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THE EVALUATION OF HEALTH SERVICES[1]

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UNITS OF VALUE

The saving of lives, or, to be more exact, the postponement of death, is commonly stated to be a purpose of health work. This end may be accomplished either by the prevention of disease or by the restoration of health. Maintenance, or, better still, the elevation, of physical and mental efficiency is less tangible as an accomplishment; yet the goal may be accepted as desirable in a highly competitive system. Economic values have a place in public health service and merit careful consideration. It is possible, however, to be much more objective by computing actual money saved to the individual or the extent to which property values have been increased by public health measures than by attempting to estimate the economic worth of the man whose life has been prolonged. Comfort and happiness still constitute the prime concerns of the general public, notwithstanding the fact that many health workers are reluctant about accepting responsibility for the administration of services designed to achieve these aims. Actually some students of welfare go so far as to say that happiness is the best summary measurement of accomplishment in health service.

There is no fundamental disagreement on the appropriateness of most of the foregoing purposes of health service when personal interest or the welfare of a friend or a relative is involved. Sympathy might also prompt extension of this interest to any person whom one regards as a replica or a complement of himself. On the other hand, if conservation of life entails coordinated community effort or the expenditure of public funds, differences of opinion regarding the propriety of such action may be encountered. The reasons are not difficult to understand.

Under varying types of social organization, different characteristics determine the usefulness of an individual. Consequently, it is not uncommon to find persons who question the advisability of organizing community resources to save all lives, irrespective of their economic or social importance. Some with a purely utilitarian point of view

[1] Read before the Annual State Conference of Health Officers and Public Health Nurses, Saratoga Springs, N. Y., June 24, 1936.

would set limits beyond which life should not be prolonged through organized social effort. Others like to regard disease as nature's process for eliminating the weak and unfit. From another point of view, some diseases might even be considered beneficial. Specific immunity in a few instances can be obtained most effectively through an attack of the disease. The question therefore arises as to whether exposure to infection at a favorable time may not be the type of experience to which the human organism should be subjected.

These broad concepts regarding fundamental units of value could be pursued much further and perhaps with profit. Other considerations make it necessary for the practical health worker to fix on fairly well-defined objectives and to strive for their attainment. Measurement of progress toward these ends, however, must be related to a base line. In the instance of health service, the base line is the health problems of the individual or, if people are considered collectively, the problems of the community.

DEFINITION OF PROBLEM

The total problem is expressed by the amount of illness or disability present in a community and by the hazards to health which exist. One is a direct measure of the effect of a cause and the other is indirect, involving an expression of the danger to health.

Direct measurement.—Perhaps the oldest and most firmly established direct measure of health problems is mortality data. In most areas, deaths are now reported with a high degree of completeness. Death certificates form the basis for a fairly correct count of the people who die. The decedents may be classified according to residence, age, sex, color, and certain other characteristics. It must be recognized, however, that considerable improvement can be made in regard to the accuracy of causes of deaths as stated on the certificates. Another defect is that little or nothing is revealed concerning the underlying pathology or the train of circumstances which led up to the final illness.

The available data on morbidity are very meager. Health departments attempt to collect only information regarding the occurrence of communicable diseases and of a few other illnesses directly related to the environment. The incompleteness of communicable disease reports need not be dwelt upon. It is commonly recognized that the fragmentary information which normally comes to the attention of the health authority, in most jurisdictions, is seldom any more than a rough index from which to estimate the true incidence of these diseases. Some industries and sick-benefit organizations keep records on conditions which are compensable or which cause absence from work. The data on general illness which are available through these agencies have distinct value, but factors such as employment effect

a high degree of selection in the individuals who are represented by the figures. Such data, therefore, do not form a reliable basis for judging the manifestation of disease in the general population.

Confronted with this situation, the United States Public Health Service and other agencies interested in the broad question of illness and disability in the general population have resorted to the family canvass method of study. Under this plan, a representative sample of families is visited for the purpose of collecting the desired types of information. This procedure has been followed for several years, but until recently the numbers of individuals included have been small and the samples have been selected from only a few areas, which may not be representative of the United States as a whole. A much more extensive study than any made heretofore is now being conducted under the auspices of the United States Public Health Service and is known as the National Health Inventory. Approximately 750,000 families, distributed over 19 States, are included in the sample. The findings in regard to illness will be related to environmental, social, and other factors which may have been operative in determining the nature and extent of disability or the amount and character of medical care which the people receive. The general principles, as well as the techniques involved, in the family-canvass method of study have been described by Pennell (*1*). The experience to date has demonstrated that this method is thoroughly adaptable to the needs and resources of a local health officer, provided its limitations are understood. Briefly stated, it is possible by using a representative sample of the population to obtain an expression of the amount of illness and disability according to broad categories, and the distribution of these conditions among various classes of people. Considerable refinement in diagnosis can be attained by checking with physicians and clinics.

There are more precise methods for determining illness and disability in selected groups or samples of the population, but these procedures are more expensive than the family canvass. Physical examination, especially of school children, may be cited as a method for revealing the more obvious types of physical defects or fairly well established disease processes. It is possible to estimate the amount of tuberculosis infection by the tuberculin test and to use the Wassermann or similar test for the same purpose with regard to syphilis, although active disease process may not always be revealed by either procedure. A census of patients under treatment by physicians, clinics, and other agencies at a given time may serve as a measure of prevalence for selected diseases. Blood smears, the spleen index, or a history of chills and fever are accepted methods for defining a malaria problem. Examination of stools for intestinal parasites is a procedure falling into the same category as those mentioned. Generally speaking, the more refined techniques are especially useful for

eliciting the presence of a single condition such as tuberculosis, syphilis, malaria, hookworm, or immunity to a specific disease.

Indirect measurement.—Diseases and disabilities, as stated previously, represent only that part of the problem which has become established in the population. Hazards to health constitute the remainder, but they cannot be expressed in exact terms of potential menace since it is not possible to anticipate what combination of circumstances may arise and make the several factors operative. Illness, therefore, is not predictable with any high degree of certainty so far as the individual is concerned; neither can a community be assured that disaster will always follow its failure to institute an obviously needed measure of sanitation. Nevertheless, the health official is in a perfectly tenable position if he recommends immunization against smallpox or diphtheria, even though there is no undue prevalence of either disease, since a low level of immunity in the population increases the possibility of those diseases appearing in epidemic proportions. Failure on the part of a community to purify its water supply, to pasteurize the milk, to safeguard the sanitary quality of the food, or to dispose of its wastes in a proper manner represents unnecessary exposures to risks, irrespective of what the disease experience of the population may have been. Conditions such as lead poisoning and silicosis are peculiar to certain types of industries, and their occurrence is determined very largely by failure to employ recognized preventive measures. There are obvious reasons for the close association of injuries with the rapid movement of traffic and with occupations where a large amount of unguarded mechanical equipment is used. Hazards such as those mentioned, and particularly those related to the physical environment, are tangible. Common experience dictates that the risks involved should not be assumed unnecessarily, irrespective of what the actuarial experience of a particular locality may be.

Statements regarding the effect of personal habits must, as a rule, be made with considerable caution. Aside from the results of gross intemperance and utter disregard for safety, the effect of personal habits on individual or community health is difficult to measure; still there is reason to believe that an individual can, to some extent, influence his health by the observance of accepted rules of hygiene. After a disease process has become established and the outcome is predictable within reasonable limits, a fairly reliable estimate can often be made concerning the influence which a therapeutic measure of known value may exert on the course of the disease. If a person is unwilling or unable to take advantage of such remedial measure, the danger to health created by the disease is increased to an appreciable extent.

The problem, therefore, confronting the health agency is expressed by the actual illnesses and disabilities of a population, by the physical status of the people, and by the hazards peculiar to the environment in which they live or find employment. The condition found at any given time will furnish a base line from which to measure progress or retrogression.

CRITERIA OF PROGRESS

Accomplishment of specific objectives.—The efficiency of health organizations in accomplishing specific objectives is undoubtedly, from the standpoint of health administration, the subject most in need of evaluation. Any fact revealed by such studies should be of immediate practical use. Furthermore, most of the procedures involved in studies of this type are well within the resources of the average health department. Accomplishment may be measured by either of two methods. According to the first method, standards of performance commonly spoken of as representing good practice are accepted *a priori* as objectives, and activities in any type of service are rated according to percentage attainment of the quotas which have been established. The principle underlying this method of evaluation serves as the basis of the Appraisal Form for City Health Work (*2*) and the Appraisal Form for Rural Health Work (*3*). It may safely be assumed that all practical health workers are acquainted with these two forms, and nothing more need be said concerning the fields of usefulness for the forms or the limits within which they may be safely applied as instruments for the evaluation of health service.

The second method of measurement is no more than an extension of the first. The objectives are accepted in the same manner as described in the preceding paragraph, but the effectiveness and economy of different procedures for accomplishing desirable purposes constitute the subjects for measurement. This principle of evaluation may be explained to best advantage by stating a few problems in health administration, some of which have been studied (*4*, *5*, *6*).

It may be assumed that the health agency concerned should have knowledge of the occurrence of tuberculosis. The question then arises, How can the largest number of cases in the early stages of the disease be located without entailing undue costs?

Screening of dwellings has been demonstrated to be of considerable value in the prevention of malaria. To the mind of the administrator, this provokes three questions: What is involved in rendering mosquito-proof the common type of tenant house? In what way can the screening be accomplished most economically? How can people be induced to maintain the screens?

Presuming that the practice of a mother in caring for her infant can be improved by placing the mother under the guidance of a public

health nurse, one may ask: Are all types of contacts between nurse and mother equally effective? What is the optimum number of contacts? Might not the same purposes be accomplished at a lower cost by using improved techniques in mass education instead of visits by or to the nurse?

These and many other questions could be raised with regard to each item of service that enters into a health program. An answer to any one of them would make the art of administration more exact. But there is a limit to which one can go with this type of inquiry, since the effect of many accepted practices has not been established on a scientific basis. This introduces the next and most difficult task in the evaluation of health procedures.

Effect of procedures.—If the true effect of clinical and public health procedures were known in all cases, the problem of appraisal would be very much simplified. For example, if it could be assumed that tonsils presenting certain physical characteristics should be removed, then a health agency might be rated on its efficiency in accomplishing that purpose. The questions, however, arise: What benefit will accrue to the individual as a result of the surgical operation? Even granting that there is a definite clinical syndrome which portends trouble to the individual, what assurance can be given that a large percentage of examiners will elicit the same findings and exercise judgment that is equally discerning? As a matter of fact, there is evidence (*7*, *8*) which tends to show that physical examination is not an instrument of precision and that clinical judgment is variable.

The difficulty inherent in appraising a procedure such as tonsillectomy becomes even more involved if large numbers of individuals are concerned. The conclusions regarding the effect of this operation would be valid only under circumstances meeting the following requirements: A uniform method must be established for detecting the particular types of diseased tonsils which, under clearly defined circumstances, are certain to undermine health to a degree that is sufficient to justify the risk entailed by the operation itself. The appraiser of a community health service must also know the frequency with which each circumstance is encountered in the population. Since all of these requirements cannot be satisfied, due to insufficient knowledge, it is not possible to develop a method for appraising removal of tonsils that is mathematically exact. Perhaps some may feel that it is unfair to apply these criteria to such a controversial procedure as tonsillectomy.

