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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES[1]

July 13–August 9, 1930

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

Poliomyelitis.—In California, where the poliomyelitis outbreak first became apparent, there has been a decline from about 98 cases per week at the middle of July to 56 cases during the second week in August. There have, however, been appreciable increases during the 4-week period of this report in other regions, notably in the northwest Mississippi Valley, in the southern Mississippi Valley, and in the North Atlantic coast sections. The States bordering on the Great Lakes had, for the period of this report, shown no great increase beyond the seasonal expectancy. Later advices, however, for the week ended August 16, suggest that the incidence in the Great Lakes region has risen rather sharply, so that to the middle of August the only unaffected region has been the South Atlantic group of States.

The summer rise of poliomyelitis has, during recent years, reached its peak by about the third week in September. It is possible, therefore, that by the time this report appears, the outbreak will, in most sections, be at or near its worst stage.

In Table 1, the number of cases reported during the summer are shown by 4-week periods for the years 1930 and 1929, by geographical section. It is to be noted that during the last 4-week period shown, the incidence in most regions was from 1.5 to more than 15 times as high as last year. The recent incidence is running slightly in excess of that of 1927, when the latest previous epidemic occurred.

[1] From the Office of Statistical Investigations, U. S. Public Health Service. The number of States included in the statistics of various diseases is as follows: Diphtheria, 42; influenza, 31; measles, 38; meningococcus meningitis, 42; poliomyelitis, 31, typhoid fever, 41.

TABLE 1.—*Poliomyelitis cases reported in various geographic regions by 4-week periods*

Four-week period ended—	All regions [1]		Mountain and Pacific		West North Central		East North Central		South Central		New England and Middle Atlantic		South Atlantic	
	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930
May 17	71	67	13	36	7	2	9	4	10	2	17	19	15	4
June 14	78	167	18	97	12	6	12	12	5	33	18	7	13	12
July 12	96	551	21	330	7	33	9	31	10	106	29	30	20	21
Aug. 9	193	786	22	326	13	117	25	37	6	155	79	126	48	25

[1] 31 States.

Typhoid fever.—During the current 4-week period 2,912 cases of typhoid fever were reported, as compared with 2,630 cases last year and 2,926 the year before. The current incidence represents a considerable increase over that of the period immediately preceding (1,726), but that circumstance is not especially significant, as the incidence normally increases very sharply at this season.

A more detailed analysis than could appropriately be given here suggests that while it is quite possible that the drought increased the typhoid rate rather sharply in some localities, it would be difficult upon the basis of the general statistics alone to state how much the drought had increased the typhoid rate in the United States as a whole. At best, the available information might permit the inference that if there was an increase attributable to drought it probably did not exceed 10 or 15 per cent of the incidence that might otherwise have been expected.

Meningococcus meningitis.—The epidemic wave of meningitis has in most regions apparently declined somewhat further, even if the normally expected seasonal decline is taken into consideration. Since last March the incidence has been dropping progessively further below the incidence of corresponding periods of last year. During the current 4-week period another milestone has been passed, in that the incidence for the first time dropped below a 4-week period of 1928. (During individual weeks the current incidence had already dropped below that of 1928 several times.)

While this rather slow decline may seem halting and inconclusive, in comparison with the characteristic behavior of other epidemic diseases, it should be borne in mind that it took about 11 years for the last epidemic cycle of meningitis to complete itself—that is, to pass from one low point to the crest and back again to the trough of the wave.

During the 4-week period of this report the reported cases numbered 295, as compared with 464 last year and with 300 the year before.

Diphtheria.—The favorable record of the earlier part of this year has continued during the current report period. The reports showed 2,173 cases, which marks a new low for this season of the year. Last year, which was not a high year for diphtheria, the same four weeks contributed 3,101 cases. The present report therefore represents a decline from last year of nearly a third.

Measles.—The incidence was not far from the average for this season. For the 4-week period, 7,177 cases were reported, as compared with 6,875 during the same period last year.

Scarlet fever.—This disease continues its favorable status. The number of cases reported (2,627) represents the lowest incidence for this disease during recent years. Last year 3,678 cases were reported during the period.

Smallpox.—This disease, which, during the earlier part of this year, had given cause for concern in many sections, has undergone a decline greater than the seasonal expectancy during the last period, so that toward August 1, the incidence was at approximately the average of recent years for that season. Owing to the high incidence during the July portion of the period, however, the incidence for the 4-week period as a whole was somewhat above the seasonal average. There were 1,204 cases, as compared with 1,086 for the period last year, and with 1,013 for the 1928 period.

Mortality, all causes.—The average mortality rate for large cities, as reported by the Bureau of the Census, was 11.5 per 1,000 inhabitants (annual basis). This rate was slightly higher than the rate for the same period in the two preceding years.

ELECTRON EQUILIBRIA IN BIOLOGICAL SYSTEMS

IV. An Adaptation of the Glass Electrode to the Continuous Measurement of Hydrogen Ion Concentration of the Circulating Blood

By CARL VOEGTLIN, *Chief of Division of Pharmacology,* FLOYD DEEDS, *Pharmacologist,* and H. KAHLER, *Biophysicist, National Institute of Health (formerly Hygienic Laboratory), United States Public Health Service*

In a preliminary report (Voegtlin, DeEds, Kahler, and Rosenthal, 1929) to the Thirteenth International Physiological Congress, a technique was briefly described for the simultaneous differentiation of changes in hydrogen ion concentration as measured by a glass electrode, and of those more complex changes in electron equilibria in living tissues which are manifest at a bare platinum electrode. Experiments were also reported in which a glass electrode was inserted into the blood stream for the correlation of blood and tissue pH. The technique employed was quite satisfactory for the detection of changes in potentials occurring at both types of electrodes, but was

deficient in that it did not permit us to state with assurance the true basic potentials. Further work upon the differentiation of these two types of potential has been delayed to permit development of the technique to a point where true basic values could be measured with reasonable accuracy.

It is therefore the object of this paper to describe the preparation of a satisfactory glass electrode, its application to the continuous measurement of changes in hydrogen ion concentration of the circulating blood of a dog during changing physiological state, and to produce evidence pointing to the advantages of this technique over current methods.

PREPARATION OF GLASS ELECTRODE

Two other papers (DeEds and Kahler, Kahler and DeEds (in press)) deal with certain theoretical aspects of the glass electrode, its proper calibration and operation. These papers should be consulted by anyone desiring to employ the glass electrode for the measurement of the pH of the circulating blood. This is essential, as reliable results can be expected only by the most careful technique. Accurate calibration of the electrodes and proper functioning of the vacuum-tube voltmeter are necessary requisites. We shall limit ourselves here to a description of the structural details of the electrode.

There is now fair agreement among those working with the glass electrode that a pure soda-lime glass having the composition 72 per cent SiO_2, 6 per cent CaO, and 22 per cent Na_2O will yield glass membranes having a satisfactory hydrogen ion function. Failure to obtain the satisfactory hydrogen ion function with membranes of requisite thinness and made from glass alleged to have the above composition is sufficient reason for suspecting the presence of impurities. An analysis of any glass not prepared from pure ingredients in the laboratory may often be a saving of time.[1]

A suitable size of glass tube for the preparation of the electrode is 30 centimeters in length, outside diameter 7 or 8 millimeters, and side walls 1 to 1.5 millimeters thick. This piece of tubing is heated at the center with a microburner and pulled out to form two tubes having a fairly abrupt change in bore at the end from the original diameter to a capillary. The capillary is then broken off about 0.5 to 1 centimeter from the shoulder.

The tip of the capillary is sealed in a micro-Bunsen burner during constant rotation of the tube so as to give a centrally placed accumulation of glass at the end of the capillary. The small globule of glass is then blown out to a very thin bulb. Experience will teach one the proper correlation of such factors of technique as size of capillary,

[1] A satisfactory glass (015) can be obtained from the Corning Glass Works, Corning, N. Y.

size of globule of glass, temperature of flame and pressure to be applied in blowing the bulb. When the size of the capillary and the mass of glass at the tip are correct, it will usually be found that the diameter of a bulb of requisite thinness is approximately equal to the diameter of the original tubing.

It is a good plan to prepare many bulbs and then sort out the suitable ones in the following manner: The bulbs and shanks are

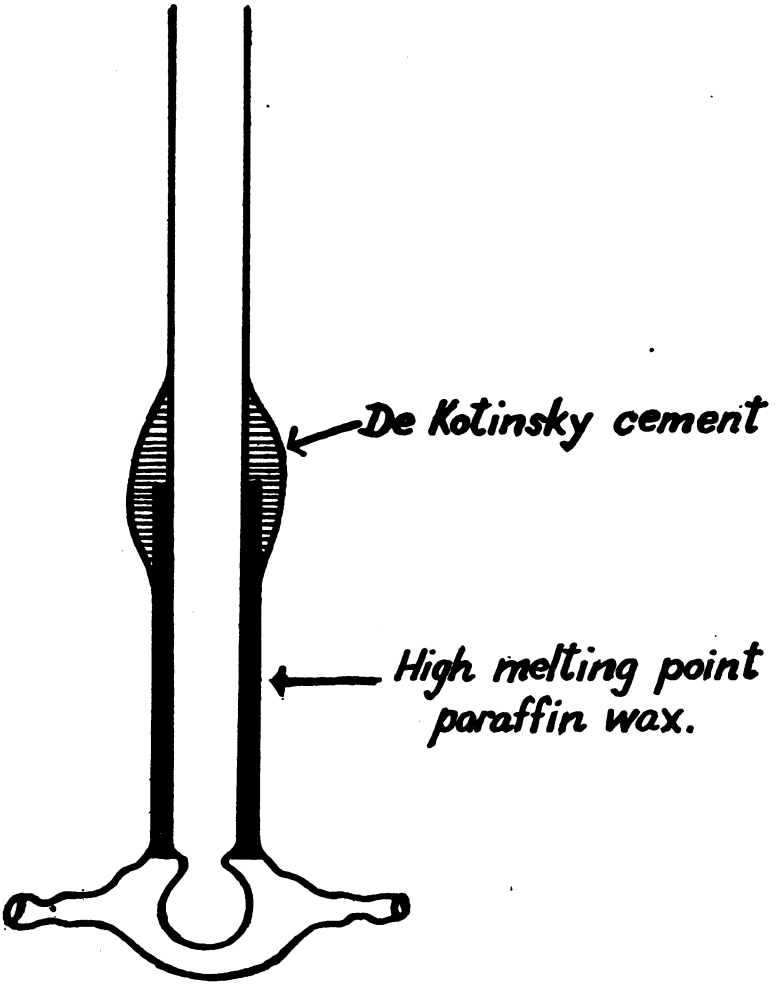

FIGURE 1.—Manner of mounting the glass electrode in the pyrex cannula

filled with water and the electrodes are laid on their sides in a shallow white enameled pan of water deep enough completely to cover the bulbs. Because of the difference in refractive indices of water and glass, the thick bulbs can readily be separated from the thin bulbs, which are barely discernible. Having sorted out the thin bulbs by the optical procedure, they are further sorted by a determination of

the electrode function with standard buffers, two buffers, such as pH 4 and 7.5, sufficing to pick out the bulbs satisfactory for the final mounting. The use of very thin (low strain) glass membranes for animal experiments is particularly desirable, as these give steady potential readings during the necessary manipulation of the physiological equipment.

The final mounting of a suitable bulb is a device designed to permit insertion of the electrode in the blood stream. Briefly it is a short-stemmed T-tube, inverted and preferably made of pyrex. Figure 1 shows the manner of mounting the glass electrode in the pyrex cannula. The horizontal arms of the inverted T-tube are slightly constricted near the ends to permit tying securely into the blood vessel.

The bulb type of electrode is preferred to the type described by MacInnes and Dole (1930) for the type of work being pursued here, because of its ruggedness. When mounted as here described and used in the circulating blood it withstands large and sudden changes in blood pressure. The electrode described by MacInnes could be mounted in a similar manner, but any rupture of the membrane due to blood pressure would cause troublesome hemorrhage and delay.

BEHAVIOR OF GLASS ELECTRODES IN THE PHYSICAL SYSTEM

Since the plan of the experiments dealing with circulating blood called for the placement of an electrode in each carotid artery for purposes of checking the reliability of the method, it seemed advisable to study the simultaneous behavior of two electrodes in a physical system. For this purpose two electrodes carefully calibrated at 37° C. were connected by small bore rubber tubing, simulating artery, to a 2-way stopcock which in turn was connected by glass tubing to two one-liter bottles containing buffer solutions of known pH. These buffers were heated to 40° C. so that the temperature at the glass electrodes was 37° C. The electrode potentials were measured simultaneously with two vacuum-tube voltmeters (Kahler, DeEds, Rosenthal and Voegtlin, 1929). This technique made it possible to study the potential of a given buffer with varying rates of flow, to determine the error between the two electrodes, and to note the lag when turning off the stopcock changed the flowing buffer from one pH to another. The following facts were clearly established:

1. Two carefully calibrated glass electrodes agree within 0.02 pH to 0.03 pH, on steady flows, and over short-time periods are capable of detecting pH changes of a much smaller magnitude.

2. Change in rate of flow of a given buffer is without effect on the potential.

3. Lag is dependent upon flow when changing from one pH buffer to another. With rates comparable to blood flow in the carotid artery of a dog the lag is negligible.

pH OF CIRCULATING BLOOD OF DOG

To establish the reliability of the glass electrode, in view of the above facts, for the continuous measurement of the pH of the circulating blood it remained to place an electrode in each carotid artery and follow the magnitude of the potentials during a control period of light anæsthesia (see later discussion) and then note the changes produced by rebreathing, hyperventilation, asphyxia, and deep ether anæsthesia.

The glass electrodes were carefully calibrated at body temperature before insertion into the blood vessels. They were filled with a phosphate buffer of pH 7. As an additional safeguard of the proper functioning of the vacuum-tube voltmeter and the glass electrode within the blood stream, the grid bias was checked under constant physiological conditions by reversing the poles of a given glass electrode,

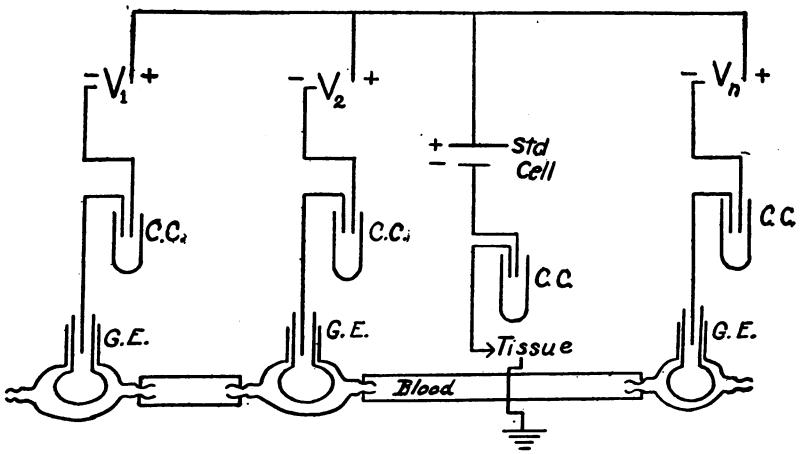

FIGURE 2.—Diagrammatic illustration of multiple connections of several glass electrodes. V_1, V_2, and V_n=static voltmeters. C. C.=saturated calomel half cells. G. E.=glass cells inserted in cannula. Std.=standard cell. The animal is grounded

disconnected from the other electrode. This check is made at the beginning and end of each animal experiment.

