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SPECIAL SESSION OF THE PERMANENT COMMITTEE OF THE INTERNATIONAL OFFICE OF PUBLIC HYGIENE, MAY, 1930

The permanent committee of the International Office of Public Hygiene held its special 1930 session from May 12 to 21, in Paris.

Those present were Messrs. Velghe (Belgium), president; Hamel (Germany); Van Campenhout (Belgian Congo); Shahin Pacha (Egypt); Hugh S. Cumming (United States of America); Barrère (France); L. Raynaud (Algeria); Boyé (French Equatorial Africa); Gaston Joseph (French West Africa); Lasnet (French Indo-China); L'Herminier (Madagascar); G. S. Buchanan (Great Britain); J. D. Graham (British India); McCallum (Australia); H. B. Jeffs (Canada); S. P. James (New Zealand); P. G. Stock (Union of South Africa); Boyd Barrett (Irish Free State); P. Copanaris (Greece); A. Lutrario (Italy); S. Kusama (Japan); Colombani (Morocco); de la Torre (Mexico); F. Roussel-Despieres (Monaco); K. W. Wefring (Norway); N. M. Josephus Jitta (Netherlands); W. de Vogel (Netherlands East Indies); Djavad Achtianny (Persia); Ricardo Jorge (Portugal); Ionesco Mihaesti (Rumania); C. Kling (Sweden); H. Carrière (Switzerland); L. Prochazka (Czechoslovakia); de Navailles (Tunis); Hussameddin (Turkey); Syssine (Union of Socialist Soviet Republics); and Messrs. Abt, director of the International Office of Public Hygiene, and Marignac, assistant director.

There were also present at the meetings of the committee, or at certain of them, Dr. L. Rajchman, medical director of the health section of the League of Nations; Doctor Garsaux, medical expert of the International Commission on Air Navigation, Mr. E. W. Travis, vice president, and captain of the ship *Pelle-Desforges*, member of the Committee on the International Signal Code.

I

The committee proceeded to the triennial appointment of nine members of the health committee of the League of Nations, in conformance with the statutes of the health organization of the League.

It examined the resolutions adopted at the fifteenth session of the health committee, held in Geneva from March 5 to 8, 1930, and it heard the statement of the primary results of the proceedings and consultations held last year for the collaboration of the League of Nations with the National Government of the Republic of China in health matters.

In execution of articles 8 and 10 of the opium convention of Geneva of 1925, and on the report of the opium commission, based on the previous advice of expert pharmacologists whose agreement it had secured in this matter, the committee gave its opinion of those preparations which the Governments propose to exempt from the application of the convention, and those which it seems, on the contrary, should be subjected to it. These last are as follows: The salts of eucodal, of dicodide, of dilauidide, and of the "esters" of morphine (these substances themselves being already placed under control as provided by the convention). The decision on "acedicone" was reserved.

II

One of the most important objects of the session was the preparation of a preliminary draft of provisions relative to the sanitary control of air navigation.

The commission recently formed by the committee, in October, 1929, to examine whether and under what form the principles already considered by the International Office of Public Hygiene, following its first studies on the question, might serve as a basis for international agreements, met in the interval between the two plenary sessions. It agreed upon the opportunity for establishing a concrete plan for the regulation of the sanitary control of airplanes and designated as its reporters in the matter Doctor Lutrario, delegate from Italy, and M. de Navailles, delegate from Tunis. If the continual progress in air navigation might seem at first incompatible with the establishment of such regulations and to make preferable general forms, more elastic and easily adapted to the requirements of the moment, on the other hand the desire not to give way to arbitrariness led to fixing, as much as possible, the maximum of measures applicable in each important practical situation.

The committee agreed with this point of view and—according to the principle which has never ceased to dominate its action as well as that of the different international sanitary conferences in the matter of sanitary maritime or land defense—it exerted itself, in the discussion of the proposals of its commission, to admit no measure which was not strictly indispensable to the legitimate protection of the public health.

The first draft of international provisions thus established has been submitted to the Governments affiliated with the International Office of Public Hygiene. The study will be taken up later on the basis of the observations presented.

III

The revision, at present in progress, of the international signal code was the occasion for an adjustment of different questions whose solution assumes the use of the code:

1. It is a question, first, of quarantine signals by day (flags) and by night (lights), which ships desiring to signal their sanitary condition should raise or require to be raised on their arrival in port. These signals have been studied at different times by the International Office of Public Hygiene. Finally, its proposals served as a basis for the selection, by the International Conference on Radiotelegraphy, at Washington, of certain flags for the three quarantine signals by day included in the new code. For the night signals, however, difficulties arose from the fact of possible confusion with the navigation lights. The committee, on the proposal of the British Government and in agreement with the committee on the revision of the signal code, has retained only one signal for a night quarantine signal on ships—a white light surmounted by a red light, having the meaning “I do not have a free pratique” and able to be seen only within the limits of the port.

2. The form of international quarantine radiotelegraphic message adopted by the committee in its preceding session of October, 1929, has been slightly modified to permit of its transmission in code. Some provisional symbols have been set aside for the different classifications, but the definite composition will not be known for several months. Only after the next session of the committee will it be able to send to the governments the form with the information which it contains for facilitating quarantine operations, and consequently hastening the granting of a free pratique.

3. The new international signal code includes a general medical section with a system for the establishment of diagnoses for medical consultations at sea. The opinion of the committee of the International Office of Public Hygiene had already been requested on this section, which it had approved in principle. At the request of the committee on the international signal code, it took up the examination more in detail, and did not consider it necessary to suggest any modification or addition, deeming the whole as well as the different parts of the plan which was submitted to it well adapted to its purpose.

IV

In so far as concerns the other questions, referring more or less directly to the application of the International Sanitary Convention of 1926, the discussion of which was entered upon or undertaken by the quarantine commission, then in plenary assembly of the committee, the following points may be especially mentioned:

1. The first official edition of the International Sanitary Maritime Annual has appeared. It contains information relative to 41 countries and is a volume of about 700 pages. An English edition is in preparation.

2. The steps undertaken, on the invitation of the French Government and with its assistance, for concluding agreements between countries interested either in the abolition of bills of health or at least of the consular visas, have already received important support and seem to be making good progress.

3. The application of article 28 of the convention (periodic deratization of ships) continues to raise numerous questions of a particular nature or of principle. For the solution of the former, according to the rule which it has considered the best and most efficient in all respects, the committee has referred them to the delegates of the interested Governments.

In some countries the regulations in force are still founded on conventions preceding that of 1926. It has insisted that the Governments of these countries, even before ratifying the new convention, take into account its provisions with a view to the regulations to be prescribed in their ports.

In a general way, the experience acquired from the beginning of the functioning of the system established by article 28 is favorable. The progressive decrease in the number of rats on board ships is expressed in the ever increasing number of cases in which (for example, in Great Britain) it has been possible to issue certificates of exemption to ships of different countries. The development of rat-proofing can only further the progress thus made.

To facilitate, as much as possible, ships carrying out their obligations it is extremely desirable that all countries adopt for their certificates (of deratization or of exemption) a sufficiently uniform form so that the information thereon may always be clearly comprehensible to the sanitary authorities of the ports. The Office should, then, insist that the Governments which have not yet placed in force a form similar to the model established by it several years ago¹ adopt this model in its most suitable form. Although this uniform presentation would render the differences in languages less annoying, the certificates should always be in two languages—that of the country of origin and either English or French.

The committee considers it impossible to allow a certificate of periodic deratization (or of exemption) to be issued in a nonqualified port—that is to say, one not having been reported to the International Office of Public Hygiene. However, it believes that a ship finding itself in such a port could be authorized, on its express request, to resort to the services of a qualified neighboring port, whose personnel and material would then be sent to the place and whose sanitary authority would sign the certificate under his own responsibility. But it is evident that a pratique of this kind can only be exceptional

¹ See *Bulletin of the International Office of Public Hygiene*, Vol. XX, 1928, p. 295.

and that ships should, in principle, always select, in conforming to article 28 of the convention, qualified ports at which to call.

As to the question of the process to be employed in the periodic deratization, the opinion of the committee, which has been several times expressed, remains unchanged; it is of the same opinion as to the impossibility, according to the terms and the spirit of article 28 of the convention, of subjecting to periodic deratization a ship to which a certificate has been presented whose duration of validity of six months (eventually seven) has not expired. But, naturally, if the rats multiply quickly on board such a ship, to the point of constituting a serious sanitary risk, the authority of the port always has, on his own responsibility, the right to require that the danger be immediately combated. He should then immediately notify the authority of the port where the certificate was issued, and at the same time communicate in writing to the captain the reasons which rendered the inspection and deratization necessary.

4. In order to avoid the delays with which the sanitary passports issued to persons having landed in a port of another country and subject to "surveillance" are sometimes transmitted to the authorities of the place of destination, the immediate transmission of these passports to the consuls of the countries of destination seems extremely expedient. This system has been adopted as compulsory by the French sanitary administration on the initiative of the Office, and went into force May 1, 1930, for countries which have made or will make the request. To further this practice the delegates of the countries affiliated with the International Office of Public Hygiene have been asked to call the attention of their respective Governments to the advantages and interest of extending it to their own ports.

5. New documents have been received, from Governments as well as associations of shipowners and groups of persons interested in the investigation relative to ships' doctors. The result was a confirmation of the general tendency to require of these doctors a high professional ability and special studies. There was agreement in not desiring them to be functionaries or giving them any of the attributes normally belonging to the sanitary authorities of the ports. A system was organized in Belgium according to which the ships' doctors (if they are considered worthy) receive a commission and are thus invested with a standing which lends confidence to their declarations and facilitates the obtaining of a free pratique for the ships to which they are attached. The Belgian Government has recently extended these facilities to foreign ships whose doctors have, likewise, been commissioned by their respective Governments. It will also support the proposal to provide an international commission on a similar basis.

6. The commission on pilgrimage met to examine provisionally certain points concerning the pilgrims coming from British India and Persia. A more comprehensive discussion of these questions will be had next October, when the commission will be in possession of all the information regarding the pilgrimage of the year. There will also be examined at the next meeting the replies received on the subject of a uniform passport for pilgrims, which were forwarded from the interested administrations in conformance with the provisions adopted in October, 1929.

V

The committee was informed of the studies on plague made in British India under the auspices of the Government or under the direction of the public-health directors of the Provinces. At the Haffkine Institute of Bombay, they are engaged in improving the antiplague serum and vaccine; it was shown that plague is transmitted experimentally from rat to rat by the flea *Xenopsylla astia* about as easily as by *X. cheopis*, and that the transmission can also be carried on by *X. brasiliensis*. The phenomenon of blockage of the proventricle has not been observed as clearly and as regularly in the Bombay experiments as in the original experiment. In the United Provinces they have been studying the method of conservation of the virus between two plague seasons. Nothing decisive has been discovered in favor of the hypothesis of its conservation in man (healthy carrier) or in the rat in the form of chronic plague. The probability would rather point to the existence of a series of acute cases in a rat population which is diminished in number and carrying a reduced number of fleas. In the Madras Presidency researches have been made as to the geographic distribution of the species of *Xenopsylla*. *X. astia* predominates here, but *X. cheopis* is found in all regions of high endemicity. *X. brasiliensis* is the principal flea at Hosur, which is strongly affected by plague; however, some *X. cheopis* are found here. *X. astia* is, on the whole, the indigenous flea; *X. cheopis* is an imported flea, which seems implanted in certain regions, either because it persists here, or on account of frequent importations. Wheat, rice, and cotton play an important part in these importations. At Rangoon *X. astia* is also the principal flea; it breeds especially in February and is least abundant in August. It is in August, on the contrary, that *X. cheopis* are found in greatest numbers (17.2 per cent of the total fleas). The two most frequent rats are *Mus concolor* and *Nesokia bandicota*. *X. cheopis* forms 25 per cent of the fleas on the former, and 2.5 per cent on the latter.

A very thorough study of the insects and the larvæ likely to transmit plague, especially in grain storehouses, has been made in Italy; it aims at explaining plague epidemics in which plague-infested rats

are not found. In Senegal there exist two limited zones of plague endemicity in which the cultivation of the peanut and millet furnish abundant food for the rats. A commission has been working for 18 months to identify the species of rats and fleas. As to the former, *Mus rufinus* and *Golunda campanæ* predominate. The fleas are *X. cheopis* in the proportion of 95 per cent, the remainder being *X. astia*. The periodic outbreaks of plague, which occur in the hot season, are not sufficiently explained by the rôle of rats and fleas; there seems to exist another reservoir of virus than the rat and perhaps another biting insect than the flea.

A slight epidemic of pulmonary plague, which lasted five weeks, occurred in the U. S. S. R. (Union of Socialist Soviet Republics) in a group of villages near Chinese Turkestan; the infection appeared to have come from a local species of hare. Antiplague vaccination is extensively practiced in the Greek ports, with good results; the crews of sailors and laborers working in places exposed to the infection are revaccinated every six months.

The method of estimating the number of rats on board ships, according to the amount and appearance of the dung has been specified and applied with excellent results at Liverpool. A new model of rat guard, of very simple construction, has been devised at Marseille.

The inquiry carried on for two years on the conditions of the appearance of cholera in the United Provinces of British India has concluded that the epidemic outbreaks have almost always an imported case of cholera as a starting point, rarely a convalescent case, and more rarely still a person in the incubation period of cholera. No analyzed epidemic had as its origin a healthy carrier who had harbored choleric vibrios for two months. The laboratories established in the seriously attacked villages each year have not discovered a single healthy carrier in the population of these villages. No rôle in the genesis of cholera has been found to be attributable to the nonagglutinating vibrios. In the Province of Bihar and Orissa it is also after the arrival of convalescents coming from active foci that cholera breaks out. In about 1,500 samples of stools, agglutinating vibrios were found 36 times, always in persons in direct contact with cases of cholera; the carrier condition was of short duration in the convalescents as well as in the contacts. In this Province, in the course of two years of inquiry, agglutinating vibrios have, however, been discovered in 8 persons, 6 of whom were children, who had had no contact with a cholera focus; but the presence of these vibrios could not be ascertained a second time, at least in the first 5, who remained under observation from 2 to 15 months; no explanation could be given for these facts. In Bengal the agglutination of the choleric vibrio was studied and it was concluded that the agglutinability and virulence

might disappear rapidly after the microbe had left the human intestine; they could be resuscitated by penetrating again into the human body or the intestine of a rabbit.

The Indian Research Fund Association has endowed a campaign of work on bacteriophages. For cholera the researches have ascertained that three types of bacteriophages exist, and that vibrios resistant to two of these types were destroyed by the third. The type which is active toward the greatest number of vibrios is not stable and difficult to cultivate; the more stable species of this type attack only 30 per cent of the stock of vibrios studied. The preventive and therapeutic use of the bacteriophage should not, then, give complete results unless a mixture of appropriate species of the three types is made. In application, the addition of bacteriophage to wells during the religious festival of Puri (Puri Mela) seems to have resulted in a great decrease in the number of cases of cholera; they were one-tenth as numerous as in the sections where the wells were not treated. The therapeutic success in the patients in the hospital at Puri was not convincing, perhaps because the pilgrims from different places were infected by very diverse stocks of vibrios resistant to the bacteriophages employed, and also because the patients were extremely prostrated. On the contrary, at the hospital of the College of Medicine at Patna, the therapeutic results were very good. At Rangoon, where the studies included only 33 certain cases of cholera, no direct relation appeared between the presence of bacteriophage in the intestine of the patients and the cure. The therapeutic action of the species employed was not apparent. The same failure was present in dysentery, Shiga and Flexner type. At Shillong, the Pasteur Institute distributed to doctors in the rural regions mixtures of bacteriophages of cholera and dysentery. These mixtures were used in 457 cases of dysentery or choleric diarrhea and 80 cases of cholera. The effect was very satisfactory for dysentery, in case the bacteriophage was properly administered. For cholera, the mortality was 30 per cent in the cases treated. In three small epidemics in which there were untreated persons, the mortality was 54 per cent in the untreated and 26 per cent in the treated patients.

The year 1930 was marked by one of the largest religious festivals in India, which is held every 12 years, and which brought to Allahabad three and one-half million pilgrims, two and one-half million of whom bathed on the same day, January 29, in the Ganges. Great preparations had been made to assure the distribution of pure water, to ferret out the sick and place them in hospitals, and to increase the vaccinations. Only 168 cases of cholera were treated, and cholera was less frequent in India during the following two months than during the corresponding period of the preceding years.

The hot season of 1929-30 has passed at Rio de Janeiro without the reappearance of yellow fever; the destruction of the *Stegomyia* (*Aedes*)

carried on with a memorable thoroughness and tenacity, has then put an end to the epidemic of 1929. This last attacked men more than women, whites more than mulattoes, foreigners more than Brazilians; it attacked, mostly, persons having resided in Brazil for less than five years and persons over 15 years of age. The very important discovery that the serum of individuals having suffered an attack, even slight, of yellow fever keeps indefinitely the property of protecting the *Macacus rhesus* against the experimental inoculation of the yellow fever virus opens up the possibility of establishing a chart of the endemic foci of yellow fever. The researches made in southwest Nigeria (Ife, Ibadan, Ilorin), in the extreme north of the country, and in Sierra Leone (Freetown) have shown the value of this method. It will from now on be brought to the attention of the sanitary administrations of the different African colonies menaced by yellow fever. The creation of systems of carrying water by conduits, resulting in the abolition of numerous sheltering places for larvæ, is a very effective measure in the prophylaxis of the disease. Among the sanitary measures undertaken at Dakar the most original is the segregation of the natives, which has made great progress; the Housing Office has constructed cheaply, in a certain quarter, sanitary houses and offered them on credit to natives, who buy them and sell the land which they have occupied around the city to Europeans.