Tonsillectomy has been selected to illustrate a principle, but in doing so the situation has not been overdrawn. This principle also applies to other broad procedures where action must be taken on the basis of clinical judgment. Physical examination and advice in matters of personal hygiene are subject to the same criticisms from

the standpoint of their insusceptibility to exact appraisal. As a matter of fact, there is little on which to estimate the worth of such service except its volume, and the training, character, and integrity of the worker.

In a more restricted field, such as immunization, it is possible to measure the degree of immunity conferred by inoculation with an appropriate antigen. On the other hand, no one can state exactly the value of that protection to the individual, since the probability of his contracting the disease cannot be estimated. Meanwhile, he may have acquired immunity by some other natural process which perhaps is not understood. In any attempt to determine the value of immunization to large groups of the population, one is certain to encounter difficulties which are greater than those presented by the individual.

Items of sanitation might also be selected to illustrate the inexactness of knowledge concerning the effect of other public health procedures, but those already given should serve as a caution to persons who clamor for a simple but exact instrument for evaluating public health effort. This lack of precise information should not be used to discredit the mature judgment of qualified administrators who are capable of weighing the accumulated experience of the several professional groups participating in health service.

Ultimate purpose.—Attempts to go beyond a determination of the effect of a health procedure on the individual or to express some obvious advantage of health protection to the community immediately lead into the realms of social and economic philosophy. There, one is confronted with the riddle of the universe. On broad social purposes each citizen of a community is likely to place his own values, and these estimates are likely to have an emotional basis. His views concerning such questions may be tinctured with or even directed by personal interests, religious convictions, or political necessities. The underlying philosophy of the professional health worker is almost certain to be determined by the same subtle influences. Therefore nothing much in the way of advance from the standpoint of administrative practice is to be gained from speculations relative to the final benefits which mankind is to derive from efforts to conserve human life. After all, the health worker usually has definite work to perform, and he should be occupied primarily with doing the job in the most effective and economical manner, irrespective of what purpose may be back of life.

SUMMARY

In summary, it may be said that the evaluation of health service, when pursued to its final conclusion, deals with the very end and purpose of human existence and the utility of each individual in the

social organization. Speculations on ultimate values lead only to controversies which contribute little to advancement in health administration.

There are a number of steps in the evaluation of health practices, and in many of these the local health worker can participate. The simpler procedures, and yet those which are most necessary from the standpoint of administration, involve a definition of the health problem and a periodic appraisal of the effectiveness and economy with which the worker directs his efforts toward the accomplishment of specific objectives. A few recognized procedures meet the most rigid requirements in scientific evaluation, while the effects of others are not so well established. The person, busy with routine duties, must of necessity accept as worthy of performance those items of service which carry the approval of careful observers. He can, however, become interested in the general subject of appraisal and lend support to fundamental studies which are designed to reveal the tangible effects of public health procedures on the lives of people.

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TIME CHANGES IN THE MORTALITY FROM ACCIDENTAL MECHANICAL SUFFOCATION AMONG INFANTS UNDER 1 YEAR OLD IN DIFFERENT GEOGRAPHIC REGIONS OF THE UNITED STATES, 1925–32 [1]

Studies on the Fatal Accidents of Childhood No. 4

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In the first paper of the series (*1–3*) certain death registration area data were presented for the year 1930 which showed, among other things, the order of importance of various accidents as causes of death among children under 15 years of age, together with the effect of age changes upon this order. As would be expected, the leading cause of death among the accidental causes was by no means the same for each age. Thus accidental mechanical suffocation was the leading cause for infants under 1 year old. Indeed this cause claimed more than four times as many infants under 1 year as the toll exacted by burns, the specific cause immediately following suffocation in importance. Of the total number of 2,405 infants under 1 year that perished accidentally in 1930, 849, or 35 percent, were mechanically suffocated.

The third and fourth revisions (1920 and 1929) of the Manual of the International List of Causes of Death include under the title "Accidental Mechanical Suffocation" the following: Accidental asphyxia; asphyxia (accident); asphyxiation by falling earth; cave-in (unqualified); overlaid; and suffocation (unqualified) by abnormal atmospheric pressure, by bed clothes, by excavation, and in bed.

While infant mortality from accidental mechanical suffocation has been referred to during and since Biblical times,[2] the references in the medical literature to this cause of death are not as voluminous as might be thought. This is especially true with respect to articles with adequate statistical support. A careful search of the literature disclosed one paper to which reference may be appropriately made at this time, namely, the article by Templeman (*4*) which was published over 40 years ago. This publication deals specifically with overlaying and reports data on the suffocation in this manner of 258 infants in bed. As principal causes of this mortality the author records the ignorance and carelessness of mothers, intoxication, overcrowding, and, possibly, illegitimacy and the insurance of infants. All of the infants that died were under 9 months of age, over half of the deaths occurred during the cold months, and approximately half took place on Saturday nights when, after "receiving their week's wages on Saturday, many * * * among whom these cases are

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

[2] For example, "This woman's child died in the night, because she overlaid it." 1 Kings III, 19. Quoted in Webster's New International Dictionary.

so common, indulge freely in drink and go to bed more or less intoxicated."

Because of the importance of mechanical suffocation among the accidental causes of death of infants under 1 year old, it is purposed in this paper to study primarily certain time changes in the mortality caused by it in different geographic regions of the United States. As in the previous papers, the period of time extends from 1925 through 1932. Comparable figures are available in published volumes of the Bureau of the Census, and mortality is measured in terms of deaths per 100,000 live births.

For the purpose of this inquiry the birth registration States of 1925, consisting of 33 States and the District of Columbia, are divided into 4 broad groups, each comprising a geographic region as indicated: A Northeastern (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and the District of Columbia), a North Central (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Dakota, Ohio, West Virginia, and Wisconsin), a Southeastern (Florida, Kentucky, Mississippi, North Carolina, and Virginia) and a Western (California, Montana, Oregon, Utah, Washington, and Wyoming). In the Southeastern region the white and colored deaths are held separate.

RELATION OF ACCIDENTAL CAUSES OF DEATH TO OTHER CAUSES IN 1932

With the use of the most recently published mortality statistics, figure 1 shows the percentage distribution of the deaths from various causes among infants under 1 year old that occurred in the death registration area in 1932.[3] The causes are arranged in order of importance, the cause accounting for the largest percentage of deaths appearing first. There were altogether 121,365 deaths, of which 27 percent were attributed to the leading cause, namely, premature birth. From premature birth to broncho-pneumonia and capillary bronchitis, which immediately follows, there is a sharp drop from 27 to 10 percent. Subsequently the percentage distribution declines rapidly to the accidental causes, from which 1,921 infants died, or more than 1.5 percent of the total number that died. Syphilis, with its 1,647 deaths, follows the accidental causes, and thereafter the distribution slowly declines.

[3] The numbers 1-35 in figure 1 correspond to the different causes, as follows: 1, premature birth; 2, broncho-pneumonia and capillary bronchitis; 3, diarrhea and enteritis; 4, congenital malformation; 5, injury at birth; 6, ill-defined causes of death; 7, other diseases peculiar to early infancy; 8, lobar pneumonia and pneumonia unspecified; 9, all other causes; 10, congenital debility; 11, influenza; 12, whooping cough; 13, accidental, other, or undefined; 14, syphilis; 15, diseases of thymus gland; 16, intestinal obstruction; 17, convulsions; 18, bronchitis; 19, erysipelas; 20, diseases of stomach (cancer excepted); 21, diseases of ear; 22, dysentery; 23, simple meningitis; 24, measles; 25, diphtheria, 26, tuberculosis of meninges and central nervous system; 27, tuberculosis of respiratory system; 28, epidemic cerebrospinal meningitis; 29, rickets; 30, other forms of tuberculosis; 31, malaria; 32, diseases of mastoid process; 33, homicide; 34, tetanus; and 35, scarlet fever.

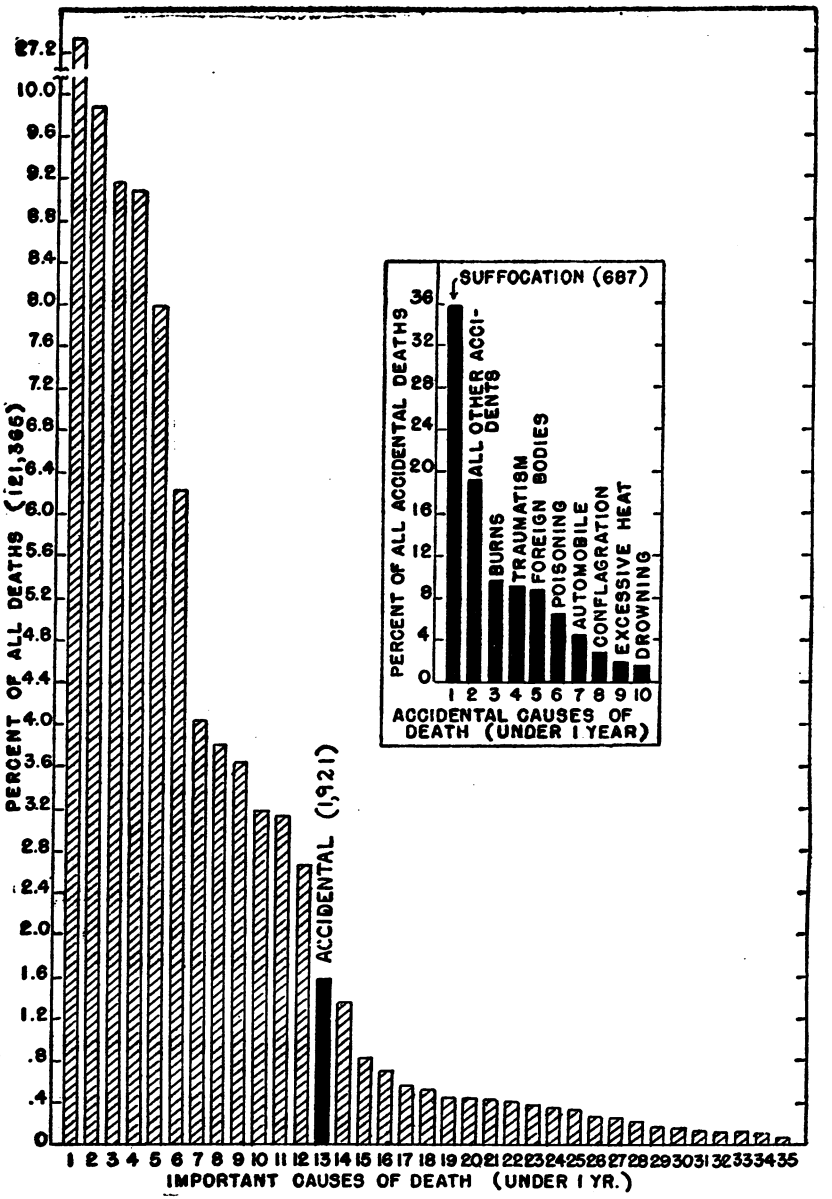

FIGURE 1.—Percentage distribution of the 121,365 deaths among infants under 1 year old, arranged in decreasing order of magnitude, death registration area, 1932. The numbers 1-35 indicate the order of importance of the causes, and refer to the causes themselves. (See footnote 3 for the causes that correspond to the different numbers.)