Morphine-ether anæsthesia was used. After insertion of a tracheal cannula and with exposure of both carotid arteries, the dog was given heparin intravenously through the femoral vein, the dosage being calculated on the assumption that the blood volume was 10 per cent of the body weight, and 1 milligram heparin being used for each 5 cubic centimeters of blood. It is very important to use sufficient heparin so as to prevent the formation of fibrin deposits on the glass electrode. Bull dog clips were then placed on the carotids first peripherially and then centrally. After the mounting of the glass electrode had been filled with 0.85 per cent NaCl, one cannulated end was tied into the central portion of a carotid peripheral to the clip. The

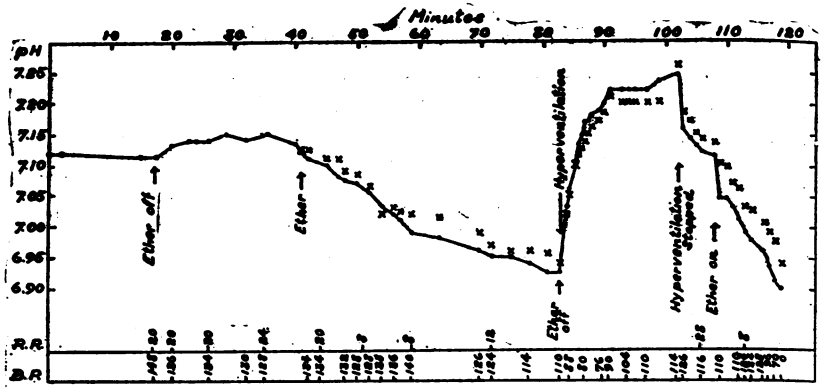

FIGURE 3.—Dog; 14.5 kg. Six c. c. 4 per cent morphine sulphate s. c.; light ether anesthesia. Heparin 350 mg. intravenously. Glass electrode No. 61 inserted into right carotid artery (pH indicated by graph); glass electrode No. 68 in left carotid (pH indicated by x x). R. R.=respiratory rate; B. P.=mean arterial blood pressure in femoral artery. Note slight drift toward more alkaline pH when ether is discontinued. The ether was again given and pushed to the limit compatible with life. There was a gradual drift toward a lower pH, and when pH 6.926 was reached, the ether was discontinued and vigorous artificial respiration was instituted. The blood showed an immediate drift toward alkalinity; and when pH 7.25 was reached, the artificial respiration was stopped, and immediately there was an abrupt decrease in pH. The dog was finally killed by ether; the pH at the time of death was 6.92. Examination of the two glass electrode cannulas revealed no sign of blood coagulation

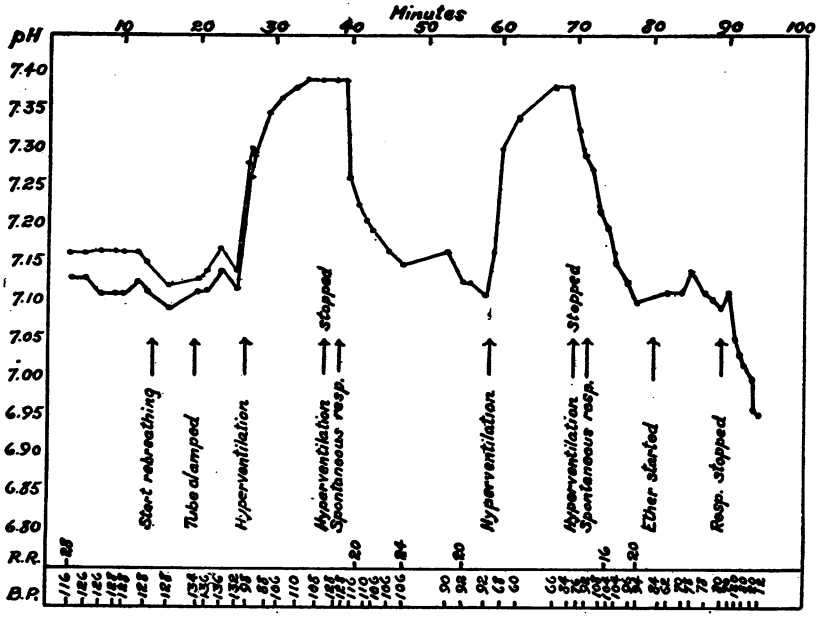

FIGURE 4.—Dog; 11 kg. Five c. c. 4 per cent morphine sulphate s. c.; light ether anesthesia during preliminary surgical operation. Heparin intravenously. Glass electrode No. 61 in right carotid artery (heavy line); glass electrode No. 66 in left carotid artery (light line). Moderate rebreathing by attaching a rubber tube to trachael cannula produced a slight increase in the hydrogen ion concentration of the blood. There was a sudden and considerable drift toward alkalinity with the institution of vigorous artificial respiration. Cessation of artificial respiration was followed by a short apnea; resumption of spontaneous respiration accompanied by a drift toward the pH range at the beginning of the experiment. The hyperventilation effect was obtained the second time. The animal was finally killed with ether. The last reading of pH was 6.95. Unfortunately the flow of blood through the cannula of electrode No. 66 stopped at the end of 27 minutes and further readings were made impossible. Up to that time, however, the two electrodes gave very close potential values

other cannulated end was then tied into the peripheral part of the artery. With the electrode in place, the two clips were removed simultaneously and blood flow was established past the electrode membrane. The vertical shank of the electrode was held in place by one arm of the KCl agar bridge dipping into the buffer solution contained in the glass bulb and shank, the other arm dipping into a saturated calomel electrode. The second electrode was similarly placed in the second carotid artery. The circuit was closed by

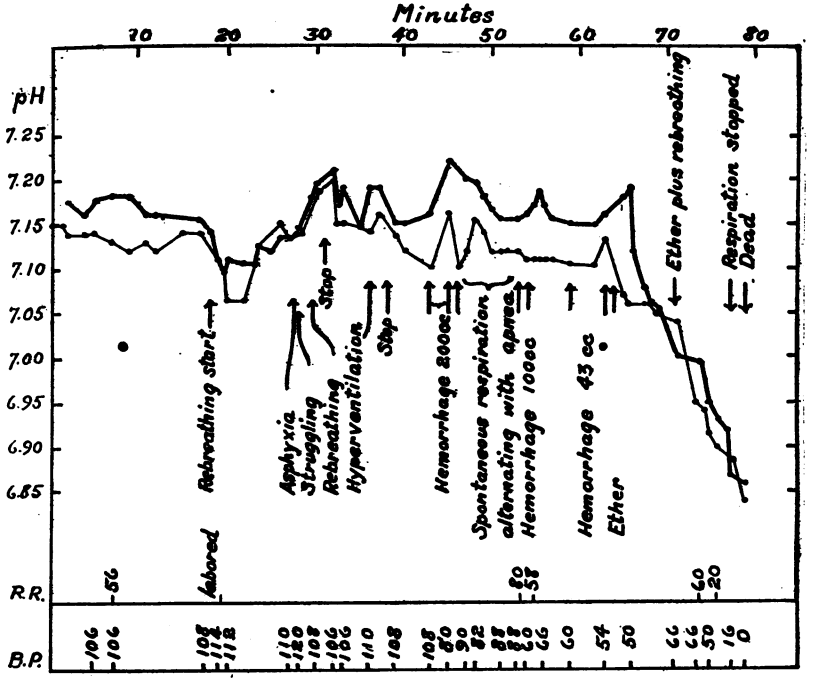

FIGURE 5.—Dog; 12.3 kg. Three c. c. 4 per cent morphine sulphate s. c.; light ether anesthesia during operation. Heparin 100 mg. intravenously. Glass electrode No. 69 in carotid artery (heavy line); glass electrode No. 61 in external jugular vein (light line). Note that venous blood, as a rule, is more acid than the arterial blood, with the exception of periods of asphyxia, when the pH values tend to approach each other. Registration of potentials by an oscillograph would undoubtedly have given a better potential-time relation. The pH of the blood fluctuated within relatively narrow limits in spite of rebreathing and hemorrhage. The blood at the time of death was slightly more acid than was the case in the experiments illustrated by Figures 3 and 4

placing one end of a third KCl agar bridge on a moistened portion of the body of the dog, the other end making contact with a calomel cell. The electrical connections are shown diagrammatically in Figure 2. The voltage was read directly on the potentiometer at certain time intervals. In order to obtain more accurate time-potential relations, use may be made of an oscillograph as described in the preceding papers of this series.

Figures 3–5 illustrate some of the results obtained. Figure 4 shows the good agreement of the electrodes until stoppage of flow

occurred in electrode No. 66. Figure 3 also shows good agreement of the two electrodes. Figure 5 is introduced merely to show the feasibility of the method for the simultaneous study of arterial and venous blood. It is seen from Figures 3 and 4 that the potentials of the two electrodes placed in the carotid arteries agree quite well within the range of error determined on the physical system. The sudden drift toward alkalinity resulting from hyperventilation is further proof of the satisfactory functioning of the electrodes. As one works with this technique it is surprising to note the precision with which two electrodes will consistently follow changes of a few tenths of a millivolt, as when a deep breath is taken or such changes as occur during the progressive increase in acidity with increase in depth of anæsthesia.

It is not the purpose of this paper to determine the pH of blood in the normal unanæsthetized dog, but rather to describe a useful method for the determination of the pH under stated conditions. However, the results obtained suggest that when a glass electrode in the circulating blood reveals a change from 7.14 under morphine to 6.98 at death from ether anæsthesia, it seems unlikely that the value 7.14 represents very much of a depression caused by morphine from a more alkaline value.[2] Moreover, the attempt to secure an idea of the "normal" pH is fraught with difficulty, because blood removed by cardiac puncture or otherwise from a dog untrained for the purpose results in struggling and change in respiration. It would therefore be difficult to say that such a sample represented normal blood.

The lowest pH values of the arterial blood observed at the time when the animals died from ether ranged from 6.95 to 6.91. When death was caused in one experiment by combining rebreathing and ether, the lowest value was 6.85. These values are slightly lower than those mentioned by Van Slyke (1921) who states that "under extreme abnormal conditions the pH may fall as low as 6.95; but before this point is reached it appears that coma occurs, and, from the fact that lower pH values have not been observed, it is doubtful that further decrease is compatible with life."

COMPARISON WITH MANGANESE DIOXIDE ELECTRODE

Previous methods for the continuous measurement of pH in circulating blood involve the use of the manganese dioxide (Gesell and Hertzmann, 1926) or antimony electrode (Buijtendijk, 1927). Since the antimony electrode makes use of an oxide, it would seem to be subject to the same difficulties which we have found to exist for the manganese dioxide electrode. Previous workers (Gollwitzer-Meier

[2] Wallace and Pellini (1921) found no decrease in alkali reserve following the administration of large doses of morphine to dogs.

and Steinhausen, 1928) including Hertzmann and Gesell (1927) have discussed the effect of variation in rate of flow upon the potential of the manganese dioxide electrode. They also admit that the presence of oxidizing or reducing substances in the blood may lead to erroneous values. We have therefore compared the manganese dioxide electrode with the glass electrode with respect to the effect of flow, and in addition we have considered the question of the possible influence of the presence of oxidizing and reducing substances which might occur in the blood stream as the result of hemolysis (liberation of SH-glutathione, etc.) or as the result of waste materials being carried away from the tissues. The effects of M/1,000 cystein hydrochloride and M/1,000 crystalline SH-glutathione on the potential of glass and manganese dioxide electrodes are shown in Table 1. Similar results were obtained by the addition to the phosphate buffer of a solution of equal parts of M/1,000 potassium ferri and ferro cyanide.

TABLE 1.—*Effect of the addition of either cystein or SH-glutathione to phosphate buffer on the potential at the MnO_2 electrode and a glass electrode. The former electrode, freshly prepared according to Gesell and Hertzmann, and the glass electrode were inserted into phosphate buffer of 7.51. Same buffer on inside of glass cell*

Time	Glass volts	MnO_2 volts
11.40	1.0184	0.425
20 c. c. M/1000 cystein HCl added to 50 c. c. of buffer.		
11.42	1.0195	.383
11.43	1.0190	.365
11.44	1.0190	.353
11.45	1.0190	.346
11.50	1.0190	.319
11.55	1.0180	.300
12.00	1.0180	.284
1.36	1.0136	0.458
1.45	1.0131	.457
1.49	1.0131	.456
20 c. c. M/1000 SH-glutathione added to 50 c. c. of buffer.		
1.52	1.0131	.449
1.53	1.0131	.431
1.54	1.0131	.424
2.00	1.0131	.402

NOTE.—The values given for the glass electrode include the voltage of the standard cell and the strain of the glass cell.

The absence of an effect of flow on the glass electrode has already been pointed out, but additional evidence is shown in Table 2, where the effect of flow on the manganese dioxide electrode is clearly shown. In this experiment the MnO_2 electrode gave a fairly steady potential, as long as the blood remained quiescent. After the addition of the rat liver extract to the blood, however, flowing of the mixture past the electrode invariably produced a gradually shifting potential. Similar results were obtained with partially hemolyzed blood.

TABLE 2.—*Effect of rate of flow and addition of 10 per cent saline liver extract upon the potentials of the glass and MnO_2 electrode immersed in fresh oxalated horseblood*

Time	Glass m. v.	Remarks	MnO_2 m. v.	Time	Glass m. v.	Remarks	MnO_2 m. v.
	190.7	Quiet	317	1.41	(1)	Quiet	302.9
	190.7	do	315	1.42	(1)	do	302.3
	190.7	do	315	1.42½	(1)	Flowing	300.5
	190.7	Flowing	317	1.44	(1)	do	298.3
	190.7		315	1.45	(1)	do	293.5
	190.7		315	1.47	(1)	do	292.3
1.19		Liver extr. added	310	1.47½	(1)	Quiet	291.2
1.21		Flowing	307.5	1.49	(1)	do	291.2
1.22		do	305	1.50	(1)	do	292.0
1.27	190.3	Quiet		1.52	(1)	do	292.5
1.30	192.8	Flowing		1.53	(1)	Flowing	292.5
1.30½	194.2	Quiet		1.53½	(1)	do	2.1.0
1.33		do	302.2	1.54	(1)	do	2.0.2
1.35		do	302.2	1.55	(1)	do	289.0
1.37		do	302.9	1.56	(1)	do	287.7
1.39		do	302.9				

[1] Value remained unchanged.

From a chemical standpoint it is not at all surprising that such substances as cystein, SH-glutathione, etc., should interfere with the proper functioning of the MnO_2 electrode, as MnO_2 is a very effective oxidizing agent for these and many other organic substances. The electrode under these conditions is no longer an "unattackable" electrode, and continuous drifts, such as have been described, find their rational explanation.

The independence of the glass electrode from variation in rate of flow and the presence of oxidizable organic substances is the strongest possible argument in favor of selecting this electrode for the measurement of the pH of the circulating blood under all sorts of conditions. The same advantages obtain in the use of the glass electrode for the continuous measurement of the pH of tissues in situ.

CONCLUSIONS

The construction of a suitable glass electrode for measuring the pH of the circulating blood has been described, its reliability for following the pH changes accompanying changes in physiological conditions has been demonstrated, and its great advantages as compared with the manganese dioxide electrode have been shown.

It is believed that the application of this technique will make possible a better investigation of numerous problems related to pH of the blood of the living animal. The method permits continuous observation and, if desired, allows recording of the values on an oscillograph, because of the power output of the vacuum-tube voltmeter. The method posseses the advantage of being uncomplicated by flow effects, presence of oxidizing or reducing substances, and permits the measurement of pH values under conditions eliminating errors due to loss of carbon dioxide.