The commission on smallpox and antismallpox vaccination, created in May, 1929, presented a report to the committee, with regard to three questions:

1. The definition of the terms variola major, varioloid, and variola minor or alastrim. Varioloid, a typical form of variola major, was clearly separated from variola minor, epidemics of which develop, generally, entirely independently of those of variola major. It specified that variola minor should be subjected to the same administrative and prophylactic measures as variola major, the responsible authorities of a country retaining, however, the right to modify the severity of these measures when in the course of a characteristic epidemic an excessive severity would be considered unreasonable.

2. The present situation in regard to postvaccinal encephalitis. The information collected directly from the delegates of the interested countries establishes the frequency of the affection during the last few years in England and Holland, the countries most affected; in Germany, Austria, Sweden, and Norway, where cases have been present in fairly large numbers; in France and the United States, where they are rare; in the Union of South Africa, Yugoslavia, the U. S. S. R., Italy, Poland, Portugal, and Switzerland, where they are extremely rare, or have not been reported recently. The information received is entirely negative for Belgium, Spain, Greece, Rumania, Canada,

Egypt, Morocco, the Sudan, British India, French Indo-China, Japan, Australia, New Zealand, Central America, and South America, in spite of the very large numbers of vaccinations made in many of these countries. The present report contents itself with presenting known facts, in bringing to light the influence which the habits of different countries in regard to vaccination might have on the frequency of encephalitis. It brings out, moreover, the similarity, reported by the English and Dutch authors, in the anatomopathologic lesions of post-vaccinal encephalitis and other forms of encephalitis following an acute infection (measles, chicken pox, smallpox, whooping cough, etc.).

3. The technique of antismallpox vaccination. The replies sent by 23 countries to the questionnaire of the Office bearing on the process of inoculating the vaccine, the number, the length, and the respective distances of insertions and the virulence and dilution of the lymph have been grouped in a comparative statement. The collected information, while bringing to light interesting suggestions, has made apparent the insufficiency of our present knowledge on the fundamental question: What relation is there between the number and extent of incisions, on the one hand, the intensity of the local and general reaction and the degree and duration of the obtained immunity on the other? The commission proposed to submit these problems to experimental study, with all the cooperation of which the committee can be assured in suitable environments. It has traced, on a large scale, the program of the study, which includes also the question of whether it would not be suitable to employ exclusively lymphs the virulence of which does not greatly exceed the limit of 1/1,000, and has proclaimed the use which these researches would serve in developing a laboratory method capable of telling immediately after a vaccination the degree of immunity produced. The committee has already taken account of the observations collected, especially in England, on the influence of the decrease in the number of scarifications and of the dilution of the lymph, and in Sweden on the results of vaccination with a single scarification in the army.

As to smallpox, communications have been presented to the committee on the epidemics of smallpox in France in 1926 and 1927, and the plan for regulation of vaccination to which they gave rise; on the extent of the disease and vaccinations made in the French colonies in 1928; on the progress in Great Britain of the epidemic of variola minor, which left, little by little, the northeast section and the Provinces and increased in the county of London; on postvaccinal encephalitis in Norway, Switzerland, the U. S. S. R., and Yugoslavia; on the limits of the period of immunity of those afflicted with smallpox and those vaccinated with regard to vaccine; on a case of persistent contamination of a vaccine stock by the virus of aphthous fever; and on the administrative measures concerning smallpox

and vaccination in Italy and Egypt, information which completes the publication already issued by the Office for a group of other countries.

Vaccination against tuberculosis by the B. C. G., by subcutaneous injection, has continued to give very favorable results in the nurses at Oslo; tuberculosis has, up to the present time, been reported ten times less frequently among the vaccinated than among the non-vaccinated.

The League of Red Cross Societies has communicated to the committee of the Office, as a first result of an extensive investigation which it undertook at the committee's suggestion, a report of the communal bureau of hygiene of the city of Milan on the condition of the feminine personnel in a large rubber factory with regard to tuberculosis. A minute study has revealed that, in this factory, 15 per cent of the women were or had been more or less affected by tuberculosis, and 12 per cent presented clear, active, or cicatricular lesions. The special conditions at the factory under consideration did not seem to have any unfavorable influence on the death rate. Contamination in the factory could occur only in exceptional instances due to the rarity of persons disseminating bacilli. Three-quarters of the women known to be attacked did regular and good work; the other quarter, whose lesions were more active, were often held up by the disease, and their work was mediocre. This part of the personnel will evidently need medical assistance and a system of special work.

The information collected by the Office on the efforts in different countries to combat tuberculosis in industry and to assure appropriate work to cured or arrested tuberculous persons has been increased by several contributions. In the Netherlands they describe the attempts at readaptation of tuberculous persons in industry, in ordinary sanitariums, and in a special sanitarium workroom; in France, the complete antituberculosis organization which consists of two associations, and the agreement which a certain number of important enterprises have made with the antituberculosis dispensaries; in the United States, the different institutions for work created for the tuberculous, such as the industrial and agricultural camps and colonies, the convalescent workrooms, institutions whose medical result is always reported as excellent, but whose success from an economic point of view is sometimes difficult to guarantee.

The outlines presented to the committee on the extent of tuberculosis in the native races in Morocco and Algeria have shown the importance of this subject, which should receive attention. Finally, the question of the connection of tuberculosis with certain industrial dusts has been raised; there has been especially reported the harmful character of the dust of amianth (asbestos) observed in England,

and the great improvement, brought about in the United States by the modification of the machines and the methods of work relating to the dusts of cement, granite, and cotton.

Typhus exanthematicus has decreased greatly in the U. S. S. R., the annual morbidity having fallen from about 250,000 in 1923, to about 30,000 in the last few years. It has almost disappeared from the urban and industrial centers. It persists especially in the rural zones of the north and northwest, center, and west. The activity of the sanitary authorities is shown by the development, in endemic regions, of public baths and disinfecting stations for the control of workers engaging in certain occupations. The large number of positive Weil-Felix reactions among the acquaintances of the patients was noted. In sub-Carpathian Russia, a part of Czechoslovakia greatly affected by typhus several years ago, there remain only sporadic cases; the fight led by a moving column comprising a disinfecting apparatus, a laboratory, and a chance organization for hospitalization has been eminently successful.

During the last session of the committee cases of exanthematic fever were reported in Portugal and in Spain. Attention was called to the gaps which exist in our knowledge of this complex group of fevers, at the same time resembling and differing from typhus exanthematicus. It appears to stand out from the contributions on the study of the subject which have been brought to the present session (France, Great Britain, Portugal, Morocco, United States, British India) and from the discussions to which they gave rise that one can hardly base a definite classification of these affections on the nature of the transmitting agent (louse, tick, acarus, unknown host) or on the result of the Weil-Felix reaction (often inconstant, or slightly positive, or limited to certain strains of *Proteus*). In our present ignorance of the pathogenic agents, one can only define several groups. Next to typhus exanthematicus from lice, are placed the more benign forms of the very closely allied affection which does not seem to be transmitted by the louse—Brill's disease, typhus of the southeastern United States, Mexican typhus, urban typhus (shoptyphus) of the Malay States, and Palestine typhus. A group allied with the preceding has as its characteristic prevalence in rural communities, especially in bushy or grassy regions—rural typhus of the Malay States (badly kept plantations), Mosmann fever in Queensland (sugarcane fields). The transmitting agent is not known with certainty in the first case, and is probably an acarus of the genus *Trombicula* in the second. The exanthematic fever observed recently at Toulon in the crews of the large vessels of the Navy seems little different from this group and is probably transmitted by an acaridan parasite of the rat, *Dermanyssus muris*. The exanthematic fever called "Marseille fever" is probably the type of another group,

characterized by the slough which is produced at the place of entry, adenitis, and sometimes lymphangitis, the papulous form of eruption, whence the proposed name "escharonodular fever." The tick, especially a common dog tick, *Rhipicephalus sanguineus*, is probably most often the inoculating agent. The disease is now considered as identical with macular fever of Tunis. The tick fever of British India (Megaw) seems very close, as does the 10-day fever of Rhodesia (Ross), the tick-bite fever of Sant' Anna and of Nuttal (Lourenço Marquès). Japanese fluvial fever has clinical characteristics similar to those of escharonodular fever (with a more abundant eruption), but is transmitted by an acaridan parasite of a field mouse, *Trombicula akamushi*. It is, like the tick fever of British India, a disease which is contracted in bushy regions. The pseudo-typhus of Sumatra, transmitted by the larvæ of different *Trombicula*, does not seem to be distinctive. Finally, the tick fever of the Rocky Mountains, transmitted by ticks, has different important characteristics—purpuric eruption, abundant desquamation, inoculability in the guinea pig, sometimes high mortality.

Undulant fever has caused a slightly higher number of cases in Great Britain than was thought. It has just been reported from Yugoslavia. In Sweden on an average of 2 to 3 cases per week are counted on. In Switzerland, where 20 per cent of the cattle taken to the slaughterhouse are infected with the Bang bacillus, there were discovered 37 human cases of Bang bacillus fever, of which 2 cases were laboratory infections. There was noted one case in which hypertrophy of the spleen gave rise to the diagnosis of lymphogranulomatosis and caused the excision of the spleen; and one case in which repeated abortions seemed to be in agreement with the presence of the Bang bacillus in the secretions of the neck of the uterus.

Tularaemia, a disease recognized only in the United States for several years, is now known in the U. S. S. R., in Norway, and Japan. Characterized by general symptoms of infection, especially axillary adenitis and usually an ulceration, with clear-cut edges, at the point of inoculation, it is contracted either by contact with infected wild rodents, or by the bite of ticks or biting flies. In the United States, where wild rabbits are the principal source of the virus, 420 cases have been reported; but this number is far from representing the real total. Human cases have been observed in 37 States and the District of Columbia. In the U. S. S. R., in the lower Volga basin and in the basin of its tributary the Oka, in the Province of Ouralsk, region of Tobolsk, epidemics of adenitis were reported in 1877, then in 1921, and especially in 1926 and 1928. In the villages a large proportion of the population was affected, some having up to 800 persons attacked. Considered at the beginning as benign plague, the disease was identified, directly and retrospectively, by the exchange of serums

of patients and cultures with the laboratory of the United States Public Health Service. It had as an origin the hunt for water rats (*Arvicola amphibius* L.), which are greatly infected with *B. tularensis*. In Norway, 12 cases of tularaemia were recently identified in persons infected by rabbits. The number of cases which might be suspected according to the clinical list, but for which a serological examination was not made, is much higher. The disease is perhaps identical with one of the forms of "lemming fever."

Can psittacosis be transmitted from person to person? In England, in three instances, patients had not been in contact with an infected person until after the death of the parrot; contamination by objects infected by the parrot can not, however, be absolutely discarded. In the United States, where 158 cases of the disease were recognized, among 11 persons attacked during the course of researches in the Public Health Service at Washington, only 2 had been in contact with infected birds. In Switzerland, several members of the family of a patient were infected by the patient; the parrot was in another house. In Germany, where 156 cases of psittacosis were reported, the disease attacked, in at least four instances, a series of persons, some of whom had no contact with parrots and had not even entered the house where the sick birds were kept. In two other series the diagnosis of psittacosis was less certain. There is especially to be noted five cases in doctors, nurses, and persons caring for patients. The presence of the virus in filtered products was established in the United States, England, and Germany; there were also seen in the lesions, organisms of small coccoid or bacilliform formation (United States, Germany). A bacillus of the paratyphus group was isolated at Dresden. The virus is present in the fecal material of the birds.

Poliomyelitis increased appreciably in the Netherlands in 1929—507 cases instead of the usual average of 60, attacking especially the age group from 0 to 4 years. The epidemic was combated by the organization of neurological clinical assistance, the distribution of convalescent serum, hospitalization, as often as possible, at the expense of the State, and making available facilities for hydrotherapeutic and electrotherapeutic treatments following the acute period. In Rumania, following the epidemics of 1927 and 1928, there were only about 60 cases in 1929. The specific serum prepared from the horse was used; but it is difficult to draw conclusions as to its efficacy, because of the great differences in severity among the cases treated.

The activity of the public health services in Italy has resulted in a great improvement in the general health; the decrease in the frequency of contagious diseases, especially the so-called social diseases, is remarkable; from 1887 to 1927 the death rate from contagious diseases fell from 6.80 per 1,000 to 1.92, which means more than 123,000 human lives saved per year; for tuberculosis the rate has fallen from

2,114 to 1,337 per million; for malaria from 710 to 63; pellagra has almost disappeared. In Java the death rate for three large towns is much higher than the average rate for the island and for the rural population. It has fallen, however, from 46.55 per 1,000 during the period 1912 to 1923, to 29.39 per 1,000 in 1929. The cause of this high mortality was principally malaria, through the decrease in resistance to intervening diseases which it caused. Malaria was maintained especially by the multiplication of the larvæ of *Myzomia rossii* Giles in the salt waters of the pools and fishponds which border the sea near these towns. The destruction of floating algæ, carried on by two different processes, brought about a radical change in the degree of infection of the population, without injuring the raising of fish, an important source of revenue.

A great deal has been accomplished in regard to natality and mortality among the native tribes in the French colonies of Africa, Asia, America, and the Indian and Pacific Oceans, and it should serve as a base, in the future, both for the study of the influence of certain traditional customs on the demographic condition of these peoples—early marriage, polygamy, migration of laborers, for example—and in ascertaining the effects of the measures of sanitary protection.

A serious accident, which occurred to a group of passengers on a ship bound for Rotterdam, has given rise to the idea that precautions relative to the transportation and storage of ferrosilicium should be the object of an investigation, and perhaps finally of an international agreement. The note in which this question was brought to the committee will be sent to the different countries through their respective delegates, and the opinion of the countries will be requested on a series of measures concerning points on which the regulations at present in force differ.

Finally, the committee heard communications on the following various subjects:

The cerebrospinal meningitis epidemic which prevailed in Turkey, at Tarsas, during the seasonal period of two consecutive years, and the constant increase in the frequency of cerebrospinal meningitis in the United States; the encephalitis epidemic, differing from lethargic encephalitis, which presented in 1929 in Japan the same characteristics as in 1924 and 1926, striking in the same sections, after a period of excessive heat and drought, the aged and then the children rather than the adults; the march across Africa of recurrent louse fever which, starting from the banks of the Niger in 1921–22, reached, in 1928, the Anglo-Egyptian territory, attacking or respecting the peoples which it encountered according to whether their clothing offered possibilities of harboring lice; the success of the prophylaxis of trypanosomiasis in French Equatorial Africa, based on administrative action (destruction of tse-tse flies, removal of villages) and medical

action (creation of centers for the natives in which there is systematically carried on a series of injections of atoxyl) and, since 1929, the creation of 58 centers of treatment where the patients stop and receive, according to their needs, injections of atoxyl, tryparasamide, or other special medicines; the seriousness of measles in Egypt, where the mortality is as high as 40-45 per 100, and where it is ten times more fatal than diphtheria, and about two thousand times more fatal than smallpox and scarlet fever; the researches systematically carried on in Greece for three years to enumerate the persons attacked by leprosy, so as to group them and treat them in four antileprosy stations, and the discovery of a small family focus of leprosy in Yugoslavia; the revival of dengue toward the end of 1929 in Smyrna, where the disease was present at the end of 1928; the epidemics of scarlet fever in several provinces of Turkey in 1929, and the encouraging results given by antistreptococcic vaccination (about 19,000 vaccinations of four injections and 8,000 of three injections) as well as serotherapy applied to the hypertoxic forms in the first stages of the disease; the inquiry made by the ministers of public works and public hygiene of Czechoslovakia on the frequency of pulmonary cancer among the personnel employed in the extraction of radium at Joachimsthal, where this disease seemed to cause a very large proportion of deaths, and the different measures of proposed protection; the results of the survey of a population of 24,500,000 in the United States to determine the number of cases of syphilis and gonorrhea under treatment on a certain day, and which set an estimate of 211,000 recent cases of syphilis and 248,000 recent cases of gonorrhea in the United States, and showed higher figures for the black race than the white (for syphilis only), for the large cities than the rural sections, and for the Navy than for the Army.

NOTE ON AN OUTBREAK OF ENCEPHALITIS IN NEW ALBANY, IND.

Information has been received from the Indiana State Board of Health that 21 deaths from encephalitis were reported in New Albany, Ind., during the period September 1-15, 1930. The number of cases is not known.