The insert shows the percentage distribution of the 1,921 accidental deaths according to specific causes. Number of deaths from suffocation, 687.

The insert in figure 1 shows how the 1,921 accidental deaths among infants under 1 year were distributed according to specific causes. The importance of accidental mechanical suffocation as a cause of death is well illustrated. In the death registration area in 1932, mechanical suffocation accounted for 687 infant deaths, or 36 percent of all accidental deaths among infants under 1 year. This percentage, which is almost four times the percentage for burns, the specific cause of death immediately following, is practically identical with the corresponding percentage found above for the death registration area in 1930.

MORTALITY FROM ACCIDENTAL MECHANICAL SUFFOCATION, BY GEOGRAPHIC REGION, 1925–32

Table 1 gives the mortality per 100,000 live births from accidental mechanical suffocation among infants under 1 year old in the different geographic regions from 1925 through 1932. For the Southeastern region the colors are given separately. Before proceeding to the examination of the graphical presentation of the mortality rates it will be of interest to inspect the average annual mortality rates of the regions based upon the data for the entire 8 years. These have been calculated from the table and they may be arranged in descending order of magnitude, as follows:

Southeastern, colored	76.1
North Central	39.8
Southeastern, white	38.3
Western	33.3
Northeastern	25.5

Thus the rate (deaths per 100,000 live births) for the colored of the Southeastern region is approximately from two to three times any of the remaining rates. The rates for the North Central region and for the white infants of the Southeastern region are similar, whereas the rates for the Western and Northeastern regions are definitely lower.

TABLE 1.—*Mortality from accidental mechanical suffocation, infants under 1 year old, by geographic region, 1925–32*

Accidental mechanical suffocation (under 1 year)	1925	1926	1927	1928	1929	1930	1931	1932
	Northeastern							
Number of deaths	190	224	160	185	157	166	164	134
Per 100,000 live births	26.0	31.7	22.4	26.8	23.7	25.0	26.1	22.2
	North Central							
Number of deaths	259	324	294	259	291	264	212	229
Per 100,000 live births	36.5	46.6	42.3	38.2	44.0	39.5	33.4	38.1

TABLE 1.—*Mortality from accidental mechanical suffocation, infants under 1 year old, by geographic region, 1925–32*—Continued

Accidental mechanical suffocation (under 1 year)	1925	1926	1927	1928	1929	1930	1931	1932
	Southeastern							
Number of deaths:								
Total	155	172	142	140	128	144	89	107
White	82	100	78	80	73	73	44	68
Colored	73	72	64	60	55	71	45	39
Per 100,000 live births:								
Total	54.8	60.1	49.4	50.9	49.2	54.2	34.6	40.3
White	40.7	49.2	38.1	40.9	39.5	38.4	23.9	36.0
Colored	89.5	86.6	77.7	75.8	72.9	93.8	61.6	50.9
	Western							
Number of deaths	53	45	54	43	56	53	37	50
Per 100,000 live births	34.4	30.2	36.1	29.0	38.8	35.8	25.9	36.3

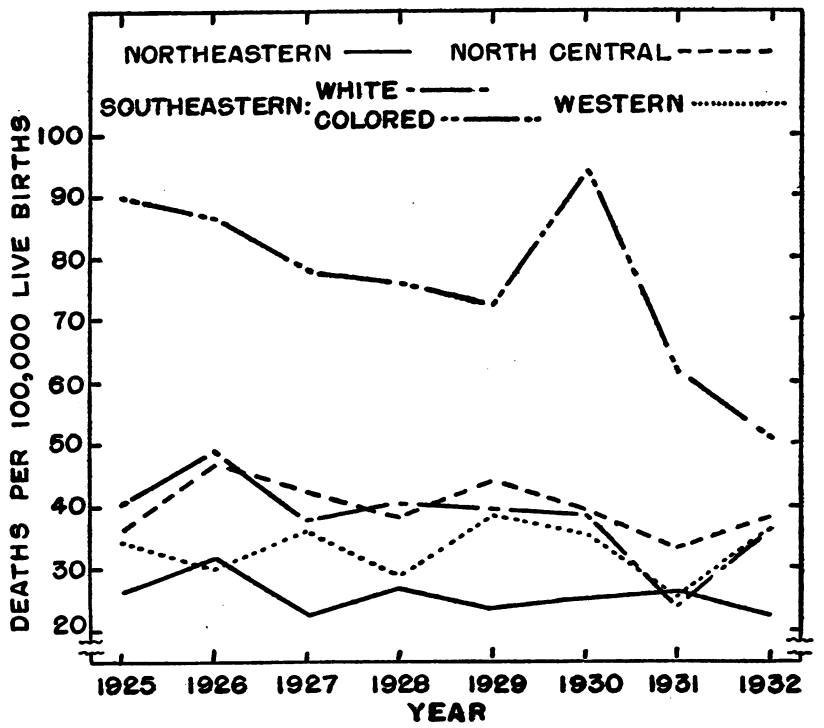

FIGURE 2.—Deaths from accidental mechanical suffocation per 100,000 live births among infants under 1 year old in different geographic regions of the United States, 1925–32.

The annual mortality rates as given in table 1 are presented graphically in figure 2. The figure discloses a number of important facts which may be briefly recorded as follows: First, the consistently high mortality suffered during the entire period by the colored infants of the Southeastern region; second, with the exception of the 2 years, 1926 and 1931, the Northeastern region shows the lowest mortality;

third, during the whole period the Western region is consistently lower than the North Central; fourth, the rates for the white infants of the Southeastern region show, relatively, considerable fluctuation, and hence no definite orderliness in relation to the other rates; and fifth, which is perhaps the most important fact, the time trends of mortality during the 8 years, while of unlike magnitude in the different regions, are practically level for all of the regions with the possible exception of the trends for the white and the colored infants of the Southeastern region, which are perceptibly declining and at approximately the same rate.

SUMMARY

This paper investigates time changes in the mortality from accidental mechanical suffocation among infants under 1 year old in different geographic regions of the United States from 1925 through 1932. Mortality is measured in terms of deaths per 100,000 live births.

The birth registration States of 1925, consisting of 33 States and the District of Columbia, are divided into 4 broad groups, each comprising a geographic region as follows: A Northeastern, a North Central, a Southeastern (white and colored), and a Western.

The data show that, during the 8 years under observation, the colored infants of the Southeastern region consistently suffered the highest mortality while, in general, the infants of the Northeastern region suffered the lowest mortality. The most important finding is that the time trends of the mortality for all of the regions, with the possible exception of those for the white and colored infants of the Southeastern region, are practically level, indicating that the force of the mortality from accidental mechanical suffocation in the Northeastern, North Central, and Western regions, while of unlike magnitude in the different regions, was practically constant during the 8 years 1925–32. On the other hand, the trends for the white and colored infants of the Southeastern region perceptibly declined and at rates of approximately the same magnitude.

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DEATHS DURING WEEK ENDED NOVEMBER 7, 1936

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Nov. 7, 1936	Corresponding week, 1935
Data from 86 large cities of the United States:		
Total deaths	8,282	7,730
Deaths per 1,000 population, annual basis	11.6	10.8
Deaths under 1 year of age	578	470
Deaths under 1 year of age per 1,000 estimated live births	52	44
Deaths per 1,000 population, annual basis, first 45 weeks of year	12.1	11.3
Data from industrial insurance companies:		
Policies in force	68,553,251	67,689,195
Number of death claims	10,197	10,029
Death claims per 1,000 policies in force, annual rate	7.8	7.7
Death claims per 1,000 policies, first 45 weeks of year, annual rate	9.8	9.6

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 November 14, 1936, and November 16, 1935

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 14, 1936, and Nov. 16, 1935

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935
New England States:								
Maine	2	1	1	----	10	85	0	1
New Hampshire	----	----	----	----	3	----	0	0
Vermont	----	1	----	----	1	49	0	0
Massachusetts	9	8	----	----	103	80	2	2
Rhode Island	2	1	----	----	54	19	2	0
Connecticut	1	3	5	3	22	52	0	1
Middle Atlantic States:								
New York	32	24	[1]7	[1]7	97	350	12	5
New Jersey	13	20	6	9	50	14	1	3
Pennsylvania	50	62	----	----	44	69	3	2
East North Central States:								
Ohio	57	89	32	52	16	63	4	4
Indiana	39	75	13	23	4	18	1	1
Illinois	43	73	19	24	11	14	6	8
Michigan	25	36	2	1	34	13	1	3
Wisconsin	5	3	31	43	21	42	0	0
West North Central States:								
Minnesota	14	7	1	1	41	45	1	1
Iowa	4	23	4	3	2	5	2	1
Missouri	32	76	56	73	4	31	0	1
North Dakota	5	1	6	5	1	11	0	0
South Dakota	----	5	----	----	4	2	0	0
Nebraska	5	17	----	----	3	47	1	0
Kansas	55	26	5	8	2	3	1	0
South Atlantic States:								
Delaware	1	----	----	----	5	125	0	0
Maryland [2]	26	21	3	2	28	8	5	3
District of Columbia	11	15	----	1	----	1	3	6
Virginia	60	72	----	----	23	26	7	0
West Virginia	35	42	59	20	23	14	3	1
North Carolina [3]	123	74	7	8	34	9	4	2
South Carolina [4]	19	15	313	147	6	1	2	0
Georgia [4]	64	41	----	----	----	----	0	0
Florida	6	21	3	1	----	4	2	0
East South Central States:								
Kentucky	29	44	15	1	7	7	6	0
Tennessee	50	61	52	16	3	4	6	3
Alabama [4]	65	44	27	31	1	6	1	4
Mississippi [3] [4]	19	10	----	----	----	----	1	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 14, 1936, and Nov. 16, 1935—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935
West South Central States:								
Arkansas	16	12	12	13	1	----	1	0
Louisiana	17	32	10	6	8	10	1	1
Oklahoma [5]	17	25	42	50	4	----	0	0
Texas [4]	30	155	121	92	15	14	3	1
Mountain States:								
Montana	2	----	5	3	4	22	0	0
Idaho	----	1	4	1	7	3	3	0
Wyoming	----	3	----	----	4	5	0	1
Colorado	9	13	----	----	2	3	1	2
New Mexico	4	6	----	----	5	18	0	0
Arizona	5	1	58	32	37	1	0	2
Utah [2]	----	----	----	----	13	3	2	0
Pacific States:								
Washington	----	----	----	----	6	92	0	2
Oregon	2	1	20	28	7	153	2	2
California	61	49	31	52	19	140	3	0
Total	1,064	1,309	970	756	789	1,681	93	63
First 46 weeks of year	23,949	31,702	147,875	110,893	276,130	707,329	6,769	5,001