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THE UNITED STATES PUBLIC HEALTH SERVICE AS A CAREER

Information for Persons Desiring to Enter the Regular Commissioned Corps

Within recent years the opportunities for useful medical and public health work, including scientific research, in the United States Public Health Service have greatly increased. This work is carried on largely by medical, dental, and public health engineer officers appointed for permanent duty by the President by and with the advice and consent of the Senate. Recent laws have definitely fixed their compensation, rate of promotion, and conditions of retirement. In consequence, this service offers an attractive professional career to young men of ability, energy, and judgment.

For the information of persons who possess these attributes and may be interested in such a career, there are presented here some brief statements regarding the history, functions, and organization of the United States Public Health Service and also regarding appointments, compensation, promotions, individual duties, and retirement of officers in case of permanent disability.

Historical Note

The United States Public Health Service was authorized by act of Congress approved July 16, 1798, and known until 1902 as the Marine Hospital Service. Created originally to provide medical care and treatment to sick and disabled seamen, its functions were extended by successive acts of Congress to include many other highly important duties and responsibilities, including scientific research and measures for the protection of the public health.

From time to time since 1798 the classes of medical beneficiaries of the Public Health Service have been increased. In 1878 its quarantine

duties were begun, and by 1906 the Federal quarantine system had become nationwide. In 1891 the service was charged with the medical examination of arriving aliens, which function has been continued and extended to include the medical examinations in foreign countries of intending immigrants destined to the United States.

Coincident with the medical care of beneficiaries, the prevention of diseases, and the control of epidemics, special studies of public-health problems were required. The most important in early days related to exotic diseases. In 1901 the construction of the Hygienic Laboratory was authorized by law for the systematic investigation of contagious and infectious diseases and matters pertaining to the public health. In 1902 the service was charged with the regulation of the introduction and sale in interstate traffic of viruses, serums, toxins, and analogous products. In 1912 basic authority was granted for field investigations of health problems, including sanitation and sewage and the pollution of navigable waters. In 1918 special authority was granted for investigations and control of venereal diseases. In 1929 the service was charged with studies of drug addiction and the care and rehabilitation of drug addicts. In 1930 laws were enacted for broad studies of mental hygiene, for cooperation with other departments and independent establishments of the Government in public-health activities, and for the establishment in an enlarged Institute of Health to be devoted to scientific research of problems of diseases of man and matters pertaining to the public health.

In addition to the above basic laws providing for the evolutionary growth of the service, numerous laws have been enacted from time to time requiring specific studies of diseases and public-health problems, and regulatory measures adopted to correct insanitary conditions coming within the purview of the Federal Government. In the aggregate these laws grant broad authority for medical and health activities. They legalize the policy of cooperation with other Federal agencies and with State and local health authorities in their measures for the prevention of the disease and the promotion of the public health. They provide also for the organization of the service and the status of its officers. By the act of January 4, 1889, officers are commissioned in grades similar to those of the Medical Corps of the United States Army.

Functions

All of the functions of the Public Health Service have direct or indirect bearing on the protection of health and the promotion of economic welfare. The medical care and treatment, which prior to 1811 was accorded all seamen engaged in the care or preservation of any American vessel, including naval vessels, has been extended from time to time. At present the list of beneficiaries is as follows:

1. American seamen employed on board in the care, preservation, or navigation of any registered, enrolled, or licensed vessel of the United States.
2. Officers and enlisted men of the Coast Guard.
3. Officers and seamen on vessels of the Coast and Geodetic Survey.
4. Officers and crews of vessels, certain keepers and assistant keepers of the Lighthouse Service.
5. Officers and crews of vessels of the Bureau of Fisheries.
6. Immigrants detained at immigration stations.
7. Seamen from vessels of the Army Engineer Corps and other vessels belonging to the United States Army.
8. Seamen employed on vessels of the Mississippi River Commission.
9. Beneficiaries of the United States Employees' Compensation Commission.
10. Patients of the Veterans' Bureau.
11. Lepers.
12. Officers of the Public Health Service and employees on field duty.
13. Prisoners at United States penal and correctional institutions.
14. Patients at Federal narcotic farms.

Almost a half million persons apply annually for care and treatment, including physical examinations, at hospitals or other relief stations maintained by the service at 155 ports of the United States and its possessions. Among these patients practically every class of disease is represented. In their care and treatment, knowledge of all the medical and dental specialties is constantly requisitioned.

In the 25 marine hospitals operated by the Public Health Service more than 300 doctors and dentists, over 400 nurses, aides, and dietitians, and approximately 1,800 other persons are constantly employed in the care of a daily average of about 4,000 patients. The annual expenditures in the marine hospitals and other relief stations are more than $5,000,000. The marine hospitals are all general medical and surgical hospitals except the hospital at Carville, La. (National Home for Lepers), which is devoted to lepers, and the hospital at Fort Stanton, N. Mex., to which merchant seamen and other beneficiaries with tuberculosis, suitable for treatment in a high altitude, are transferred. The Marine Hospital at Ellis Island, while primarily designed for detained immigrants, is also used for regular service beneficiaries, and all the marine hospitals admit patients of the Veterans' Bureau when facilities permit. New marine hospitals have recently been completed at Detroit and Cleveland, others are in process of construction at San Francisco (500 beds), Galveston, and New Orleans (600 beds), and new marine hospitals have been authorized in New York (600 beds), Baltimore, and Seattle. The building program is necessary to keep

pace with the development of the American merchant marine and to fulfill other obligations of the Government to provide hospital treatment.

The quarantine activities are conducted at all the important ports of the United States and its possessions. In addition, medical officers are assigned to duty at American consulates at many foreign ports throughout the world for the purpose of furnishing information and taking necessary measures under the law for the prevention of the introduction of communicable diseases into the United States.

In order to advise immigration and consular officers as to the physical and mental condition of aliens destined to the United States, medical examinations of these persons are conducted at 136 ports in the United States and its dependencies and in Canada. Like examinations of intending immigrants are conducted at 35 important centers throughout Europe, Canada, and Mexico.

For the prevention of the spread of communicable diseases from one State to another and the control of epidemics, numerous field surveys and laboratory studies are necessarily conducted. Several small hospitals and a field laboratory are maintained for the eradication of trachoma. The matter of prevention and treatment of leprosy receives special attention in Hawaii and the United States. The sanitation of water supplies used for drinking and culinary purposes on interstate trains and vessels is supervised. Special studies are made of water, sewage, and ventilation, and control measures are maintained for the sanitation of shellfish-bearing areas. Sanitary work is conducted by public-health engineers and others in public institutions, national parks, and Indian reservations. In cooperation with State and local health authorities full-time health agencies are maintained in many counties throughout the country.

At various clinics, systematic investigations are made of the treatment and methods of control of venereal diseases, and cooperation is had with State and local health authorities in the development and maintenance of control measures. The dissemination of information regarding this group of diseases is also an important duty of the Public Health Service.

In conformity with recent law, special studies of mental hygiene are being organized, "farms" are to be established for studies of drug addiction and the care and rehabilitation of drug addicts, and the medical care of inmates of Federal penal and correctional institutions is being undertaken.

Fundamental research of public-health problems in laboratories and in the field constitutes perhaps the most important function of the service. In this field great advances may be made and signal opportunities are afforded to officers qualified for such work.

Organization

The Public Health Service is under the Treasury Department. It is presided over by the Surgeon General, whose acts are subject only to the general supervision and approval of the Secretary of the Treasury and the President of the United States. All activities are conducted through the central headquarters, the office of the Surgeon General, located at Washington. This office has eight divisions, each in charge of an Assistant Surgeon General, as follows:

1. Marine hospitals and relief.
2. Domestic (interstate) quarantine.
3. Foreign and insular quarantine.
4. Sanitary reports and statistics.
5. Scientific research.
6. Venereal diseases.
7. Mental hygiene.
8. Personnel and accounts.

The activities of the above-named divisions in the field are conducted by stations and laboratories located at many points throughout the United States and its possessions, and in foreign countries. Medical and dental work is carried on at 155 relief stations, including the marine hospitals.

Quarantine stations are located at all important maritime and border ports in the United States. The interstate sanitary activities are conducted through control stations and laboratories, and in cooperation with other Federal departments and independent establishments and State and local health authorities throughout the country. Activities relating to venereal disease are carried on through special clinics, and by means of special surveys and publications.

The division of sanitary reports and statistics collects and publishes public health information received from all public health stations of the service, consular offices throughout the world, and State and local health authorities of the United States and its possessions. The dissemination of information regarding health matters is an important function of the service. It is carried on by means of publications, exhibits, lectures, radio broadcasts, and demonstrations.

Account is taken of problems of mental hygiene at special stations of the service, at penal institutions and elsewhere. Narcotics farms will provide important facilities for studies conducted by the division of mental hygiene.

The division of scientific research supervises laboratory and field investigations of diseases of man and matters pertaining to the public health wherever required. Facilities for the bulk of this work are provided for in the National Institute of Health, Washington, D. C., which has a highly qualified scientific staff. Studies of pollution of

navigable streams, including water and sewage, are carried on in a permanent water and sewage experimental laboratory at Cincinnati, Ohio. Field parties and laboratories are organized as necessary for studies of malaria, pellagra, Rocky Mountain spotted fever, and other diseases of man, and for investigations of child hygiene, industrial sanitation, and similar public health problems. The organization for such work is expanding, and such investigations offer an excellent field for persons having research ability.

All matters relating to personnel and accounts in Washington as well as in the field are under supervision of the division of personnel and accounts. These include appointments, promotions, discipline, official assignments, transfers, leaves of absence, resignations, retirements, and accounts, including pay and allowances of all officers and employees of the service and all of the accounting work connected with the expenditures of public funds appropriated by the Congress for the use of the service.

Appointments to the Commissioned Corps

The regular commissioned corps of the United States Public Health Service includes medical, dental, public health engineer, and pharmacist officers appointed by the President by and with the advice and consent of the Senate. Depending on efficiency, appointments are permanent.

Prior to appointment each candidate must pass an examination before a board of regular commissioned officers. Original appointments are made in the grade of assistant surgeon. In exceptional instances only may original appointments be made to the next higher grade, and the candidate must then have had specialized training and experience prescribed by regulation. Appointments are made to fill vacancies as they occur on selection by the Surgeon General from among successful candidates, their selection being based on seniority as determined by relative standing on the merit roll reported by the Board of Examiners.

Graduates in medicine, dentistry, public-health engineering, or pharmacy desirous of undergoing examination for appointment must make application to the Surgeon General of the United States Public Health Service in their own handwriting requesting permission to appear before the board. Applicants must state their age, date and place of birth, present legal address, whether a citizen of the United States, the name of the professional school or college of which they are graduates, and must furnish a recent photograph and at least two testimonials as to their professional and moral character. Applicants of foreign birth must furnish proof of United States citizenship.

No applicant is eligible to appear before a board of examiners for appointment in the grade of assistant surgeon whose age is less than

23 years or more than 32 years. The applicant must have had at least seven years of educational and professional training, or experience equivalent thereto; four years of which shall have been spent in a professional school granting a degree of medicine, dentistry, public-health engineering, or pharmacy.

An applicant for appointment in the grade of passed assistant surgeon may not be over 39 years of age, and must have had the educational and professional training, or experience equivalent thereto, required for the grade of assistant surgeon, and in addition two years' postgraduate instruction, research, or teaching in some specialized branch of medicine, dentistry, sanitary engineering, or pharmacy, and at least two years' practice in his specialty.

The examination consists of a thorough physical examination and tests to determine the applicant's educational and professional knowledge and general fitness to perform the duties of an officer of the service. Physical soundness is a prerequisite to appointment. The educational test is intended to bring out the candidate's scholastic training and knowledge of current events. The general fitness test is conducted so as to determine general intelligence, judgment, force, initiative, tact, and like qualifications needed by any person to be successful in his chosen calling. The professional test is largely in writing in the several subjects of medicine, dentistry, public-health engineering, or pharmacy as the case may be. The medical subjects are as follows: (1) Anatomy, (2) physiology, (3) chemistry, (4) materia medica and therapeutics, (5) practice of medicine, (6) practice of surgery, (7) obstetrics and gynecology, (8) hygiene, (9) pathology and bacteriology, and (10) reports on selected cases at a hospital. The dental subjects are the following: (1) Anatomy, (2) physiology, (3) chemistry and metallurgy, (4) pathology and bacteriology, (5) materia medica, (6) oral surgery, (7) hygiene and radiology, (8) operative dentistry, (9) prosthetic dentistry, and (10) clinical and laboratory. Following are the public-health engineering subjects: (1) Chemistry, (2) bacteriology and planktology, (3) mathematics, (4) physics, (5) hydraulics, (8) water and sewage treatment, (9) sanitary science and public health, (10) practical problems and laboratory demonstrations. The pharmacy subjects are as follows: (1) Chemistry, (2) practice of pharmacy, (3) materia medica, including pharmacodynamics, (4) pharmacognosy, (5) physics, (6) toxicology, (7) food and drug analysis, (8) physiology and hygiene, (9) business management, including accounting, (10) practical dispensing and laboratory procedures.

The maximum grade in any one subject in an examination for appointment is 100. The minimum grade in the academic and oral professional tests is 70, and in the aggregate written professional and the general fitness tests is 80. The academic, professional, and

general fitness tests have the following relative values in determining the final grade:

(a) Academic	10
(b) Written professional	50
(c) Oral professional	15
(d) General fitness	25
	100

By the above system of ratings a candidate is expected to make an average of 80 in the written professional test. While he may make a low grade in one or more of the written subjects, this can be more than made up by high grades in one or more of the remaining subjects, thereby attaining the minimum average of 80. A candidate is expected, of course, to make the passing grade of 80 in general fitness.

The character of the examination is such that graduates of class A medical schools and schools of dentistry, public-health engineering, and pharmacy of like standing should have no difficulty in passing the professional test. No catch questions are asked, the object being to bring out by means of well-balanced questions the candidate's professional knowledge and ability to apply it.

Candidates in medicine who have passed the tests of the National Board of Medical Examiners are given credit of passing the written professional test required in the examination for appointment to the grade of assistant surgeon. They must appear, however, before the board of medical examiners for the physical examination and the other tests prescribed by law and regulations. Examinations are held at intervals in various large cities of the United States. No allowance is made for expenses of candidates appearing for examination.

Successful candidates receiving appointments in the grade of assistant surgeon are designated, respectively, assistant surgeon, assistant dental surgeon, assistant sanitary engineer, or assistant pharmacist, as the case may be.

Assignments to Duty

With the exception of assistant sanitary engineers, officers on receiving their appointment are usually detailed for duty first at a hospital station; assistant sanitary engineers are detailed for duty at field stations or laboratories dealing with sanitary engineering problems. Commissioned officers are not appointed to any particular station, but are subject to change of station as the exigencies of the service may require. They are required before appointment to certify that they are willing and able to serve in any climate where assigned to duty.

During the first few years of service, officers may be assigned successively to a marine hospital, a quarantine station, an immigration station, to the National Institute of Health, to field public-health

work, and to educational and research institutions for special studies of scientific problems relating to public health. The length of duty at a particular station depends on previous training, public exigency, and, within limits, the predilection of the officer for a particular kind of work.

It is necessary that officers accept their assignments willingly and endeavor to profit by their experiences professionally and socially. The opportunities for travel both in the United States and abroad greatly enlarge the knowledge and experience of officers. Officers in the junior grades serve under experienced officers in charge of the larger stations. With the acquisition of knowledge and experience and advance in grade, officers are assigned to more responsible duties, and when thoroughly fitted to assume responsibility they are placed in charge of important activities. The character of assignments depends on an officer's qualifications, including energy, experience, judgment, professional skill, and dependability.

Promotion

Officers in the several grades are eligible for examination for promotion as follows:

1. Assistant surgeon, assistant dental surgeon, and assistant sanitary engineer to the grade of passed assistant surgeon upon the expiration of three years' regular commissioned service, and assistant pharmacist to such grade upon the expiration of five years' regular commissioned service.