The State health department obtained from physicians case records in 10 of the fatal cases and 6 of the recovered cases. The ages in the fatal group ranged from 63 to 76, excepting one colored woman, who was 28. Ninety per cent of the fatal cases were in males. The ages of four of those who recovered ranged between 11 and 50 years, while one was 67 and another 75 years of age. There was no history of contact, excepting in the case of one patient who had visited his brother ill with the disease, both of whom died.

The onset of the symptoms was sudden and characterized by high temperature, muscular rigidity, mental impairment, disturbance of sensation, motion, and vision, with diplopia in one case, herpes in two cases, and hiccough in six cases. Lethargy was a prominent but by no means constant symptom. Insomnia prevailed in a number of cases. Some of the patients finally became comatose. No effort was made to isolate Pfeiffer's bacillus. There was no previous infection, except a few cases of chronic nephritis and endocarditis. Some spinal punctures were made, with negative results.

It was the opinion of the physicians interviewed that the encephalitis was due to influenza of the nervous type attacking the central nervous system.

COMPARATIVE CURRENT STATE MORTALITY STATISTICS ¹

In this, as in the preceding report on current mortality statistics, the plan of publication has been changed from a monthly basis to the presentation of rates for a period including as many months of the current calendar year as are available, with comparative rates for the same period in the three preceding calendar years where data are available for those years. In the present report, figures are given for the 8-month period from January to August of 1930 for a number of the States, but for others the period is shorter. In the instance of many of the causes of death included in this report there is little seasonal variation and monthly rates seem unnecessary. It is believed that these rates for the "year-to-date" for each State with comparative rates for corresponding periods in preceding years will be more useful than monthly rates.

The rates are computed from current and generally preliminary reports furnished by State departments of health. Because of (a) some lack of uniformity in the method of classifying deaths according to cause, (b) some delayed death certificates, and (c) various other reasons, these preliminary rates can not be expected to agree in all instances with final rates published by the Bureau of the Census, which are based on a complete review and retabulation of the individual death certificates from each State. The preliminary rates given in the accompanying table are intended to serve as a current index of mortality until final figures are issued by the Bureau of the Census.

Populations used in computing rates are as of July 1 of each year, based on the 1920 Census and provisional results of the 1930 Census. Rates for 1930 and comparative years have been recomputed on new population estimates.

¹ From the Office of Statistical Investigations, United States Public Health Service.

Death rates from certain causes in stated periods of 1930, with comparative data for corresponding periods in preceding years

State	Period	Rates per 1,000 population (annual basis)																								
		Rate per 1,000 population, all causes	Infant mortality	All except malformations and early infancy	Maternal mortality (143-150)	Typhoid fever (1)	Measles (7)	Scarlet fever (8)	Whooping cough (9)	Diphtheria (10)	Influenza (11)	Poliomyelitis (22)	Lethargic encephalitis (23)	Meningococcus meningitis (24)	Tuberculosis, all forms (31-37)	Cancer, all forms (43-49)	Diabetes (57)	Diseases of the nervous system (70-89)	Cerebral hemorrhage, apoplexy (74)	Diseases of the circulatory system (87-96)	Diseases of the heart (87-90)	Diseases of the respiratory system (97-107)	Pneumonia, all forms (100-107)	Diseases of the digestive system (108-127)	Diarthra and enteritis under 2 years (113)	Nephritis (128, 129)
7 States*	January to August.	7.5	()	()	()	2.3	4.1	1.4	4.1	3.6	15.5	0.4	0.7	3.8	51.2	56.1	11.6	77.9	55.6	144.2	135.5	65.9	54.3	53.7	10.9	56.0
	1929	8.5	()	()	()	2.6	1.4	1.5	3.3	3.1	58.2	.6	.8	4.7	57.5	53.3	11.8	84.8	58.1	161.2	140.3	77.9	63.2	39.5	11.3	58.9
Alabama	do.	11.4	76	46	8.0	9.9	3.7	7.1	11.2	3.1	37.9	.6	.7	1.6	84.0	50.0	8.5	87.1	62.0	146.6	128.9	103.9	92.8	86.0	29.9	100.3
	1929	12.6	80	50	8.8	7.1	3.1	1.0	10.5	4.4	160.5	1.1	1.1	1.1	83.1	45.9	8.4	96.8	57.1	137.9	128.3	106.7	98.9	101.6	28.6	91.7
	1928	12.1	83	52	8.7	7.6	11.4	2.7	7.4	66.8	.9	()	()	()	90.8	47.4	9.0	()	57.3	()	128.1	()	111.3	()	34.4	86.7
	1927	10.1	65	36	7.6	10.5	4.9	7.1	16.8	0.4	28.3	.8	()	()	87.6	46.2	7.4	()	47.0	()	96.5	()	63.6	()	30.2	73.1
Arizona	January to July.	16.2	134	83	5.1	9.0	2.5	2.0	11.8	8.0	20.0	2.0	4	24.4	438.1	55.1	6.0	108.2	54.7	168.9	137.2	420.4	196.5	166.1	84.2	56.3
	1929	16.9	139	107	5.6	16.9	()	3.6	12.1	2.4	26.5	3.8	.8	13.5	417.2	57.5	4.4	98.5	45.8	140.3	137.4	418.1	144.8	188.9	128.2	64.7
California	January to June.	11.9	60	29	5.9	1.4	8.6	1.8	3.6	10.5	1.4	1.1	1.5	3.9	108.0	122.2	20.3	114.8	33.3	291.4	248.2	96.1	80.9	78.4	15.1	84.6
	1929	12.6	68	36	5.3	1.5	3.5	2.5	6.4	30.8	1.8	1.1	1.6	3.9	116.2	117.0	19.4	119.0	83.4	804.1	1267.8	109.0	76.4	76.4	10.9	96.1
	1928	12.3	63	34	5.7	1.7	8.1	1.0	5.8	6.1	16.8	1.8	1.1	1.9	120.2	119.7	19.2	120.4	84.9	276.5	239.4	96.2	87.6	79.1	13.9	98.9
Connecticut	January to July.	11.4	63	()	()	.5	1.1	2.5	2.3	2.9	19.5	1.0	1.2	1.4	63.9	116.7	19.0	()	()	()	()	()	113.1	()	8.7	79.8
	1929	12.1	71	()	()	.8	5.0	1.8	3.1	3.7	59.6	.3	1.3	1.2	68.5	111.7	17.6	()	()	()	()	134.6	()	()	8.2	78.7
	1928	11.9	68	()	()	.7	5.9	2.3	7.6	5.5	29.2	.4	1.5	1.0	75.4	106.6	()	()	()	()	()	131.4	()	()	6.5	78.7
	1927	11.2	63	()	()	.8	2.1	1.6	2.9	5.6	25.1	.2	()	.8	74.5	105.3	()	()	()	()	()	188.9	()	()	9.1	()
District of Columbia	January to August.	15.5	70	36	9.6	3.1	3	2.2	5.8	3.4	7.1	.3	.6	1.6	125.5	135.3	23.9	145.6	101.5	332.2	326.5	146.3	123.9	105.9	16.9	165.0
	1929	14.8	72	36	6.2	3.1	()	3.1	5.6	7.1	28.3	.9	2.9	2.6	125.3	126.5	28.0	151.3	83.9	381.1	324.5	181.9	168.3	96.3	14.9	170.7
	1928	15.3	()	()	()	1.9	5.0	1.9	3.1	7.5	16.9	1.3	1.3	2.9	126.7	123.0	22.4	151.7	106.9	350.2	311.6	171.5	144.5	100.6	15.3	163.7
	1927	16.2	()	()	()	1.6	6.1	9.9	3.5	6.3	26.9	.6	1.9	.9	137.3	128.4	22.3	157.0	106.6	336.1	296.5	153.8	126.7	88.2	17.3	172.8
Florida	do.	12.4	67	34	9.6	5.0	6.2	.3	4.3	3.5	25.5	.9	.6	.3	70.1	70.6	14.8	126.9	105.9	202.4	176.7	81.2	63.3	92.3	17.9	123.4
Georgia	January to July.	12.1	85	()	()	10.2	10.9	6.9	9.1	3.2	43.4	1.1	.3	3.9	76.5	50.6	11.5	131.7	()	156.1	141.1	115.3	99.4	85.3	24.0	136.5
	1929	12.0	()	()	()	8.2	1.7	.8	8.2	3.3	132.4	()	()	()	77.8	45.0	9.8	()	()	123.0	()	()	98.8	()	18.6	132.5

Hawaii	January to August.	1930 10.6	84	(1)	(1)	4.2	6.1	(1)	2.8	98.5	54.7	12.2	(1)	44.2	(1)	122.4	(1)	123.9	145.5	99.2	(1)
		1929 13.0	107	(1)	(1)	4.2	7.6	(1)	29.4	109.1	60.8	12.2	(1)	44.2	(1)	122.4	(1)	123.9	145.5	99.2	(1)
		1928 11.8	(1)	(1)	(1)	6.9	2.1	(1)	4.3	125.8	65.3	6.0	(1)	62.3	(1)	113.9	(1)	101.1	165.4	114.1	(1)
Idaho	do.	1930 9.7	44	(1)	(1)	4.8	2.4	(1)	6.7	35.4	59.6	6.1	102.0	(1)	68.3	188.5	105.6	127.6	109.8	54.2	1.7
		1929 (1)	(1)	(1)	(1)	1.5	4.5	(1)	3.0	62.8	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	67.8	(1)	(1)
		1928 (1)	(1)	(1)	(1)	3.3	3.3	(1)	3.8	75.4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	91.0	(1)	(1)
		1927 (1)	(1)	(1)	(1)	1.8	5.9	(1)	3.1	76.6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	101.9	(1)	(1)
Illinois	do.	1930 11.9	56	(1)	(1)	2.3	2.2	(1)	10.2	68.7	102.7	16.4	(1)	109.6	(1)	190.3	(1)	(1)	87.0	(1)	13.9
		1929 12.6	67	(1)	(1)	2.8	5.5	(1)	1.4	73.5	97.2	14.9	(1)	110.5	(1)	207.7	(1)	(1)	104.2	(1)	15.4
		1928 12.0	64	(1)	(1)	5.9	3.0	(1)	3.1	73.5	100.4	(1)	(1)	111.1	(1)	176.7	(1)	(1)	108.9	(1)	15.0
		1927 11.6	59	(1)	(1)	7.0	3.3	(1)	(1)	74.8	102.1	(1)	(1)	100.1	(1)	170.7	(1)	(1)	79.2	(1)	12.8
Indiana	do.	1930 11.4	56	(1)	(1)	6.3	2.3	(1)	10.2	68.7	102.7	16.4	(1)	109.6	(1)	190.3	(1)	(1)	87.0	(1)	13.9
		1929 12.6	67	(1)	(1)	2.8	5.5	(1)	1.4	73.5	97.2	14.9	(1)	110.5	(1)	207.7	(1)	(1)	104.2	(1)	15.4
		1928 12.0	64	(1)	(1)	5.9	3.0	(1)	3.1	73.5	100.4	(1)	(1)	111.1	(1)	176.7	(1)	(1)	108.9	(1)	15.0
		1927 11.6	59	(1)	(1)	7.0	3.3	(1)	(1)	74.8	102.1	(1)	(1)	100.1	(1)	170.7	(1)	(1)	79.2	(1)	12.8
Iowa	January to August.	1930 11.4	56	(1)	(1)	3.0	1.2	(1)	3.7	35.6	117.5	23.5	143.8	(1)	98.0	261.9	213.9	98.6	86.2	76.2	4.0
		1929 10.6	55	(1)	(1)	5.9	1.5	(1)	2.2	35.7	104.9	18.4	143.6	(1)	98.3	218.9	80.9	80.9	66.0	62.7	4.0
		1928 10.2	58	(1)	(1)	5.6	2.1	(1)	1.2	35.7	108.6	18.3	132.6	(1)	98.3	236.0	79.7	69.6	66.2	4.3	94.5
Kansas	January to July.	1930 10.8	56	(1)	(1)	8.1	1.6	(1)	3.3	38.7	95.2	22.1	131.7	(1)	70.0	207.7	178.5	73.3	65.2	70.2	9.9
		1929 10.9	65	(1)	(1)	7.3	2.2	(1)	3.2	44.6	81.5	20.9	143.6	(1)	114.1	168.7	109.1	79.5	67.9	71.9	7.8
		1928 11.0	60	(1)	(1)	8.9	1.4	(1)	1.1	42.7	85.5	21.3	143.7	(1)	111.9	206.7	178.2	81.2	67.2	73.9	10.1
Louisiana	do.	1930 12.2	90	(1)	(1)	10.7	9.6	(1)	4.9	92.2	65.6	14.0	95.9	(1)	64.4	229.6	203.0	114.1	102.7	90.6	24.6
		1929 12.1	83	(1)	(1)	12.1	9.1	(1)	2.7	92.7	63.4	11.0	90.5	(1)	38.1	239.7	193.9	100.4	89.7	90.4	25.9
		1928 12.3	87	(1)	(1)	12.6	11.3	(1)	1.1	97.6	61.7	12.1	93.0	(1)	65.6	191.8	179.8	120.0	108.1	93.4	27.8
Maryland	January to August.	1930 13.5	69	(1)	(1)	5.5	4.0	(1)	1.3	1.8	108.1	114.0	22.3	145.4	(1)	107.6	285.2	248.9	139.0	122.8	83.9
		1929 10.9	64	(1)	(1)	6.4	1.3	(1)	1.0	10.0	64.0	90.9	18.0	120.1	(1)	90.5	232.7	194.0	93.2	76.0	78.2
		1928 12.3	69	(1)	(1)	6.5	1.5	(1)	2.3	70.9	93.0	20.8	136.4	(1)	96.1	254.4	222.9	118.4	101.9	83.5	13.0
Minnesota	January to July.	1930 9.5	45	(1)	(1)	5.1	8.4	(1)	2.5	49.8	118.1	18.8	107.3	(1)	81.3	195.2	177.1	94.0	78.2	67.5	5.1
		1929 10.5	52	(1)	(1)	4.4	8.4	(1)	2.8	56.5	110.0	3.3	106.9	(1)	79.3	206.5	190.5	85.1	77.6	66.9	3.7
		1928 10.2	(1)	(1)	(1)	5.5	3.1	(1)	2.4	1.8	96.5	114.2	21.4	(1)	(1)	196.1	(1)	(1)	77.3	(1)	69.1
Mississippi	January to June.	1930 11.7	(1)	(1)	(1)	5.4	2.4	(1)	11.4	85.6	47.7	9.7	(1)	71.7	(1)	106.6	(1)	85.3	(1)	9.3	105.4
		1929 12.8	(1)	(1)	(1)	6.5	7.6	(1)	.5	90.8	45.6	6.7	(1)	66.1	(1)	98.5	(1)	80.7	(1)	17.2	93.4
Montana	January to August.	1930 9.6	(1)	(1)	(1)	3.1	3.4	(1)	1.7	5.6	65.3	79.0	17.1	95.8	(1)	61.7	154.4	139.8	100.0	87.7	79.3
		1929 10.7	49	(1)	(1)	5.2	7.1	(1)	3.3	26.4	106.1	23.9	112.5	(1)	88.2	196.5	174.0	93.3	82.2	70.8	4.9
		1928 10.7	63	(1)	(1)	3.2	1.5	(1)	3.5	34.4	99.3	22.9	126.0	(1)	94.7	205.5	181.3	93.7	82.4	73.1	5.4
Nebraska	January to June.	1930 10.9	(1)	(1)	(1)	4.5	1.1	(1)	2.0	72.6	106.6	24.4	110.2	(1)	81.9	280.6	235.4	97.6	86.8	71.6	10.2
		1929 11.7	63	(1)	(1)	5.5	6.0	(1)	1.4	2.5	75.1	107.8	23.5	113.2	(1)	83.0	273.9	251.2	133.5	119.1	71.6
		1927 11.3	(1)	(1)	(1)	3.1	1.1	(1)	(1)	76.0	103.4	(1)	116.9	(1)	116.9	(1)	255.8	(1)	61.7	76.1	67.7
New Jersey	do.	1930 10.9	(1)	(1)	(1)	3.1	1.1	(1)	(1)	76.0	103.4	(1)	116.9	(1)	116.9	(1)	255.8	(1)	61.7	76.1	67.7
		1929 11.7	(1)	(1)	(1)	3.1	1.1	(1)	(1)	76.0	103.4	(1)	116.9	(1)	116.9	(1)	255.8	(1)	61.7	76.1	67.7
		1927 11.3	(1)	(1)	(1)	3.1	1.1	(1)	(1)	76.0	103.4	(1)	116.9	(1)	116.9	(1)	255.8	(1)	61.7	76.1	67.7

: No deaths.

: Not available.

*Alabama, District of Columbia, Iowa, Michigan, New Jersey, Tennessee, and Virginia.