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935
New England States:								
Maine	0	3	21	12	0	0	0	0
New Hampshire	0	1	4	10	0	0	0	0
Vermont	0	1	7	13	0	0	1	4
Massachusetts	0	10	105	175	0	0	0	1
Rhode Island	0	5	14	12	0	0	1	0
Connecticut	0	3	38	27	0	0	0	2
Middle Atlantic States:								
New York	7	22	271	390	0	0	14	11
New Jersey	1	8	53	95	0	0	5	7
Pennsylvania	6	2	324	395	0	0	44	14
East North Central States:								
Ohio	10	0	270	441	1	0	30	11
Indiana	0	4	161	176	1	2	1	0
Illinois	25	3	286	451	1	3	24	6
Michigan	5	6	231	171	1	0	9	3
Wisconsin	1	2	203	311	1	16	1	5
West North Central States:								
Minnesota	2	1	121	238	2	0	1	1
Iowa	2	2	67	84	6	2	7	9
Missouri	6	2	103	125	1	4	23	3
North Dakota	2	0	57	48	10	2	3	2
South Dakota	0	1	37	35	7	6	2	0
Nebraska	1	0	33	77	0	72	0	0
Kansas	4	0	90	140	1	11	6	7
South Atlantic States:								
Delaware	0	0	7	6	0	0	1	3
Maryland [2]	3	1	71	80	0	0	8	12
District of Columbia	0	0	12	8	0	0	0	1
Virginia	1	2	53	74	0	0	7	16
West Virginia	0	0	72	132	0	1	7	6
North Carolina [3]	0	7	94	56	0	0	4	3
South Carolina [4]	1	0	8	11	0	0	2	5
Georgia [4]	7	1	32	43	0	0	12	6
Florida	1	0	2	11	0	0	0	4

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Nov. 14, 1936, and Nov. 16, 1935—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935	Week ended Nov. 14, 1936	Week ended Nov. 16, 1935
East South Central States:								
Kentucky	3	3	47	59	0	0	19	14
Tennessee	10	4	68	96	1	1	22	11
Alabama [4]	1	2	31	27	0	0	6	10
Mississippi [3 4]	3	0	26	13	0	0	3	6
West South Central States:								
Arkansas	7	0	19	7	0	0	14	2
Louisiana	2	2	17	8	1	0	6	11
Oklahoma [5]	25	1	23	13	1	0	9	11
Texas [4]	3	0	47	66	1	0	10	27
Mountain States:								
Montana	0	0	50	120	8	277	5	4
Idaho	0	0	31	63	1	0	7	2
Wyoming	1	0	15	44	1	2	0	1
Colorado	10	4	42	86	1	7	0	3
New Mexico	1	0	14	23	0	0	5	9
Arizona	1	0	29	17	0	0	1	0
Utah [3]	0	0	13	83	1	0	0	0
Pacific States:								
Washington	1	1	46	52	0	33	1	3
Oregon	0	6	37	53	0	0	0	5
California	8	12	211	250	0	0	6	14
Total	161	122	3,613	4,927	48	439	327	275
First 46 weeks of year	4,075	10,268	208,439	216,863	6,579	6,313	13,348	16,271

[1] New York City only.
[3] Week ended earlier than Saturday.
[3] Rocky Mountain spotted fever, week ended Nov. 14, 1936: North Carolina, 1 case.
[4] Typhus fever, week ended Nov. 14, 1936, 35 cases, as follows: South Carolina, 1; Georgia, 24; Alabama, 3; Mississippi, 1; Texas, 6.
[5] 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
October 1936										
Idaho	1	3	21	-------	169	-------	3	156	6	14
Indiana	15	145	117	-------	12	-------	22	356	4	83
Iowa	6	28	7	-------	15	-------	27	252	20	22
Nebraska	2	7	1	-------	8	-------	5	94	7	3
New Jersey	6	55	44	3	127	-------	5	140	0	19
New Mexico	1	26	6	32	80	1	9	58	0	86
North Dakota	1	4	9	-------	5	-------	5	100	27	8
West Virginia	1	171	67	-------	19	-------	19	348	0	90
Wyoming	-------	2	-------	-------	4	-------	2	36	5	3

October 1936

	Cases
Anthrax:	
New Jersey	1
Chicken pox:	
Idaho	43
Indiana	110
Iowa	123
Nebraska	43
New Jersey	327
New Mexico	21
North Dakota	53
West Virginia	78
Wyoming	65
Conjunctivitis:	
Idaho	4
New Mexico	1
Dysentery:	
Iowa (amoebic)	1
Iowa (bacillary)	2
New Jersey (amoebic)	3
New Jersey (bacillary)	9
New Mexico (amoebic)	2
New Mexico (bacillary)	12
New Mexico (unspecified)	15
Epidemic encephalitis:	
Indiana	1
New Jersey	3
New Mexico	1
Wyoming	1
German measles:	
Idaho	1
New Jersey	77
New Mexico	8
Impetigo contagiosa:	
Idaho	73
Iowa	18
Mumps:	
Idaho	30
Indiana	24
Iowa	19
Nebraska	24
New Jersey	173
New Mexico	15
North Dakota	27
West Virginia	15
Wyoming	10
Ophthalmia neonatorum:	
New Jersey	6
Paratyphoid fever:	
New Jersey	1
West Virginia	2
Wyoming	1
Puerperal septicemia:	
New Mexico	1
Rabies in animals:	
Indiana	48
New Jersey	9
New Mexico	6
Rabies in man:	
New Jersey	1
Scabies:	
Idaho	35
Septic sore throat:	
Idaho	7
Nebraska	1
New Mexico	1
Tetanus:	
New Jersey	1
Trachoma:	
Iowa	3
North Dakota	6
Trichinosis:	
New Jersey	1
Tularaemia:	
Iowa	2
Wyoming	3
Undulant fever:	
Indiana	1
Iowa	15
New Jersey	6
New Mexico	1
West Virginia	1
Wyoming	1
Vincent's infection:	
Idaho	2
Indiana	1
North Dakota	17
Whooping cough:	
Idaho	13
Indiana	64
Iowa	93
Nebraska	30
New Jersey	379
New Mexico	12
North Dakota	2
West Virginia	66
Wyoming	14

PLAGUE INFECTION IN SAN BERNARDINO COUNTY, CALIF.

Plague infection has been reported proved, by animal inoculation, in fleas taken from 24 ground squirrels, *Citellus beecheyi fisheri*, shot October 10, 1936, in Holcomb Valley, 6 miles north of Pine Knot, in San Bernardino County, Calif.

CASES OF VENEREAL DISEASES REPORTED FOR SEPTEMBER 1936

These reports are published monthly for the information of health officers in order to furnish current data as to the prevelance of the venereal diseases. The figures are taken from reports received from State and city health officers. They are preliminary and are therefore subject to correction. It is hoped that the publication of these reports will stimulate more complete reporting of these diseases.

Reports from States

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Alabama [1]				
Arizona	37	0.96	74	1.92
Arkansas	241	1.21	142	.71
California	1,358	2.41	1,484	2.63
Colorado [2]				
Connecticut	198	1.15	123	.72
Delaware	169	4.26	51	1.29
District of Columbia	196	3.30	221	3.72
Florida	227	1.41	93	.58
Georgia	1,278	3.82	572	1.71
Idaho	18	.38	31	.65
Illinois	1,117	1.43	1,181	1.51
Indiana	102	.30	116	.34
Iowa [2]	127	.50	187	.74
Kansas	86	.47	49	.27
Kentucky	331	1.16	257	.90
Louisiana	121	.57	72	.34
Maine [3]	44	.58	58	.69
Maryland	849	5.09	334	2.00
Massachusetts	463	1.06	571	1.31
Michigan	633	1.36	705	1.51
Minnesota	306	1.16	331	1.26
Mississippi	1,715	8.75	2,396	12.19
Missouri	212	.54	245	.63
Montana [2]	45	.85	65	1.22
Nebraska	31	.23	52	.38
Nevada [2]				
New Hampshire	14	.28	7	.14
New Jersey [1]				
New Mexico	48	1.19	46	1.14
New York	7,196	5.58	2,260	1.75
North Carolina	1,821	5.33	674	1.97
North Dakota	13	.19	51	.73
Ohio [3]	541	.81	325	.48
Oklahoma [2]	166	.66	167	.67
Oregon	43	.43	118	1.17
Pennsylvania [4]	274	.27	154	.15
Rhode Island	98	1.44	65	.95
South Carolina [3]	297	1.48	396	1.97
South Dakota	8	.12	45	.67
Tennessee [3]	515	1.77	268	.92
Texas	275	.45	104	.17
Utah [2]				
Vermont	33	.88	32	.85
Virginia	467	1.77	277	1.05
Washington	194	1.19	424	2.60
West Virginia	214	1.18	117	.64
Wisconsin [5]	26	.09	167	.57
Wyoming [2]				
Total	22,087	1.86	15,101	1.27

See footnotes at end of table.

Reports from cities of 200,000 population or over

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Akron, Ohio [1]				
Atlanta, Ga.[1]				
Baltimore, Md.[1]				
Birmingham, Ala	146	5.17	51	1.81
Boston, Mass	204	2.58	225	2.85
Buffalo, N. Y.[1]				
Chicago, Ill	632	1.77	886	2.48
Cincinnati, Ohio [1]				
Cleveland, Ohio [1]				
Columbus, Ohio [1]				
Dallas, Tex	83	2.87	22	.76
Dayton, Ohio [1]				
Denver, Colo	50	1.69	47	1.58
Detroit, Mich.[1]				
Houston, Tex.[6]	249	7.44	74	2.21
Indianapolis, Ind.[1]				
Jersey City, N. J.[1]				
Kansas City, Mo.[1]				
Los Angeles, Calif	361	2.52	368	2.57
Louisville, Ky	331	10.21	257	7.93
Memphis, Tenn.[1]				
Milwaukee, Wis.[1]				
Minneapolis, Minn	60	1.23	125	2.57
Newark, N. J.[1]				
New Orleans, La.[1]				
New York, N. Y	6,149	8.42	1,446	1.98
Oakland, Calif	36	1.19	55	1.81
Omaha, Nebr.[1]				
Philadelphia, Pa.[1]				
Pittsburgh, Pa.[1]				
Portland, Oreg.[1]				
Providence, R. I.[1]				
Rochester, N. Y.[1]				
St. Louis, Mo	248	2.97	66	.79
St. Paul, Minn	17	.60	44	1.56
San Antonio, Tex	9	.36	20	1.15
San Francisco, Calif.[1]				
Seattle, Wash	103	2.71	197	5.19
Syracuse, N. Y.[1]				
Toledo, Ohio	41	1.35	28	.92
Washington, D. C.[7]	196	3.94	221	4.45

[1] No report for current month.
[2] Not reporting.
[3] Incomplete.
[4] Includes only those cases that enter the clinic conducted by the State department of health.
[5] Only cases of syphilis in the infectious stage are reported.
[6] Reported by the Jefferson Davis Hospital; physicians are not required to report venereal diseases.
[7] Reported by the Social Hygiene Clinic.