In order to be promoted, an officer in the grade of assistant surgeon must satisfy the Board of Examiners that he has been diligent in the performance of his duties and in keeping himself informed of the practice of his profession since his appointment into the service, and that he is able to perform the duties of a higher grade. Should an officer in the grade of assistant surgeon be found not qualified for promotion for reasons other than physical disability incurred in line of duty, his commission will be terminated by the President, and in accordance with law he will be paid six months' pay and allowances.

2. Passed assistant surgeon, passed assistant dental surgeon, and passed assistant sanitary engineer to the grade of surgeon upon the expiration of 12 years' service from the date of original commission in the regular service.

In determining the 12 years of service required for promotion, an officer originally appointed in the grade of passed assistant surgeon shall be credited with three years' service as a part of the 12 years' requirement.

Officers in this grade are required to pass a satisfactory examination in (*a*) service record, (*b*) general fitness, and (*c*) certain professional subjects relating to their profession, including station manage-

ment and service regulations. When an officer in the grade of passed assistant surgeon is found not qualified for promotion by reasons other than physical disability incurred in line of duty, his commission will be terminated by the President, and in accordance with the law he will be paid one year's pay and allowances.

3. Surgeon, dental surgeon, and sanitary engineer to the grade of senior surgeon upon completion of 20 years' active service from the date of original appointment.

In determining the 20 years of service for promotion, an officer originally appointed in the grade above that of assistant surgeon shall be credited with the service of the junior officer in the grade to which originally appointed. If the actual service of such officer in the Public Health Service exceeds that of the junior officer in the grade, such actual service not to exceed 10 years for the grade of passed assistant surgeon and 14 years for the grade of surgeon shall be credited. Promotions are made subject to physical examination, review of the officer's record, and determination of his ability to discharge his assigned duties and the duties of the higher grade.

4. Senior surgeon, senior dental surgeon, senior sanitary engineer to the grade of medical director upon completion of 26 years' active service from the date of original appointment.

An officer in the grade of senior surgeon originally appointed to the regular corps above that of assistant surgeon shall be entitled to promotion to the grade of medical director after six years' service in the grade of senior surgeon. Promotion in this grade of any candidate shall be subject to physical examination, review of the officer's record, and determination of his ability to discharge his assigned duties and the duties of the higher grade. When an officer in the grade of surgeon or senior surgeon after examination is found not qualified for promotion by reasons other than physical disability incurred in line of duty, he may be reported as "not in line of promotion," or retired.

By the above described system, an efficient officer is assured of promotions at regular intervals through his service life. Officers selected by the Surgeon General for assignment in charge of the several divisions of the bureau are known as Assistant Surgeon General and have the rank of medical director while so serving. The Surgeon General is selected by the President from among the officers of the regular corps for appointment.

Pay and Allowances

The total annual compensation, including pay and allowances of officers in the several grades, is determined by length of service and whether or not he has dependents. Independent of promotion, all officers receive as part of their total compensation increases of 5 per

cent of the base pay for each three years of service up to 50 per cent. The maximum annual pay and allowances of regular commissioned officers under present provisions of law are as follows:

Grade	With dependents	Without dependents
Surgeon General	$9,700	$9,179
Assistant Surgeon General or Medical Director	7,200	7,179
Senior Surgeon	6,997	6,079
Surgeon	5,757	4,839
Passed Assistant Surgeon	4,158	3,699
Assistant Surgeon	3,158	2,699

Officers when taken sick or injured in line of duty are entitled to medical care and relief. Most stations are supplied with medical books, periodicals, and instruments. There is, therefore, no necessity for the purchase of these materials. Officers are obliged, however, to own and keep in good condition the uniforms of the service prescribed by regulations.

While traveling on official duty, officers are allowed 8 cents a mile; under special orders they may receive in lieu thereof actual and necessary expenses for transportation and a per diem of $6 for subsistence. On permanent changes of station, officers are entitled to transportation for their dependents; dependents as defined by law are a lawful wife and unmarried children under 21 years of age and a mother, provided she is in fact dependent on the officer for her chief support.

On permanent changes of station, officers are also entitled to transportation of their household effects in amounts as follows for the several grades:

Grade:	Pounds
Assistant Surgeon	7,500
Passed Assistant Surgeon	8,500
Surgeon	9,500
Senior Surgeon	9,500
Medical Director	11,000

Leaves of Absence

An officer is entitled to one month annual leave during each year. If not taken it may accumulate to the amount of four months. An officer is also granted sick leave when taken sick or disabled in line of duty. Should he become unable to perform his duties by reason of disease or accident (not of a temporary nature and not the result of dissipating habits), he is, after the expiration of his annual and sick leave, retired and placed on permanent "waiting orders" status. Officers so placed by reason of disability receive three-fourths of their base pay and longevity increase. By means of exercise and recrea-

tion, officers are expected to keep themselves in good physical condition.

Retirement

As above stated, officers who become permanently disabled and unable to perform their duties are retired on three-fourths of their base pay and longevity. Officers in the grade of surgeon or above who fail of promotion by reasons other than physical disability incurred in line of duty if retired are paid annually at the rate of 2½ per cent for each complete year of active commissioned service in the Public Health Service, not to exceed 60 per cent of active-duty pay at the time of retirement. Officers continued on duty as "not in line of promotion" continue to receive the active-duty pay of their grade. The provision for retirement of officers in case of disability affords valuable protection throughout their service life.

Public Health Service as a Career

By reason of the character of the duties and the conditions under which they are performed, the Public Health Service offers an attractive career. Persons with good basic training, and the ability and willingness to work, may make a success which will reflect credit upon themselves and be of lasting benefit to their country. While the pay and allowances are moderate as compared with some of those in private life, this may be more than compensated for by the opportunities offered for travel, specialization, and research, and the safeguards provided in case of permanent disability. However, a commission in the Public Health Service is not a sinecure, on account of the lack of a fixed dwelling place, the separation at times from the family, and the conditions at times of emergency field service.

No officer may expect to amass great wealth through the pay of his commission, but he is assured of a comfortable living and safeguards for disability and old age; he occupies an honorable position in which there is opportunity for professional advancement, depending on his ability and application; and he may render distinguished service and establish a permanent reputation in some field of his profession. If he is willing and anxious to serve, it is a pleasant and useful career.

DEATHS DURING WEEK ENDED AUGUST 30, 1930

Summary of information received by telegraph from industrial insurance companies for the week ended August 30, 1930, and corresponding week of 1929. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Aug. 30, 1930	Corresponding week, 1929
Policies in force	75, 702, 504	74, 642, 901
Number of death claims	12, 295	11, 973
Death claims per 1,000 policies in force, annual rate	8. 5	8. 4

Deaths [1] from all causes in certain large cities of the United States during the week ended August 30, 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 Aug. 30, 1930				Corresponding week 1929		Death rate [2] for first 35 weeks	
	Total deaths	Death rate [2]	Deaths under 1 year	Infant mortality rate [3]	Death rate [2]	Deaths under 1 year	1930	1929
Total (77 cities)	6,827	10.3	625	[4] 49	10.4	719	12.3	13.1
Akron	31	6.4	5	46	7.4	6	8.0	9.7
Albany [5]	41	16.7	5	109	11.6	3	15.2	16.5
Atlanta	65	12.7	7	74	8.9	3	16.3	16.4
White	37		4	127		1		
Colored	28	(6)	3	48	(6)	2	(6)	(6)
Baltimore [5]	165	10.7	10	34	12.0	21	14.4	15.3
White	114		9	39		16		
Colored	51	(6)	1	16	(6)	5	(6)	(6)
Birmingham	44	8.8	5	47	17.6	11	14.1	16.9
White	12		2	31		5		
Colored	32	(6)	3	71	(6)	6	(6)	(6)
Boston	170	11.3	21	59	12.2	24	14.4	15.8
Bridgeport	25	8.9	3	51	10.6	3	11.3	12.7
Buffalo	120	10.9	9	40	12.7	16	13.2	14.5
Cambridge	16	7.3	2	37	10.1	3	12.1	13.2
Camden	34	15.1	5	91	12.9	5	14.1	14.9
Canton	25	12.3	3	74	11.5	2	10.4	11.8
Chicago [5]	592	9.1	50	44	9.4	76	10.6	11.7
Cincinnati	110	12.7	3	18	14.4	17	15.9	17.6
Cleveland	184	10.6	12	36	9.0	20	11.4	13.0
Columbus	89	16.0	4	39	7.1	6	16.3	15.3
Dallas	42	8.3	5		7.4	6	12.0	12.0
White	25		4			4		
Colored	17	(6)	1		(6)	2	(6)	(6)
Dayton	43	11.1	5	74	7.4	4	10.6	11.7
Denver	102	18.4	13	136	13.9	7	14.9	15.3
Des Moines	32	11.7	3	52	8.1	1	12.1	11.9
Detroit	248	8.2	28	43	9.5	45	9.7	11.6
Duluth	20	10.3	4	108	11.4	3	11.4	11.8
El Paso	31	15.8	8		16.1	6	18.2	20.8
Erie	22	9.9	2	43	7.7	3	11.5	12.9
Fall River [5] [7]	23	10.5	1	23	8.2	0	12.5	14.8
Flint	24	7.9	3	35	9.3	6	9.4	10.9
Fort Worth	14	4.5	2		9.8	4	11.4	13.0
White	12		2			4		
Colored	2	(6)	0		(6)	0	(6)	(6)
Grand Rapids	30	9.3	4	61	9.4	5	10.6	10.4
Houston	62	11.1	10		11.1	11	12.5	13.1
White	39		8			8		
Colored	23	(6)	2		(6)	3	(6)	(6)
Indianapolis	100	14.3	6	45	11.6	8	15.0	15.1
White	83		5	43		7		
Colored	17	(6)	1	54	(6)	1	(6)	(6)
Jersey City	58	9.6	4	35	9.1	2	11.6	13.0
Kansas City, Kans	33	14.0	2	47	14.1	0	11.5	14.0
White	20		0	0		0		
Colored	13	(6)	2	435	(6)	0	(6)	(6)
Kansas City, Mo	81	10.7	6	47	12.1	8	13.7	14.5
Los Angeles	271	11.3	19	58	8.2	10	11.3	11.6
Louisville	88	14.9	5	43	10.7	8	14.1	15.6
White	71		5	49		6		
Colored	17	(6)	0	0	(6)	2	(6)	(6)
Lowell [7]	16	8.3	0	0	6.7	2	13.9	14.8
Lynn	12	6.1	1	25	7.7	2	10.8	11.7
Memphis	82	16.9	11	131	17.1	9	18.0	19.5
White	32		5	92		6		
Colored	50	(6)	6	202	(6)	3	(6)	(6)
Milwaukee	95	8.7	10	50	9.4	11	10.0	11.4
Minneapolis	93	10.4	11	71	8.1	4	10.8	11.2
Nashville	44	15.6	8	124	15.6	8	17.9	19.7
White	26		6	123		7		
Colored	18	(6)	2	127	(6)	1	(6)	(6)

Footnotes at end of table.

Deaths [1] from all causes in certain large cities of the United States during the week ended August 30, 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)—Continued

City	Week ended Aug. 30, 1930				Corresponding week, 1929		Death rate for first 35 weeks	
	Total deaths	Death rate	Deaths under 1 year	Infant mortality rate	Death rate	Deaths under 1 year	1930	1929
New Bedford [7]	16	7.4	0	0	11.5	2	11.2	13.2
New Haven	27	8.7	1	19	18.6	1	13.3	13.8
New Orleans	125	14.2	11	64	15.0	18	17.9	18.1
White	72		8	71		11		
Colored	53	(6)	3	50	(6)	7	(6)	(6)
New York	1,201	9.0	122	51	8.8	119	11.1	11.8
Bronx Boro	171	7.0	17	40	6.4	10	8.1	8.5
Brooklyn Boro	402	8.0	48	51	8.1	48	10.1	10.6
Manhattan Boro	470	13.3	51	84	11.9	45	16.7	17.1
Queens Boro	125	6.0	3	87	6.6	8	7.3	7.9
Richmond Boro	33	10.9	3	56	15.9	8	14.7	16.3
Newark, N. J	79	9.3	4	21	10.5	8	12.3	13.3
Oakland	58	10.6	3	36	10.6	5	11.1	11.7
Oklahoma City	31	8.7	4	79	7.1	3	10.9	10.9
Omaha	40	9.7	1	11	13.7	4	14.0	14.2
Paterson	35	13.2	6	104	8.3	5	12.6	13.7
Philadelphia	355	9.4	32	47	10.9	39	12.8	13.6
Pittsburgh	174	13.5	25	92	12.5	17	14.1	15.3
Portland, Oreg	66	11.5	4	49	12.0	0	12.6	13.2
Providence	50	10.4	8	73	12.7	5	13.5	15.2
Richmond	38	10.8	4	59	11.7	3	15.3	16.9
White	21		3	67		2		
Colored	17	(6)	1	44	(6)	1	(6)	(6)
Rochester	63	10.1	5	44	10.3	8	11.9	12.9
St. Louis	185	11.7	7	23	13.1	16	14.7	15.3
St. Paul	44	8.4	1	10	9.5	4	10.3	10.8
Salt Lake City [5]	34	12.6	3	47	10.5	2	12.8	13.4
San Antonio	63	12.8	16		10.9	10	15.9	15.3
San Diego	45	15.7	4	84	12.0	2	14.6	15.7
San Francisco	118	9.8	4	27	13.6	4	13.3	13.5
Schenectady	24	13.1	2	62	15.3	2	11.5	12.9
Seattle	69	9.9	1	10	10.4	4	11.2	11.3
Somerville	18	9.0	1	33	6.6	1	10.1	9.5
Spokane	19	8.6	0	0	7.7	0	12.4	13.1
Springfield, Mass	33	11.4	2	32	10.5	5	12.5	13.2
Syracuse	34	8.5	1	12	10.9	9	12.0	13.6
Tacoma	27	13.2	0	0	9.3	1	12.9	11.9
Toledo	66	11.8	7	64	12.7	7	12.9	14.0
Trenton	36	15.3	3	56	13.2	3	17.2	17.6
Utica	24	12.2	2	57	12.8	1	15.1	15.9
Washington, D. C	130	13.9	11	64	12.7	13	15.6	15.9
White	80		9	78		4		
Colored	50	(6)	2	35	(6)	9	(6)	(6)
Waterbury	10	5.1	2	51	5.2	0	10.1	9.8
Wilmington, Del. [7]	26	12.9	2	45	9.4	1	14.9	14.2
Worcester	47	12.5	7	91	10.7	3	13.2	13.1
Yonkers	18	6.9	1	24	7.1	1	8.2	9.5
Youngstown	22	6.7	3	47	11.6	4	10.3	12.5

[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 72 cities.
[5] Deaths for week ended Friday.
[6] For the cities for which deaths are shown by color the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; 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 September 6, 1930, and September 7, 1929

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 6, 1930, and September 7, 1929

Division and State	Diptheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929
New England States:								
Maine						4	0	0
New Hampshire	2	3	2			1	0	0
Vermont		1				3	0	0
Massachusetts	30	43	2	2	24	22	1	1
Rhode Island	4	2					0	0
Connecticut	5	4	1	1		3	3	0
Middle Atlantic States:								
New York	57	71	[1] 3	[1] 7	73	137	11	14
New Jersey	41	37	3	3	15	9	1	9
Pennsylvania	50	68			48	49	11	12
East North Central States:								
Ohio	27	29	7	10	15	27	5	2
Indiana	16	23	3		1	6	1	1
Illinois	57	106	15	6	12	31	2	6
Michigan	25	46	1		35	48	9	33
Wisconsin	6	21	25	7	14	24	2	1
West North Central States:								
Minnesota	12	8	1	4		4	1	2
Iowa	1	4				2	0	1
Missouri	23	14	1	3	14	1	2	4
North Dakota	1	4				20	0	7
South Dakota	6	1			1	2	0	0
Nebraska	1	9			1		1	0
Kansas	14	10	1	1	7	9	1	1
South Atlantic States:								
Delaware	2				1		0	0
Maryland [2]	12	14	2	5		2	0	0
District of Columbia	9	8	1		9		0	0
Virginia								
West Virginia	11	17		7	3	1	0	3
North Carolina	95	136	3		2	3	1	1
South Carolina	40	54	216	265			0	0
Georgia	21	18	13	30	10		0	0
Florida	6	12			1	1	1	0

[1] New York City only.