Virginia.....	1930 12.0	73	()	6.9	4.5	5.5	1.2	13.1	3.8	33.0	.9	1.1	3.0	88.9	63.8	14.9	132.0	100.2	207.8	180.2	99.3	86.0	83.8	27.2	109.5
	1929 12.5	79	()	7.4	3.9	2.1	.7	11.8	4.2	128.1	1.1	1.2	1.6	95.4	64.5	11.0	128.3	91.1	199.0	180.6	88.2	76.6	74.7	30.9	101.7
West Virginia.....	1930 9.5	()	()	6.1	6.6	7.0	2.3	14.5	4.1	32.1	.4	.3	1.6	69.2	56.6	12.4	90.2	60.1	149.6	117.2	101.5	93.0	79.8	31.0	58.3
	1929 11.1	()	()	5.5	8.1	5.9	1.2	12.5	3.2	144.0	.7	.7	1.0	70.4	59.5	9.3	88.1	50.3	163.4	115.8	111.7	93.5	78.5	31.8	75.0
Wisconsin.....	1930 10.4	56	()	9.2	6.4	4.7	3.5	3.5	2.5	16.1	.5	.9	2.5	53.3	111.4	()	()	()	()	()	()	74.6	()	8.0	()
	1929 11.1	64	()	()	1.2	3.3	2.8	4.4	2.4	17.5	.4	1.9	4.7	53.1	106.5	()	()	()	()	()	()	81.3	()	11.4	()
	1928 ()	62	()	()	.7	.5	2.5	2.2	3.3	35.5	.6	1.6	3.4	60.6	()	()	()	()	()	()	()	88.2	()	12.0	()

1 Not available.

2 Exclusive of New York City.

PRINCIPAL CAUSES OF DEATH IN THE REGISTRATION AREA, 1929

(Provisional Summary)

The Department of Commerce announces that 1,386,363 deaths occurred in 1929 in the registration area in continental United States, corresponding to a rate of 11.9 per 1,000 population, as compared with 12.1 in 1928.

In 1929 the registration area comprised 46 States, the District of Columbia, and 9 cities in nonregistration States, with an estimated population on July 1, 1929, of 116,275,139, or 95.7 per cent of the total population. In 1928 the registration area included 95.3 per cent of the total population.

The death rate from all causes per 100,000 population decreased from 1,207.1 in 1928 to 1,192.3 in 1929. This net decrease was almost entirely balanced by increases in influenza (from 45.3 to 55.5), diseases of the heart (208.3 to 210.9), and meningococcus meningitis (2.6 to 4.5). Deaths from these three diseases alone caused 21.2 per cent of all deaths in 1928 and 22.7 per cent in 1929.

Among the epidemic and endemic diseases listed in this summary, seven showed lower rates in 1929 than in 1928, the outstanding reduction being for measles (5.4 to 2.5), which caused less than half as many deaths in 1929 as in 1928. Decreases were shown also for typhoid and paratyphoid fever, diphtheria, acute anterior poliomyelitis, dysentery, lethargic encephalitis, and malaria. Other epidemic and endemic diseases showed increased rates, among them being whooping cough, scarlet fever, and erysipelas.

Decreases among other important causes were for pneumonia, all forms (from 98.2 in 1928 to 91.7 in 1929), nephritis (95.3 to 91.2), congenital malformations and diseases of early infancy (65.8 to 62.4), tuberculosis, all forms (79.4 to 76.0), diarrhea and enteritis, under 2 years (20.7 to 17.9), diabetes mellitus (19.0 to 18.8), cancer (96.1 to 96.0), and pellagra (6.1 to 5.8). Deaths from alcoholism decreased from a rate of 4.1 in 1928 to 3.7 in 1929.

Deaths from accidental and unspecified external causes increased from 79.4 to 80.9. The types of accidents which showed the most noticeable increases were automobile accidents, excluding collisions with railroad trains and street cars (20.8 to 23.3) and accidental falls (14.1 to 14.6). A slight decrease was shown for deaths from drowning (7.1 to 6.2).

Deaths and death rates, by principal causes, registration area, 1929 and 1928

Cause of death	Deaths in the registration area in continental United States			
	Number		Rate per 100,000 estimated population	
	1929	1928	1929	1928
All causes ¹	1,386,363	1,378,675	1,192.3	1,207.1
Typhoid and paratyphoid fever.....	4,854	5,620	4.2	4.9
Malaria.....	4,084	4,167	3.5	3.6
Smallpox.....	151	131	.1	.1
Measles.....	2,923	6,146	2.5	5.4
Scarlet fever.....	2,468	2,229	2.1	2.0
Whooping cough.....	7,310	6,284	6.3	5.5
Diphtheria.....	7,685	8,263	6.6	7.2
Influenza.....	64,583	51,741	55.5	45.3
Dysentery.....	2,777	3,215	2.4	2.8
Erysipelas.....	2,887	2,724	2.5	2.4
Acute anterior poliomyelitis.....	812	1,381	.7	1.2
Lethargic encephalitis.....	1,313	1,373	1.1	1.2
Meningococcus meningitis.....	5,208	2,923	4.5	2.6
Tuberculosis (all forms).....	88,352	90,659	76.0	79.4
Of the respiratory system.....	78,624	80,285	67.6	70.3
Of the meninges, central nervous system.....	3,114	3,446	2.7	3.0
Other forms.....	6,614	6,928	5.7	6.1
Syphilis ²	16,188	16,826	13.9	14.7
Cancer and other malignant tumors.....	111,569	109,770	96.0	96.1
Of the buccal cavity.....	3,538	3,555	3.0	3.1
Of the stomach, liver.....	37,915	38,128	32.6	33.4
Of the peritoneum, intestines, rectum.....	16,961	16,130	14.6	14.1
Of the female genital organs.....	15,944	15,839	13.7	13.9
Of the breast.....	10,204	10,056	8.8	8.8
Of the skin.....	2,934	3,020	2.5	2.6
Of other or unspecified organs.....	24,073	23,042	20.7	20.2
Rheumatism.....	4,401	4,324	3.8	3.8
Pellagra.....	6,793	6,960	5.8	6.1
Diabetes mellitus.....	21,829	21,747	18.8	19.0
Pernicious anemia.....	3,608	3,606	3.1	3.2
Alcoholism (acute or chronic).....	4,339	4,627	3.7	4.1
Meningitis (nonepidemic).....	3,594	3,287	3.1	2.9
Cerebral hemorrhage and softening.....	100,061	99,624	86.1	87.2
Paralysis without specified cause.....	5,532	5,827	4.8	5.1
Diseases of the heart.....	245,244	237,849	210.9	208.3
Diseases of the arteries, atheroma, aneurysm, etc.....	25,506	25,112	21.9	22.0
Bronchitis.....	5,470	5,975	4.7	5.2
Pneumonia (all forms).....	106,597	112,195	91.7	98.2
Respiratory diseases other than bronchitis and pneumonia (all forms).....	9,635	9,969	8.3	8.7
Ulcer of the stomach and duodenum.....	7,428	7,329	6.4	6.4
Diarrhea and enteritis.....	27,357	30,730	23.5	26.9
Diarrhea and enteritis (under 2 years).....	20,788	23,663	17.9	20.7
Diarrhea and enteritis (2 years and over).....	6,569	7,067	5.6	6.2
Appendicitis and typhlitis.....	17,687	17,433	15.2	15.3
Hernia, intestinal obstruction.....	12,283	11,954	10.6	10.5
Cirrhosis of the liver.....	8,377	8,630	7.2	7.6
Nephritis.....	106,056	108,813	91.2	95.3
Puerperal septicemia.....	5,822	5,692	5.0	5.0
Puerperal causes other than puerperal septicemia.....	9,496	9,999	8.2	8.8
Congenital malformations and diseases of early infancy.....	72,559	75,159	62.4	65.8
Suicide.....	16,260	15,566	14.0	13.6
Homicide.....	9,909	10,050	8.5	8.8
Accidental and unspecified external causes.....	94,033	90,712	80.9	79.4
Burns (conflagration excepted).....	6,168	6,323	5.3	5.5
Accidental drowning.....	7,252	8,084	6.2	7.1
Accidental shooting.....	3,015	2,839	2.6	2.5
Accidental falls.....	16,919	16,116	14.6	14.1
Mine accidents.....	2,661	2,639	2.3	2.3
Machinery accidents.....	2,281	2,180	2.0	1.9
Railroad accidents.....	6,769	6,796	5.8	6.0
Collision with automobile.....	1,958	2,041	1.7	1.8
Other railroad accidents.....	4,811	4,755	4.1	4.2
Street-car accidents.....	1,439	1,581	1.2	1.4
Collision with automobile.....	507	542	.4	.5
Other street-car accidents.....	932	1,039	.8	.9
Automobile accidents (excluding collision with railroad trains and street cars).....	27,066	23,765	23.3	20.8

¹ Exclusive of stillbirths.² Includes tabes dorsalis (locomotor ataxia) and general paralysis of the insane.

Deaths and death rates, by principal causes, registration area, 1929 and 1928—Contd.

Cause of death	Deaths in the registration area in continental United States			
	Number		Rate per 100,000 estimated population	
	1929	1928	1929	1928
Accidental and unspecified external causes—Continued.				
Injuries by vehicles other than railroad trains, street cars, and automobiles *	1,910	1,819	1.6	1.6
Excessive heat (burns excepted)	500	654	.4	.6
Other external causes	18,053	17,916	15.5	15.7
All other defined causes	109,065	108,533	93.8	95.0
Unknown or ill-defined causes	24,258	23,560	20.9	20.6

* Includes airplanes, balloon, and motor-cycle accidents.

NOTE.—Rates in this summary are based upon revised estimates of population, derived from the 1920 and 1930 censuses, and it will be seen that the rates shown for 1928 vary only slightly from those previously published, which were based on estimates projected from the 1910 and 1920 censuses.

BIRTH RATES AND INFANT MORTALITY RATES, 1929

The Department of Commerce has recently issued the accompanying table showing by States the birth rates for 1929 and the infant mortality rates from 1915 to 1929, inclusive. In 1929 the infant mortality rate (deaths of infants under one year of age per 1,000 live births) showed a marked decrease as compared with 1915. In fact the rate (68) was the second lowest since the establishment of the birth registration area in 1915. At that time this area was composed of 10 States and the District of Columbia and included 31.1 per cent of the population of continental United States, while in 1929 there were 46 States and the District of Columbia in this area, and 94.7 per cent of the total population of continental United States.

For the sixth consecutive year Oregon leads the States with the lowest infant mortality rate (48). In 1929, 11 States had lower rates than at any time since their admission to the registration area. These were Minnesota (51), Arkansas (58), New Jersey (60), Illinois (61), Massachusetts (62), Florida (65), Michigan (66), New Hampshire (68), Louisiana (74), Georgia (76), and South Carolina (91). Two States, Iowa and Maryland, in 1928 attained their lowest rates, which did not change in 1929.

Taking the rate for the registration area of continental United States as a basis, 24 States had lower infant mortality rates in 1929 and 21 had higher rates, while New Hampshire's rate was identical. With the exceptions of Colorado, Maine, and Wyoming, the high infant mortality rates in these 21 States were due to the great infant mortality among the colored populations, especially in rural districts.

The birth rate for the year 1929 was 18.9, the lowest for any year since the establishment of the birth registration area. Oregon had the lowest rate (14.1) of any State in the registration area. Signifi-

cant of "the declining birth rate" are the rates of 25 States which are lower than the rate for the birth registration area of continental United States. The highest birth rate, 26.9, is recorded for New Mexico; and Utah, 24.8, North Carolina, 24.7, Alabama, 24.0, West Virginia, 23.8, Mississippi, 22.9, South Carolina, 22.8, follow in the order named. It will be noted that, with two exceptions, the high rates in these States are undoubtedly due to the large percentage of colored population.

Birth rate, 1929, and infant mortality rates, by States, 1915 to 1929

Area	Birth rate, 1929	Infant mortality rate (deaths under 1 year of age per 1,000 live births)														
		1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915
Birth registration area in continental United States	18.9	68	69	65	73	72	71	77	76	76	86	87	101	94	101	100
Alabama	24.0	74	75	64												
Arizona	22.4	133	142	130	121											
Arkansas	20.2	58	67	61												
California	14.8	63	62	62	63	69	67	73	71	66	74	70				
Colorado	17.4	91	89													
Connecticut	17.2	64	59	59	72	73	69	77	77	73	92	86	107	94	101	107
Delaware	18.1	81	78	71	93	91	95	104	100	98						
District of Columbia	18.4	71	65	68	85	87	76	92	85	83	91	85	112	97	106	111
Florida	18.8	65	67	67	75	74	82									
Georgia	20.2	76	82													
Idaho	19.8	55	59	50	63											
Illinois	17.1	61	64	64	69	73	71	82	76							
Indiana	18.4	64	63	69	72	68	65	71	67	71	82	79	87	86		
Iowa	17.1	53	53	55	59	56	55									
Kansas	17.4	58	59	65	65	62	59	63	65	63	73	70	80	77		
Kentucky	21.7	71	70	61	75	71	65	72	69	62	73	82	93	87		
Louisiana	20.3	74	78	77												
Maine	19.9	77	73	80	80	76	81	89	86	88	102	91	101	93	108	105
Maryland	18.5	80	80	81	87	90	86	95	94	94	104	106	140	120	121	
Massachusetts	17.5	62	64	65	73	73	68	73	81	76	91	88	113	98	100	101
Michigan	20.8	66	69	68	77	75	72	80	75	79	92	90	89	85	96	86
Minnesota	18.3	51	54	52	58	60	57	62	58	59	66	67	71	67	70	70
Mississippi	22.9	72	74	67	70	68	71	68	68	68						
Missouri	17.0	62	66	60												
Montana	18.7	64	61	66	77	71	67	71	70							
Nebraska	19.4	52	53	51	59	58	55	57	57	59	64					
Nevada	14.2	67														
New Hampshire	17.6	68	69	69	79	76	80	93	80	87	88	93	113	110	115	110
New Jersey	17.2	60	65	61	70	69	70	72	79	74						
New Mexico	26.9	145														
New York	17.4	61	65	59	71	68	69	72	77	75	86	84	97	91	94	99
North Carolina	24.7	79	86	79	82	79	82	81	80	75	85	84	102	100		
North Dakota	21.5	67	59	63	69	72	67									
Ohio	17.7	69	66	62	76	70	67	75	72	75	83	90	94	92		
Oklahoma	16.8	70	69													
Oregon	14.1	48	47	48	52	51	54	57	58	51	62	63				
Pennsylvania	19.8	71	72	69	82	82	79	90	88	88	97	100	129	111	114	110
Rhode Island	18.0	72	67	67	82	73	80	94	85	93	(¹)	(¹)	126	108	111	120
South Carolina	22.8	91	97	(¹)	(¹)	(¹)	102	96	93	96	116	113				
Tennessee	19.5	77	81	71												
Utah	24.8	59	59	54	75	56	64	69	69	73	71	71	64	69		
Vermont	18.8	66	65	70	72	72	70	76	73	78	96	85	93	85	93	85
Virginia	22.4	79	76	75	84	81	78	84	77	79	84	91	103	98		
Washington	14.6	49	48	50	56	56	56	57	62	55	66	63	69	69		
West Virginia	23.8	78	70	72	82	80										
Wisconsin	19.1	60	61	59	69	67	65	70	71	72	77	80	79	78		
Wyoming	19.9	70	68		76	64	64	80	79							

¹ Dropped from the birth registration area.

COURT DECISION RELATING TO PUBLIC HEALTH

Statute requiring "suitable and proper" toilets in places where females were employed upheld.—(Kentucky Court of Appeals; *Bailey v. Commonwealth*, 30 S. W. (2d) 879; decided May 6, 1930.) A State law provided as follows:

Every person, firm or corporation employing females shall provide suitable and proper washrooms and water closets, or privy closets where sewer connection is impossible, and shall keep such closets at all times clean and properly screened and ventilated * * *

The appellant, who operated a laundry, was convicted in the trial courts of violating this law. In the court of appeals he challenged the constitutionality of the statute, contending that it was void for uncertainty because it failed to erect any standard of conduct possible for a person to know and observe. The question was whether the term "suitable and proper," as applied to toilet facilities, constituted a legal standard.