WEEKLY REPORTS FROM CITIES

City reports for week ended Nov. 7, 1936

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	------	0	0	7	2	0	1	0	0	40
New Hampshire:											
Concord	0	------	0	0	1	0	0	0	0	0	8
Manchester	0	------	0	0	1	0	0	1	0	0	20
Nashua	0	------	--------	0	-------	1	0	-------	0	0	--------
Vermont:											
Barre	-------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Burlington	0	------	0	0	0	0	0	0	0	0	14
Rutland	0	------	0	0	1	0	0	0	0	0	8
Massachusetts:											
Boston	1	------	0	4	21	29	0	12	2	96	231
Fall River	0	------	0	0	3	1	0	0	0	0	23
Springfield	0	------	0	0	0	1	0	0	1	8	25
Worcester	0	------	0	20	6	3	0	1	0	31	54
Rhode Island:											
Pawtucket	0	------	0	0	0	0	0	0	0	0	22
Providence	0	------	0	0	5	8	0	4	0	7	68
Connecticut:											
Bridgeport	1	------	0	11	0	1	0	0	0	0	29
Hartford	0	------	0	1	5	22	0	2	0	3	41
New Haven	0	------	0	0	3	2	0	1	0	9	51
New York:											
Buffalo	0	------	0	9	6	13	0	6	0	11	136
New York	18	8	1	33	85	76	0	84	7	66	1,411
Rochester	0	------	0	1	5	3	0	3	0	3	76
Syracuse	0	------	1	0	1	1	0	0	0	29	37
New Jersey:											
Camden	4	------	0	0	0	0	0	2	1	3	36
Newark	0	------	0	0	4	4	0	4	0	26	73
Trenton	0	------	1	0	4	1	0	1	0	0	38
Pennsylvania:											
Philadelphia	2	------	5	3	21	53	0	26	3	136	444
Pittsburgh	7	1	1	3	31	45	0	6	0	19	186
Reading	0	------	0	0	1	5	0	1	0	21	18
Scranton	0	------	--------	0	-------	3	0	-------	0	1	--------
Ohio:											
Cincinnati	5	------	0	1	19	5	0	4	1	11	142
Cleveland	1	9	0	2	11	23	0	14	2	32	211
Columbus	2	------	0	1	3	8	0	1	0	5	88
Toledo	1	1	1	1	7	3	0	5	1	6	76
Indiana:											
Anderson	0	------	0	0	1	4	0	0	0	0	8
Fort Wayne	0	------	1	0	1	2	0	1	0	0	26
Indianapolis	1	------	0	3	9	7	0	1	1	1	96
Muncie	0	------	0	0	1	4	0	0	0	0	12
South Bend	0	------	0	0	2	1	0	0	0	8	18
Terre Haute	0	------	0	0	0	2	0	0	0	0	14
Illinois:											
Alton	0	------	0	0	2	1	0	0	0	0	16
Chicago	6	7	3	5	40	122	0	35	1	47	635
Elgin	0	------	0	0	2	0	0	0	0	5	11
Moline	0	------	0	1	0	1	0	0	0	1	7
Springfield	0	------	0	1	2	0	0	0	0	5	18
Michigan:											
Detroit	12	1	0	1	19	74	0	16	2	68	276
Flint	0	------	0	2	3	7	0	0	0	3	21
Grand Rapids	0	------	0	4	1	5	0	1	0	8	35
Wisconsin:											
Kenosha	0	------	0	0	0	5	0	0	0	0	5
Madison	0	------	0	0	1	2	0	0	0	13	13
Milwaukee	0	2	2	0	9	23	0	3	0	33	105
Racine	1	------	0	0	0	3	0	2	0	1	14
Superior	0	------	0	1	0	1	0	0	0	3	4
Minnesota:											
Duluth	0	------	0	0	1	19	0	0	0	6	25
Minneapolis	19	------	0	0	10	13	0	0	0	7	103
St. Paul	0	1	1	2	6	10	0	0	1	9	57

City reports for week ended Nov. 7, 1936—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Iowa:											
Cedar Rapids	0	----	----	0	----	0	0	----	0	0	----
Davenport	0	----	----	0	----	0	0	----	0	0	----
Des Moines	1	----	----	0	----	3	0	----	0	0	31
Sioux City	1	----	----	0	----	2	1	----	0	3	----
Waterloo	1	----	----	1	----	3	0	----	0	8	----
Missouri:											
Kansas City	2	----	0	1	14	10	0	3	0	2	92
St. Joseph	----	----	----	----	----	----	----	----	----	----	----
St. Louis	2	----	0	2	10	18	0	3	1	7	198
North Dakota:											
Fargo	0	----	0	0	1	1	0	0	0	0	12
Grand Forks	0	----	----	0	----	0	0	----	0	0	----
Minot	0	----	0	0	0	0	0	0	0	0	8
South Dakota:											
Sioux Falls	0	----	0	0	0	0	0	0	0	0	13
Nebraska:											
Omaha	0	----	0	1	12	2	0	2	0	0	63
Kansas:											
Lawrence	0	2	1	0	1	0	0	0	0	0	10
Topeka	0	----	1	0	2	1	0	0	0	0	22
Wichita	0	1	1	0	3	7	0	1	0	0	21
Delaware:											
Wilmington	1	----	0	0	3	0	0	0	0	3	25
Maryland:											
Baltimore	4	7	3	5	12	20	0	19	3	68	229
Cumberland	0	----	0	1	1	1	0	1	0	6	11
Frederick	0	----	0	0	0	1	0	0	0	0	6
District of Columbia:											
Washington	15	3	0	5	16	18	0	18	1	27	177
Virginia:											
Lynchburg	0	----	0	1	0	3	0	1	0	3	17
Norfolk	0	----	0	0	1	3	0	2	0	0	51
Richmond	5	----	1	0	6	3	0	1	2	0	----
Roanoke	1	----	0	0	3	1	0	0	0	1	23
West Virginia:											
Charleston	1	1	0	0	3	0	0	0	0	0	14
Huntington	3	----	----	0	----	5	0	----	0	0	----
Wheeling	0	----	0	0	1	2	0	0	0	3	17
North Carolina:											
Gastonia	1	----	0	0	0	0	0	0	0	0	----
Raleigh	----	----	----	----	----	----	----	----	----	----	----
Wilmington	4	----	0	0	0	2	0	0	0	2	14
Winston-Salem	0	----	0	0	2	3	0	1	0	0	16
South Carolina:											
Charleston	5	1	0	0	2	3	0	2	0	0	21
Columbia	0	----	1	0	6	0	0	0	0	0	31
Florence	0	----	0	0	3	0	0	2	0	0	11
Greenville	0	----	0	0	0	1	0	1	0	0	8
Georgia:											
Atlanta	9	12	0	0	4	12	0	4	0	0	93
Brunswick	0	----	0	0	0	1	0	1	0	0	5
Savannah	2	1	----	0	1	1	0	0	0	1	30
Florida:											
Miami	1	----	0	0	0	0	0	0	0	0	19
Tampa	1	----	0	0	1	0	0	0	0	1	18
Kentucky:											
Ashland	1	----	0	0	0	3	0	2	0	0	15
Covington	0	----	0	0	0	0	0	0	0	0	13
Lexington	0	----	0	5	1	0	0	2	2	0	24
Tennessee:											
Knoxville	5	----	0	1	2	0	0	1	0	0	21
Memphis	4	----	0	0	15	12	0	4	0	1	122
Nashville	0	----	3	0	4	2	0	1	0	0	64
Alabama:											
Birmingham	4	1	1	0	7	3	0	2	0	0	62
Mobile	4	----	1	0	0	1	0	2	0	0	21
Montgomery	1	----	----	0	----	0	0	----	0	0	----
Arkansas:											
Fort Smith	2	----	----	0	----	3	0	----	0	0	----
Little Rock	0	----	0	0	5	0	0	3	0	0	8
Louisiana:											
New Orleans	11	4	0	0	21	4	0	7	0	1	148
Shreveport	0	----	0	0	7	0	0	1	0	0	36
Oklahoma:											
Oklahoma City	1	10	0	0	7	4	0	2	0	0	47
Tulsa	1	----	----	0	0	5	0	0	4	0	----

City reports for week ended Nov. 7, 1936—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Texas:											
Dallas	2	5	5	0	8	4	0	1	0	1	63
Fort Worth	3	------	0	0	4	2	0	1	1	0	39
Galveston	0	------	0	0	1	0	0	1	0	0	16
Houston	1	------	0	0	7	2	0	3	1	0	73
San Antonio	0	------	2	0	4	0	0	3	0	0	66
Montana:											
Billings	0	------	0	0	1	1	1	0	0	0	6
Great Falls	0	------	0	0	2	0	0	0	0	4	9
Helena	0	------	0	0	2	0	0	0	0	0	6
Missoula	0	------	0	1	1	0	0	0	0	0	10
Idaho:											
Boise	------	------	------	------	------	------	------	------	------	------	------
Colorado:											
Colorado Springs	0	------	0	0	0	0	0	0	0	0	4
Denver	2	------	1	1	4	10	0	2	0	34	90
Pueblo	0	------	0	0	0	0	1	0	1	0	9
New Mexico:											
Albuquerque	0	------	0	1	2	2	0	3	0	0	10
Utah:											
Salt Lake City	0	------	0	0	0	6	0	1	0	3	27
Nevada:											
Reno	------	------	------	------	------	------	------	------	------	------	------
Washington:											
Seattle	0	------	3	2	7	2	0	1	2	3	80
Spokane	0	------	0	1	3	23	0	0	0	1	37
Tacoma	0	------	0	0	2	0	0	0	1	0	24
Oregon:											
Portland	0	2	1	0	7	7	0	0	3	1	87
Salem	1	------	------	0	------	1	0	------	0	2	------
California:											
Los Angeles	15	6	0	3	18	23	0	21	0	53	307
Sacramento	3	------	0	4	5	37	0	0	1	2	39
San Francisco	4	------	0	2	5	17	0	7	0	22	179

State and city	Meningococcus meningitis		Poliomyelitis cases	State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				District of Columbia:			
Boston	2	1	0	Washington	5	2	0
New York:				Virginia:			
New York	9	2	1	Norfolk	1	0	0
Syracuse	0	0	1	Florida:			
New Jersey:				Miami	1	1	2
Newark	2	0	1	Tennessee:			
Pennsylvania:				Memphis	0	1	1
Philadelphia	0	0	1	Arkansas:			
Pittsburgh	2	0	0	Fort Smith	0	0	1
Ohio:				Louisiana:			
Cincinnati	1	0	0	New Orleans	1	0	0
Indiana:				Oklahoma:			
Indianapolis	0	1	1	Oklahoma City	1	0	0
Springfield	3	0	0	Tulsa	0	0	14
Michigan:				Texas:			
Detroit	1	0	4	Houston	0	1	0
Minnesota:				Montana:			
Minneapolis	0	1	0	Missoula	0	1	0
Missouri:				Oregon:			
Kansas City	0	0	1	Portland	0	0	1
St. Louis	2	0	2	California:			
Maryland:				Los Angeles	0	0	4
Baltimore	3	0	0				