[2] Week ended Friday.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended September 6, 1930, and September 7, 1929—Continued

Division and State	Diptheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929
East South Central States:								
Kentucky							4	0
Tennessee	23		3		2	3	1	2
Alabama	23	49	4	2	7	6	2	0
Mississippi	15	40					1	1
West South Central States:								
Arkansas	7	3	1	2			0	0
Louisiana	21	26	3	23	2	4	0	0
Oklahoma [2]	10	30	4	19	1	4	1	0
Texas	26	52	8	14	8	3	1	0
Mountain States:								
Montana		2			6	1	1	0
Idaho					1	3	0	0
Wyoming	1					7	0	0
Colorado	9	6			4	4	1	2
New Mexico	1	4			3		2	0
Arizona	10	4					1	3
Utah [2]	1		4	4	2		2	1
Pacific States:								
Washington	15	7			27	9	0	2
Oregon	1	3	7		25	4	0	0
California	30	26	13	7	40	28	2	9

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929
New England States:								
Maine	10	0	2	16	0	0	4	
New Hampshire	2	0	2	1	0	0	0	1
Vermont	0	0	1		0	0	0	3
Massachusetts	13	8	40	55	0	0	8	12
Rhode Island	1	0	4	1	0	0	2	2
Connecticut	1	0	3	5	0	0	2	1
Middle Atlantic States:								
New York	47	36	56	55	1	1	32	62
New Jersey	1	2	20	23	0	0	16	19
Pennsylvania	9	9	80	77	0	3	98	49
East North Central States:								
Ohio	55	10	81	85	12	33	65	68
Indiana	7	1	11	25	32	10	16	17
Illinois	19	6	64	88	19	15	56	24
Michigan	6	19	54	48	12	23	8	7
Wisconsin	9	1	20	26	3	4	8	18
West North Central States:								
Minnesota	11	0	22	37	1	6	4	7
Iowa	10	3	8	15	6	5	11	10
Missouri	10	1	27	19	5	8	16	9
North Dakota	1	0	0	8	0	1	2	1
South Dakota	5	0	3	4	9	4	6	4
Nebraska	7	0	9	7	8	14	5	3
Kansas	84	0	15	14	3	7	19	24
South Atlantic States:								
Delaware	1	0	4		0	0	7	1
Maryland [3]	2	0	17	25	0	0	48	16
District of Columbia	1	1	4	11	0	0	2	4
Virginia		19						
West Virginia	2	5	17	18	5	3	61	41
North Carolina	9	3	78	74	0	1	68	56
South Carolina	4	2	17	9	0	0	74	66
Georgia	0	1	23	20	0	0	40	33
Florida	0	0	2	2	0	0	2	1

[2] Week ended Friday.
[3] 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 September 6, 1930, and September 7, 1929—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929	Week ended Sept. 6, 1930	Week ended Sept. 7, 1929
East South Central States:								
Kentucky	0	0	36	37	3	0	68	50
Tennessee	3	1	33	----	2	1	90	53
Alabama	3	8	21	28	1	0	25	21
Mississippi	2	0	4	18	7	1	32	29
West South Central States:								
Arkansas	1	0	22	9	1	0	42	25
Louisiana	6	0	18	4	0	2	36	19
Oklahoma [3]	7	0	10	25	1	4	44	68
Texas	2	3	17	32	6	14	15	36
Mountain States:								
Montana	1	1	10	5	7	1	5	5
Idaho	1	0	2	----	0	3	0	2
Wyoming	3	0	3	4	0	0	0	2
Colorado	4	0	3	7	0	7	0	19
New Mexico	1	0	4	4	1	0	7	9
Arizona	0	1	7	0	1	0	5	2
Utah [3]	0	0	2	2	0	1	1	0
Pacific States:								
Washington	6	0	20	17	11	15	2	8
Oregon	0	0	12	4	7	10	5	6
California	53	4	36	61	11	5	14	18

[2] Week ended Friday.
[3] Figures for 1930 are exclusive of Oklahoma City and Tulsa.

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	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
July, 1930										
Colorado	3	27	----	----	174	----	0	22	9	15
Delaware	----	4	----	----	23	----	0	14	0	3
Mississippi	9	43	207	7,430	107	1,390	10	15	5	297
South Carolina	----	71	248	2,206	13	1,240	8	13	1	286
Texas	1	51	20	1,336	----	2	11	36	----	78
August, 1930										
Arizona	1	11	2	----	37	----	3	7	1	27
Connecticut	3	24	3	3	32	----	6	31	0	5
Delaware	----	8	----	----	13	----	2	6	0	29
District of Columbia	1	13	1	----	26	1	1	14	0	21
Georgia	3	47	34	513	45	59	4	61	3	244
Nebraska	----	19	2	----	28	----	12	17	36	20
New Mexico	2	32	1	79	14	11	4	6	12	28
Wyoming	----	----	----	----	2	----	5	15	0	3

July, 1930

	Cases
Chicken pox:	
Colorado	29
Delaware	3
Mississippi	242
South Carolina	103
Dengue:	
Mississippi	10
South Carolina	5
Dysentery:	
Mississippi (amebic)	115
Mississippi (bacillary)	1,782
Hookworm disease:	
Mississippi	368
South Carolina	106
Lethargic encephalitis:	
South Carolina	1
Mumps:	
Colorado	43
Delaware	1
Mississippi	251
South Carolina	69
Ophthalmia neonatorum:	
Mississippi	15
South Carolina	6
Paratyphoid fever:	
Colorado	1
South Carolina	12
Texas	3
Puerperal septicemia:	
Mississippi	41
Rabies in animals:	
Mississippi	5
South Carolina	9
Rocky Mountain spotted or tick fever:	
Colorado	1
Scabies:	
Delaware	18
Tetanus:	
Colorado	1
Trachoma:	
Mississippi	13
Typhus fever:	
South Carolina	1
Undulant fever:	
Delaware	2
South Carolina	1
Vincent's angina:	
Colorado	3
Whooping cough:	
Colorado	261
Delaware	22
Mississippi	732
South Carolina	250

August, 1930

	Cases
Chicken pox:	
Arizona	2
Connecticut	17
District of Columbia	7
Georgia	4
Nebraska	25
Wyoming	2
Conjunctivitis, acute infectious:	
Georgia	2
Dysentery:	
Arizona	42
Connecticut (bacillary)	1
Georgia	41
Favus:	
Connecticut	2
German measles:	
Connecticut	6
Hookworm disease:	
Georgia	31
Lead poisoning:	
Connecticut	1
Lethargic encephalitis:	
Connecticut	2
District of Columbia	1
Mumps:	
Arizona	9
Connecticut	23
Delaware	3
Georgia	24
Nebraska	6
New Mexico	13
Wyoming	2
Paratyphoid fever:	
Connecticut	1
Georgia	4
Psittacosis:	
Georgia	1
Rabies in animals:	
Connecticut	9
Rocky Mountain spotted or tick fever:	
Wyoming	1
Septic sore throat:	
Connecticut	2
Georgia	50
Nebraska	1
Tetanus:	
Connecticut	1
Trachoma:	
Arizona	9
Trichinosis:	
Connecticut	3
Typhus fever:	
Delaware	2
District of Columbia	2
Georgia	13
Undulant fever:	
Arizona	3
Delaware	1
Georgia	2
Whooping cough:	
Arizona	29
Connecticut	129
Delaware	4
District of Columbia	22
Georgia	75
Nebraska	58
New Mexico	12
Wyoming	15

RECIPROCAL NOTIFICATIONS

Notifications regarding communicable diseases sent during the month of July, 1930, by departments of health of certain States to other State health departments

Disease	Alabama	California	Illinois	Kansas	Massachusetts	Minnesota	New York
Chicken pox			1				
Encephalitis						1	
Gonorrhea						1	
Malaria			1				
Measles					1		1
Poliomyelitis			1			1	
Scarlet fever							2
Smallpox			8				2
Syphilis				7		1	
Tuberculosis	1		9			20	
Typhoid fever		1	3			1	3
Undulant fever						1	1
Whooping cough							1

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 95 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 31,920,000. The estimated population of the 88 cities reporting deaths is more than 30,330,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended August 30, 1930, and August 31, 1929

	1930	1929	Estimated expectancy
Cases reported			
Diphtheria:			
46 States	631	1,017	
95 cities	242	373	441
Measles:			
45 States	445	472	
95 cities	123	86	
Meningococcus meningitis:			
46 States	87	84	
95 cities	39	60	
Poliomyelitis:			
46 States	344	124	
Scarlet fever:			
46 States	650	859	
95 cities	258	245	264
Smallpox:			
46 States	122	149	
95 cities	10	25	8
Typhoid fever:			
46 States	916	829	
95 cities	153	161	181
Deaths reported			
Influenza and pneumonia:			
88 cities	329	321	
Smallpox:			
88 cities	0	0	

City reports for week ended August 30, 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 nonepidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible but no year earlier than 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 reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland	0	0	0	----------	0	0	1	3
New Hampshire:								
Concord	0	0	0	----------	0	0	0	0
Vermont:								
Barre	4	0	0	----------	0	0	0	0
Massachusetts:								
Boston	8	19	9	3	0	8	2	14
Fall River	0	1	5	----------	0	0	1	1
Springfield	0	1	3	----------	0	0	0	0
Worcester	2	3	1	----------	0	0	0	1
Rhode Island:								
Pawtucket	0	0	1	----------	0	0	0	0
Providence	0	2	3	----------	0	0	0	1
Connecticut:								
Bridgeport	0	3	0	----------	0	0	0	0
Hartford	----------	2	----------	----------	----------	----------	----------	----------
New Haven	0	2	0	----------	0	0	0	0
MIDDLE ATLANTIC								
New York:								
Buffalo	9	8	14	----------	0	5	4	15
New York	8	76	32	5	4	27	15	69
Rochester	4	3	1	----------	0	0	2	0
Syracuse	0	1	0	----------	0	3	2	3
New Jersey:								
Camden	0	2	2	----------	0	2	0	3
Newark	1	6	4	2	0	0	2	6
Trenton	0	1	1	----------	0	0	0	4
Pennsylvania:								
Philadelphia	4	28	6	1	2	11	4	12
Pittsburgh	2	11	3	1	0	1	3	13
Reading	0	1	1	----------	0	0	0	0
EAST NORTH CENTRAL								
Ohio:								
Cincinnati	2	4	0	----------	0	0	0	7
Cleveland	5	21	7	3	1	3	3	10
Columbus	0	2	0	----------	2	0	0	2
Toledo	1	5	1	1	1	0	1	4
Indiana:								
Fort Wayne	0	1	0	----------	0	0	0	2
Indianapolis	1	2	2	----------	0	1	0	10
South Bend	0	1	0	----------	0	0	0	1
Terre Haute	0	0	0	----------	0	0	0	0
Illinois:								
Chicago	8	51	52	3	3	3	16	25
Springfield	0	0	0	----------	0	0	0	0
Michigan:								
Detroit	0	24	9	1	0	1	2	12
Flint	1	1	1	----------	0	1	0	1
Grand Rapids	0	1	0	----------	1	0	0	3
Wisconsin:								
Kenosha	0	0	0	----------	0	0	0	1
Madison	0	1	0	----------	----------	0	0	----------
Milwaukee	9	7	1	----------	0	3	4	5
Racine	1	0	1	----------	0	0	0	0
Superior	1	0	0	----------	0	0	0	1
WEST NORTH CENTRAL								
Minnesota:								
Duluth	0	0	0	----------	0	0	0	0
Minneapolis	5	12	0	----------	1	2	0	0
St. Paul	2	6	1	----------	0	0	0	5

City reports for week ended August 30, 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			
WEST NORTH CENTRAL—continued								
Iowa:								
Davenport	0	0	0			0	0	
Des Moines	0	1	0			0	0	
Sioux City	0	0	0			0	0	
Waterloo	0	0	0			0	0	
Missouri:								
Kansas City	1	2	1		0	1	2	2
St. Joseph	0	0	0		0	0	0	1
St. Louis	3	17	11			8	2	
North Dakota:								
Fargo	0	0	0		0	0	2	0
South Dakota:								
Aberdeen	0	0	1			0	0	
Nebraska:								
Omaha	4	4	0		0	1	0	4
Kansas:								
Topeka	0	0	1		0	0	2	1
Wichita	0	1	0		0	2	0	0
SOUTH ATLANTIC								
Delaware:								
Wilmington	0	0	0		0	0	0	0
Maryland:								
Baltimore	0	14	6	1	2	3	4	7
Cumberland	0	0	0		0	0	0	1
Frederick	0	0	0		0	0	0	0
District of Columbia:								
Washington	0	8	3		0	1	0	7
Virginia:								
Lynchburg	0	1	0		0	0	0	0
Norfolk	0	1	0		0	2	0	1
Richmond	0	8	2		0	8	0	0
Roanoke	0	3	1		0	0	0	0
West Virginia:								
Charleston	0	1	1		0	0	0	0
Wheeling	0	1	0		0	0	0	2
North Carolina:								
Raleigh	0	1	0		0	0	0	1
Wilmington	2	0	4		0	1	0	3
Winston-Salem	0	2	0		0	0	0	2
South Carolina:								
Charleston	0	0	0	3	1	0	0	1
Columbia		0						
Georgia:								
Atlanta	1	4	10		0	1	1	4
Brunswick	0	0	1		0	0	0	0
Savannah	0	0	3	4	1	0	0	0
Florida:								
Miami	0	1	2		0	0	0	0
St. Petersburg		0			0			0
Tampa	0	2	1		0	2	0	0
EAST SOUTH CENTRAL								
Kentucky:								
Covington	0	0	0		0	0	0	0
Tennessee:								
Memphis	0	2	0		0	0	0	2
Nashville	0	3	0		0	1	0	1
Alabama:								
Birmingham	0	3	2	2	1	1	1	3
Mobile	0	0	0		0	0	0	1
Montgomery	0	1	0			0	0	
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith	0	0	0			0	0	
Little Rock	0	0	0		0	0	0	0
Louisiana:								
New Orleans	0	6	6	2	2	0	0	5
Shreveport	0	0	0		0	0	0	0
Texas:								
Dallas	1	5	4		0	3	0	0
Fort Worth	0	2	2		0	0	0	0
Galveston	0	0	0		0	0	0	0
Houston	0	3	4		0	0	0	1
San Antonio	0	2	5		0	0	0	4

