Gonorrhea.....	217		96	
Influenza.....	8		1	12
Lethargic encephalitis.....	1	1	2	2
Measles.....	636	2	709	
Mumps.....	59		329	
Paratyphoid fever.....	2		1	
Pneumonia.....		141		92
Poliomyelitis.....	30	1	16	
Puerperal septicemia.....		2		
Scarlet fever.....	656	4	316	6
Septic sore throat.....	5		1	
Smallpox.....	55		16	
Syphilis.....	234		92	
Tetanus.....		1		
Tuberculosis.....	134	51	85	56
Typhoid fever.....	92	3	41	8
Whooping cough.....	421	3	335	1

Quebec Province—Communicable diseases—Week ended December 7, 1929.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended December 7, 1929, as follows:

Disease	Cases	Disease	Cases
Chicken pox.....	119	Ophthalmia neonatorum.....	5
Diphtheria.....	64	Scarlet fever.....	130
German measles.....	4	Smallpox.....	1
Influenza.....	4	Tuberculosis.....	50
Lethargic encephalitis.....	2	Typhoid fever.....	7
Measles.....	221	Whooping cough.....	121
Mumps.....	90		

MEXICO

Tampico—Communicable diseases—November, 1929.—During the month of November, 1929, certain communicable diseases were reported in Tampico, Mexico, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Diphtheria.....		2	Tuberculosis.....	44	29
Enteritis (various).....	10	48	Typhoid fever.....	2	7
Influenza.....	4	1	Whooping cough.....		4
Malaria.....	200	47			

NETHERLANDS

Smallpox (alastrim)—Week ended November 23, 1929.—During the week ended November 23, 1929, 9 cases of smallpox (alastrim) were reported at The Hague, and 1 case at Wageningen. In Rotterdam, during the same period, 1 death from the disease occurred.

TRINIDAD (BRITISH WEST INDIES)

Port of Spain—Vital statistics (comparative)—October, 1929.—The following statistics for the month of October for the years 1925 to 1929, are taken from a report issued by the Public Health Department of Port of Spain, Trinidad:

	1925	1926	1927	1928	1929
Number of births.....	164	161	187	168	162
Birth rate per 1,000 population.....	30.2	29.4	33.9	29.8	28.7
Number of deaths.....	115	139	119	121	123
Death rate per 1,000 population.....	21.2	25.4	21.6	21.6	21.8
Deaths under 1 year.....	26	26	24	16	25
Infant mortality rate per 1,000 births.....	158.5	161.5	128.3	98.2	153.4

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

From medical officers of the Public Health Service, American consuls, International office of Public Hygiene, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place	June 2-29, 1929	June 30-July 29, 1929	July 28-Aug. 24, 1929	Aug. 25-Sept. 21, 1929	Week ended—									
					October, 1929					November, 1929				
					Sept. 28, 1929	5	12	19	26	2	9	16	23	30
Ceylon: Colombo.....	C	1												
China:	D	1												
Amoy.....	C	4	7	1										
Canton.....	C	10	6	5	1								1	
D	5													
Manchuria—	C			1										
Kwantung—Dairen.....	C				1									
Newchwang.....	C				P									
Nanking.....	C		2	1,306	984	3	30	2		P	P			
Shanghai.....	C		3	98	69	2								
D														
Swatow.....	D	P	7	12	37	8	6	8	6	3	3			
D	4													
Tientsin.....	C				P									
Chosen. Chemulpo.....	C	29,449	32,081	41,090	P									
India:	C	19,010	19,343	24,005	5,251	3,872	3,476							
Bassein.....	D	2	6	6	16,667	2,144	2,080							
Bombay.....	D	2		1		1								
Calcutta.....	D	354	275	170	21	30	28	81	71	52	74		35	
Karachi.....	D	176	157	59	12	12	15	31	41	11	48		45	
Madras.....	D			10	11									
D										1	1			1
Moulmein.....	D		2	1										
Nagapatin.....	D	5	1	1										
Rangoon.....	D	8	1	1								1		
Tuticorin.....	D	34	6	1										
D	80	2				2	6	40	2	2	1		18	
Vizagapatam.....	D		1			1	5	5	1	1	1		4	

CHOLERA—Continued

[C indicates cases; D, deaths; P, present]

[illegible]

On vessel:	Place	April, 1929	May, 1929	June, 1929	July, 1929	August, 1929			September, 1929			October, 1929		
						1-10			1-10			1-10		
						1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31
S. S. Angby, at Saigon-Cholon.....	C	1												
S. S. Cap. St. Jacques, at Singapore, from Saigon-Cholon.....	D	1												
S. S. Shinsel, at Shanghai.....	C		P		3									
S. S. Tokushima, at Hong Kong.....	D	2												
S. S. Texas Maru, at Nagasaki, from Shanghai.....	C			1										
Indo-China (French) (see also table above):														
Annam.....	C		20	20	9									
Cambodia.....	C		84	215	186									
Cochin-China.....	C		88	123	313									
Laos.....	C				13									
Tonkin.....	C			4										