Epidemic encephalitis.—Cases: New York, 2; Philadelphia, 1; Detroit, 1; Charleston, S. C., 1.
Pellagra.—Cases: Boston, 1; Wilmington, N. C., 1; Savannah, 1; Birmingham, 1; Mobile, 1.
Rabies in man.—Deaths: St. Louis, 1.
Typhus fever.—Cases: Charleston, S. C., 1; Atlanta, 2; Savannah, 2; Montgomery, 1; Houston, 1.
Smallpox.—Deaths: Munice, Ind., 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—2 weeks ended October 31, 1936.—During the 2 weeks ended October 31, 1936, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis				1	1				1	3
Chicken pox		4		350	449	103	155	48	151	1,260
Diphtheria		5	3	119	18	8	3	2	5	163
Dysentery				22						22
Erysipelas				8	4	7	1	5	10	35
Influenza					13	3			7	23
Lethargic encephalitis				1		1				2
Measles			8	344	405	112	279	96	134	1,378
Mumps		15	4		176	23	21	19	68	326
Paratyphoid fever					3	2				5
Pneumonia					21		5		12	38
Poliomyelitis				12	29	65	8		3	117
Scarlet fever		14	10	224	267	164	63	184	62	988
Trachoma									1	1
Tuberculosis	3	33	23	93	104	55	1	2	54	368
Typhoid fever	2		8	48	19	5	4	1	10	97
Undulant fever				3	1		1			5
Whooping cough		6		208	324	7	51	11	43	650

CHILE

Typhus fever—January–August 1936.—The following table shows the number of deaths from typhus fever, with rates per 100,000 inhabitants, in Chile for the period January to August 1936, inclusive:

Month	Deaths	Deaths per 100,000 inhabitants	Month	Deaths	Deaths per 100,000 inhabitants
January	77	20	May	46	12
February	65	18	June	37	10
March	62	16	July	44	11
April	29	8	August	61	16

JAMAICA

Communicable diseases—4 weeks ended October 31, 1936.—During the 4 weeks ended October 31, 1936, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Cerebrospinal meningitis	----------	1	Leprosy	1	1
Chicken pox	----------	19	Puerperal fever	----------	1
Diphtheria	----------	1	Tuberculosis	41	79
Dysentery	6	2	Typhoid fever	9	64
Erysipelas	1	2			

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

From medical officers of the Public Health Service, American consuls, International Office of Public Health, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following table 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		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936					September 1936				October 1936			
						1	8	15	22	29	5	12	19	26	3	10	17	24
Afghanistan	C															P		
Ceylon:																		
Batticaloa	C															3		
Provinces	C	18																
India	C	24,028	21,278	15,291	17,917	5,318	4,339	4,857	5,544	5,915	5,675	5,296						
	D	11,745	10,634	7,672	8,500	2,710	2,283	2,295	2,596	2,797	2,810	2,555						
Assam	C	137	569	262	151	57	42	93	65	36	87	76	82	44	89	59	109	62
	D	65	292	152	75	65	30	33	22	30	46	47	30	35	38	38	59	29
Bassein	C		9	12	1				1									
Bombay Presidency	C	145	365	592	1,923	694	590	761	718	834	693	841	751	685	752	897		
	D	42	123	224	795	313	230	307	320	330	345	395	325	313	327	357		
Bombay	C			[1] 1	[1] 1							[2] 1				[1] 1		
Calcutta	C	799	1,012	580	154	24	26	23	18	12	14	16	13	11	13	11	10	9
Central Provinces and Berar	C	357	715	971	1,349	763	785	1,214	1,591	1,377	1,584		1,683	1,096	1,174	1,101	918	677
Chittagong	C		6	13	5	2		[1] 1			1	4		1			1	1
Madras Presidency	C	1,677	1,556	2,064	3,654	1,284	1,263		1,411	1,520	1,341	1,111						
	D	758	787	902	1,621	610	593		668	716	678	560						
Madras	C	5	2		6						4	2	1	1	1	8	3	9
	D	1			1	1							1			1	2	3
Moulmein	C	2	3	1														
Negapatam	C	2		13	15	5	4	3	6	6	3	1	4	1				
	D			9	7		1	2	4	3	1	1	1	2				
Punjab	C	6	61	231	418	195	115	188	88	66	91	47	18	13	10	1		
Rangoon	C	4		2	3	1	1	1								1		1
Sind State	C					10	3		1	6	19	19						
Tuticorin	C				29													
India (French):																		
Chandernagor Territory	C	6	2	7	8													
Karikal Province	C	4		8	117	32	32		13	21			25		45			
Pondichery Province	C	7	16	4	1			1					4					

[1] Imported.

[2] Suspected.

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

CHOLERA—Continued

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

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936					September 1936				October 1936			
						1	8	15	22	29	5	12	19	26	3	10	17	24
Indochina (see also table below):																		
Bentre	C	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Pnom-Penh	C	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Siam:																		
Bangkok	C	59	52	36	22	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Provinces	C	649	288	34	66	15	9	32	28	33	20	7	16	14	8	-------	-------	3
On vessels:																		
S. S. *Kutsang* at Penang from Calcutta	C	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
S. S. *Karagola* at Penang from Calcutta	C	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
S. S. *Ekma* at Rangoon from Calcutta	C	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
S. S. *Chakdina* at Calcutta from Chittagong	C	-------	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

Place		May 1936			June 1936			July 1936			August 1936			September 1936		
		1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31
Indochina (French) (see also table above):																
Cambodia [1]	C	-------	3	1	1	-------	1	-------	2	-------	-------	-------	-------	2	2	-------
	D	-------	2	1	1	-------	1	-------	2	-------	-------	-------	-------	2	1	-------
Cochinchina [1]	C	1	1	1	-------	4	1	3	3	1	-------	-------	-------	1	-------	-------
	D	1	1	1	-------	4	-------	3	3	1	-------	-------	-------	1	-------	-------

[1] Reports incomplete.

PLAGUE

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936					September 1936				October 1936			
						1	8	15	22	29	5	12	19	26	3	10	17	24
Algeria:																		
Bone	C	[2]3																
Oran Department	C								[2]1		[2]1		[2]1					
Philippeville	C								[2]1									
Argentina. (See table below.)																		
Azores. (See table below.)																		
Belgian Congo	C		1															[2]2
Brazil (see also table below):																		
Santos	C						2	1	1									
	D						1											
Sao Paulo.[3]																		
British East Africa:																		
Kenya	C	11	42	39	13	10	2	6	3	4	7	1	4	2	5		4	
Tanganyika	C		3															
Uganda	C	57	153	76	96	18	13	30	19	17	18	17	33	19	15	21	17	
	D	55	148	73	93	17	12	28	19	15	17	17	26	18	15		17	
Ceylon:																		
Colombo	C	3	3	3	3				1					1				1
	D	3	3	3	3									1				
Plague-infected rats		8	8	2	2	1					1						1	3
Hatton	C		3															
Manar	C	1																
Maskiliya	C				1													
Southern Province	C								1									
Weligama	C	1																
China: Manchuria.[4]																		
Dutch East Indies: West Java	C	604	553	363	318	90												
	D	602	550	362	317	90												
Ecuador:																		
Alausi	C											1						
Bajada del Morro	C																[5]3	
Guayaquil	C	1				2	1			1	1			1				2
	D	1						1			1		1	1				1
Plague-infected rats				3	5	1	1	1	1		1	4	1		1		1	1

[1] Including plague in the United States and its possessions.
[2] Suspected.
[3] A report dated July 29, 1936, states that 23 cases of pneumonic plague with 18 deaths were reported in Sao Paulo, Brazil.
[4] A report dated Aug. 20, 1936, states that 5 cases of plague were reported at Kirin Province, Manchuria, China.
[5] For 3 weeks.

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

PLAGUE—Continued

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

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17	24
Egypt:																		
Alexandria: Plague-infected rats		P	P	P	P	------	P	------	P	------	P	------	P	------	P	------	P	------
Asyut Province	C	18	2	2	------	------	------	------	------	------	------	3	------	1	------	------	------	------
Beheira Province	C	------	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------
Girga Province	C	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Minya Province	C	1	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Sues	C	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
France: Marseille [6]	C	------	------	------	------	------	------	1	------	------	1	1	------	------	------	------	------	------
Hawaii Territory: Plague-infected rats:																		
Hawaii Island—Hamakua district: [7]																		
Hamakua Mill sector [7]		------	------	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------
Paauhau sect [7]		------	2	------	3	------	1	2	------	3	------	7	10	5	6	1	------	3
Pohakea sector		4	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	1
Maui Island—Wailuku District—Keahua Region		------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
India	C	2,334	626	139	294	174	163	162	187	214	298	259	------	------	------	------	------	------
	D	1,225	406	92	186	104	87	118	119	103	143	106	------	------	------	------	------	------
Bassein	C	5	5	2	9	------	3	2	------	------	------	------	------	------	------	------	------	------
Plague-infected rats		------	------	------	------	------	1	------	------	------	------	1	------	------	------	------	------	1
Bombay Presidency	C	68	11	4	3	1	1	6	1	1	4	14	29	25	17	12	36	------
	D	47	6	2	2	------	1	3	2	------	2	6	17	20	17	6	5	------
Bombay	C	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Calcutta	C	------	------	------	[2] 1	------	------	------	------	------	------	------	------	------	------	------	------	------
Central Provinces and Berar	C	487	52	------	9	1	27	15	38	66	104	------	29	256	359	324	120	297
Madras Presidency	C	20	6	------	41	47	52	------	30	25	32	21	------	------	------	------	3	------
	D	13	2	------	24	24	31	------	20	11	26	19	------	------	------	------	3	------
Punjab	C	95	72	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
	D	53	47	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Rangoon	C	------	5	2	2	1	1	------	------	1	------	------	------	------	------	------	1	------
Plague-infected rats		------	1	------	1	2	1	1	------	------	------	------	1	2	------	------	------	------
Indochina (see also table below):																		
Longxuyen	C	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Pnom-Penh	C	------	1	------	------	1	2	1	------	------	------	------	------	------	------	------	------	------
Saigon-Cholon	C	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Tanghai	C	2	4	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Madagascar. (See table below.)																		
Malta	C	3	1	3	-------	1	2	------	------	1	------	------	1	2	[8]2	------	------	1
	D	2	-------	1	-------	1	------	------	------	------	------	------	------	------	------	------	------	------
Peru. (See table below.)																		
Senegal. (See table below.)																		
South-West Africa. (See table below.)																		
Tunisia: Tunis	C	-------	-------	-------	-------	------	------	------	1	1	------	------	------	------	2	2	1	------
Plague-infected rats		2	-------	1	1	1	------	------	1	------	------	------	------	------	------	------	------	------
Union of South Africa	C	[8]6	6	32	[8]1	[8]1	------	[8]3	------	------	------	6	------	------	------	------	------	------
United States:																		
California:																		
Lassen County—Plague-infected squirrels		-------	-------	5	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Modoc County [9]—Plague-infected squirrels		-------	-------	13	4	10	------	------	------	------	------	------	------	------	------	------	------	------
Monterey County [9]	C	-------	-------	1	-------	------	------	------	------	------	------	------	------	------	------	------	------	------
Placer County [9]	C	-------	-------	-------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
San Bernardino County.[9]																		
Santa Cruz County [9]—Plague-infected squirrels		-------	-------	50	11	------	------	------	------	------	------	------	------	------	------	------	------	------
Santa Rosa	C	1	-------	-------	-------	------	------	------	------	------	------	------	------	------	------	------	------	------
Ventura County—Plague-infected squirrels		1	-------	P	-------	------	------	------	------	------	------	------	------	------	------	------	------	------
Idaho: Bonneville County—Plague-infected squirrels		-------	-------	7	-------	------	------	------	------	------	------	------	------	------	------	------	------	------
Montana: Beaverhead County.[10]																		
Nevada: Elko County—Plague-infected squirrels		-------	P	-------	-------	------	------	------	------	------	------	------	------	------	------	------	------	------
Utah:																		
Beaver County	C	-------	-------	-------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Plague-infected marmots		-------	-------	-------	-------	1	1	------	------	------	------	------	------	------	------	------	------	------
Plague-infected squirrels		-------	-------	-------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Garfield County [11]—Plague-infected prairie dogs		-------	-------	-------	-------	------	2	------	------	------	------	------	------	------	------	------	------	------
Sevier County.[11]																		
On vessels:																		
S. S. *Ipanema* at Marseille from Bone and Philippeville	C	-------	-------	-------	-------	------	------	1	------	------	------	------	------	------	------	------	------	------
S. S. *Delambre* at Liverpool from Montevideo, Buenos Aires, Rosario, Santos, and Las Palmas—Plague-infected rats		-------	-------	-------	-------	------	------	------	------	------	2	------	------	------	------	------	------	------

[8] Suspected.