The court of appeals stated that "A penal or criminal statute must prescribe a rule of conduct with sufficient particularity to enable those affected by it to know what is demanded or forbidden," but it also stated that "a criminal law is not unconstitutional merely because it throws upon people the risk of rightly estimating a matter of degree which deals with fixed and actual, as distinguished from imaginary and unascertained, conditions." The court then pointed out that it had been held for many years that a statute requiring a railroad company to provide "a convenient and suitable waiting room and water closet * * * at all * * * cities and towns * * * and keep and maintain the same in decent order and repair" was valid, and that the standard set up by that statute had been defined by the court of appeals and was well understood when the act involved in the instant case was adopted. Proceeding, the court said:

It is not pointed out that any material difference exists between the standard of "suitable and convenient" imposed upon the railroads with respect to toilets, and that of "suitable and proper" addressed to another class, of which the appellant is a member, and referring to the same subject. One is as certain, exact, and comprehensive as the other, and as easily obeyed. And the later legislation has the added benefit of the light reflected by experience in the administration of the earlier enactment. We apprehend no practical difficulty could be encountered by any one in observing the directions of the statute. Washrooms and water closets are matters of such common convenience and everyday experience that it would be "easy for common sense to keep to what is safe," and avoid any danger from mistaking the meaning of the law. The settled construction of the words used in the railroad statutes furnishes a safe guide for anyone wishing to comply with the act here involved. The enactment is sufficiently specific to meet the constitutional requirements, since it plainly provides what is necessary to be done by those coming within its purview, and is not subject to the criticism that it is too vague and uncertain for practical observance. * * *

DEATHS DURING WEEK ENDED OCTOBER 18, 1930

Summary of information received by telegraph from industrial insurance companies for the week ended October 18, 1930, and corresponding week of 1929. (From the Weekly Health Index issued by the Bureau of the Census, Department of Commerce)

	Week ended Oct. 18, 1930	Corresponding week, 1929
Policies in force.....	75, 391, 169	74, 934, 881
Number of death claims.....	12, 205	13, 292
Death claims per 1,000 policies in force, annual rate.....	8.4	9.2

Deaths¹ from all causes in certain large cities of the United States during the week ended October 18, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index issued by the Bureau of the Census, Department of Commerce)

[The rates published in this summary are based upon mid-year population estimates derived from the 1930 census. The rates are not exactly comparable with similar rates published in the Public Health Reports earlier than the issue of August 22, 1930, which were based upon estimates made before the 1930 census was taken]

City	Week ended Oct. 18, 1930				Corresponding week 1929		Death rate ² for first 42 weeks	
	Total deaths	Death rate ¹	Deaths under 1 year	Infant mortality rate ¹	Death rate ¹	Deaths under 1 year	1930	1929
Total (78 cities).....	7, 211	10.9	717	4.58	11.7	679	12.0	12.8
Akron.....	37	7.6	5	46	8.1	3	8.0	9.4
Albany ⁴	23	9.4	3	62	14.4	5	14.8	16.5
Atlanta.....	65	12.7	10	102	17.7	4	15.9	16.2
White.....	28		4	63		1		
Colored.....	37	(9)	6	172	(9)	3	(9)	(9)
Baltimore ⁴	189	12.3	15	52	14.4	22	14.0	14.8
White.....	146		12	53		14		
Colored.....	43	(9)	3	49	(9)	8	(9)	(9)
Birmingham.....	65	13.1	14	135	15.9	8	13.8	16.2
White.....	23		0	0		3		
Colored.....	42	(9)	14	343	(9)	5	(9)	(9)
Boston.....	211	14.0	18	52	11.4	24	14.1	15.1
Bridgeport.....	31	11.0	4	68	10.3	2	11.0	12.3
Buffalo.....	129	11.7	12	54	14.7	16	13.0	14.1
Cambridge.....	32	14.7	3	60	17.0	7	11.9	12.6
Camden.....	27	12.0	3	105	14.7	5	13.6	14.5
Canton.....	22	10.8	3	80	12.0	1	10.0	11.4
Chicago ⁴	579	8.9	53	47	10.7	44	10.4	11.3
Cincinnati.....	105	12.2	12	71	17.3	14	15.6	17.2
Cleveland.....	188	10.3	17	51	11.5	18	11.1	12.6
Columbus.....	66	11.9	8	79	10.9	5	15.7	14.9
Dallas.....	42	8.3	7		11.3	8	11.3	11.6
White.....	30		4			8		
Colored.....	12	(9)	3		(9)	0	(9)	(9)
Dayton.....	53	13.7	7	105	13.0	7	10.8	11.7
Denver.....	65	11.8	5	55	15.5	8	14.8	14.9
Des Moines.....	37	13.5	6	111	9.6	3	11.8	11.7
Detroit.....	238	7.8	37	57	9.8	31	9.4	11.3
Duluth.....	21	10.8	0	0	7.2	0	11.3	11.6
El Paso.....	36	18.3	4		18.7	8	17.5	19.9
Erie.....	14	6.3	1	22	11.8	2	11.2	12.5
Fall River ⁴	24	10.9	4	92	13.2	2	12.0	13.9
Flint.....	27	8.9	6	71	8.6	6	9.2	10.9
Fort Worth.....	27	8.7	0		9.2	1	11.1	12.4
White.....	26		0			1		
Colored.....	1	(9)	0		(9)	0	(9)	(9)
Grand Rapids.....	28	8.6	4	60	10.7	4	10.3	10.2
Houston.....	47	8.4	6		13.0	13	12.2	12.8
White.....	34		2			11		
Colored.....	13	(9)	4		(9)	2	(9)	(9)
Indianapolis.....	83	11.9	4	30	14.2	6	14.7	14.8
White.....	71		3	26		6		
Colored.....	12	(9)	1	58	(9)	0	(9)	(9)
Jersey City.....	73	12.0	11	95	9.8	4	11.3	12.5
Kansas City, Kans.....	31	13.2	3	70	12.0	3	11.8	12.2
White.....	24		2	55		1		
Colored.....	7	(9)	1	152	(9)	2	(9)	(9)
Kansas City, Mo.....	97	12.8	14	117	14.4	8	13.5	14.1
Knoxville.....	38	18.6	4	94	10.1	0	13.7	14.0
White.....	31		3	78		0		
Colored.....	7	(9)	1	243	(9)	0	(9)	(9)

See footnotes at end of table.

Deaths¹ from all causes in certain large cities of the United States during the week ended October 18, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929—Continued

City	Week ended Oct. 18, 1930				Corresponding week 1929		Death rate ² for first 42 weeks	
	Total deaths	Death rate ³	Deaths under 1 year	Infant mortality rate ⁴	Death rate ⁵	Deaths under 1 year	1930	1929
Los Angeles.....	264	10.6	15	45	11.2	19	11.1	11.4
Louisville.....	86	14.6	5	43	13.6	9	13.6	15.0
White.....	57		4	39		6		
Colored.....	29	(⁶)	1	66	(⁶)	3	(⁶)	(⁶)
Lowell ⁷	30	15.6	5	123	13.4	3	13.5	14.2
Lynn.....	16	8.1	1	28	8.2	2	10.4	11.4
Memphis.....	83	17.1	11	129	15.0	4	17.1	19.2
White.....	33		6	108		2		
Colored.....	50	(⁶)	5	168	(⁶)	2	(⁶)	(⁶)
Milwaukee.....	103	9.4	12	53	8.8	15	9.8	11.1
Minneapolis.....	89	10.0	3	20	9.4	4	10.7	10.8
Nashville.....	61	21.6	15	235	18.8	9	17.5	18.9
White.....	39		10	210		7		
Colored.....	22	(⁶)	5	311	(⁶)	2	(⁶)	(⁶)
New Bedford ⁷	28	12.9	5	128	4.6	0	10.9	12.2
New Haven.....	27	8.7	2	31	14.1	0	12.7	13.4
New Orleans.....	157	17.9	18	190	16.0	16	17.5	17.7
White.....	83		8	68		4		
Colored.....	64	(⁶)	10	162	(⁶)	12	(⁶)	(⁶)
New York.....	1,275	9.5	110	46	10.4	106	10.8	11.4
Bronx Borough.....	157	6.4	13	38	7.7	15	7.9	8.3
Brooklyn Borough.....	422	8.4	53	56	10.0	53	9.7	10.3
Manhattan Borough.....	523	14.7	38	49	14.0	33	16.1	16.5
Queens Borough.....	139	6.6	5	20	7.2	4	7.1	7.7
Richmond Borough.....	34	11.2	1	19	15.9	1	14.4	16.0
Newark, N. J.....	90	10.5	9	47	10.9	11	12.0	12.8
Oakland.....	49	8.9	7	87	8.6	2	10.9	11.4
Oklahoma City.....	40	11.3	7	126	11.2	3	10.9	10.8
Omaha.....	50	12.1	2	24	12.8	8	13.5	13.7
Paterson.....	18	6.8	1	17	10.6	2	12.2	13.3
Philadelphia.....	427	11.3	47	70	13.1	33	12.5	13.2
Pittsburgh.....	176	13.7	81	110	11.8	20	13.8	14.8
Portland, Oreg.....	71	12.3	8	99	10.7	1	12.2	12.7
Providence.....	57	11.8	7	65	13.6	12	13.1	14.6
Richmond.....	66	15.9	7	102	19.2	8	14.8	16.4
White.....	32		3	66		3		
Colored.....	24	(⁶)	4	171	(⁶)	5	(⁶)	(⁶)
Rochester.....	70	11.2	9	80	5	5	11.7	12.4
St. Louis.....	193	12.2	12	42	12.2	10	14.2	14.7
St. Paul.....	54	10.4	2	20	13.0	2	10.1	10.5
Salt Lake City ⁸	35	13.0	3	48	10.5	3	12.2	13.0
San Antonio.....	41	8.3	6		10.9	7	14.9	14.5
San Diego.....	39	13.6	1	21	15.7	1	14.4	15.2
San Francisco.....	138	11.4	2	14	8.9	6	13.1	13.1
Schenectady.....	21	11.4	1	31	7.7	2	11.3	12.3
Seattle.....	70	10.0	0	0	12.9	5	10.9	11.2
Somerville.....	16	8.0	2	63	6.1	1	9.8	9.3
Spokane.....	26	11.7	4	104	11.8	1	12.3	12.8
Springfield, Mass.....	34	11.8	1	17	11.2	4	12.2	12.9
Syracuse.....	49	12.3	4	49	13.0	5	11.7	13.2
Tacoma.....	27	13.2	0	0	13.2	1	12.3	11.9
Toledo.....	82	14.7	4	37	12.1	7	12.7	13.6
Trenton.....	40	17.0	5	96	11.9	5	16.8 ⁹	17.1
Utica.....	28	14.2	0	0	24.5	5	14.6	15.8
Washington, D. C.....	128	13.7	15	88	14.2	8	15.1	15.4
White.....	79		4	35		4		
Colored.....	49	(⁶)	11	196	(⁶)	4	(⁶)	(⁶)
Waterbury.....	11	5.7	1	24	10.9	3	9.5	9.6
Wilmington, Del. ⁷	25	12.4	2	48	15.3	2	14.6	14.0
Worcester.....	43	11.4	7	97	13.4	5	12.7	12.7
Yonkers.....	21	8.1	0	0	8.3	3	8.0	9.3
Youngstown.....	27	8.3	2	29	12.6	9	10.3	12.3

¹ Deaths of nonresidents are included. Stillbirths are excluded.

² These rates represent annual rates per 1,000 population, as estimated for 1930 and 1929 by the arithmetical method.

³ Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.

⁴ Data for 73 cities.

⁵ Deaths for week ended Friday.

⁶ For the cities for which deaths are shown by color the colored population in 1929 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.

⁷ Population Apr. 1, 1930; decreased 1920 to 1930; no estimate made.

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 October 25, 1930, and October 26, 1929

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 25, 1930, and October 26, 1929

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929
New England States:								
Maine.....	1	2		1	3	27	1	0
New Hampshire.....	1	3		7		24	0	1
Vermont.....	1	1					0	0
Massachusetts.....	81	131	1	1	113	125	2	3
Rhode Island.....	8	13		3			0	0
Connecticut.....	7	24	1	3	13	2	0	1
Middle Atlantic States:								
New York.....	63	121	14	17	75	120	12	15
New Jersey.....	65	116	7	2	25	15	0	6
Pennsylvania.....	120	176			133	238	0	5
East North Central States:								
Ohio.....	57	98	10	16	13	136	1	3
Indiana.....	45	27			15	18	1	0
Illinois.....	143	234	16	11	25	112	6	3
Michigan.....	80	121	6	1	50	127	8	21
Wisconsin.....	16	22	18	6	77	182	0	3
West North Central States:								
Minnesota.....	11	41			7	21	1	0
Iowa.....	11	15				71	1	0
Missouri.....	40	64	1	6	69	13	8	4
North Dakota.....		11				18	0	3
South Dakota.....	7	6			2		0	2
Nebraska.....	7	23				22	1	0
Kansas.....	15	31	2		7	17	0	0
South Atlantic States:								
Delaware.....	1	2					0	0
Maryland ¹	41	21	8	17	2	4	0	1
District of Columbia.....	7	9	1	2	2	1	0	0
Virginia.....								
West Virginia.....	43	39	8	14	24	11	0	1
North Carolina.....	192	278	6	4	3	2	1	2
South Carolina.....	53	68	391				0	0
Georgia.....	24	44	59	45	3	3	0	2
Florida.....	17	19		4	2	1	0	0
East South Central States:								
Kentucky.....	24	30					2	0
Tennessee.....	64	46	17	61	12	20	2	1
Alabama.....	89	88	25	36	15	11	3	3
Mississippi.....	61	103					1	1

¹ New York City only.

¹ Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 25, 1930, and October 26, 1929—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929
West South Central States:								
Arkansas.....	9	24	6	19	1	0	0	0
Louisiana.....	16	50	6	6	1	2	0	0
Oklahoma ¹	77	78	15	29	8	23	0	0
Texas.....	30	98	33	21	4	4	0	0
Mountain States:								
Montana.....	1	1			1	68	0	2
Idaho.....	1				1	2	0	4
Wyoming.....				1			0	2
Colorado.....	17	5			51	3	0	1
New Mexico.....	5	10			8		1	0
Arizona.....	13	18	4	3	28	1	1	0
Utah ¹		2		4	3	1	2	2
Pacific States:								
Washington.....	27	33		12	3	12	2	6
Oregon.....	4	7	5	10	54	14	1	0
California.....	69	75	23	32	86	40	8	6
Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929
New England States:								
Maine.....	11	0	17	24	0	0	14	3
New Hampshire.....	5	0	8	16	0	0	3	0
Vermont.....	0	0	10	3	0	0	0	0
Massachusetts.....	22	7	105	175	0	0	8	7
Rhode Island.....	1	1	11	16	0	0	5	1
Connecticut.....	3	1	16	33	0	0	7	3
Middle Atlantic States:								
New York.....	19	14	179	169	1	25	43	29
New Jersey.....	1	1	71	69	0	0	12	8
Pennsylvania.....	4	9	319	255	4	2	61	59
East North Central States:								
Ohio.....	49	11	230	202	14	56	41	29
Indiana.....	8	0	92	61	28	31	15	3
Illinois.....	28	3	207	285	28	74	39	24
Michigan.....	20	8	139	153	17	38	24	7
Wisconsin.....	8	0	59	62	6	6	2	2
West North Central States:								
Minnesota.....	13	2	36	74	6	5	4	4
Iowa.....	14	7	45	69	13	23	1	2
Missouri.....	13	0	38	86	20	6	22	9
North Dakota.....	1	1	13	17	7	12	2	3
South Dakota.....	8	0	4	11	7	21	1	1
Nebraska.....	14	0	26	8	2	3	0	2
Kansas.....	43	0	38	60	7	13	10	2
South Atlantic States:								
Delaware.....	0	1	3	3	0	0	9	0
Maryland ¹	4	1	48	61	0	0	47	18
District of Columbia.....	1	1	18	7	0	0	2	1
Virginia.....	9					6		
West Virginia.....	1	5	77	46	1	1	46	24
North Carolina.....	0	4	133	138	0	2	13	17
South Carolina.....	1	5	27	37	2	0	32	28
Georgia.....	1	4	40	64	0	0	22	15
Florida.....	0	0	5	13	2	0	3	3
East South Central States:								
Kentucky.....	0	1	43	72	0	7	19	10
Tennessee.....	2	2	50	52	7	1	37	18
Alabama.....	1	2	67	79	0	0	26	32
Mississippi.....	1	0	36	38	0	0	14	14
West South Central States:								
Arkansas.....	1	0	7	36	3	0	21	11
Louisiana.....	4	0	13	21	0	0	15	11
Oklahoma ¹	1	0	38	50	11	13	39	26
Texas.....	4	1	21	31	4	2	19	7

¹ Week ended Friday.

² Figures for 1930 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 25, 1930, and October 26, 1929—Continued

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929	Week ended Oct. 25, 1930	Week ended Oct. 26, 1929
Mountain States:								
Montana.....	1	1	8	26	0	8	2	18
Idaho.....	3	0	1	14	0	4	2	0
Wyoming.....	1	0	7	7	0	1	2	0
Colorado.....	5	0	17	13	0	5	5	10
New Mexico.....	0	0	3	10	0	1	12	12
Arizona.....	2	0	9	6	5	0	3	1
Utah ¹	0	0	7	6	0	0	3	2
Pacific States:								
Washington.....	4	0	65	42	29	35	14	8
Oregon.....	2	2	14	16	14	10	4	3
California.....	72	0	66	145	11	31	14	10

¹ Week ended Friday.

SUMMARY OF MONTHLY REPORTS FROM STATES

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

State	Menin- gococ- cus menin- gitis	Diph- theria	Influa- enza	Ma- laria	Mea- sles	Pe- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>September, 1930</i>										
Alabama.....	6	107	21	687	30	35	5	116	5	117
California.....	12	130	66	4	192	5	250	176	42	70
Delaware.....		5	1		3		2	16	0	25
Georgia.....	2	81	60	440	47	56	5	73	18	163
Idaho.....	1	16			12		3	22	6	7
Illinois.....	16	387	35	50	56		131	400	64	193
Louisiana.....	1	108	15	132	12	39	39	57	4	131
Minnesota.....	3	56	7		6		98	119	11	22
Missouri.....	15	105	5	31	40		68	107	19	132
North Carolina.....	9	456	50		18	350	21	321	2	163
Oklahoma ¹	4	94	17	318	10	42	32	64	25	171
Pennsylvania.....	30	379		2	245	1	48	474	0	396
Rhode Island.....	1	19			4		9	27		11
South Dakota.....	1	42	27		12		26	24	36	11
Washington.....	6	35	7		34		10	118	59	21
West Virginia.....		81	18		45		8	108	15	240

¹ Diagnosis in a case reported in August in Fayette County as typhoid fever has been changed to tularæmia, making the totals reported for that month 166 cases of typhoid fever and 2 cases of tularæmia. (See Public Health Reports for Oct. 3, 1930, pp. 2396 and 2397.)