City reports for week ended August 30, 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			
MOUNTAIN								
Montana:								
Billings	0	0	0		0	0	0	1
Great Falls	0	0	0		0	0	0	0
Helena		0						
Missoula	0	0	0		0	1	0	0
Idaho:								
Boise	0	0	0		0	0	0	0
Colorado:								
Denver	0	8	8		0	2	1	3
Pueblo	3	1	0		0	0	2	1
New Mexico:								
Albuquerque	0	1	2		0	0	2	0
Arizona:								
Phoenix	0	0	1		0	0	0	2
Utah:								
Salt Lake City	3	2	0		0	0	0	1
Nevada:								
Reno	0	0	0		0	0	0	0
PACIFIC								
Washington:								
Seattle	1	2	1			1	5	
Spokane	1	1	1			3	0	
Tacoma	1	1	0		0	0	0	3
Oregon:								
Portland	3	4	2		0	2	0	2
Salem	0	0	0		0	0	0	0
California:								
Los Angeles	7	22	5	7	0	6	7	12
Sacramento	1	2	0		0	0	1	1
San Francisco	6	9	1	4	1	5	5	2

Division, State, and city	Scarlet fever		Smallpox			Tuberculosis, deaths reported	Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported		Cases, estimated expectancy	Cases reported	Deaths reported		
NEW ENGLAND											
Maine:											
Portland	0	1	0	0	0	0	1	1	1	10	26
New Hampshire:											
Concord	0	0	0	0	0	0	0	0	0	0	3
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	4	2
Massachusetts:											
Boston	14	11	0	0	0	12	3	1	0	38	170
Fall River	0	3	0	0	0	1	1	0	0	3	23
Springfield	1	0	0	0	0	1	0	2	0	3	30
Worcester	2	5	0	0	0	0	0	0	0	11	47
Rhode Island:											
Pawtucket	0	0	0	0	0	0	0	0	0	0	17
Providence	2	2	0	0	0	1	2	1	0	3	50
Connecticut:											
Bridgeport	1	0	0	0	0	2	0	0	0	2	25
Hartford	1		0				0				
New Haven	1	0	0	0	0	0	3	0	0	3	27
MIDDLE ATLANTIC											
New York:											
Buffalo	5	7	0	0	0	5	1	0	0	50	113
New York	22	14	0	0	0	90	43	19	4	71	1,200
Rochester	1	4	0	0	0	2	1	0	0	11	59
Syracuse	1	5	0	0	0	1	1	1	0	40	34
New Jersey:											
Camden	0	1	0	0	0	2	1	1	0	0	34
Newark	3	1	0	0	0	7	2	4	0	24	80
Trenton	0	2	0	0	0	2	1	0	0	0	36
Pennsylvania:											
Philadelphia	15	17	0	0	0	30	10	11	2	25	355
Pittsburgh	8	7	0	0	0	11	2	6	0	29	174
Reading	0	0	0	0	0	3	0	1	0	1	17

City reports for week ended August 30, 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		
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	4	5	0	0	0	6	3	0	0	1	110
Cleveland	10	3	0	0	0	15	4	4	1	31	184
Columbus	3	2	0	0	0	4	0	0	0	0	----
Toledo	2	2	0	1	0	4	3	2	0	3	66
Indiana:											
Fort Wayne	1	0	0	0	0	1	1	1	0	0	28
Indianapolis	3	0	0	0	0	0	1	2	1	8	----
South Bend	1	1	0	0	0	0	0	0	0	1	12
Terre Haute	1	0	0	0	0	0	0	0	0	1	25
Illinois:											
Chicago	26	35	0	0	0	38	6	5	1	39	592
Springfield	0	0	0	0	0	1	0	0	0	0	15
Michigan:											
Detroit	23	15	0	0	0	30	4	3	0	69	246
Flint	4	8	1	0	0	1	2	0	0	1	24
Grand Rapids	3	3	0	0	0	0	0	0	0	7	30
Wisconsin:											
Kenosha	0	0	0	0	0	0	0	0	0	0	10
Madison	1	0	1	0	----	----	0	5	----	6	----
Milwaukee	8	3	0	0	0	3	1	1	0	35	95
Racine	2	0	0	0	0	1	0	0	0	15	14
Superior	1	1	1	0	0	0	0	0	0	0	9
WEST NORTH CENTRAL											
Minnesota:											
Duluth	4	1	0	0	0	0	0	0	0	9	20
Minneapolis	13	1	1	0	0	3	1	1	0	0	93
St. Paul	6	0	0	0	0	2	1	1	0	11	58
Iowa:											
Davenport	1	0	0	2	----	----	0	0	----	0	----
Des Moines	2	0	0	2	----	----	0	0	----	0	32
Sioux City	0	1	0	0	----	----	0	0	----	3	----
Waterloo	0	0	0	0	----	----	0	0	----	0	----
Missouri:											
Kansas City	2	4	0	0	0	11	2	2	1	1	81
St. Joseph	0	1	0	0	0	0	0	0	0	2	16
St. Louis	10	10	0	0	0	14	7	5	2	4	185
North Dakota:											
Fargo	1	0	0	0	0	1	0	0	0	2	9
South Dakota:											
Aberdeen	1	0	0	0	----	----	0	1	----	2	----
Nebraska:											
Omaha	1	3	0	3	0	1	1	0	0	3	40
Kansas:											
Topeka	2	1	0	0	0	0	0	1	0	5	25
Wichita	1	0	0	1	0	2	2	0	0	8	31
SOUTH ATLANTIC											
Delaware:											
Wilmington	0	1	0	0	0	0	1	0	0	0	27
Maryland:											
Baltimore	5	4	0	0	0	14	9	12	0	19	165
Cumberland	0	1	0	0	0	0	1	3	0	0	8
Frederick	0	0	0	0	0	0	1	0	0	0	3
District of Columbia:											
Washington	4	4	0	0	0	6	4	12	0	5	130
Virginia:											
Lynchburg	0	0	0	0	0	1	0	4	0	1	12
Norfolk	0	3	0	0	0	0	2	10	1	0	----
Richmond	3	0	0	0	0	3	3	0	0	0	38
Roanoke	1	4	0	0	0	0	0	0	0	0	8
West Virginia:											
Charleston	1	0	0	0	0	1	1	0	0	0	7
Wheeling	1	1	0	0	0	0	0	0	1	1	15
North Carolina:											
Raleigh	0	1	0	0	0	0	0	0	0	0	17
Wilmington	0	4	0	0	0	0	0	4	0	40	11
Winston-Salem	1	0	0	0	0	2	1	1	0	4	24

City reports for week ended August 30, 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		
SOUTH ATLANTIC—continued											
South Carolina:											
Charleston	0	3	0	0	0	1	3	3	0	0	17
Columbia	0		0				1				
Georgia:											
Atlanta	4	11	1	0	0	6	4	5	2	0	65
Brunswick	0	0	0	0	0	0	0	0	0	0	6
Savannah	0	1	0	0	0	3	1	0	0	0	29
Florida:											
Miami	0	1	0	0	0	1	0	0	0	0	16
St. Petersburg	0		0		0	0	0		0		11
Tampa	1	1	0	0	0	0	1	0	0	0	15
EAST SOUTH CENTRAL											
Kentucky:											
Covington	0	0	0	0	0	1	1	0	0	0	19
Tennessee:											
Memphis	1	2	0	0	0	5	6	3	1	2	82
Nashville	1	0	0	0	0	2	6	1	0	11	49
Alabama:											
Birmingham	4	6	0	0	0	2	5	3	0	0	44
Mobile	0	0	0	0	0	1	1	0	0	0	16
Montgomery	0	9		0			0	0		0	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	0	1	0	0			0	0		0	
Little Rock	0	0	0	0	0	0	2	2	0	0	
Louisiana:											
New Orleans	1	0	0	0	0	10	4	11	0	3	125
Shreveport	1	0	0	0	0	4	1	0	1	0	33
Texas:											
Dallas	2	1	0	0	0	3	3	4	1	0	42
Fort Worth	1	1	0	0	0	0	2	1	0	0	14
Galveston	0	0	0	0	0	1	0	0	0	0	10
Houston	1	0	0	1	0	7	1	1	0	0	62
San Antonio	2	2	0	0	0	5	2	1	0	0	63
MOUNTAIN											
Montana:											
Billings	0	0	0	0	0	0	0	0	0	0	7
Great Falls	0	1	0	0	0	1	1	0	0	1	9
Helena	0		0				0				
Missoula	0	1	0	0	0	0	0	0	0	0	4
Idaho:											
Boise	0	0	0	0	0	0	0	0	0	0	4
Colorado:											
Denver	3	5	0	0	0	11	1	1	0	31	106
Pueblo	0	0	0	0	0	0	0	0	0	2	12
New Mexico:											
Albuquerque	0	0	0	0	0	4	0	0	0	0	16
Arizona:											
Phoenix	0	0	0	0	0	2	0	0	1	0	20
Utah:											
Salt Lake City	1	3	0	0	0	2	2	4	1	27	34
Nevada:											
Reno	0	0	0	0	0	0	0	0	0	0	2
PACIFIC											
Washington:											
Seattle	3	6	0	0			2	1		6	
Spokane	2	0	1	2			0	0		0	
Tacoma	0	1	1	0	0	0	1	0	0	0	27
Oregon:											
Portland	2	0	3	1	0	5	0	1	1	1	66
Salem	0	0	0	0	0	0	0	0	0	4	
California:											
Los Angeles	8	2	2	0	0	13	3	2	0	11	271
Sacramento	1	2	0	1	0	0	0	1	0	0	20
San Francisco	6	2	0	2	0	10	1	0	0	7	142

City reports for week ended August 30, 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
NEW ENGLAND									
Maine:									
Portland	0	0	0	0	0	0	0	4	0
Massachusetts:									
Boston [1]	2	2	0	0	0	0	3	7	0
Worcester	1	1	0	0	0	0	0	0	0
Rhode Island:									
Pawtucket	1	0	0	0	0	0	0	0	0
Providence	0	1	0	0	0	0	1	0	0
MIDDLE ATLANTIC									
New York:									
Buffalo	2	1	0	0	0	0	1	4	1
New York [2]	5	4	2	0	0	1	14	4	1
Rochester	0	0	1	0	0	0	0	1	1
Syracuse	0	0	0	0	0	0	2	6	0
New Jersey:									
Newark	1	0	0	0	0	0	0	1	0
Pennsylvania:									
Philadelphia	6	1	0	0	1	0	1	5	0
Pittsburgh	3	4	0	1	0	0	0	1	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	2	1	0	0	0	0	0	3	0
Cleveland [2]	0	0	0	0	0	0	1	6	0
Columbus	0	0	0	0	0	0	0	3	0
Toledo	1	0	0	0	0	0	0	1	0
Indiana:									
Indianapolis	3	2	0	0	0	0	0	1	0
Illinois:									
Chicago	2	1	0	1	0	0	3	13	2
Michigan:									
Detroit	3	0	1	0	0	0	2	2	0
Flint	0	0	1	0	0	0	0	0	0
Wisconsin:									
Madison	1	0	0	0	0	0	1	0	0
Milwaukee	1	2	0	0	0	0	0	0	0
Superior	0	0	0	1	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth	1	0	0	0	0	0	0	0	0
Minneapolis	1	1	0	0	0	0	0	0	0
Iowa:									
Sioux City	0	0	0	0	0	0	0	3	0
Waterloo	0	0	0	0	0	0	0	3	0
Missouri:									
Kansas City	0	0	0	0	0	0	0	1	0
St. Louis	4	4	0	1	0	0	1	0	0
Nebraska:									
Omaha	0	0	0	0	0	0	1	1	0
Kansas:									
Topeka	0	0	0	0	0	0	0	2	0
Wichita	0	0	0	0	0	0	0	6	1
SOUTH ATLANTIC									
Maryland:									
Baltimore	0	0	0	0	0	0	1	2	0
District of Columbia:									
Washington	0	0	0	0	1	0	0	0	0
Virginia:									
Norfolk	0	0	0	0	0	1	0	1	0
Richmond	0	1	0	0	0	0	0	0	0

[1] Typhus fever, 9 cases: One case at Boston, Mass., and 8 cases at Savannah, Ga.
[2] Rabies (in man), 2 deaths: One death at New York City, N. Y., and 1 death at Cleveland, Ohio.

City reports for week ended August 30, 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
SOUTH ATLANTIC—contd									
North Carolina:									
Raleigh	0	0	0	0	1	2	0	0	0
Wilmington	0	0	0	0	6	1	0	0	0
Winston-Salem	0	1	0	0	0	0	1	0	0
South Carolina:									
Charleston	0	0	0	0	1	0	0	0	0
Georgia:									
Atlanta	0	0	0	0	0	0	0	1	0
Savannah [1]	0	0	0	0	0	1	0	0	0
EAST SOUTH CENTRAL									
Tennessee:									
Memphis	1	1	0	0	0	0	0	0	0
Alabama:									
Birmingham	1	0	0	1	0	0	1	0	0
Mobile	0	0	0	0	0	1	0	0	0
WEST SOUTH CENTRAL									
Louisiana:									
New Orleans	0	0	0	0	8	1	0	1	0
Shreveport	0	0	0	0	0	1	0	0	0
Texas:									
Houston	0	0	0	0	0	0	1	2	0
MOUNTAIN									
Montana:									
Missoula	0	0	0	0	1	0	0	0	0
Utah:									
Salt Lake	1	0	0	0	0	0	1	0	0
PACIFIC									
Washington:									
Spokane	0	0	0	0	0	0	0	1	0
California:									
Los Angeles	0	0	0	0	0	0	1	20	0
Sacramento	0	0	0	0	1	0	0	0	0
San Francisco	1	0	0	0	0	0	0	8	1

[1] Typhus fever, 9 cases: 1 case at Boston, Mass., and 8 cases at Savannah, Ga.

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended August 30, 1930, compared with those for a like period ended August 31, 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, July 27 to August 30, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929 [1]

DIPHTHERIA CASE RATES

	Week ended—									
	Aug. 2, 1930	Aug. 3, 1929	Aug. 9, 1930	Aug. 10, 1929	Aug. 16, 1930	Aug. 17, 1929	Aug. 23, 1930	Aug. 24, 1929	Aug. 30, 1930	Aug. 31, 1929
98 cities	39	67	38	[2] 63	31	61	[3] 34	61	[4] 40	62
New England	33	54	31	45	40	38	40	63	[5] 53	45
Middle Atlantic	35	67	34	70	23	59	28	58	31	54
East North Central	49	99	48	81	36	86	[6] 41	69	46	75
West North Central	34	25	28	31	27	23	25	25	27	25
South Atlantic	37	47	16	30	35	47	37	75	[7] 70	90
East South Central	7	34	20	[2] 30	34	82	13	55	13	116
West South Central	37	95	52	118	52	122	67	141	71	137
Mountain	34	9	17	35	17	44	43	26	[8] 70	17
Pacific	52	46	66	43	35	31	[9] 26	29	19	27

MEASLES CASE RATES

98 cities	68	49	50	[2] 30	33	24	[3] 28	20	[4] 20	14
New England	97	97	91	31	60	29	60	38	[5] 19	20
Middle Atlantic	91	35	65	15	41	15	33	13	23	8
East North Central	34	84	28	58	19	35	[6] 20	33	8	22
West North Central	42	38	51	33	30	13	19	8	27	8
South Atlantic	55	11	22	9	22	15	18	0	[7] 60	13
East South Central	40	7	20	[2] 7	20	0	7	14	13	7
West South Central	11	8	11	19	7	23	0	4	11	8
Mountain	154	26	112	61	43	52	26	52	[8] 35	44
Pacific	118	43	73	24	50	46	[9] 55	39	35	19

SCARLET FEVER CASE RATES

98 cities	39	40	32	[2] 44	31	39	[3] 33	41	[4] 42	41
New England	55	63	42	52	51	49	47	45	[5] 53	38
Middle Atlantic	22	24	21	23	18	17	27	15	28	16
East North Central	50	62	46	72	39	50	[6] 34	63	48	63
West North Central	49	35	27	44	28	40	34	58	42	44
South Atlantic	40	28	18	41	26	73	27	34	[7] 67	45
East South Central	7	34	13	[2] 15	54	14	34	68	115	34
West South Central	56	38	37	42	34	38	37	65	15	72
Mountain	60	9	69	44	43	78	86	44	[8] 88	61
Pacific	40	48	45	56	38	53	[9] 29	51	31	46

[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] Montgomery, Ala., not included.
[3] Racine, Wis., and San Francisco, Calif., not included.
[4] Hartford, Conn., Columbia, S. C., and Helena, Mont., not included.
[5] Hartford, Conn., not included.
[6] Racine, Wis., not included.
[7] Columbia, S. C., not included.
[8] Helena, Mont., not included.
[9] San Francisco, Calif., not included.