[6] A report dated Sept 3, 1936, states that 2 plague-infected rats were reported in Marseille, France.

[7] Plague-infected rats have been reported in Hawaii Territory, Hawaii Island, Hamakua District, as follows: Week ended Aug. 8, 2 plague-infected rats, no location given; week ended Oct. 31, 1 plague-infected rat in Hamakua Mill sector; week ended Oct. 31, 2 plague-infected rats, and week ended Nov. 7, 1 plague-infected rat, in Paauhau sector.

[8] For 2 weeks.

[9] Plague-infected fleas have been reported in California as follows: Week ended June 27, 1936, 3 lots in Modoc County, and 7 lots in Santa Cruz County; Aug. 18-21, 104 plague-infected fleas collected from ground squirrels in San Bernardino County, and according to information dated Nov. 10, 31 fleas taken from 24 Fisher squirrels shot in Holcomb Valley, also in San Bernardino County have been proved positive for plague. A report dated Oct. 13, 1936, states that fleas taken from ground squirrels in Monterey County and from chipmunks and ground squirrels in Placer County have been proved plague infected.

[10] During the week ended July 25, 1936, 153 fleas and 26 lice taken from 7 marmots (ground hogs) shot at the head of Small Horn Canyon, Beaverhead County, Mont., were reported plague infected.

[11] Plague-infected fleas in Utah have also been reported as follows: Aug. 24, 45 fleas taken from 23 prairie dogs in Garfield County, and July 28, 1936, 315 fleas taken from 11 ground squirrels in Clear Creek Canyon, Sevier County.

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

PLAGUE—Continued

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

Place		April 1936	May 1936	June 1936	July 1936	August 1936	September 1936
Argentina:							
Salta Province	C				4		
San Luis Province	C	6					
Santiago del Estero Province	C						2
Tucuman Province	C				1		[12] 6
Azores	C	2	2				
Brazil (see also table above):							
Bahia State	C					[13] 46	
Ceara State	C	1				[13] 106	
Pernambuco State	C					[13] 45	
Piauhy State	C					[13] 4	
Indochina (see also table above):							
Cambodia	C	1	1		4	8	
Cochinchina	C	1	1	1	6	1	
Madagascar (central region)	C	96	48	38	26	83	
	D	95	47	36	26	81	
Peru	C	15	5	2	4	6	8
Lambayeque Department	C						3
Libertad Department	C	6	4	1	3	1	1
Lima Department	C	6	1		1	2	2
Callao	C	1		1			
	D	1		1			
Plague-infected rats						P	P
Piura Department	C	2				3	2
Senegal:							
Dakar [14]	C			2	1		
	D			2	1		
Thies [14]	C			2	1		
Tivaouane [14]	C	1	5	4	8	4	
South-West Africa: Ovamboland	C		23				

[12] Pneumonic plague.

[13] From January to Aug. 31, 1936.

[14] Reports incomplete.

SMALLPOX

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17	24
Algeria:																		
Constantine Department	C	1		2	1													
Oran Department	C			6	2													
Angola. (See table below.)																		
Argentina. (See table below.)																		
Belgian Congo. (See table below.)																		
Bolivia. (See table below.)																		
Brazil:																		
Bahia	C				2		11	7	14	11	21	23						
Porto Alegre (alastrim)	D	3						1	1									
British East Africa: Tanganyika	C		73	7	106	18		2	3	71		73		1	100		9	
British Somaliland	C		10	19					1	1								
Canada:																		
Alberta	C	1	2	[1] 2					[1] 1									
Ontario	C	[1] 1																
Saskatchewan	C				[1] 2		[1] 1											
Ceylon: Colombo	C						1									1		
China (see also table below):																		
Amoy	C	1		3	3													
Canton	C	1																
Dairen	C	3	10	9	2	2												
Foochow	C	P	P	P	P		P		P		P							
Hangchow	C	5	6	4	1							1						
Hankow	C	2	1	1														
Hong Kong	C	7	5	2	2									1				
Nanking	C	79	75	16	5													
Shanghai	C	50	49	17	14	4	4		1								4	1
Swatow	C	4																
Tientsin	C	1	1	3	1													
Chosen. (See table below.)																		
Colombia (see also table below)	C	30	60						[2] 113	13			[2] 76		[1] 50			
Barranquilla	D						4			2		1			1			
Ecuador: Guayaquil	C					1								1	3			
Egypt: Provinces	C			2														
Eritrea	C	2																
Asmara	C	1																

[1] For 2 weeks.

[2] For 3 weeks.

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

SMALLPOX—Continued

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

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	June 28–July 25, 1936	Week ended— August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17	24
Finland	C	------	------	------	6	6	1	------	------	1	------	------	------	------	------	------	------	------
France. (See table below.)																		
Gambia (Upper)	C	------	------	------	38	------	------	------	------	------	------	------	------	------	------	------	------	------
Gold Coast	C	------	------	------	[3] 12	------	------	------	------	------	------	------	------	------	------	------	------	------
Great Britain: England and Wales—London and Great Towns	C	------	4	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Greece: Salonika	C	20	37	34	13	------	------	------	------	------	------	------	------	------	------	------	------	------
Guatemala. (See table below.)																		
India	C	34,748	36,861	16,397	10,011	1,465	1,104	824	936	1,090	935	934	------	------	------	------	------	------
	D	9,091	9,916	4,096	2,955	394	248	256	311	269	239	262	------	------	------	------	------	------
Assam	C	219	270	95	54	14	17	14	14	20	24	19	17	10	13	24	11	4
Bombay Presidency	C	2,859	2,747	962	647	152	74	126	73	85	68	71	78	41	52	62	28	------
	D	560	501	192	128	22	20	29	18	11	8	14	14	10	11	14	9	------
Bombay	C	322	237	99	46	13	6	10	7	3	2	2	9	4	------	6	3	1
	D	195	155	68	28	8	4	10	3	3	2	2	7	3	------	4	1	1
Calcutta	C	1,552	567	275	46	5	13	7	11	9	4	------	2	------	2	6	------	1
	D	1,166	466	168	38	7	8	7	8	9	4	1	3	------	2	4	------	1
Central Provinces and Berar	C	2,826	3,043	1,100	477	63	50	33	18	23	42	------	15	13	13	6	3	17
Chittagong	D	1	------	3	11	------	------	------	------	------	------	------	------	------	1	------	------	------
Cochin	C	------	------	------	------	------	------	------	------	------	------	2	------	------	------	------	------	------
Karachi	C	36	19	5	2	------	------	------	------	------	------	------	------	------	------	------	------	------
Madras Presidency	C	1,236	1,225	796	752	217	249	206	221	229	134	141	------	75	------	------	24	------
	D	214	215	137	160	44	41	42	38	40	22	31	------	17	------	------	11	------
Madras	C	1	5	------	------	1	------	------	------	1	------	1	2	------	------	------	------	1
Moulmein	C	35	35	21	18	2	3	4	1	------	4	7	1	------	------	2	1	------
Negapatam	C	3	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Northwest Frontier Province	C	21	11	16	15	------	------	------	------	7	------	7	15	------	4	1	1	5
Punjab	C	372	377	320	113	9	14	8	4	17	19	3	3	40	9	4	------	------
Rangoon	C	20	4	7	1	2	------	2	------	[4] 1	------	------	------	1	2	2	------	5
Sind State	C	90	249	194	54	10	10	1	4	6	19	19	5	8	1	7	7	6
Vizagapatam	C	2	5	2	------	1	------	------	1	------	------	------	------	------	1	------	------	------
India (French):																		
Chandernagor Territory	C	29	10	8	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Karikal Province	C	2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Pondichery Province	C	2	2	------	6	------	1	------	------	------	------	------	------	------	------	------	------	------
	D	2	1	------	2	------	------	------	------	------	------	------	------	------	------	------	------	------

Indochina (see also table below):																		
Pnom-Penh	C			1	1		1				1		5	1		2	1	1
Saigon	C	1																
Tourane	C	1	1															
Iran	C			7	1	4				2	5	4						
Teheran	C				1		2			1	1		3			2		
Iraq	C	10	11	1			1								3			
Baghdad	C	2	1				1											
Basra	C	3																
Japan:																		
Kobe	C	1																
Nagasaki	C	1																
Osaka	C		1	1	2		2	1	3	5	8	4	4	5	2	1	1	
Yokohama	C		1															
Mexico (see also table below):																		
Chihuahua	C	2	2	2														
Guadalajara	D	33	21	6	3	1	1					1						
Mexico, D. F	C	20	23	15	7	6		1										
Monterrey	C	1																
Torreon	C				3								2	1	8	1	1	1
Morocco. (See table below.)																		
Mozambique. (See table below.)																		
Nigeria	C	509	427	1,028	[3] 512		[1] 32		2									
Lagos	C							1						1	1			
Nyasaland. (See table below.)																		
Peru. (See table below.)																		
Portugal (see also table below):																		
Lisbon	C	3	1		2	1	1							1				
Oporto	C			1		1							1					
Salvador. (See table below.)																		
Saudi Arabia	C	12	6															
Sierra Leone	C	9	9	25	9	[1] 1		[1] 2						[1] 38				
Freetown	C	[1] 1	2															
Spain	C	24	12	23														
Straits Settlements: Singapore	C			[4] 1														
Sudan (Anglo-Egyptian)	C	6	17	5	1		12	1					[5] 100	1	30	6		
Turkey. (See table below.)																		
Union of South Africa	C				1	P												

[1] For 2 weeks. [3] For 4 weeks. [4] Imported. [5] For 5 weeks.