² Exclusive of Oklahoma City and Tulsa.

<i>September, 1930</i>		Chicken pox—Continued.	
Anthrax:	Cases		Cases
Delaware.....	1	Louisiana.....	4
Louisiana.....	1	Minnesota.....	70
Pennsylvania.....	3	Missouri.....	26
Botulism:		North Carolina.....	39
California.....	5	Pennsylvania.....	245
Chicken pox:		Rhode Island.....	5
Alabama.....	18	South Dakota.....	13
California.....	264	Washington.....	84
Delaware.....	2	West Virginia.....	10
Georgia.....	21	Conjunctivitis:	
Idaho.....	1	Georgia.....	1
Illinois.....	144	Oklahoma ¹	1

¹ Exclusive of Oklahoma City and Tulsa.

Disease	Cases	Disease	Cases
Dengue:		Paratyphoid fever:	
Alabama.....	1	California.....	3
Georgia.....	1	Georgia.....	5
Dysentery:		Illinois.....	3
California (amebic).....	2	Louisiana.....	3
California (bacillary).....	9	North Carolina.....	3
Georgia.....	25	Washington.....	5
Illinois.....	66	Puerperal septicemia:	
Illinois (amebic).....	8	Illinois.....	10
Illinois (bacillary).....	10	Pennsylvania.....	15
Louisiana.....	4	Rabies in animals:	
Minnesota (unspecified).....	23	California.....	60
Minnesota (amebic).....	2	Illinois.....	2
Oklahoma ¹	32	Louisiana.....	10
Pennsylvania.....	19	Missouri.....	7
Washington.....	4	Rhode Island.....	2
Food poisoning:		Rabies in man:	
California.....	24	Alabama.....	2
German measles:		Scabies:	
California.....	22	Delaware.....	1
Georgia.....	228	Oklahoma ²	1
Illinois.....	14	Washington.....	13
North Carolina.....	8	Septic sore throat:	
Pennsylvania.....	37	Georgia.....	13
Rhode Island.....	3	Illinois.....	3
Washington.....	22	Louisiana.....	1
Granuloma, coccidioidal:		Minnesota.....	2
California.....	2	Missouri.....	12
Hookworm disease:		North Carolina.....	18
Georgia.....	228	Oklahoma ²	22
Louisiana.....	24	Tetanus:	
Impetigo contagiosa:		California.....	2
Washington.....	5	Georgia.....	1
Lead poisoning:		Illinois.....	7
Illinois.....	4	Louisiana.....	6
Leprosy:		Oklahoma ²	3
Illinois.....	1	Pennsylvania.....	8
Lethargic encephalitis:		South Dakota.....	1
Alabama.....	6	Trachoma:	
California.....	8	California.....	19
Illinois.....	4	Georgia.....	5
Louisiana.....	4	Illinois.....	27
Minnesota.....	1	Minnesota.....	1
Pennsylvania.....	8	Missouri.....	152
Washington.....	5	Oklahoma ²	4
Mumps:		Pennsylvania.....	10
Alabama.....	15	South Dakota.....	1
California.....	367	Trichinosis:	
Delaware.....	3	California.....	2
Georgia.....	11	Pennsylvania.....	1
Iowa.....	7	Tularaemia:	
Illinois.....	164	California.....	2
Louisiana.....	1	Illinois ¹	1
Missouri.....	27	Louisiana.....	1
Oklahoma ²	2	Minnesota.....	1
Pennsylvania.....	174	Missouri.....	2
Rhode Island.....		Washington.....	1
South Dakota.....	1	Typhus fever:	
Washington.....	67	Alabama.....	19
Ophthalmia neonatorum:		Georgia.....	18
Delaware.....	1	North Carolina.....	3
Illinois.....	20	Undulant fever:	
Missouri.....	3	Alabama.....	2
Pennsylvania.....	16	California.....	13

¹ Diagnosis in a case reported in August in Fayette County as typhoid fever has been changed to tularaemia, making the totals reported for that month 166 cases of typhoid fever and 2 cases of tularaemia. (See Public Health Reports for Oct. 3, 1930, pp. 2396 and 2397.)

² Exclusive of Oklahoma City and Tulsa.

Undulant fever—Continued.	Cases	Whooping cough—Continued.	Cases
Georgia.....	1	Georgia.....	41
Illinois.....	2	Iowa.....	52
Louisiana.....	2	Illinois.....	521
Minnesota.....	8	Louisiana.....	20
Missouri.....	10	Minnesota.....	83
Pennsylvania.....	1	Missouri.....	74
Washington.....	5	North Carolina.....	325
Vincent's angina:		Oklahoma ¹	14
Illinois.....	3	Pennsylvania.....	776
Oklahoma ¹	1	Rhode Island.....	48
Whooping cough:		South Dakota.....	19
Alabama.....	75	Washington.....	162
California.....	408	West Virginia.....	65
Delaware.....	1		

¹ Exclusive of Oklahoma City and Tulsa.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 98 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 32,165,000. The estimated population of the 91 cities reporting deaths is more than 30,570,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended October 18, 1930, and October 19, 1929

	1930	1929	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,563	2,376	-----
98 cities.....	441	823	942
Measles:			
45 States.....	876	1,364	-----
98 cities.....	220	182	-----
Meningococcus meningitis:			
46 States.....	86	106	-----
98 cities.....	36	58	-----
Poliomyelitis:			
46 States.....	569	131	-----
Scarlet fever:			
46 States.....	2,317	2,694	-----
98 cities.....	759	841	723
Smallpox:			
46 States.....	188	353	-----
98 cities.....	10	71	9
Typhoid fever:			
46 States.....	770	632	-----
98 cities.....	104	106	108
<i>Deaths reported</i>			
Influenza and pneumonia:			
91 cities.....	464	603	-----
Smallpox:			
91 cities.....	0	1	-----
Tacoma, Wash.....	0	1	-----

City reports for week ended October 18, 1930

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 non-epidemic 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 1921 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	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths reported
		Cases, estimated expect- ancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland.....	2	1	1		0	0	0	1
New Hampshire:								
Concord.....	0	0	0		0	0	0	0
Manchester.....	0	1	0		0	3	0	0
Nashua.....	0	0	1		0	0	0	0
Vermont:								
Barre.....	0	0	0		0	0	0	0
Burlington.....	1	1	0		0	0	0	0
Massachusetts:								
Boston.....	16	26	13	1	0	15	1	20
Fall River.....	2	4	4		0	0	0	1
Springfield.....	15	4	1		1	0	4	2
Worcester.....	3	4	2		0	0	2	0
Rhode Island:								
Pawtucket.....	0	1	0		0	0	0	2
Providence.....	4	7	5		1	0	0	2
Connecticut:								
Bridgeport.....	0	5	0		1	2	0	3
Hartford.....	0	4	2		0	3	3	3
New Haven.....	1	0	1		0	0	1	2
MIDDLE ATLANTIC								
New York:								
Buffalo.....	11	13	8		0	4	2	10
New York.....	28	120	42	6	5	31	18	86
Rochester.....	6	4	2		0	1	0	4
Syracuse.....	10	3	0		0	0	3	0
New Jersey:								
Camden.....	5	7	1	1	1	2	0	1
Newark.....	3	13	8	5	0	1	4	4
Trenton.....	1	2	0		0	0	0	2
Pennsylvania:								
Philadelphia.....	17	51	5	9	3	7	7	24
Pittsburgh.....	5	21	7		0	2	2	22
Reading.....	2	1	0		0	0	7	2
EAST NORTH CENTRAL								
Ohio:								
Cincinnati.....	3	11	1		0	1	1	11
Cleveland.....	36	48	6	4	1	0	7	9
Columbus.....	3	5	5		0	1	3	4
Toledo.....	12	9	6		0	2	3	5
Indiana:								
Fort Wayne.....	3	4	0		0	0	0	0
Indianapolis.....	3	15	5		0	3	1	5
South Bend.....	10	2	1		0	0	0	1
Terre Haute.....	0	2	1		1	0	0	3
Illinois:								
Chicago.....	91	102	69	1	3	6	29	27
Springfield.....	2	1	0	1	0	0	0	0
Michigan:								
Detroit.....	33	64	51	6	1	3	3	13
Flint.....	11	5	2		0	3	1	1
Grand Rapids.....	4	3	0		0	0	1	2

City reports for week ended October 18, 1930

Division, State, and City	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—contd.								
Wisconsin:								
Kenosha.....	12	1	0	-----	0	1	1	0
Madison.....	5	0	0	-----	0	0	5	-----
Milwaukee.....	23	16	6	-----	0	4	9	5
Racine.....	10	1	0	-----	0	0	0	0
Superior.....	2	0	0	-----	0	0	0	0
WEST NORTH CENTRAL								
Minnesota:								
Duluth.....	20	2	2	-----	0	0	0	1
Minneapolis.....	29	32	2	-----	0	2	12	3
St. Paul.....	16	13	6	-----	0	0	1	3
Iowa:								
Davenport.....	1	1	1	-----	0	0	0	-----
Des Moines.....	0	5	0	-----	0	0	0	-----
Sioux City.....	0	2	7	-----	0	0	1	-----
Waterloo.....	12	0	0	-----	0	0	0	-----
Missouri:								
Kansas City.....	10	10	6	-----	0	2	0	7
St. Joseph.....	0	2	0	-----	0	0	0	1
St. Louis.....	5	40	8	-----	1	68	2	-----
North Dakota:								
Fargo.....	8	0	0	-----	0	0	2	0
Grand Forks.....	0	0	0	-----	0	0	0	-----
South Dakota:								
Aberdeen.....	0	0	0	-----	0	0	0	-----
Sioux Falls.....	0	0	0	-----	0	0	0	-----
Nebraska:								
Lincoln.....	6	3	1	-----	0	0	2	0
Omaha.....	5	14	6	-----	0	2	1	3
Kansas:								
Topeka.....	1	2	2	-----	1	0	2	0
Wichita.....	1	4	0	-----	0	0	0	0
SOUTH ATLANTIC								
Delaware:								
Wilmington.....	2	2	0	-----	0	0	0	3
Maryland:								
Baltimore.....	20	22	8	-----	5	0	1	12
Cumberland.....	0	0	0	-----	0	0	0	1
Frederick.....	0	1	1	-----	0	0	0	0
District of Columbia:								
Washington.....	1	17	6	-----	0	1	0	7
Virginia:								
Lynchburg.....	0	4	1	-----	0	2	0	0
Norfolk.....	1	3	5	-----	0	1	0	4
Richmond.....	1	22	6	-----	1	1	0	3
Roanoke.....	0	7	3	-----	1	0	1	1
West Virginia:								
Charleston.....	0	2	2	-----	0	0	5	5
Wheeling.....	6	1	0	-----	0	0	0	1
North Carolina:								
Raleigh.....	1	4	3	-----	0	0	0	0
Wilmington.....	0	2	7	-----	0	0	0	2
Winston-Salem.....	1	6	1	-----	0	0	1	4
South Carolina:								
Charleston.....	0	1	2	-----	2	0	0	0
Columbia.....	1	1	1	-----	0	0	1	3
Greenville.....	0	2	1	-----	0	0	0	0
Georgia:								
Atlanta.....	0	10	5	-----	12	0	0	4
Brunswick.....	0	0	0	-----	0	0	0	0
Savannah.....	0	2	2	-----	2	0	0	2
Florida:								
Miami.....	0	2	1	-----	0	0	0	2
St. Petersburg.....	0	0	0	-----	0	0	0	0
Tampa.....	0	3	2	-----	0	0	0	0

City reports for week ended October 18, 1930—Continued

Division, State, and City	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST SOUTH CENTRAL								
Kentucky:								
Covington.....	0	2	2	-----	0	0	0	1
Tennessee:								
Memphis.....	1	9	10	-----	0	0	1	11
Nashville.....	2	2	2	-----	0	0	0	7
Alabama:								
Birmingham.....	0	6	4	-----	0	1	0	5
Mobile.....	0	2	2	-----	0	0	0	1
Montgomery.....	0	3	4	-----	2	0	0	-----
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith.....	0	2	0	-----	-----	0	0	-----
Little Rock.....	1	2	2	-----	0	0	0	1
Louisiana:								
New Orleans.....	0	11	10	-----	2	1	0	16
Shreveport.....	0	2	1	-----	0	0	0	0
Oklahoma:								
Muskogee.....	0	5	4	-----	1	0	0	0
Tulsa.....	0	5	4	-----	-----	0	1	-----
Texas:								
Dallas.....	1	17	9	-----	0	0	1	2
Fort Worth.....	2	5	0	-----	0	0	0	0
Galveston.....	0	0	0	-----	0	0	0	1
Houston.....	0	7	8	-----	0	0	0	2
San Antonio.....	0	3	4	-----	0	0	0	3
MOUNTAIN								
Montana:								
Billings.....	0	0	0	-----	0	0	0	0
Great Falls.....	2	1	0	-----	0	0	0	1
Helena.....	0	0	0	-----	0	0	0	0
Missoula.....	10	0	0	-----	0	0	0	0
Idaho:								
Boise.....	0	0	0	-----	0	0	0	1
Colorado:								
Denver.....	18	10	1	-----	0	4	5	14
Pueblo.....	0	1	0	-----	0	18	0	3
New Mexico:								
Albuquerque.....	0	0	0	-----	1	0	0	0
Arizona:								
Phoenix.....	0	0	1	-----	0	0	0	0
Utah:								
Salt Lake City.....	6	3	1	-----	1	0	1	3
Nevada:								
Reno.....	0	0	0	-----	0	0	0	0
PACIFIC								
Washington:								
Seattle.....	0	4	17	-----	-----	0	20	-----
Spokane.....	15	3	0	-----	-----	0	0	-----
Tacoma.....	1	4	8	-----	0	0	0	1
Oregon:								
Portland.....	7	10	0	-----	1	0	3	3
Salem.....	0	0	0	-----	0	0	0	0
California:								
Los Angeles.....	7	33	14	-----	11	2	19	14
Sacramento.....	3	2	2	-----	0	0	11	3
San Francisco.....	18	14	2	-----	2	1	3	8

City reports for week ended October 18, 1930—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland.....	2	6	0	0	0	1	0	0	0	7	18
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	7
Manchester.....	1	5	0	0	0	0	0	0	0	0	14
Nashua.....	0	0	0	0	0	0	0	0	0	0	0
Vermont:											
Barre.....	0	0	0	0	0	0	0	0	0	0	0
Burlington.....	0	1	0	0	0	0	0	0	0	0	20
Massachusetts:											
Boston.....	38	22	0	0	0	12	3	0	0	16	211
Fall River.....	2	0	0	0	0	2	0	0	0	0	24
Springfield.....	4	0	0	0	0	0	0	0	0	0	27
Worcester.....	7	26	0	0	0	3	0	0	0	1	43
Rhode Island:											
Pawtucket.....	0	1	0	0	0	0	0	0	0	0	19
Providence.....	4	3	0	0	0	3	0	1	0	3	57
Connecticut:											
Bridgeport.....	4	6	0	0	0	2	0	2	0	0	31
Hartford.....	3	1	0	0	0	2	0	0	0	2	34
New Haven.....	3	2	0	0	0	1	1	1	0	8	27
MIDDLE ATLANTIC											
New York:											
Buffalo.....	15	13	0	0	0	4	1	0	0	9	129
New York.....	61	40	0	0	0	88	23	16	4	104	1,285
Rochester.....	4	8	0	0	0	0	0	0	0	3	69
Syracuse.....	4	8	0	0	0	0	0	0	0	12	49
New Jersey:											
Camden.....	2	2	0	0	0	1	0	0	0	2	27
Newark.....	7	6	0	0	0	7	2	1	0	19	92
Trenton.....	2	3	0	0	0	3	1	0	0	1	40
Pennsylvania:											
Philadelphia.....	44	62	0	0	0	13	8	5	0	15	427
Pittsburgh.....	29	46	0	0	0	6	1	0	0	7	176
Reading.....	1	0	0	0	0	1	0	0	0	3	21
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	10	21	0	0	0	2	1	0	1	1	105
Cleveland.....	21	22	0	0	0	12	2	0	0	17	188
Columbus.....	8	3	0	0	0	3	1	3	0	1	65
Toledo.....	9	4	0	1	0	5	1	1	0	0	82
Indiana:											
Fort Wayne.....	1	0	1	0	0	0	0	0	0	0	28
Indianapolis.....	9	18	0	0	0	1	1	0	0	0	0
South Bend.....	0	5	1	0	3	0	0	0	0	0	17
Terre Haute.....	2	3	0	0	0	0	0	0	0	0	21
Illinois:											
Chicago.....	66	103	0	5	0	39	5	4	0	56	579
Springfield.....	3	4	0	0	0	0	0	0	0	7	14
Michigan:											
Detroit.....	54	53	0	1	0	18	4	0	0	55	238
Flint.....	9	17	0	0	0	1	1	1	0	6	27
Grand Rapids.....	7	10	0	0	0	1	0	2	0	2	28
Wisconsin:											
Kenosha.....	1	0	0	0	0	0	0	0	0	3	4
Madison.....	1	6	0	0	0	0	1	0	0	3	3
Milwaukee.....	17	16	0	0	0	11	0	1	0	30	103
Racine.....	3	11	0	0	0	0	0	0	0	2	18
Superior.....	2	0	0	0	0	0	0	0	0	3	7
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	6	0	0	0	0	4	0	1	0	6	21
Minneapolis.....	36	9	1	0	0	2	2	1	1	2	89
St. Paul.....	17	10	0	0	0	3	1	0	0	6	56