Summary of weekly reports from cities, July 27 to August 30, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

SMALLPOX CASE RATES

	Week ended—									
	Aug. 2, 1930	Aug. 3, 1929	Aug. 9, 1930	Aug. 10, 1929	Aug. 16, 1930	Aug. 17, 1929	Aug. 23, 1930	Aug. 24, 1929	Aug. 30, 1930	Aug. 31, 1929
98 cities	4	7	3	[2]5	3	7	[2]2	3	[4]2	4
New England	0	0	0	0	0	0	0	0	[5]0	0
Middle Atlantic	0	0	0	0	0	3	0	0	0	0
East North Central	2	13	6	12	3	16	[6]0	4	0	10
West North Central	13	6	6	10	6	4	8	6	8	4
South Atlantic	4	0	2	0	0	0	2	0	[7]0	0
East South Central	0	7	0	[2]7	7	7	0	0	0	0
West South Central	15	4	7	0	4	0	7	8	4	4
Mountain	0	26	0	0	0	9	0	26	[8]0	0
Pacific	26	34	5	17	14	12	[9]16	17	12	14

TYPHOID FEVER CASE RATES

98 cities	18	19	17	[2]17	21	20	[2]20	30	[4]25	27
New England	7	11	4	13	4	11	16	27	[5]12	29
Middle Atlantic	5	11	10	11	15	19	14	34	21	28
East North Central	13	10	11	11	10	5	[6]9	12	10	13
West North Central	23	33	19	15	28	6	21	13	19	23
South Atlantic	48	22	60	22	40	39	55	51	[7]82	52
East South Central	121	150	67	[2]45	148	123	88	103	47	103
West South Central	45	58	15	61	45	46	26	88	71	50
Mountain	26	9	34	9	26	61	26	70	[8]44	17
Pacific	19	19	12	29	14	17	[9]10	5	9	12

INFLUENZA DEATH RATES

91 cities	1	3	3	1	1	3	[3]3	3	[4]4	2
New England	0	0	0	0	0	0	0	2	[5]0	0
Middle Atlantic	0	2	2	1	2	2	3	3	3	2
East North Central	1	4	1	1	0	2	[6]1	4	4	2
West North Central	0	0	3	6	3	3	0	0	3	0
South Atlantic	5	4	9	0	0	0	7	2	[7]7	2
East South Central	0	15	0	0	0	22	0	0	7	0
West South Central	0	8	0	0	0	12	4	8	8	4
Mountain	0	9	17	0	0	17	9	9	[8]0	9
Pacific	3	0	6	0	0	3	[9]10	0	3	0

PNEUMONIA DEATH RATES

91 cities	53	54	53	53	55	57	[3]47	54	[4]53	54
New England	38	43	42	38	38	52	51	25	[5]48	49
Middle Atlantic	62	61	59	60	72	71	55	60	60	61
East North Central	44	47	47	43	28	35	[6]28	47	50	51
West North Central	47	39	44	45	27	33	35	48	38	33
South Atlantic	60	51	66	41	68	62	48	73	[7]52	56
East South Central	59	75	52	60	59	90	74	37	52	52
West South Central	61	78	57	121	92	78	61	66	38	98
Mountain	60	61	60	61	120	35	51	52	[8]53	44
Pacific	46	50	43	41	49	72	[9]67	50	55	28

[2] Montgomery, Ala., not included.
[3] Racine, Wis., and San Francisco, Calif., not included.
[4] Hartford, Conn., Columbia, S. C., and Helena, Mont., not included.
[5] Hartford, Conn., not included.
[6] Racine, Wis., not included.
[7] Columbia, S. C., not included.
[8] Helena, Mont., not included.
[9] San Francisco, Calif., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended August 23, 1930.—The Department of Pensions and National Health reports cases of certain communicable diseases in Canada for the week ended August 23, 1930, as follows:

Province	Cerebro-spinal fever	Dysentery	Influenza	Poliomyelitis	Smallpox	Typhoid fever
Prince Edward Island [1]						
Nova Scotia			8	2		1
New Brunswick						3
Quebec	1		1	1	1	19
Ontario	10		1	50	4	17
Manitoba				2		1
Saskatchewan				2	8	3
Alberta	1			12		1
British Columbia	1	2			2	6
Total	13	2	10	69	15	51

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

Quebec Province—Communicable diseases—Week ended August 30, 1930.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended August 30, 1930, as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	1	Mumps	1
Chicken pox	14	Poliomyelitis	1
Diphtheria	27	Scarlet fever	30
Erysipelas	1	Tuberculosis, pulmonary	45
Influenza	1	Typhoid fever	28
Lethargic encephalitis	1	Whooping cough	32
Measles	3		

CHINA

Canton—Meningitis.—During the week ended August 9, 1930, 4 cases of meningitis, with 1 death, were reported in Canton, China. No cases or deaths were reported in Canton during the two weeks ended August 23.

UNION OF SOUTH AFRICA

Cape of Good Hope Province—Plague.—According to a recent report, 1 death from bubonic plague, with pneumonic complications, occurred on July 16, 1930, at Touws River, Cape of Good Hope Province, in a native who had walked to that place from Willowvale, by way of Laingsburg. It is thought that infection was conveyed by fleas from infected rodents picked up in the Prince Albert or Laingsburg Districts where plague infection in veld rodents exists. Contacts of the case have been isolated and all necessary precautions have been taken.

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

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

CHOLERA

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930 7	14	21	28	July, 1930 5	12	19	26	August, 1930 2	9	16	23	30	Sept. 6, 1930
Afghanistan	C										[1] P						P		
China:																			
Canton	C				3		2				2	1							
Manchuria—Dairen	C	1																	
Swatow	C				3	4	3							1					
India	C	5,914	10,817	41,462	56,311	10,088	10,103	10,162	6,767	6,728	5,520								
	D	3,371	5,866	27,906	44,878	7,802	7,110	6,455	4,344	3,712	3,095								
Bassein	C			7	7														
	D			5	5														
Bombay	C		4												2				
Calcutta	C	269	354	647	609	78	78	94	77	81	53	49	37	18	10	17			
	D	153	220	414	372	44	36	36	63	54	28	23	23	7	7	10			
Negapatam	C						1												
	D						1												
Rangoon	C	3	2	1	9	1	1	2	2	1									
	D	1	2	1	3	1	1	1	1	1									
India (French):																			
Chandernagor	C	4	1	6	6			1	2			1							
	D	2	3	5	6			1	1										
Karikal	C	4	12	1					3										
	D	1	9	1					3										
Indo-China (see also table below):																			
Pnompenh	C	9		2	1	5	10	11	14	9	16	7		5	3	3			
	D	7	6		5	1	4	7	6	6	9	5	2	3	2	1			
Saigon and Cholon	C	5	14	76	160	17	19	7	5	7	1	1	1	2	2	1			
	D	4	6	55	101	11	10	2		3					1				

Philippine Islands:[2]																			
Ports—																			
Cebu	C								1	20	13	13	9	5	4			1	1
	D									9	7	12	8	4	4			1	1
Iloilo	C										1	11	17	9	19	32	4	3	4
	D											9	13	10	18	19	9	4	5
Manila	C				1										1			16	13
	D																	5	6
Provinces—																			
Antique	C													14	4		3	2	21
	D													7	4		2	1	10
Bohol	C														45	67	31	24	26
	D														26	37	15	11	11
Bulacan	C					1			2		1	1	2	1				1	1
	D					1												1	
Capiz	C											2	1	1	1			1	
	D											1	1	1	1				
Cebu	C				1	13	26	118	198	313	222	115	63	55	37	4		1	16
	D				1	11	23	50	86	131	83	60	29	32	27	3		1	6
Iloilo	C							1	1	20	45	85	159	143	227	176	88	74	57
	D								1	10	23	64	96	77	164	119	64	51	44
La Union	C										1								
Leyte	C							21	26	11									
	D							12	7	11									
Masbate	C								10	14	32	25	21	15	27				
	D								3	2	18	5	10	5	11				
Misamis, Occidental	C									1	2								
	D									1	2								
Negros, Occidental	C				10	5	55	50	30	62	163	172	171	151	99	50	72	40	47
	D				7	2	27	36	23	42	90	122	114	97	72	34	47	31	32
Negros, Oriental	C									1	1	6	15	6	2				
	D										1	3	9	1	3				
Nueva Acija	C												1						
	D												1						
Pampanga	C							1	1	2								1	
Pangasinan	C									2		1		1					
	D									2				1					
Rizal	C						1				1								
	D						1				1								
Samar	C														5	4	10		
	D														5	3	8		
Surigao	C														15	4	21	3	
	D														9	2	10	3	
Tarlac	C													1					

[1] An outbreak of cholera was reported in June, 1930, in Afghanistan.
[2] Figures for cholera in the Philippine Islands are subject to correction.

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

CHOLERA—Continued

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930 7	June 14	June 21	June 28	July, 1930 5	July 12	July 19	July 26	August, 1930 2	August 9	August 16	August 23	August 30	Sept. 6, 1930
Siam	C	7	1	29	33	8	10	6	3	8	3	8							
	D	4		13	21	3	9	4	3	4	1	3							
Bangkok	C	2	2	15	9	5	3	3	1		3	4	1	1		1			
	D		1	4	3		3		2		1	1	1	1		1			
Nagara Pathom	C	1		10															
	D	1		2															
Songkla	C										8		2						
	D										4		2						
On vessel:																			
S. S. at Suva, Fiji Islands	C	1																	
S. S. Sutley at Batavia, from Calcutta	C	1																	
S. S. Sassari at Massoua, from Jeddah	C				1														
	D				1														
On small boat at Port Cebu, from Bantayan Island	C					1													
	D					1													

Place		January, 1930	February, 1930	March, 1930	April, 1930 1–10	April 11–20	April 21–30	May, 1930 1–10	May 11–20	May 21–31	June, 1930 1–10	June 11–20	June 21–30	July, 1930 1–10	July 11–20	July 21–31
Indo-China (French) (see also table above):																
Annam [1]	C	1	4	52			60		20	3	2	14				1
Cambodia [1]	C	147	90	81	18	6		5	31	52	56	88				43
Cochin-China [1]	C	177	65	82	48			188	224	259	147	126				46

[1] Reports incomplete.

PLAGUE

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930 7	14	21	28	July, 1930 5	12	19	26	August, 1930 2	9	16	23	30
Algeria:																		
Algiers	C										1	2			1			
Constantine	C					1				1								
Oran	C											2	1		1		1	
Argentina:																		
Andalgala.[1]																		
Villa Lia	D	2																
Azores: Ponta Delgada	C			8														
	D			5														
Belgian Congo	C									2				1		1		
	D									2				1		1		
British East Africa (see also table below):																		
Tanganyika	C	7		44														
	D			20														
Uganda	C	47	98	117	227	121	77	105	103		50							
	D	43	87	105	195	75	70	93	90		47							
Canary Islands: Las Palmas	D														1			
Ceylon:																		
Colombo	C	3	4	1	6	1				1	2					1		
	D	3	4	1	5	1				1	2					1		
Plague-infected rats		3	2	4		1												
Chile: Antofagasta	C	1	1	1														
	D		2	1														
Dutch East Indies:																		
Batavia and West Java	C	153	124	87	82	19	27	28	24	19	25	18						
	D	150	122	81	82	19	27	28	24	19	25	18						
Plague-infected rats		3	3	8	5	3	1								1			
Java and Madura	D	296	223	173	185	40	55	56										
Ecuador (see table below).																		
Egypt:																		
Alexandria	C	1	4	2	13	3	6	6	4	8	8	3	4	2	2	4	3	3
	D		1	2	3	2		2	5	2	3	2	3	2	1	3		5
Assiout	C			14	20	4	2	3		1	1							
	D			5	5		1		2	1	1							
Beheira	C		4															
Beni-Suef	C		4														1	

[1] On Mar. 11, 3 deaths from bubonic plague were reported in Andalgala, Catamarca Province, Argentina, since Feb. 5, 1930.

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

PLAGUE—Continued

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930 7	14	21	28	July, 1930 5	12	19	26	August, 1930 2	9	16	23	30
Egypt—Continued.																		
Dakahlieh	C	8	5	5	11	1												
	D		1		2													
Gharbieh	C			1										3				
	D			1										1				
Girga	C			1							1							
Minieh	C				7	1	1	4	4	2	1							
	D				1		1											
Port Said	C			1	2	1			1				1	1				
France:																		
Marseilles	C																	2
St. Ouen	C											1						
	D											1						
Gambia	C																4	
Greece (see also table below):																		
Patras	C		1					1				1						
Pyrgos	C		1															
Hawaii Territory, Hamakua, Hawaii: Plague-infected rats								1										
India	C	5,639	4,087	2,215	648	55	59	62	64	70	75							
	D	3,940	3,344	1,960	635	42	52	43	50	46	46							
Bassein	C		3															
	D		1															
Bombay	C	1	7	4	6	1		2					1					
	D	1	5	8	5			1	1				1					
Plague-infected rats		31	86	108	81	6	7	8	5	13	14	10	15	10	8	9		
Madras Presidency	C	230	157	44	38	26	10	3		10	1	10				7		
	D	140	87	19	11	15	2	5		4	1	9				1		
Rangoon	C	7	3	5	4				1				2	2	1			
	D	6	3	4	3				1				2	1	1			
Plague-infected rats		7	3	4	5			1		2	2		2	4		2		
India (Portuguese)	D				7													

Indo-China (see also table below):																			
Pnompenh	C			3	3	6					1	1			2				
	D	13	13	4	1	5	1		1		1	1							
Saigon and Cholon	C		1		1	1		1											
	D		1					1											
Iraq: Baghdad	C	6	7	6	37	12	4	8	4	10	4	2	2	4	3	2			
	D	1	4	2	18	7	3	5		5		1	1		2	1			
Japan: Osaka (vicinity of)—Plague-infected rats		6	4	3															
Kwang-Chow-Wan	C	25	7	37	34	23		8								4			
Madagascar (see also table below): Tamatave	C			1		1													
Morocco	C	48	55	121	71	2		1					1		8				
	D	13	18	45	34	4									1				
Nigeria: Lagos	C	7	13		2	1		3	1	1				2	1				
	D	7	5		2	1		3	1	1				2	1				
Plague-infected rats		42	25	7	17	1	4	1	5	2	3	6							
Senegal (see table below).																			
Siam	C	17	16	5	5														
	D	13	15	6	4														
Bangkok	C	1	5		5									1	2				
	D	1	4		4										2				
Nagara Pathom	C	5	1	10															
	D	6	1	9															
Nagara Rajaima	C	2	1	1										1					
	D		1	1										1					
Syria: Beirut	C						2	5	5		2	4	3		1		1	3	
Tunisia:																			
Sfax district	C	22		1	21	6		3					6		1				
Tunis	C	5	1	4	1		1				1	4							
	D					1					1								
Union of Socialist Soviet Republics:																			
Salak Region	C					1			1										
	D					1													
Stavropol Region	C					1													
	D					1													
Union of South Africa:																			
Cape Province	C	2	1		P	1													
	D	1	1													1			
Orange Free State	C	11	5	1															
	D	3	3																
Transvaal	C	2	1																
	D		1																

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

PLAGUE—Continued

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

Place		February, 1930	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930
British East Africa (see also table above):							
Kenya	C	69	85	16	171	107	36
Uganda	C	109					50
	D	90					47
Ecuador: Guayaquil	C	2	2	0	0	0	
	D	2	0	0	0	0	
Plague-infected rats		0	2	0	0	0	
Greece (see also table above)	C			1		1	
Indo-China (see also table above)	C	30	27	4		11	1
Madagascar (see also table above):							
Ambositra Province	C	49	25	14	1		
	D	41	20	12	1		
Antisirabe Province	C	22	38	46	19		
	D	22	36	45	19		
Itasy Province	C		4				
	D		4				
Miarinarivo Province	C	25	14	1	5	1	
	D	25	14	1	5	1	
Madagascar—Continued.							
Moramanga Province	C	7	5	3	1	3	
	D	4	5	3		3	
Tananarive Province	C	110	52	39	15	6	
	D	107	52	38	14	6	
Senegal:							
Baol [1]	C		18	24	13	2	62
	D		8	12	11	2	48
Dakar [1]	C			2	52	53	140
	D			2	42	117	122
Louga [1]	C	2		33	54	60	138
	D			10	27	21	108
Thies [1]	C		3	12	21	52	54
	D		2	9	8	35	30
Tivaouane [1]	C		11	71	135	43	119
	D		8	38	69	28	70

[1] Incomplete reports.