On vessels:

S. S. *Hokuryo Maru* at Moji from Tientsin	1 case	Apr. 2, 1936
S. S. *City of Adelaide* at Colachel from Rangoon	1 case	Apr. 13, 1936
S. S. *Egra* at Rangoon from Calcutta	1 case	Apr. 13, 1936
S. S. *City of London* at Suez from Calcutta	1 case	Apr. 20, 1936
S. S. *Manipura* at Port Sudan from Calcutta	1 case	Apr. 23, 1936
S. S. *Kasagi Maru* at Moji from Shanghai	1 case	May 4, 1936

On vessels—Continued.

S. S. *Awaji Maru* at Nagasaki from Dairen	1 case	May 8, 1936
S. S. *Bhutan* at Kobe from Shanghai	8 cases	May 13, 1936
S. S. *Jinkai Maru* at Moji from Hongay	1 case	June 1, 1936
S. S. *Rohna* at Penang from Madras	1 case	June 11, 1936
S. S. *Maya Maru* at Moji from Shanghai	2 cases	June 18, 1936
S. S. *Talamba* at Rangoon from Calcutta	1 case	Aug. 11, 1936

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

SMALLPOX—Continued

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

Place		April 1936	May 1936	June 1936	July 1936	August 1936	September 1936
Angola	C	29					
Argentina:							
Buenos Aires Province	C	7	12				
Chaco Territory	C					1	
Corrientes Province	C					6	3
Jujuy Province	C	3	3	9	6	1	
Santa Fe Province	C						2
Belgian Congo	C	135	75	188	98	88	
Bolivia	C	18	31	8	29	12	
China: Manchuria—Harbin	C		7				
Chosen	C	313	183	84	21	10	
Colombia (see also table above):							
Barranquilla	D			1			
France	C				36	2	
Guatemala	C	5	1	3	5	13	1
Indochina (see also table above)	C	221	142	78	93	119	87
	D	30	19	10	8	21	8
Mexico (see also table above):							
Aguascalientes State—Aguascalientes	C	4	2				
Chihuahua State—Chihuahua	C						1
Jalisco State—Guadalajara	C	39	37				3
	D	34	26				1
Lower California	C		1				
Mexico State	C	6	4				
Mexico, D. F	C	13				12	5
Mexico City	C		26				
Puebla State—Puebla	C	1	2				
Queretaro State	C					1	
Sonora State	C	1					
Morocco	C	15	6	3	3	2	1
Mozambique	C	5					
Nyasaland	C	3					
Peru	C	30	10			7	
Portugal (see also table above)	C	16	24	39			
	D		2	3			
Salvador	C	39	48				
Turkey	C	1	16		16		

TYPHUS FEVER

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	Week ended— July 1936 4	11	18	25	August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17
Algeria:																				
Algiers Department	C	77	80	85	12	16	24	21	2	4	10	8								
Algiers	C		4	3			1			1										1
Constantine Department	C	62	61	24	9	22	5	8	30		2	8	2			1		1	1	
Bone	C		1																	
Constantine	C		2	1			2					2					1			
Philippeville	C			1																
Oran Department	C	32	12	8	1						1	1								1
Australia: **Sydney**	C		1																	
Basutoland	C		18			[1] 5								[2] 7						
Bolivia. (See table below.)																				
Bulgaria	C	47										1								
Chile	C		190	248					[3] 265			[4] 243								
Valparaiso	C	12	2	4	1	1		1			1	1	1	1						
China:																				
Hankow	C	3	2	5	1															
Nanking	C	1			1															
Shanghai	C		3	7											2					
Tientsin	C	1	4	4	5	1			1											
Tsingtao	C		1			1						1	1							
Chosen. (See table below.)																				
Czechoslovakia. (See table below.)																				
Egypt:																				
Alexandria	C	1	1		1	1					1	1							2	
Aswan Province	C															1				
Asyut Province	C	1	2				2			3	1									
Beheira Province	C	49	28	35			8			1										
Cairo	C	6	8	1	1	1	1			1								1	1	2
Dakahliya Province	C	6	15	9			1													
Faiyum Province	C						1													
Gharbiya Province	C	33	32	27		5				3										
Girga Province	C	1				1					2									
Minufiya Province	C		2	2		1				2										
Port Said	C		1																	

[1] For 2 weeks. [2] For 6 weeks. [3] For 5 weeks. [4] For 3 weeks.

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

TYPHUS FEVER—Continued

[C indicates ca,es; D, deaths; P, present]

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	Week ended— July 1936 4	11	18	25	August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17
Egypt—Continued.																				
Qena Province	C	20	1																	
Sharkiya Province	C		2				7			3	1									
Suez	C			1						1										
Provinces	C	563	521	336	80	21	20	14	8	14	5	2	1		3	1	1	2	3	1
Finland. (See table below.)																				
Greece (see also table below): Salonika	C	4	5	4	1					1	1	1	1	1	1	1	1	1		
Guatemala. (See table below.)																				
Hawaii Territory: Honolulu	C		1			1	1	1		1		1	1	4		2	1	4	2	4
Hungary	C	4	1											1						
Iran	C	25	21	17	8				4					2		6	3			3
Teheran	C	11					1										2			
Iraq	C			1																
Irish Free State:																				
Galway County:																				
Bothar Buidhe	C			1		1														
Oughterard	C					1	1													
Kerry County—Dingle	C												2	1	2				2	
Mayo County	C	2	1																	
Lithuania	C	10	4	11																
Mexico (see also table below):																				
Durango	D									1										
Mexico, D. F	C	44	33	13	3	4	7		4	1	7	6	2	6	7	6	4		4	
Saltillo	D																			1
San Luis Potosi	D			1				1												
Torreon	C			1		1									1					
Morocco (see also table below)	C	39	28	7	2	4				1										
Palestine:																				
Haifa	C	1	8	13	2	1	1	2	4	1	3	2	3	1	4	5	6		3	2
Jaffa	C							5			5	2	6	5	3	7	8	4	3	3
Panama Canal Zone. (See table below.)																				
Paraguay: Asuncion	D								1	1		1								
Peru. (See table below.)																				
Poland	C	519	587	252	51	44	27	14	22	10	3	5	9	6	11	4	26	16	9	13
	D	29	35	15	1	3	4	3												

Portugal. (See table below.)																				
Rumania. (See table below.)																				
Spain: Catalonia	C				1															
Straits Settlements: Singapore	C	1				2		1							2		1			
Trans-Jordan	C	10																		
Tunisia:																				
Tunis	C	4	3	3			1	1		1				2						1
Provinces	C	127	114	49	7	17	7	9	7	11			3	10	3		6	7	12	3
Turkey. (See table below.)																				
Union of South Africa. (See table below.)																				
Yugoslavia. (See table below.)																				
On vessel: At Rotterdam from Algiers	C		1																	

Place		April 1936	May 1936	June 1936	July 1936	August 1936	September 1936
Bolivia	C	75	33	46	47	29	
China: Manchuria—Harbin	C		33	29	15	3	
Chosen	C	312	225		80	20	
Czechoslovakia	C	99	49	23	4	1	
Finland	C	112	10			1	1
Greece (see also table above)	C	5	3	4	3	10	9
Guatemala	C	114	116	59	30	30	38
Mexico (see also table above):							
Aguascalientes State: Aguascalientes	C	5	5			3	
Durango State	D					1	
Guanajuato State	C	2				7	
Jalisco State: Guadalajara	C				1	1	
Mexico State	C	6	6		3	10	
	D		2		2	2	
Mexico, D. F	C	40			23	19	
Mexico City	C	20	26				
	D		15				8
Oaxaca State	C					4	
Mexico—Continued.							
Puebla State: Puebla	C	3	3			10	
Queretaro State	C		1			1	
San Luis Potosi State: San Luis Potosi	C	3	3		3	4	
Sinaloa State	D				1		
Morocco (see also table above)	C	45	26	9	6	2	
Panama Canal Zone	C			2			
Peru	C	103	81		268		
Portugal	C	1		1			
Rumania	C	1,587	1,143	427	168	32	
Turkey	C	79	39	25	39	15	
Istanbul	C	1	1	1	2	1	1
Union of South Africa:							
Cape Province	C	48	71	60	58		
Natal	C	1	2	1			
Orange Free State	C	18	10	24	2		
Transvaal	C	3		1			
Yugoslavia	C	106	125	78	53	16	6

[1] Imported.

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

YELLOW FEVER

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

Place		Mar. 29–Apr. 25, 1936	Apr. 26–May 30, 1936	May 31–June 27, 1936	Week ended— July 1936 4	11	18	25	August 1936 1	8	15	22	29	September 1936 5	12	19	26	October 1936 3	10	17
Bolivia: Santa Cruz Department.[1]																				
Brazil:[2]																				
Amazonas State	C		3																	
Maranhão State	C		1																	
Matto Grosso State	C	2		1																
Minas Geraes State	C	2	5	1																
	D	2	5	1																
Paraná State	C	3																		
São Paulo State [2]	C	[3] 3	16	6																
Colombia	D											2	1			3				
Boyaca Department.[4]																				
Cundinamarca Department	D				1		1		1											
Intendencia of Meta—																				
Restrepo [4]	D				1			1		1	1									
Villavicencio [4]	D															1				
Santander Department [4]	D						1		1	3										
Dahomey	C					[5] 1										[5] 1	1			
French Guinea—Macenta	C														1	[5] 1			1	
Gold Coast:																				
Koforidua	C	1																		
Preprawase	C	1																		
Ivory Coast: Vavua	C	1																		
Nigeria:																				
Aba	C															[5] 1				
Calabar.[6]																				
Ilorin Province	D																[5] 1			
Kano	C											[5] 1								
Niger Territory: Fada N'Gourma	C	1																		
Senegal:																				
Khombole.[7]																				
Thies	C			1																
Tivaouane	C			2											1					
Sierra Leone	C																[5] 1			[5] 1

Sudan (French):																						
Katibougou	C																			1		
Kayes	C				[5] 1																	
Koulikoro	C															1				[5] 2		
Segou.[8]																						

[1] Yellow fever has been reported in Santa Cruz Department, Bolivia, as follows: For the months of April, 1 case; May, 1 case; June, 2 cases.
[2] Yellow fever has also been reported in Brazil as follows: São Paulo State, no date given, 3 cases and 4 deaths. Mar. 24–31, 1936, 2 cases, 2 deaths.
[3] Includes 1 case of yellow fever reported in the city of São Paulo, Brazil.
[4] Yellow fever has also been reported in Colombia as follows: Boyaca Department, Jan. 4 to May 15, 9 deaths; Restrepo, June 4 to July 26, 6 deaths; Villavicencio, January, June, and July, 6 deaths; Santander Department, June and July, 6 deaths.
[5] Suspected.
[6] During the week ended Nov. 14, 1936, 1 suspected case of yellow fever was reported in Calabar, Nigeria.
[7] During the week ended Oct. 31, 1936, 1 case of yellow fever was reported in Khombole, Senegal.
[8] During the week ended Oct. 31, 1936, 1 case of yellow fever was reported in Segou, French Sudan.

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