City reports for week ended October 18, 1930—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, estimated expectancy	Cases reported	Cases estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST NORTH CENTRAL—CON.											
Iowa:											
Davenport.....	1	1	1	1			0	0		0	
Des Moines.....	8	5	0	1			0	0		0	37
Sioux City.....	2	2	0	0			0	0		0	1
Waterloo.....	2	1	0	0			0	0		0	2
Missouri:											
Kansas City.....	12	3	0	0	0	6	2	0	0	4	97
St. Joseph.....	1	4	0	0	0	0	0	0	0	0	18
St. Louis.....	28	19	0	0	0	14	4	5	0	8	193
North Dakota:											
Fargo.....	2	3	0	0	0	1	0	0	0	0	6
Grand Forks.....	0	0	0	0			0	0		0	
South Dakota:											
Aberdeen.....	2	0	0	0			1	0		0	
Sioux Falls.....	1	0	0	2			0	0		0	7
Nebraska:											
Lincoln.....	2	2	0	1	0	0	0	0	0	2	12
Omaha.....	4	6	0	0	0	2	0	0	0	1	50
Kansas:											
Topeka.....	4	1	0	0	0	0	0	1	0	0	15
Wichita.....	4	2	0	0	0	1	0	1	0	0	25
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	1	0	0	0	0	0	0	0	0	2	25
Maryland:											
Baltimore.....	12	15	0	0	0	9	6	6	5	35	189
Cumberland.....	0	4	0	0	0	1	1	2	1	0	18
Frederick.....	0	0	0	0	0	0	0	0	0	0	4
District of Columbia:											
Washington.....	13	8	0	0	0	7	2	0	0	7	128
Virginia:											
Lynchburg.....	3	1	0	0	0	0	0	4	1	0	13
Norfolk.....	1	5	0	0	0	1	1	2	0	0	
Richmond.....	9	13	0	0	0	4	1	2	0	0	49
Roanoke.....	4	2	0	0	0	0	1	0	0	0	18
West Virginia:											
Charleston.....	4	0	0	0	0	0	1	1	1	0	31
Wheeling.....	2	0	0	0	0	1	1	0	0	0	15
North Carolina:											
Raleigh.....	2	0	0	0	0	0	0	0	0	0	13
Wilmington.....	1	3	0	0	0	0	0	0	0	0	12
Winston-Salem.....	4	1	0	0	0	1	0	0	0	0	22
South Carolina:											
Charleston.....	1	1	0	0	0	0	2	2	0	0	23
Columbia.....	1	3	0	0	0	3	0	1	1	0	30
Greenville.....	0	0	0	0	0	0	1	0	0	1	
Georgia:											
Atlanta.....	3	3	0	0	0	3	1	111	0	0	66
Brunswick.....	0	0	0	0	0	0	0	0	0	0	1
Savannah.....	1	3	0	0	0	3	0	2	0	0	
Florida:											
Miami.....	0	0	0	0	0	2	0	0	0	0	24
St. Petersburg.....	0	0	0	0	0	0	0	0	0	0	6
Tampa.....	0	1	0	0	0	0	0	0	0	0	19
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	2	8	0	0	0	1	0	0	0	0	15
Tennessee:											
Memphis.....	5	5	0	0	0	3	3	7	0	0	83
Nashville.....	2	1	0	0	0	2	3	0	0	0	61
Alabama:											
Birmingham.....	5	6	0	0	0	7	2	0	1	0	65
Mobile.....	0	1	0	0	0	0	0	0	1	0	11
Montgomery.....	0	1	0	0	0	0	0	0	1	1	

¹ Includes nonresidents.

City reports for week ended October 18, 1930—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	1	0	0	0	0	0	0	0	0	0
Little Rock.....	3	2	0	0	0	1	0	0	0	0	0
Louisiana:											
New Orleans.....	4	11	0	0	0	11	3	2	1	7	157
Shreveport.....	1	0	0	0	0	1	1	0	0	0	34
Oklahoma:											
Muskogee.....	1	1	0	0	0	0	0	4	0	0	0
Tulsa.....	3	2	0	0	0	0	1	0	0	0	0
Texas:											
Dallas.....	5	5	0	0	0	2	2	0	0	0	42
Fort Worth.....	2	1	0	0	0	3	0	1	1	0	27
Galveston.....	0	0	0	0	0	0	0	0	0	0	11
Houston.....	2	2	0	1	0	2	0	0	0	0	47
San Antonio.....	0	0	0	0	0	5	0	4	0	0	41
MOUNTAIN											
Montana:											
Billings.....	0	0	0	2	0	0	1	0	0	4	4
Great Falls.....	1	6	0	0	0	0	0	0	0	0	4
Helena.....	1	0	0	0	0	0	0	0	0	0	6
Missoula.....	0	0	0	0	0	0	1	1	0	0	6
Idaho:											
Boise.....	1	0	0	0	0	1	0	0	0	0	10
Colorado:											
Denver.....	8	13	0	0	0	8	1	0	0	16	68
Pueblo.....	1	0	0	0	0	0	1	0	0	1	18
New Mexico:											
Albuquerque.....	1	0	0	0	0	2	1	1	0	0	9
Arizona:											
Phoenix.....	1	1	0	0	0	2	0	0	0	0	14
Utah:											
Salt Lake City.....	3	8	1	1	0	2	3	2	1	11	35
Nevada:											
Reno.....	0	0	0	0	0	0	0	0	0	0	4
PACIFIC											
Washington:											
Seattle.....	7	5	0	0	0	0	4	0	0	7	0
Spokane.....	7	1	1	0	0	1	1	0	0	0	0
Tacoma.....	2	0	2	0	0	0	1	0	0	0	27
Oregon:											
Portland.....	7	1	3	0	0	6	1	0	0	0	71
Salem.....	0	0	0	0	0	0	1	0	0	4	0
California:											
Los Angeles.....	17	8	1	0	0	23	2	5	0	26	254
Sacramento.....	2	3	0	0	0	2	1	0	0	6	25
San Francisco.....	10	8	1	0	0	7	1	1	0	6	162

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.....	0	0	0	0	0	0	1	5	0	0
Massachusetts:										
Boston.....	1	0	0	0	0	0	2	21	3	0
Fall River.....	0	1	0	0	0	0	0	0	0	0
Worcester.....	0	1	0	0	0	0	1	1	0	0
Connecticut:										
Hartford.....	0	0	0	0	0	0	0	1	0	0

City reports for week ended October 18, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
New York ¹	9	6	2	0	0	0	14	4	0
Rochester.....	0	0	0	0	0	0	0	6	1
Syracuse.....	0	0	0	0	0	0	0	3	0
Pennsylvania:									
Philadelphia.....	2	2	0	0	1	0	1	1	0
Pittsburgh.....	1	0	0	0	0	0	0	0	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	1	1	0	0	0	0	1	4	1
Cleveland.....	2	0	0	0	0	0	1	14	0
Columbus.....	1	1	0	0	0	0	0	9	0
Indiana:									
Fort Wayne.....	1	1	0	0	0	0	0	0	0
Indianapolis.....	2	1	0	0	0	0	0	1	0
South Bend.....	0	0	0	0	0	0	0	1	0
Terre Haute.....	0	0	0	0	0	0	0	1	0
Illinois:									
Chicago.....	1	0	0	1	0	0	3	6	0
Springfield.....	0	0	0	0	0	0	0	3	0
Michigan:									
Detroit.....	3	2	2	1	0	0	2	8	1
Wisconsin:									
Milwaukee.....	0	0	0	0	0	0	0	7	2
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	0	0	1	0	0	0	0	4	0
St. Paul.....	0	0	0	0	0	0	0	1	0
Iowa:									
Davenport.....	0	0	0	0	0	0	0	1	0
Des Moines.....	1	0	0	0	0	0	0	1	0
Sioux City.....	0	0	0	0	0	0	0	2	0
Missouri:									
Kansas City.....	1	1	0	0	0	0	0	8	0
St. Louis.....	1	0	0	0	0	0	0	0	0
South Dakota:									
Aberdeen.....	0	0	0	0	0	0	0	1	0
Sioux Falls.....	0	0	0	0	0	0	0	1	0
Nebraska:									
Lincoln.....	0	0	0	0	0	0	0	0	1
Omaha.....	0	0	0	0	0	0	1	1	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	0	0	0	2	1	0	1	3	0
District of Columbia:									
Washington.....	0	0	0	0	0	0	0	1	0
Virginia:									
Norfolk.....	0	0	0	0	0	0	0	1	1
North Carolina:									
Raleigh.....	0	0	0	0	1	1	0	0	0
South Carolina:									
Charleston.....	0	0	0	0	4	0	0	0	0
Georgia:									
Atlanta.....	0	0	0	0	2	0	0	0	0
Savannah ¹	0	0	0	0	0	0	0	1	1
Florida:									
Miami.....	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	0	0	0	0	0	0	0	1	0
Tennessee:									
Memphis.....	0	0	0	0	0	1	0	0	0
Alabama:									
Birmingham.....	1	1	0	0	0	0	0	0	0

¹ Typhus fever, 4 cases: 1 case at New York, N. Y., and 3 cases at Savannah, Ga.

City reports for week ended October 18, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Pollomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans.....	1	0	0	0	0	0	0	0	0
Shreveport.....	0	0	0	0	0	5	0	0	0
Texas:									
Houston.....	0	0	0	0	0	0	0	2	0
MOUNTAIN									
Idaho:									
Boise.....	0	0	0	0	0	0	0	0	1
Colorado:									
Denver.....	0	0	0	0	0	0	1	1	0
Pueblo.....	0	0	0	0	0	0	0	1	0
Utah:									
Salt Lake.....	4	1	0	2	0	0	0	0	0
PACIFIC									
Washington:									
Seattle.....	1	0	0	0	0	0	1	1	0
Tacoma.....	0	1	0	0	0	0	1	0	0
California:									
Los Angeles.....	3	0	0	0	0	0	1	12	0
San Francisco.....	0	1	0	0	0	1	1	24	1

¹ Typhus fever, 4 cases: 1 case at New York, N. Y., and 3 cases at Savannah, Ga.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended October 18, 1930, compared with those for a like period ended October 19, 1929. 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 32,000,000. The 91 cities reporting deaths have more than 30,500,000 estimated population.

Summary of weekly reports from cities, September 14 to October 18, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929¹

DIPHTHERIA CASE RATES

	Week ended—									
	Sept. 21, 1930	Sept. 21, 1929	Sept. 27, 1930	Sept. 28, 1929	Oct. 4, 1930	Oct. 5, 1929	Oct. 11, 1930	Oct. 12, 1929	Oct. 18, 1930	Oct. 19, 1929
98 cities.....	47	75	58	83	62	97	72	112	71	135
New England.....	31	49	51	76	49	88	53	94	64	128
Middle Atlantic.....	38	54	33	60	43	62	42	75	35	88
East North Central.....	75	96	75	90	80	124	100	139	92	155
West North Central.....	47	64	57	100	62	108	66	123	74	167
South Atlantic.....	42	114	92	112	62	129	106	139	92	180
East South Central.....	27	137	34	137	115	157	108	232	162	171
West South Central.....	67	149	146	164	112	198	64	255	127	339
Mountain.....	26	70	60	26	9	26	43	0	17	70
Pacific.....	14	19	31	65	62	56	94	60	102	87

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 estimates as of July 1, 1930 and 1929, respectively.

² Kansas City, Mo., Great Falls, Mont., and Spokane, Wash., not included.

³ Kansas City, Mo., not included.

⁴ Great Falls, Mont., not included.

⁵ Spokane, Wash., not included.

Summary of weekly reports from cities, September 14 to October 18, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

MEASLES CASE RATES

	Week ended—									
	Sept. 20, 1930	Sept. 21, 1929	Sept. 27, 1930	Sept. 28, 1929	Oct. 4, 1930	Oct. 5, 1929	Oct. 11, 1930	Oct. 12, 1929	Oct. 18, 1930	Oct. 19, 1929
98 cities.....	16	15	18	13	19	16	22	22	36	30
New England.....	18	31	42	18	33	34	31	16	44	58
Middle Atlantic.....	17	7	13	10	12	12	16	12	23	17
East North Central.....	14	17	13	13	5	12	11	29	14	40
West North Central.....	19	6	28	10	73	10	76	23	140	31
South Atlantic.....	20	7	9	13	20	11	11	9	7	9
East South Central.....	0	7	74	0	0	0	20	14	7	0
West South Central.....	0	8	11	11	7	0	0	4	4	4
Mountain.....	43	26	26	44	73	35	112	61	189	52
Pacific.....	21	51	19	24	27	65	24	65	66	72

SCARLET FEVER CASE RATES

98 cities.....	62	68	72	95	74	102	97	114	123	138
New England.....	71	49	80	99	73	135	106	162	148	173
Middle Atlantic.....	47	25	33	42	49	48	54	48	90	69
East North Central.....	91	121	118	161	107	149	137	173	179	214
West North Central.....	44	92	76	108	73	119	91	140	114	173
South Atlantic.....	40	66	57	105	70	120	115	139	115	127
East South Central.....	40	28	128	75	74	82	182	123	148	232
West South Central.....	56	72	56	72	37	72	37	130	78	103
Mountain.....	69	113	94	139	118	131	283	148	232	157
Pacific.....	78	68	87	84	89	128	87	87	59	113

SMALLPOX CASE RATES

98 cities.....	5	5	3	4	1	7	2	7	2	12
New England.....	0	0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	1	0	0
East North Central.....	9	10	3	3	1	7	2	3	4	7
West North Central.....	21	6	13	8	0	2	6	13	0	21
South Atlantic.....	0	0	0	0	2	0	0	0	0	0
East South Central.....	0	0	0	0	0	48	0	0	0	0
West South Central.....	0	0	4	0	4	0	4	4	4	0
Mountain.....	0	52	0	96	0	52	0	96	26	122
Pacific.....	5	17	19	10	2	36	7	34	0	84

TYPHOID FEVER CASE RATES

98 cities.....	22	22	18	20	20	16	21	26	17	17
New England.....	11	13	11	7	11	11	20	16	9	9
Middle Atlantic.....	16	14	14	12	15	14	14	10	11	8
East North Central.....	11	11	9	9	9	12	9	8	7	10
West North Central.....	28	6	15	23	13	15	9	8	15	25
South Atlantic.....	62	26	51	17	38	30	64	26	57	24
East South Central.....	54	0	20	82	67	21	47	27	47	68
West South Central.....	67	84	37	27	56	8	52	27	22	15
Mountain.....	0	340	43	313	118	113	43	749	34	192
Pacific.....	17	7	14	10	20	10	19	7	26	19

1 Kansas City, Mo., Great Falls, Mont., and Spokane, Wash., not included.
 2 Kansas City, Mo., not included.
 3 Great Falls, Mont., not included.
 4 Spokane, Wash., not included.

Summary of weekly reports from cities, September 14, to October 18, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

INFLUENZA DEATH RATES

	Week ended—									
	Sept. 20, 1930	Sept. 21, 1930	Sept. 27, 1930	Sept. 28, 1930	Oct. 4, 1930	Oct. 5, 1929	Oct. 11, 1930	Oct. 12, 1929	Oct. 13, 1930	Oct. 19, 1929
91 cities.....	3	2	3	5	*3	6	5	8	5	8
New England.....	2	2	2	2	0	4	4	0	7	2
Middle Atlantic.....	2	0	2	5	2	7	7	8	4	6
East North Central.....	3	2	2	4	1	5	3	8	4	9
West North Central.....	0	6	0	3	0	6	6	3	3	9
South Atlantic.....	0	2	4	6	2	7	2	11	5	9
East South Central.....	29	7	15	0	15	0	0	22	0	7
West South Central.....	8	0	4	12	11	16	11	16	8	16
Mountain.....	17	9	0	17	18	0	9	26	9	17
Pacific.....	0	9	6	3	3	9	0	6	9	6

PNEUMONIA DEATH RATES

91 cities.....	58	54	58	67	*60	77	73	80	74	97
New England.....	51	29	35	72	40	36	64	74	80	97
Middle Atlantic.....	68	59	78	72	63	93	78	87	74	118
East North Central.....	43	47	48	54	54	61	55	65	51	81
West North Central.....	74	39	35	81	*81	108	86	54	53	69
South Atlantic.....	51	66	51	60	48	81	79	103	88	81
East South Central.....	81	67	74	119	118	30	140	104	184	112
West South Central.....	50	51	77	94	77	113	119	113	96	90
Mountain.....	112	104	51	70	*137	87	94	122	189	122
Pacific.....	49	57	49	38	49	47	49	57	80	83

* Kansas City, Mo., not included.