PLAGUE

Place	June 2-28, 1929	June 30-July 27, 1929	July 28-Aug. 24, 1929	Aug. 25-Sept. 21, 1929	Week ended—									
					Sept. 28, 1929	October, 1929				November, 1929				Dec. 7, 1929
						5	12	19	26	2	9	16	23	
Algeria:				2										
Algiers.....		3	3											
Philippeville.....		1												
Azores: St. Michael's Island.....														
Belgian Congo:														
Blukwa.....	3													
Buki.....	3	2	2											
Djugu.....	3	5	1	2										2

1 There were 98 cases of cholera with 16 deaths in Nagara Sridharmasj Province, Siam, from May 16 to July 7, 1929.

2 Reports incomplete.

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

PLAGUE—Continued

[C Indicates cases; D, deaths; P, present]

Place	June 2-29, 1929	June 30-July 27, 1929	July 28-Aug. 24, 1929	Aug. 25-Sept. 21, 1929	Week ended—										Dec. 7, 1929	
					October, 1929					November, 1929						
					Sept. 28, 1929	5	12	19	26	2	9	16	23	30		
Belgian Congo—Continued.																
Rakwa.....	C	2														
British East Africa (see also table below): Uganda.....	D	2														
Canary Islands: Tenerife.....	D	1,437	840	528	116	109	76	74								
Ceylon:	D	1,072	730	556	105	102	67	69								
Colombo.....	D	1														
Plague-infected rats.....	C	P		1			1	2							1	
Galle.....	D	6	1	7				1							1	
Kandy.....	D	3		8												
Matara.....	D	3		6												
China:	D	1		1												
Amoy.....	C	12		1												
Poochow.....	C	11														
Hong Kong.....	C		P	P			P									
Plague-infected rats.....	D		1	1												
Manchuria—Tungliao District.....	C		1	1												
Dutch East Indies: Java—			3	2												
Batavia and West Java.....	C	P	16													
Plague-infected rats.....	C	69	122	180	43	39	49		1							
Celebes—Makassar.....	D	47	68	178	43	36	49									
East Java and Madura.....	C															
Surabaya.....	D	3	3	7	1	3	2	64								1
Ecuador (see table below).	D	3	11	7		3	2	64								

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

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place	June 2-29, 1929	June 30-July 27, 1929	July 28-Aug. 24, 1929	Aug. 25-Sept. 21, 1929	Week ended—										Dec. 7, 1929	
					Sept. 28, 1929	October, 1929				November, 1929						
						5	12	19	26	2	9	16	23	30		
Madagascar (see also table below):																
Tamatave.....	C 2	5	1	2	2	2	1	1	1	2						
Morocco.....	D 2	39	4	13	2			1		2						
Nigeria: Lagos.....	C 5	17							p	1						
Plague-infected rats.....	C 2	1	9	17	7	5	14	11	14	15	13					
Peru (see table below).	D 1	1	8	17	7	5	13	10	13	11	12					
Senegal (see table below).	C 4	13	16	51	21	34	22	12	9							
Siam.....																
Bangkok.....	C 1	4	3	7			2	1	1							
Straits Settlements: Singapore.....	D 1	3	3	5			2	1	1							
Syria: Beirut.....	C 1	1	3	1												
Tunisia: Sfax district.....	C 1	1	3	1												
Tunis.....	C 1			1									1			
Plague-infected rats.....																
Turkey: Adalia.....	C P	P		10		12	1	5	5	3	10	26				
Constantinople.....				1		25			5	8	28					
Union of Socialist Soviet Republics:				4												
Caucasia.....	C 1	7	2													
Ural-Kirghiz.....	C 4		1				1									
Union of South Africa:	C 4															
Cape Province.....	C 3	3			4			13	2							
Orange Free State.....	D 2	2		1	4			9								

[C indicates cases; D, deaths; P, present]

[illegible]

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

YELLOW FEVER

[O indicates cases; D, deaths; P, present]

Place	June 2-30, 1929	June 30-July 27, 1929	July 28-Aug. 24, 1929	Aug. 25-Sept. 21, 1929	Week ended—									
					October, 1929				November, 1929					
					Sept. 28, 1929	5	12	19	26	2	9	16	23	30
Brazil:														
Bahia.....		1	1											
Niteroy.....				1										
Para.....		1	1											
Rio de Janeiro.....	1	1	1											
	7	1	0	2	0	0	0	0	0	0	0	0	0	0
Colombia:														
Simacota.....		4												
Socorro ¹		12												
Liberia: Monrovia.....	4	4		1										
	3	1												

¹ From June 19 to July 8, 1929, 41 cases of yellow fever with 23 deaths were reported in Socorro, Colombia.