SMALLPOX

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930				July, 1930				August, 1930			
						7	14	21	28	5	12	19	26	2	9	16	23
Algeria:																	
Algiers	C	1	5	1	3						1						
Constantine	C							1				1					
Oran	C		1														
Arabia: Aden	C	2	3	1						1							
Bolivia: La Paz [1]																	
British Borneo: Sarawak	C	19															

British East Africa (see also table below).																		
Tanganyika	C	49	103	57	409	385	755	196	274	64	4							
	D	8	7	14	70	154	90	31	26	13	2							
British South Africa:																		
Northern Rhodesia	C		9	1	59													
	D			2	9													
Southern Rhodesia	C	6		66	155	75	1	3		1	12	18						
	D			1	13													
Canada:																		
Alberta	C	4	10	4							2	1	2	1				
Edmonton	C	1	4	3														
British Columbia—Vancouver	C	16	20	17	4	1	1			2	2	1	1	1	1			2
Manitoba	C	2	4	4	10			4										
Ontario	C	86	100	77	82	14	10	13	10	3	5	6	10	8		3		4
North Bay	C	1			1													
Ottawa	C	11	19	21	25	6		8	1	1	1	4	7	5	1	1		
Toronto	C				4	2	1	1			1							
Quebec	C								4	3								
Montreal	C													7				
Saskatchewan	C	76	47	41	39		12	10			2		3					8
Regina	C				4													
Ceylon:																		
Angoda, Western Province	C	10		6														
	D	1		2														
Colombo	C	3																
	D	2																
China:																		
Canton	C	11	6	3		1												
	D	3	2	3														
Chungking	C	P		P	P	P			P	P	P	P	P					
Foochow	C	P		P	P		P		P									
Hong Kong	C	62	38	18	12	2	1	1			2							
	D	51	25	23	9	1		1	1		1							
Manchuria—																		
Harbin	C			1	20													
Kwantung—Dairen	C	5		2	8		11	5		8								
	D				4			1										
Nanking	C	P	P	P	P	P	P				P	P	P	P				
Shanghai—																		
Foreigners only	C	2	2	3	2	1	1	1	2	1	1	1	1	3				
Including natives	D	7	10	10	5	1		1	1									
Swatow	D	6	6	3	6	1		1	2	1				1				
Tientsin	C	1	2	2	1													
Chosen (see table below).																		
Colombia:																		
Barranquilla	C	102	2	1														
Buenaventura	C	1		15	4	1	1		4	4	3	2	1					
Costa Rica:																		
Port Limon	C			6	2	2												
San Jose [2]	C		10	7	2													

[1] From Jan. 1 to May 31, 1930, 44 deaths from smallpox were reported in La Paz, Bolivia.
[2] 5 cases of smallpox were reported Apr. 14, 1930, in Costa Rica outside of city of San Jose.

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

SMALLPOX—Continued

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930 7	14	21	28	July, 1930 5	12	19	26	August, 1930 2	9	16	23
Curacao (alastrim)	C		14	2	2		1			2							
Dutch East Indies:																	
Borneo	C		185	90	16	2	10				2						
	D		12	31	1		1										
Java—																	
Batavia and West Java	C	14	78	64	12	1	4	6	2	3	1	3	1	1		1	
	D	7	6	11	7		1	2		2	1	1	1	1		1	
East Java and Madura	C			4								1					
Sanggi Islands	C	12	5	160	26												
	D		1	24	5												
Sumatra	C		48														
	D		5														
Egypt: Port Said	C			1	1						2		1				
Great Britain:																	
England and Wales	C	1,530	1,700	1,427	1,417	237	266	241	182	156	138	126	109	70	86	95	
Ashton under Lyne	C	29	15	18	17			3	4		4	2	2				
Bradford	C	2		3	2					1							
Cardiff	C		2	3						2							
Leeds	C	11	16	2						1							
London	C	699	710	602	637	130	136	125	107	84	52	62	48	36	50	41	
London and Great Towns	C	1,156	1,239	1,066	1,078	197	208	190	158	127	96	102	83	61	73	71	
	D	5	3	3													
Sheffield	C		8	2													
Stoke-on-Trent	C	41	122	85	62	3	10	15	4	3	2	1	3	1	1		
Scotland	C					1		3			1						
	D										1						
India	C	36,036	39,329	34,843	22,835	3,686	3,550	3,174	2,552	2,258	2,006						
	D	7,710	9,109	6,983	5,451	1,065	913	905	648	733	580						
Bombay	C	638	718	430	218	36	35	23	19	17	15	11	7	6	2		
	D	314	431	270	161	27	23	19	10	13	9	9	2	5	2		
Calcutta	C	399	361	495	302	46	45	45	25	27	19	13	14	4		12	
	D	287	305	403	258	50	37	29	30	17	17	12	10	4		8	
Cochin	C	184	201	183	37	4	1	10	1			4	2	2	4	4	
	D	29	35	13	8	2	1	1									

Karachi	C	38	33	30	14	5		1	1				1	2		2		
	D	16	47	17	4	2		1						2		1		
Madras	C	159	173	133	72	9	10	8	8	6	10	17	16	19		9		
	D	29	36	27	15	6	3	1		4	1	3	4	3		5		
Moulmein	C	143	146	43	89		9	6	6	4	10	3	1					
	D	40	41	7	21		3	3	1	3	4	1	2					
Negapatam	C	1			1		1		1			1		2		2		
Rangoon	C	7	10	4	6	1	5	1	2	2	1	1		1	1			
	D	2	5		1			1	1									
Tuticorin	C				5			1										
Vizagapatam	C	9	69	6	5		1											
	D	1	18	2	3													
India (French):																		
Chandernagor	C	11	6	10	24	4	8	5	2	3	1	4						
	D	5	2	2	7			2	1	1	1	1						
Karikal	C	12	24	19	12	4	3	1	3	1		1						
	D	8	7	8	3	2	2	1	3	1		1						
Pondicherry Province	C	52	21	24	40	4	4	9	6	4	9	8	5					
	D	40	13	20	36	4	4	9	6	3	9	8	5					
India (Portuguese)	C	50	38	44	47		3	18	7	1								
	D	5	2	8	8		2	2	6									
Indo-China (see also table below):																		
Pnompenh	C				3							1						
	D			2		1						1				1		
Saigon and Cholon	C	4	3	5	3	1												
	D	2	1	5	2									1	1	1		
Iraq:																		
Baghdad	C	3		8	1	1				1	1	1				1		
	D	1		1	1							1				1		
Basra	C	1		1														
Mossoul Liwa	C	12		22	21		1		3	47	20							
	D	2		3	3		1			19	1							
Ivory Coast (see table below).																		
Jamaica (alastrim)	C				2													
Japan: Tokyo	C			1														
	D			1														
Macao	D	2	3	2	1													
Mexico (see also table below):																		
Jalisco (State) Guadalajara	D	14	22	20	7	4		5	6	3	1				1			
Juarez	C	3	2					6										
	D	1						1										
Mexico City and surrounding territory	C	38	106	99	80	17	23	20	17	10	12	4	11	2	3			
	D	21	31	47	32	5	4	3	5	2	3	1	2	1	3			
Progreso	C				1													
	D				1			1										
San Luis Potosi	C	1																
	D	1																
Morocco (see table below).																		
Nigeria: Lagos	C	2	1	1					1									

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

SMALLPOX—Continued

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	May 4–31, 1930	Week ended— June, 1930				July, 1930				August, 1930			
						7	14	21	28	5	12	19	26	2	9	16	23
Philippine Islands: Sarangani and Balut Islands	C	3															
Poland	C	2		7	3												
Portugal: Lisbon	C	7	7	8	8	1		2	7		7		6		6	5	
Rumania	C	1	2														
Siam	C	2		8	2					2		4					
	D			4								3					
Somaliland, British: Boales	C	19	2														
	D	2	6														
Spain	C						4		8		1	1	3	2			
Straits Settlements	C		5	5	11	5		1	3	1	2	7	1	1	1	1	
	D		1	2	3	1		1		1	1	1				1	
Sudan (Anglo-Egyptian)	C	79	60	42	19	4	8	1	54	8	1		3				42
	D	6	5	4	2				3		1						3
Sudan (French) (see table below).																	
Switzerland: Berne Canton	C												1	1			
Syria (see table below).																	
Taiwan: Taihoku (see table below).																	
Tunisia: Tunis	C	3	3	4	2			2					1				
Turkey (see table below).																	
Union of South Africa:																	
Cape Province	C	P	P	P	P												
Orange Free State	C	P	P														
Transvaal	C	P	P														
Upper Volta	C	26	2	3	1			8	5								
Zanzibar	C		13														
On vessel:																	
S. S. Tairoa, at Liverpool, from London	C	1															
S. S. Karagola, at Lourenco Marques, from India	C	1															
S. S. Elysia, at Port Sudan, from Bombay	C			1													
S. S. Naldera, at Port Said	C				1												
S. S. Manoa, from Honolulu to San Francisco	C								1								

Place		January, 1930	February, 1930	March, 1930	April, 1930			May, 1930			June, 1930			July, 1930		
					1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-30	1-10	11-20	21-31
Indo-China (see also table above)	C	460	434	26	261				173	132	80	133				238
Ivory Coast	C			7												
Sudan (French)	C	229	213	609	371		150	40	56	178	76				34	
	D	25	11	49	30		6	7	7	18	18					
Syria: Beirut	C	70	18	17	10	2	7			7	6	1				2
Taiwan: Taihoku	C		43	58	10	2										

Place		January, 1930	February, 1930	March, 1930	April, 1930	May, 1930	June, 1930
British East Africa (see also table above):							
Kenya	C	12	12	175	174	171	142
Uganda	C	184	109			78	
	D	155	99			69	
Chosen	C	1	4		5	2	
	D		1		1	1	

Place		January, 1930	February, 1930	March, 1930	April, 1930	May, 1930	June, 1930
France	C	9	23	8		3	
Mexico: Durango (see also table above)	D	12	6	5	4	4	3
Morocco	C	29	74		10	18	5
Turkey	C	215	114		3	16	
	D	66	42				

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

TYPHUS FEVER

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

Place		Feb. 9–Mar. 8, 1930	Mar. 9–Apr. 5, 1930	Apr. 6–May 3, 1930	Week ended— May, 1930				June, 1930				July, 1930				August, 1930			
					10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23
Algeria:																				
Algiers	C	4	6	8	1	2	4	8	2		1			1	2	3				
Constantine Department	C	5	11	15		4		2	11		1			1	1					
Oran	C							3				4		2	1			1		
Arabia: Aden	C		1																	
	D		1																	
Bolivia: La Paz.[1]																				
Brazil: Porto Alegre	C	2			1															
Bulgaria	C	13	9	15	1		5		1		9	6		4	5	1		1		
	D	1		1	1		1		1						1					
China:																				
Manchuria—Harbin	C	1	4	52					2											
Shanghai	C		1																	
Chosen (see table below).																				
Czechoslovakia (see table below).																				
Egypt:																				
Alexandria	C			1							1	1	1						1	
Beheira Province	C	18	2	2	9	21	9	10	17	16	7	5		5	1	9				
	D	5			4	4	4	1	1	1		2		1		1				
Cairo	C	1															2			
Port Said	C	1																		4
Great Britain: Scotland—																				
Dunfermline	C													1						
Glasgow	C					1														
	D					1														
Greece (see table below):																				
Iraq: Baghdad Liwa	C		2																	
Ireland:																				
Irish Free State—																				
Galway County—Oughterard	C															2				
Kerry County—Dingle	C		5	5																
Leitrim County—Mohill	C											9				1				
Mayo County—																				
Ballina	C							2		1				1						
Swinford	C					7	7													
Westport	C														2		1			

Roscommon County—																					
Roscommon	C															1					
Strokestown	C															1					
Wicklow County—Shillelagh	C									1		3	1			1					
Northern Ireland—Cookstown	C	3																			
Latvia (see table below).																					
Lithuania (see table below).																					
Mexico: Mexico City, including municipalities in Federal District	C	9	4	4		2		4	2	3	1	3	2		2	1	2	2			
	D		1	4				3		1							1	1			
Morocco	C	21	38	15	3	6	1	1	1		6	8			4	3	4				
	D		7	3																	
Palestine	C	1	6	1		2			2				3	1	1	1		1	1		
Poland	C	183	228	243	64	45	34	28	39	15	26	37		24		12	10	15			
	D	8	13	15	2	2		1	3	3	2	3		4			1				
Portugal:																					
Lisbon	C			4																	
Oporto	C	1	2	1															1		
Rumania	C	293	185	186	60	58	61	48		32	26										
	D	23	12	11	10	11	6	8		3	2										
Spain: Valencia	C									2		1		3							
	D													1							
Tunisia	C	3			2	2	1	1			2	16			14	10	2	5			
Turkey (see table below).																					
Union of South Africa:																					
Cape Province	C	P	P	P	P	P	P	P			P	P	P	P							
Natal	C	3 P	P	P	P	P		P			P		P	P							
Orange Free State	C	P	P		P	P	P	P			P	P	P	P							
Transvaal	C			P																	
Yugoslavia (see table below).																					

Place		January, 1930	February, 1930	March, 1930	April, 1930	May, 1930	June, 1930
China: Harbin	C			37	204	240	
Chosen: Seoul	C		17		3		
Czechoslovakia	C	10	2	42	29	12	
Greece: Athens	C	12	6	3	1	3	
Latvia	C	18				3	3
Lithuania	C	2	70	62	73	27	16
	D		5	4	4		
Turkey	C	2	3	1	3	16	2
Yugoslavia	C	26	33	46	22	16	6
	D	3	5	2	4	1	

YELLOW FEVER

Brazil:	Cases
Mage, on the Leopoldina Railway, between Rio de Janeiro and Nictheroy, Apr. 22, 1930	2
Campos, Rio de Janeiro Province, May 23, 1930	1
Para, June 23, 1930	2

Gold Coast:	Cases
July 10, 1930	1
Albosso, Aug. 5, 1930 (deaths)	1
Liberia, Monrovia, June 3, 1930	1
Nigeria, Lagos, July 12, 1930 (probably laboratory infection)	1

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