† Great Falls, Mont., not included.

‡ Kansas City, Mo., and Great Falls, Mont., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended October 18, 1930.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases in Canada for the week ended October 18, 1930, as follows:

Province	Cerebro-spinal fever	Influenza	Polio-myelitis	Smallpox	Typhoid fever
Prince Edward Island ¹					
Nova Scotia.....		1	2		
New Brunswick.....					8
Quebec.....	1		1		48
Ontario.....	2	2	57	15	39
Manitoba.....	1		2		12
Saskatchewan.....			1		5
Alberta.....	2		7	1	6
British Columbia.....	1		6	1	17
Total.....	7	3	76	17	135

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

Quebec Province—Communicable diseases—Week ended October 18, 1930.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended October 18, 1930, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis.....	1	Poliomyelitis.....	1
Chicken pox.....	44	Puerperal fever.....	1
Diphtheria.....	46	Scarlet fever.....	102
German measles.....	3	Tuberculosis.....	43
Influenza.....	3	Typhoid fever.....	48
Mumps.....	19	Whooping cough.....	45
Paratyphoid fever.....	3		

CHINA

Manchuria—Plague.—According to a recent report, 60 deaths from bubonic plague occurred during the month of August, 1930, in the Nunan district of Manchuria, and 40 additional cases of the disease were reported. In the region of the town of Kaitung, on the Taonan-Ssuping kai Railroad, many cases of plague occurred, and a severe epidemic was thought to exist in Inner Mongolia, far from the railroad.

All well-investigated outbreaks of plague which have occurred in the districts of Transbaikalia and Outer Mongolia, which border the Heilungchiang Province on the west, have been traced to the tarbagan

or Siberian marmot. Recently the existence of plague has been proved in some small rodents, notably the souslik (*S. dauricus* [*citellus*]) and the jerboas, but the relation of these to outbreaks of plague is still undetermined. Only isolated instances of plague infection have been discovered in rats. It is thought that the tarbagan flea (*Oropsylla silantiewi*), which is said to be capable of transmitting plague from the tarbagan to other susceptible animals and to man, is responsible for a great part of the human plague outbreaks in these sections.

It is stated that practically all of the early human cases of tarbagan origin have been of the bubonic type, with an unmistakable tendency of tarbagan-caused plague quickly to assume pneumonic characteristics—at first secondary and then primary in nature.

Tungliau—Taonan—Plague.—According to information dated September 24, 1930, received from the American Consul at Mukden, China, an outbreak of plague has occurred at two localities on Chinese railroads, viz., Tungliau, on the Tungliau-Tahushan Railroad, and near Taonan, at the terminus of the Ssuningkai-Taonan Railroad. The reports differ as to whether the type of the disease is bubonic or pneumonic.

CZECHOSLOVAKIA

Communicable diseases—August, 1930.—During the month of August, 1930, certain communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	30	2	Puerperal fever.....	66	30
Cerebrospinal meningitis.....	14	4	Scarlet fever.....	1,441	37
Diphtheria.....	1,263	119	Trachoma.....	77	-----
Dysentery.....	170	9	Typhoid fever.....	711	45
Malaria.....	52	-----	Typhus fever.....	1	-----
Paratyphoid fever.....	26	-----			

LATVIA

Communicable diseases—July–August, 1930.—During the months of July and August, 1930, cases of certain communicable diseases were reported in Latvia as follows:

Disease	Cases		Disease	Cases	
	August	July		August	July
Anthrax.....		1	Poliomyelitis.....	13	9
Cerebrospinal meningitis.....	7	-----	Puerperal fever.....	8	5
Diphtheria.....	60	47	Scarlet fever.....	107	103
Dysentery.....	10	1	Tetanus.....	2	2
Erysipelas.....	39	54	Trachoma.....	52	79
Influenza.....	50	67	Typhoid fever.....	142	143
Leprosy.....	4	-----	Typhus fever.....	1	3
Measles.....	47	87	Whooping cough.....	89	122
Mumps.....	38	41			

PORTO RICO

San Juan—Communicable diseases—Five weeks ended October 18, 1930.—During the five weeks ended October 18, 1930, cases of certain communicable diseases were reported in San Juan, Porto Rico, as follows:

Disease	Cases	Disease	Cases
Diphtheria.....	4	Tuberculosis.....	55
Malaria.....	2	Typhoid fever.....	3
Measles.....	1	Whooping cough.....	1
Tetanus.....	1		

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

CHOLERA—Continued

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

Place	Week ended—												
	August, 1930			September, 1930			October, 1930						
	2	9	16	23	30	6	13	20	27	4	11	18	25
Indo-China (see also table below):													
Pnompenh.....		32	3						1				
Saigon and Cholon.....		2	1										
Philippine Islands: †													
Ports—													
Cebu.....		65	4		1	1							
Iloilo.....		36	4	32	3	4	1		1				
Manila.....	1	22	18	9	16	13	10	4	2	1	2		
Provinces—													
Antique.....		14	3		3	2	25	12	8		12		28
Babuyan.....		7			2	1	14	12	7		8		10
Boracay.....			54	30	30	14	4	1					
Bulacan.....		29	32	18	12	6	2						
Cebu.....	3	4			1	2	1			2			
Capiz.....		1			1	1				1			
Cebu.....		3	1		1	1							
Cebu.....		713	65	26	4	16	8						
Cebu.....	1	303	32	15	1	6	4						
Iloilo.....	1	170	209	127	92	71	60	61	46	18	7	13	12
Iloilo.....	2	309	143	91	65	45	35	28	15	6	7	12	10
La Union.....		193	77	143	65	45	35	28	15	6	7	12	7
Leyte.....		1											
Leyte.....		47	11										
Leyte.....		19	11										
Masbate.....		10	19										
Masbate.....		10	15										
Misamis, Occidental.....		3	9										
Misamis, Occidental.....		3	6										
Negros, Occidental.....		3	8										
Negros, Occidental.....	10	140	79	45	68	40	43	24	15	8	10	5	12
Negros, Occidental.....	7	88	97	33	43	32	30	20	9	6	5	6	3

Place	March, 1930		April, 1930		May, 1930		June, 1930		July, 1930			August, 1930			September, 1930			Oct. 1-10, 1930	
	1-10	11-31	1-10	11-31	1-10	11-31	1-10	11-31	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-30
Negros, Oriental.....							23	6	1	2									
Nueva Acija.....							13	1	3										
Pampanga.....							1												
Pangasinan.....			2				2												
Rizal.....							3	1											
Samar.....			1				1												
Surigao.....			1				1												
Tarlac.....																			
Siam.....			29	33	27		20	1											
Bangkok.....			13	21	19		9	1											
Nagara Pathom.....			15	9	12		8	1											
Songkla.....			4	3	5		3	1											
On vessel:			10																
S. S. Malwa from Shanghai.....							10												
S. S. Sassari at Massoua, from Jeddah.....				1			6												
On small boat at Fort Cebu, from Bantayan Island.....					1														
Indo-China (French) (see also table above):																			
Annam.....	C		52	60	23		16												
Cambodia.....	C		81	24	88		144												
Cochin-China.....	C		82	48	671		273												

1 Reports incomplete.

2 Figures for cholera in the Philippine Islands are subject to correction.

3 During the period from Aug. 24 to Sept. 26, 1930, 26 cases of cholera with 17 deaths were reported in Manitum, Surigao Province, Philippine Islands.

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

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

Place	Week ended—																																
	June 29— July 26, 1930			August, 1930				September, 1930				October, 1930																					
	Apr. 6— May 3, 1930	May 4—31, 1930	June 1—28, 1930	2	9	16	23	30	6	13	20	27	4	11	18	25																	
Syria: Beirut.....			12																														
Tripolitania.....	O																																
Tunisia.....	O																																
Six district.....	O	21	9	6	1	1																											
Tunis.....	D	4	1	1																													
Union of Socialist Soviet Republics:																																	
Salsk Region.....	O		2	5	4	3																											
Stavropol Region.....	D		1	1																													
Union of South Africa:	O		1	1																													
Cape Province.....	D																																
Orange Free State.....	D	1																															
Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Place										Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930											
British East Africa (see also table above):	16	171	107	97	87		Madagascar—Continued.																										
Kenya.....	O	O	O				Tananarive Province.....	C																									
Ecuador: Guayaquil.....	D	O	O	O	O		Senegal:	D																									
Plague-infected rats.....							Baol.....	C																									
Greece (see also table above).....	O						Dakar.....	C																									
Indo-China (see also table above).....	O						Longa.....	D																									
Madagascar (see also table above):	O						Thies.....	D																									
Ambositra Province.....	O	4	11	1	2	4	Tlivaouane.....	D																									
Antsirabe Province.....	O	14	1																														
Antsiranrivo Province.....	D	12	1																														
Miarinarivo Province.....	D	46	19																														
Moramanga Province.....	D	45	19																														
Moramanga Province.....	O	1	5	1	1																												
Moramanga Province.....	D	3	1	3																													
Moramanga Province.....	D	3		3																													

1 Incomplete reports.

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

SMALLPOX

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

Place	Apr. 6- May 3, 1930	May 4-31, 1930	June 1-28, 1930	Week ended—													
				July, 1930			August, 1930			September, 1930			October, 1930				
				5	12	19	26	2	9	16	23	30	6	13	20	27	4
Algeria:																	
Algeria.....	1	3	1					1									
Constantine.....									2								
Arabia: Aden.....																	
Bolivia: La Paz, 1.....																	
British East Africa (see also table below):																	
Tanganyika.....	57	409	1,610	64	100	26	51	44	121	198	288	36					
British South Africa:	14	70	301	13	27	4		3	30	4	55	1					
Northern Rhodesia.....	1	59															
Southern Rhodesia.....	2	155	79														
Northern Rhodesia.....	66																
Southern Rhodesia.....	1	13															
Canada:																	
Alberta.....	4																
Edmonton.....	3																
British Columbia—Vancouver.....	17	4	2	2	1	1	1	2	2								
Manitoba.....	4	10	4	4													
Ontario.....	77	82	47	3	6	10	8	3	5	4	2	2	6				
North Bay.....	1																
Ottawa.....	21	25	15	1	4	7	5	1	1								
Toronto.....	4	4	4														
Quebec.....																	
Montreal.....																	
Saskatchewan.....	41	39	22														
Regina.....	4	4															
Ceylon: Angoda, Western Province.....	6																
China:	2																
Canton.....	3																
Canton.....	3																
Changking.....	P	P	1	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Fochow.....	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Hong Kong.....	18	12	4														
Hong Kong.....	23	9	3														

1 From Jan. 1 to May 31, 1930, 44 deaths from smallpox were reported in La Paz, Bolivia.

Leeds.....	2	637	498	84	52	62	48	36	50	41	51	43	44	36	41	30	34	23
London.....	602	1,078	753	127	96	102	83	61	73	71	80	79	84	51	54	55	56	32
London and Great Towns.....	1,066																	
Sheffield.....	2	62	32	3	2	1	3	1	1	1				1	1			1
Stoke-on-Trent.....	85		4		1								5					
Scotland.....																		
Honduras: Neco.....	34,843	23,835	12,962	2,258	2,006	1,853	1,513	1,313	1,282	1,236	1,046	830		5				
India.....	6,983	5,451	3,531	733	580	577	458	368	327	290	261	202						
Bombay.....	430	218	113	17	15	11	7	6	2	2	2	2	1	1	2	2	2	2
Calcutta.....	270	161	79	13	9	13	2	5	2	1	0	2	1	2	2	2	2	2
Cochin.....	403	258	161	27	19	13	14	4	4	12	9	9	5	3	3	3	4	3
Karachi.....	133	87	46	17	17	12	10	2	4	8	9	3	4	1	1	2	4	3
Madras.....	17	4	3							2	4	1			1	1	1	1
Moulmein.....	133	72	35	6	10	17	16	19	3	9	10	9	11	6	8	4	4	8
Nagapatam.....	27	15	10	4	4	1	3	4	3	5	3	1	1	1	3	1	3	3
Rangoon.....	43	80	21	4	10	3	1			5	2	1						
Tuticorin.....	7	21	7	3	4	1	2				1							
Vizagapatam.....	4	6	2	2	1	1				2	1							
India (French): Chandernagor.....	2	3																
Karikal.....	10	24	19	3	1	4								1	2			
Pondicherry Province.....	8	19	12	1	1	1								1	1			
India (Portuguese): Indo-China (see also table below):	24	3	8	1	9	8	5	7	8	7	7	11	7	7	10	11	11	11
Fronpenti.....	20	36	23	3	9	8	5	1	6	1	1	1	2					
Saigon and Cholon.....	44	47	28	1	1	1												
Baghdad.....	8	8	10															
Basra.....	3	3																
Mocssoul Liwa.....	2	2																
Mocssoul Liwa.....	22	21	4	47	20											63	27	4
Mocssoul Liwa.....	3	3	1	19	1													2

15 cases of smallpox were reported Apr. 14, 1930, in Costa Rica, outside of city of San Jose.

Union of South Africa: Cape Province..... Orange Free State..... Transvaal..... Upper Volta..... On vessel: S. S. Elysis, at Port Sudan, from Borna- bay..... S. S. Nalders, at Port Said..... S. S. Manoa, from Honolulu to San Francisco.....	C C C C C C C C	P P P P P P P P	March, 1930		April, 1930		May, 1930		June, 1930		July, 1930			August, 1930			September, 1930			Oct. 1-10, 1930					
			P	P	1	13	1	1	1	1	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-30	31		
Indo-China (see also table above).....	C			26	261	305	213																86	32	
Ivory Coast.....	C			7	521	274	76			84															
Sudan (French).....	C			609	96	82	18																		
Syria: Beirut.....	D			17	19	7	7																		
Taiwan: Tainan.....	C			58	12																				
Place	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930		August, 1930		September, 1930		Oct. 1-10, 1930														
	175	174	171	142	186																				
British East Africa (see also table above):	C																								
Kenya.....	C			78																					
Uganda.....	C			69																					
	D			107	3																				
Chosen.....	C			236																					
	D			53																					
	D			5																					
Seishin.....	D			1	2																				

Place

France

Mexico, Durango (see also table above)

Morocco.....

Turkey.....

Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930
Roscommon County— Roscommon.....	C						1						
Stokestown.....	C						1						
Wicklow County—Shillelagh.....	C			4	1		1						
Latvia (see table below).													
Lithuania (see table below).													
Mexico:													
Durango.....	D										1	1	1
Mexico City, including municipalities in Federal District.....	D												
Morocco.....	C	4	6	9	2		2	1	2	2	3	2	3
Casablanca.....	C	4	3	1			2	1	1				
Marrakech.....	C	15	11	15			4	3	4				
Tangier.....	D	3								2			
Tetuan.....	D	1	2	2	3		1	1	1	1	1		1
Tunisia.....	C	243	171	117			24	12	10	15	2	3	6
Tunis.....	D	15	5	11			4	1	1	1			6
Portugal:													
Lisbon.....	C	4											
Oporto.....	C	186	227	18			10	3	4	5	2	1	1
Rumania.....	C	11	35	5	5		2	1					
Spain: Valencia.....	D						3						
Tunisia.....	D						1						
Turkey (see table below).	C												
Union of South Africa:													
Cape Province.....	C												
Natal.....	C												
Orange Free State.....	C												
Transvaal.....	C												
Yugoslavia (see table below).	C												

Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930
China: Harbin (see also table above).....	C	204		14	5		Lithuania	C	73	27	16	18	3
Chosen: Seoul.....	C	43	2	3	2		Daugava.....	D	4	4			
Czechoslovakia.....	C	29	12	1	1		Turkey.....	C	3	16	2	2	2
Greece: Athens.....	C	1	3	6	6		Izmir.....	C	22	16	6		
Latvia.....	C	3	3	3	1		Riga.....	D	4	1			

YELLOW FEVER

Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930	Place	Apr., 1930	May, 1930	June, 1930	July, 1930	Aug., 1930	Sept., 1930
Brazil:							Gold Coast:						
Mace, on the Leopoldina Ry., between Rio de Janeiro and Niteroer, Apr. 22, 1930.....							Aliboso, Aug. 5, 1930 (deaths).....						
Campos, Rio de Janeiro Province, May 23, 1930.....							Iliberia, Monrovia, June 8, 1930.....						
Para, June 23, 1930.....							Nigeria, Lagos, July 12, 1930 (probably laboratory infection).....						

12 deaths from typhus fever were reported in La Paz, Bolivia, from Jan. 1 to May 31, 1930.